
THE SUSTAINABLE

MBA **A BUSINESS
GUIDE TO
SUSTAINABILITY**

S E C O N D E D I T I O N



GISELLE WEYBRECHT

WILEY

Praise for first and second editions

Second edition

“The first edition is a spectacular book – its message: green business is good business for any business. The new edition is even better, and includes every component of an MBA program – from accounting to personnel management. Who should read it? Students, those about to start a business, employees, government officials, staff of global organizations concerned with private sector development, and the general public. Ms Weybrecht’s book is a genuine service to our planet.”

Guy Pfeffermann, CEO, Global Business School Network

“We know that the greening of London’s businesses will be essential for our economy in the coming years. The Sustainable MBA will help graduates develop the vision and expertise to lead such change.”

**Matthew Pencharz, Senior Advisor
Environment & Energy to the Mayor of London**

“Giselle Weybrecht provides practical insights for business schools to include sustainability in education and their daily operations. The Sustainable MBA will be a great inspiration for any academic institution ... as well as business leaders and entrepreneurs. Giselle shows that sustainability is feasible for every type of organization regardless of size and industry.”

**Jonas Haertle, Head, UN
Principles for Responsible Management Education**

“Ms Weybrecht has written a useful book for anyone who cares to do something about tomorrow, today. The Sustainable MBA provides champions with knowledge and tools to affect change and instills hesitant believers with the confidence to act. For business professors, Ms Weybrecht demonstrates how each of us can amplify our own social impact by developing more forward-thinking, responsible citizens and business leaders for our future.”

**Dan Le Clair, EVP & COO, AACSB
(Association to Advance Collegiate Schools of Business)**

“The Sustainable MBA is a comprehensive look at sustainability within all functions of business. It’s a wonderful foundation for any business person trying to grasp the full scope and importance of sustainability.”

**Dr Tima Bansai, Executive Director,
Network for Business Sustainability**

First edition

"...The Sustainable MBA presents a timely and important case for comprehensively integrating ESG issues into business training."

Ernst Ligteringen, Chief Executive, Global Reporting Initiative

"The role of business is to make the world a better place ... The Sustainable MBA will help us along this road with its abundance of thinking, tools, and resources."

Kevin Roberts, CEO Worldwide, Saatchi & Saatchi

"Giselle has provided practicing managers with this helpful and thought-provoking green business guide."

Sir Andrew Likierman, Dean, London Business School

"If people are central to the purpose of a business, then corporate responsibility or sustainability cannot be an add-on ... Giselle Weybrecht, in her comprehensive book, perhaps first of its kind, has shown how this can actually happen. The book is a must for management students, researchers and practitioners."

**Anant G. Nadkarni, Vice President,
Corporate Sustainability, Tata Group**

"... this book should be read by CEOs, CFOs, CSOs (the new breed of chief sustainability officers) and everyone else in – or aspiring to enter – the C-Suite."

**John Elkington, Co-Founder of Environmental
Data Services, SustainAbility and Volans**

"An essential read for managers and entrepreneurs alike..."

Tom Szaky, CEO, Terracycle

"This groundbreaking book ... is full of useful tips and advice for those looking to apply sustainability to their job, whatever job or business that may be."

Liz Maw, Executive Director, Net Impact

"... I hope The Sustainable MBA book becomes a prerequisite text for all MBA programmes as sustainability is a key issue that the next generation of managers cannot afford to miss."

**Professor Eric Cornuel, Director General & CEO, EFMD
(European Foundation of Management Development)**

"...This book is a timely resource which will enable and empower many sectors of society to 'fast forward' their sustainable journeys."

**Martin Hancock, Chief Operating Officer, Westpac London
and Former Chair United Nations Environment
Programme Finance Initiative (UNEP FI)**

The Sustainable MBA

*A Business Guide to
Sustainability*

SECOND EDITION

Giselle Weybrecht

WILEY

This edition first published 2014
© 2014 John Wiley & Sons, Ltd
First edition published 2010 by John Wiley & Sons, Ltd

Registered office

John Wiley & Sons Ltd, The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, United Kingdom

For details of our global editorial offices, for customer services and for information about how to apply for permission to reuse the copyright material in this book please see our website at www.wiley.com.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, except as permitted by the UK Copyright, Designs and Patents Act 1988, without the prior permission of the publisher.

Wiley publishes in a variety of print and electronic formats and by print-on-demand. Some material included with standard print versions of this book may not be included in e-books or in print-on-demand. If this book refers to media such as a CD or DVD that is not included in the version you purchased, you may download this material at <http://booksupport.wiley.com>. For more information about Wiley products, visit www.wiley.com.

Designations used by companies to distinguish their products are often claimed as trademarks. All brand names and product names used in this book are trade names, service marks, trademarks or registered trademarks of their respective owners. The publisher is not associated with any product or vendor mentioned in this book.

Limit of Liability/Disclaimer of Warranty: While the publisher and author have used their best efforts in preparing this book, they make no representations or warranties with the respect to the accuracy or completeness of the contents of this book and specifically disclaim any implied warranties of merchantability or fitness for a particular purpose. It is sold on the understanding that the publisher is not engaged in rendering professional services and neither the publisher nor the author shall be liable for damages arising herefrom. If professional advice or other expert assistance is required, the services of a competent professional should be sought.

Library of Congress Cataloging-in-Publication Data

Weybrecht, Giselle.

The sustainable MBA : a business guide to sustainability / Giselle Weybrecht.—

Second Edition.

pages cm

Includes bibliographical references and index.

ISBN 978-1-118-76063-5 (cloth)

1. Management—Environmental aspects. 2. Business enterprises—Environmental aspects. 3. Sustainable development. 4. Social responsibility of business. I. Title.

HD30.255.W49 2014

658.4'083—dc23

2013024208

Cover design: Rogue Four Design

Set in 11/15pt ITC Garamond by MPS Limited, Chennai, India

Printed in Great Britain by TJ International Ltd, Padstow, Cornwall, UK, an ISO14001

Environmental Management System Certified Company, using vegetable-based ink and FSC® paper



*Para mis abuelos
Elena y Antonio Paulino,
por sus vidas llenas de entusiasmo,
alegría y entrega a los demás.*

Contents

Preface	xv
Acknowledgments	xix
PART I: SETTING THE SCENE	1
Chapter 1: About this Book	3
Who is <i>The Sustainable MBA</i> for and why should I read it?	5
What you will find in <i>The Sustainable MBA</i>	7
How <i>The Sustainable MBA</i> is organized	9
Ideas on how to use this book	9
Planet Earth fact sheet	10
Chapter 2: What is Sustainability?	13
The basics	14
Other definitions	16
Sustainable development: A global effort	19
Working together: Stakeholders in sustainability	21
Chapter 3: What does this Mean for Business?	23
The business case	24
The sustainability sales pitch	30
Chapter 4: The Sustainability Journey	33
The journey	34
What does a leading company look like?	37
Chapter 5: Getting Started	41
Step by step	42
Getting past internal excuses	48

PART II: THE CORE TOPICS	51
Chapter 6: Accounting	55
Why is it important?	56
The key concepts	58
Full or true cost accounting	58
Materiality	61
Key performance indicators	64
Measuring social impact	67
Sustainability in financial statements	68
Integrated reporting	70
Assurance	72
Challenges?	75
Trends and new ideas	76
Bringing it all together	76
Increased disclosure	77
Recognizing unrecognized assets	78
Different forms of reporting	78
Shadow reporting	79
Sustainability reporting	81
Chapter 7: Economics	85
Why is it important?	86
The key concepts	87
Sustainable consumption	88
The commons	90
Externalities	92
Market-based incentives	93
Re-evaluating GDP	97
Emerging markets	99
Challenges?	103
Trends and new ideas	104
Alternative trading systems	104
A new economic model	105
Estimating the cost of inaction	107
From free to fee	108
Valuing future generations	108
Regulatory instruments	109
Environmental valuation	111
Business and the world's poor	117
Chapter 8: Entrepreneurship	123
Why is it important?	124
The key concepts	125

Social/environmental entrepreneurs	126
Exploring new business models	129
Making changes from within	130
Generating ideas	133
Funding	136
Challenges?	139
Trends and new ideas	140
Merging and selling	140
Microbusinesses	140
Social stock exchange	141
Working with big business	142
Marketing on a shoestring	143
Some advice for entrepreneurs	146
Cooperatives	148
Chapter 9: Ethics and Corporate Governance	153
Why is it important?	154
The key concepts	155
Business and human rights	156
Labor and working conditions	159
Ethics and the individual manager	162
Corporate governance	165
Corruption	167
Bribery	169
The power of media	171
Challenges?	173
Trends and new ideas	174
Transparency and honesty	174
The company of the future	175
Fair trade	176
Crowdsourcing the truth	176
Whistleblowing	177
The role of the CEO	180
Chapter 10: Finance	183
Why is it important?	184
The key concepts	186
Sustainable investment	186
Integrating ESG	189
Fiduciary responsibilities	193
Shareholder engagement	195
Ratings and indexes	198
Project finance	201
Challenges?	203

Trends and new ideas	205
Cross-disciplinary collaboration	205
New landscape for corporate ownership	206
Long-term value	207
The role of the CFO	208
Insurance sector	209
A new kind of bank	209
Microfinance	212
Chapter 11: Marketing	217
Why is it important?	218
The key concepts	219
People	220
Products	224
Price	226
Place	229
Packaging	232
Eco-labels	236
Social marketing	239
Cause-related marketing	242
Challenges?	244
Trends and new ideas	245
Green = inexpensive	246
Eco-iconic to eco-embedded	246
Understanding how people think	247
Communicating with the customer virtually	248
Popups	248
Buycotts	249
The barcode reinvented	249
Advertising dos and don'ts	250
Chapter 12: Operations	255
Why is it important?	256
The key concepts	258
Eco-design	259
'Green' chemistry	261
Doing more with less	264
Sustainable technology	265
Suppliers and contractors	268
Transportation	271
Waste management	274
Challenges?	280
Trends and new ideas	280

Inspiration from nature	281
Products that do more	281
Traceability	282
Manufacturing differently	283
Instant feedback	283
Exploring new materials	284
Co-creation	284
Lifecycle assessment	286
Information technology/information systems	290
Chapter 13: HR and Organizational Behavior	295
Why is it important?	296
The key concepts	297
Creating a culture of sustainability	298
Communication	300
Recruiting	302
Employee engagement	304
Motivation and rewards	307
Talent development and training	308
Challenges?	311
Trends and new ideas	312
Linking pay and sustainability	312
Diversity	313
Skills for sustainability	314
Creating great workplaces	315
Changing the way we talk	316
Rise of the CSO	317
Managing change	319
Chapter 14: Strategy	323
Why is it important?	324
The key concepts	325
The wider business environment	326
Understanding where you stand	328
Understanding risks	331
Sustainability strategies	334
Goals and targets	337
Working with others	339
Influencing change	343
Challenges?	346
Trends and new ideas	347
Zero and 100%	347
Getting your customers involved	347

Instant information	348
Strategic philanthropy	349
Transformation of partners	349
Why do initiatives fail?	350
Stakeholder engagement	352
PART III: TOOLS	361
Chapter 15: Tools for Monitoring, Managing, and Improving Performance	363
Assessments	364
Audits	368
Environmental and social management systems	370
Standards	373
Chapter 16: Tools for Greening Offices and Buildings	377
Steps for setting up office greening programs	379
Buildings	380
Energy	382
Water	383
Waste and recycling	385
Paper	386
Electronics	387
All those other little things	389
Commuting to work	390
Organizing green events and meetings	392
Putting together a green team	394
Performance contracting	397
PART IV: WRAPPING IT ALL UP	399
Chapter 17: What Can I Do?	401
As an employee – leading by example	402
How to turn any job into a green job	404
As a consumer – putting your money where your mouth is	405
A simple guide to making choices as a consumer	407
As a citizen – be active in your community	407
Chapter 18: What will the Future Bring?	409
Twenty-one wise words of advice	412

Additional resources: Who, what, where, and how	415
Who: Different groups involved in sustainability	415
What: Sustainability issues	419
Where: Sustainability around the world	425
How: Keeping up to date	430
Endnotes	435
Index	439

Preface

I'm excited to be writing this preface for the second edition of *The Sustainable MBA*. The past few years since the book first came out have been a whirlwind, and it has been really encouraging to see how well the book has been received.

Sustainability is such an exciting and constantly evolving field, and is an area that I have been involved in now for many years. I was active at a very young age in sustainable development on a local, national, and international level. Throughout my undergraduate studies and for many years after, I worked within the United Nations system on sustainability issues. In 2002, when attending the World Summit on Sustainable Development in South Africa, I was introduced to a range of projects that the business sector was starting to carry out around this topic and remember thinking how effective it would be if we could combine their expertise, knowledge, reach, and budget with our work. The challenge was that we just didn't speak the same language. They had PowerPoint presentations and we had flipcharts.

So in 2005, much to the surprise of many of my colleagues who believed that the business sector was responsible for a lot of the problems we were trying to solve – and that the MBA was where these business leaders were being trained to do just that – I left Paris for London to pursue an MBA at the London Business School. I wanted to learn the language and see how to connect these different worlds in order to really move us forward in this field.

When I started the MBA I found that students were interested in sustainability, but didn't know how to balance that interest with their career plans. Many believed it was a choice they had to make,

you either go into business or you go into something more ‘meaningful’ for society, like an NGO or a charity. At the time, and unfortunately to this day, I am surprised at how little these issues are brought up in classes, and when they are they aren’t being brought up in a way that is useful or relevant to the majority of students (although this is slowly changing and there are some champions doing great work in universities around the world). This doesn’t just relate to the MBA, but equally to other disciplines as well as organized company training programs.

This is when I thought, imagine the impact we could have if all the students graduating from business and other programs around the world were not just learning what sustainability is but also how to put it into practice in any job or organization in a way that benefits not just the environment and society but, and perhaps more importantly, the business itself. These graduates – whether they are from business or other disciplines such as law, politics, architecture, etc. – find their way into virtually every type of organization, from business to NGOs to government. Imagine the impact they could have if they were equipped with the skills and knowledge to make sustainability a reality in all of those organizations. We would then, and relatively quickly, start seeing a change in organizations from the bottom up. This is when I started to get interested in the untapped potential of graduates and employees in making sustainability a reality.

During the second year of my MBA I decided to explore further the role sustainability had in business, but more importantly how to equip individuals with the skills to understand and fulfill that role. I looked at the curriculum and found that in order to really reach all students and not just the ones who were interested, the information needed to be embedded and stand alongside the material already being taught. So I started a booklet that could be made available to students and alumni about sustainability. It would be organized according to the different classes taught in the MBA, so that students could easily follow it and use it as part of their courses. The

idea was so well received that I started exploring how to scale up the idea. Rosemary at John Wiley & Sons believed in the project and provided the opportunity to turn the booklet into a book. So, post-graduation I set off to interview over 150 CEOs, business leaders, sustainability experts, and academics from around the world to make a resource for readers that was as relevant and useful as possible.

I put my heart and soul into the first edition of the book and was thrilled to see how well it was received. I wanted to create a tool that could be used not just to raise the level of awareness and understanding of sustainability, but also to provide guidance on how to make it part of any business or any job. The book is aimed at a wide audience: entrepreneurs looking to develop a new business idea, employees interested in seeing how this could be part of their job or organization, managers wanting to explore how it could help push their business forward, CEOs and upper management looking to understand what this all means, consumers who want to make more sustainable choices on a daily basis, and individuals who just want to understand what is happening in sustainability and business. There are also hundreds of faculty members who use the book to inspire changes in the way they teach their business classes and even more students who use it as core reading. Businesses around the world are using it to inspire and educate their employees to make sustainability a part of their job.

We – as individuals, as groups – have a lot more power than people think. At the end of the day businesses are made up of people just like us, who make decisions on a daily basis that affect the world we live in. The decision to change a supplier, to give your team members time to explore these issues, can have a huge impact. Our choices as a consumer send messages to companies about what we are and are not willing to buy and support. To make a difference you do not have to quit your job and volunteer with a not for profit. The biggest influence we can have is by changing the businesses and organizations we work for from the inside out.

We need to take sustainability out of specialized departments and make it part of everyone's job.

So here is the second edition. It contains quite a few updates, new resources, and trends as well as some new sections on topics that are becoming increasingly important in the field of sustainability and business. I have also developed a range of additional resources on my website (www.thesustainablemba.com) that may help with your journey.

I hope that this book will inspire and give readers ideas on how they can get further engaged in sustainability, and that it will help to develop a whole new generation of business leaders who speak the language of sustainability and are ready to really move things forward in remarkable new ways.

Acknowledgments

Between the first and second editions I have interviewed over 150 CEOs, business leaders, sustainability experts, authors, NGOs, international organizations, academics, and students from around the world. So many people have been engaged and supportive of this project, too many to list here. I apologize in advance for those names I will inevitably miss. Thank you to the following people for agreeing to be interviewed, for reading through drafts, for sharing your passion for these issues, and for providing various bits of inspiration: Roger Adams at ACCA, Stathis Gould at IFAC, Neil Earnshaw at Enviroman, Chris Tuppen at Fronesys, Rob Gray at CSEAR, Rachel Bird and Ilana Tabu at ICAEW, Michelle Molnar at David Suzuki Foundation, Anthony Pullin at Midcounties Co-operatives and the International Year for Cooperatives, James Gifford from UNPRI, Parvez Ahmed at the University of North Florida, Mark Hoffman at KPMG, Robyn Tomiko Tsukayama at the Harvard Office of Sustainability, Andrew Williams at Eighteen Rabbit, Nancy Furlow at Marymount University, Mary Gentile at Babson, Emily Horgan at CAO, Wim Vanderkerckhove at the University of Greenwich, Vincent Tophoff at IFAC, Phillippa White at TIE, Victoria Brooks, Lisa Calvano at West Chester University, Kofo Adeleke, Leticia Greyling, Rhodes Business School, Samantha Putt del Pino and Eliot Metzger, World Resource Institute, Scott Houston, independent consultant, Claire Thwaites at the Gordon Institute of Business Science, Kevin Roberts, Richard Hytner, Jane Kendall, Roger Kennedy and Fleur Diston at Saatchi and Saatchi, Sean Ansett at At Stake Advisors, Anders Aspling at GRLI, Roger Bancroft at GreenEarth Cleaning, Shima Barakat and Shai Vyakarnam at the University of Cambridge, Leeora Black and

Gail Rehbein at ACCSR, Richard Boele at Banarra, Gib Bulloch and Peter Lacy at Accenture, Alice Chapple at Forum for the Future, David Collison at the University of Dundee, Jackson Carroll at McKinsey, Peggy Cunningham at Queen's University, Kim Custard, Nancy Parker, Jeremy Lardeau and Andrew Smith at PWC, Rebecca Dixon and Susanna Jacobson at Mercer, John Elkington at Volans, Jed Emerson and Lila Preston at GenerationIM, Neil Earnshaw at Enviroman, Stephanos Fotiou, Cornis Lugt, Peter Graham and Sonia Valdivia at UNEPTIE, Katie Fry, Maggie Brenneke and Jodie Thorpe at SustainAbility, Martin Hancock at Westpac, Debra Zupancic, Alan Knight and Daniel Waistell at Accountability, David Logan at Corporate Citizenship, Adam Ognall at UKSIF, Nick Robins at HSBC, Richard Peters at NAB, Simon Pickard at EABIS, Stephanie Robertson at SiPMACT, John Scott at PepsiCo, Graham Sim at GE, Laura Somoggi at Unilever, Mark Wade at Shell, Shauna Sadowski at Clif Bar, Robert Tacon at UNEPFI, John Talberth at Redefining Progress, Katherine Teh-White at Futureye, Karen Wilson and Bert Twaalfhoven at EFER, Kameel Virjee at the World Bank, Anne Wallin at Dow Chemicals, Will Oulton at FTSE, Brad Whitaker at Schlumberger, Justin Golbach at The Aspen Institute, David Roth at WPP, author Bob Willard, members of the AIESEC and OIKOS networks, Jeremy Higgs, Ramanie Kunanayagam, Ila Panik, Svetlana Ignatieva, Peter Arias, Scott McCormick, Sayida Vanenburg, David Murray, Gavin Murray, Henna Jain, Jay Walljasper, Leif Holmberg, Malcolm Fox, Aleksandar Maricic, Ed Perkins, Pete Spark and Adrian Ruiz Carvajal, the London Business School Community including all the students and alumni who took the time to speak to me, in particular John Mullins, Andrew Scott, Andrea Masini, Caitlin Anstee, Michael Blowfield, Dennis Oswald, Rob Goffee, Anne Sandford, Gareth Howells, Mohan Madireddi and John Stopford. Dave Challis, Katherine Madden and the World Business Council for Sustainable Development Future Leaders Team, the incredible global alumni community from Bearhs Environmental Leadership Program at Berkeley (including Bill Sonnenschein), and fellow members of Net Impact around the world.

A big thank you to Rosemary, Nick, and the whole team at John Wiley & Sons for making this possible . . . again, and to all the businesses and business schools who have used the book with their employees and students.

An especially big thank you to Alison Clayson, Bryan Mundell, Ariel Speicher, Al Martine, Andrew Likierman, Michael Kelly and Connie Giordano who helped immensely in making the first edition a reality. Thank you to Paul Woolfenden for his inspirational chats and fantastic illustrations.

A little thank you to the dolphins at the Curacao Dolphin Academy, the guide dog puppies in Cambridgeshire, the kangaroos in Oz, and my mountain bike in Texas who all provided hours of inspiration and constructive distraction time for both the first and second editions.

Thank you to Howard and Joyce Mills. The biggest thank you goes to my family, to my parents Earl and Elena Weybrecht, my brother Michael, and my aunt Carmen for their patience, love and continued support.

Thank you to my wonderful Luca for not joining us until right after I handed in the second edition. Last but not least, without you Rich I wouldn't have been able to do any of it.

This book is dedicated to my grandparents (the dedication is written in Spanish): To my grandparents Elena and Antonio Paulino, for their lives full of enthusiasm, joy and generosity to others.

PART 1

SETTING THE SCENE

About this book



What is sustainability?

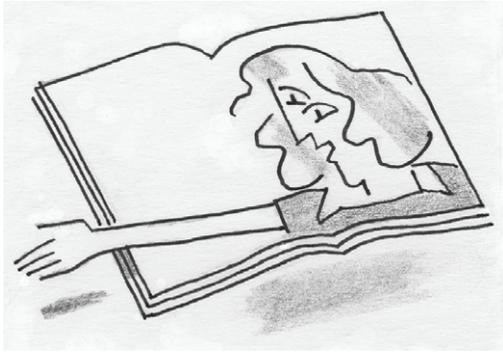
What does this mean for
business?

The sustainability journey

Getting started

1

About this Book



'Your Chinese clock radio sounds, waking you up with news from the BBC, and you slip out of your Egyptian cotton sheets and into the shower. You dry off and put on underwear from El Salvador, jeans from Lesotho, and your favourite blue shirt from Sri Lanka. A cup of Tanzanian coffee, some Brazilian orange juice, and you're off to work in your Japanese car – assembled in Kentucky, powered by gasoline from Saudi Arabia, Nigeria, and Russia. Good morning!'

WORLDCHANGING

The world we live in today is ever shrinking, and although increased communication and globalization play their part, they are not the only reasons. There is a growing realization that everything and everyone has become very interdependent. With more than 7 billion people living on the planet, regardless of who you are, where you live, or what you do, you are impacted by and have an impact on the health of the planet, society, and the world economy. The decisions we make as employees, as consumers, and as citizens on a daily basis impact both business and the wider society.

Consider this: People are wondering what is happening to the bees. Bees play a crucial role in the supply of the world's food as they are essential for the pollination of one-third of the world's crops, valued at US\$215 billion annually worldwide. Unfortunately, no one knows exactly why bee colonies are disappearing, and few people seem particularly bothered by it . . . yet. Since we are so dependent on these little creatures for the food we eat, perhaps we should be more concerned about the worldwide loss of these bee colonies. While there appears to be no single definitive cause for this potential disaster, intervention by man and industry through the use of pesticides and stress to colonies are considered to be factors. One of the results of this decline is that businesses themselves who used to benefit from free pollination now have to pay to bring pollinators to their crops.

The world's challenges are also business challenges. Not only do environmental, economic, and social issues impact the ability of a business to operate now and in the future, they also impact their employees, the communities in which they operate, their customers, the sources of their materials.

For this reason, managers and employees at all levels and in all types of organizations are placing greater emphasis on sustainability, and are increasingly interested in bringing sustainability culture and tools into their daily operations. Although many start because of a desire to make a positive impact on the world, they are finding that the results can be significant in terms of real business benefits, such as reduced costs and liabilities, greater service quality, higher customer satisfaction, and improved corporate image.

Nevertheless, many managers face considerable uncertainty over what they can, or should, be doing to enhance their environmental and social practices and sustainability goals. They often believe that applying new tools to address these challenges may be good for society, but not necessarily for the business itself. A lack of understanding of the potential benefits, fear of moving in new directions, confusion over the range of tools available to address sustainability issues, overwhelming and often-contradictory amounts of information are among the reasons why many are slow to act.

This book aims to give employees and individuals the knowledge and tools to be able to apply sustainability practices to their business in a way that is both profitable to the business and to society as a whole. The book does not appoint blame for the challenges we face, but instead focuses on how businesses and employees can take action to be part of the solution.

Imagine what you could do as a company if you had 7 billion employees all pulling in the right direction.

Who is *The Sustainable MBA* for and why should I read it?

This book is aimed at managers, both experienced and new, current and future, who are interested or curious to know more about the field of business and sustainability and how they can apply these ideas to their jobs, regardless of what they do or where in the world they do it. Because it provides an introduction to and overview of these issues, it will be of interest if you fall into one, and probably more than one, of the following groups:

- I am in a *management position* and need to better understand what sustainability is but don't have the time to spend hours researching. I understand that I can make an impact through my work and my decisions, but am not sure how to.

- ❑ I am an *entrepreneur* and am interested in starting my own business and want to incorporate some sort of sustainability elements into it, either as part of my core offering or as part of the way I do business. I understand that sustainability provides a range of exciting new opportunities that I want to understand and explore.
- ❑ I am a *CEO* or board member and want to learn more about how I can move my business to be more sustainable. I understand that this is becoming the new business reality and that business success and sustainability are linked. I understand that in order to really move forward in this area, CEO leadership is required.
- ❑ I run or work for a *small business* and am overwhelmed by the amount of information out there on sustainability. I want to do something but am not sure what to do and where to start. I understand that I can tap into sustainability opportunities even with my limited budget and time and that these tools can help strengthen my overall business.
- ❑ I am an *employee* where my day-to-day job doesn't currently have anything to do with sustainability, but I think it could, and I want to know how I can incorporate it into my job. Regardless, I understand that sustainability tools and strategies will increasingly become part of everyone's day-to-day job and I want to understand what it is all about.
- ❑ I work in *sustainability* but mostly spend my time in one area and am not as familiar with everything else happening in this vast and growing field. My job rarely involves stepping back and thinking about the big picture.
- ❑ I am a *teacher* or a *trainer* and want to incorporate sustainability messages into my teaching lessons. I understand that if the new generation of employees and managers are aware of these issues, this could have a huge impact.
- ❑ I am a *student* and want to know more about this issue. I hope someday to be working for a company that takes sustainability seriously. I am passionate about these issues and want to make

sure I direct that passion into an area where I can really make an impact.

- I am a *consumer* and want to make the right choices on a day-to-day basis. I understand that the products I buy help to support either good business practices or bad ones. I find it difficult to sort through quickly and easily and would like some help.
- *I* just want to know more about sustainability, but am overwhelmed by all the information out there and not sure where to begin.

Regardless of whether or not you have the word ‘sustainability’ in your job description, it is increasingly important that you understand what sustainability means, both as a concept, and as a set of decisions and actions that impact your organization. Few jobs require or even provide the chance to step back and think about the big picture. So, regardless of your job function or the industry you work in, you will find that this book has some information directly relevant to you, while also introducing you to some of the tools that other industries are exploring.

What you will find in *The Sustainable MBA*

The Sustainable MBA equips individual employees with the tools to be able to take sustainability from talk to action; to understand what is happening in this area, sell these ideas to others on their team, and implement them. For this reason the book provides a vast amount of information and resources on the topic, including:

- *An overview of sustainability tools.* The book provides an overview of the work being done in sustainability. While sustainability is an interdisciplinary subject, the typical MBA, the typical business and employee expertise and training is still, for the most part, divided by functional areas. This is why the book is organized to follow the typical MBA.

- ***Business case.*** For every tool and idea introduced, the business case is presented to help you understand the advantages it could bring and to present a case to sell it to your team or managers.
- ***'How to's and guides to implementation.'*** The book does more than simply outline the tools and ideas involved in sustainability, it also provides information on how to implement them, with links to resources for more information and help.
- ***Challenges.*** The book outlines the challenges involved in pursuing different sustainability strategies in order to give managers a 'heads up' on what to expect. At the same time, the challenges presented act as a call to the next generation of corporate leaders to build their careers around tackling these problems.
- ***Knowledge from experts around the world.*** The book draws on a vast amount of information and research that has been undertaken in this area by groups internationally as well as over 150 interviews with students, professors, experts, thought leaders, businesses, CEOs, entrepreneurs, NGOs, and international organizations working and interested in this area.
- ***Tips for sustainability champions.*** Whether you are looking to be a sustainability champion at work or as a consumer, the book is filled with tips for individuals and teams who are looking to explore some of these tools, including handy lists and lessons learned. They build the case that sustainability and business profit and success are inextricably linked together, rather than diametrically opposed to one another.
- ***Many additional resources.*** Because the field of sustainability is a complex and changing field, the book contains many links to organizations and websites where you can find up-to-date information, statistics, best practice, and information. The focus is on international websites because they change less frequently, and because they often link to other national or local initiatives happening in countries around the world.
- ***Trends and new ideas.*** Last but not least, the book presents many exciting trends happening around the world in sustainability – things you want to keep an eye out for.

How *The Sustainable MBA* is organized

The **Introduction** sets the scene with the basics on what sustainability is, what this means for business, what the sustainability journey looks like, and how to get started. It also provides tips on how to recognize leading companies, how to sell sustainability to your team, and how to get past excuses.

The **Core Topics** present information on sustainability as it relates to the main topics introduced in a typical MBA program and the core functional areas of a business: *Accounting, Economics, Ethics, Entrepreneurship, Finance, Marketing, Operations, Organizational Behavior, and Strategy*.

The **Tools** provide information on how to conduct audits and assessments, as well as a guide on how to *green the office and buildings* you work in. Other tools are spread out through the book, and all present guidelines, techniques, and concepts that a business can use to incorporate sustainability into their operations.

The **Wrapping It All Up** section provides ideas on how *you as an individual* can make a difference – as an employee, a consumer, and a citizen – and how your actions in each of these spheres has an impact on sustainable business. The section also provides a look at what *the future* may bring as well as some *tips for moving forward*.

Finally, the **Who, What, Where, How** section provides some additional resources for individuals looking to learn more about who has a role to play in sustainability, how different industries are involved, and links to organizations working in sustainability business in different regions around the world.

Ideas on how to use this book

There are many different ways an individual or a business can use this book to explore sustainable business options.

- ❑ Take this book and read it from cover to cover or dip in and out to learn more about the issues that interest you.
- ❑ Provide copies to members of your team to raise the general awareness in your office on these issues.
- ❑ Start a brainstorming session around the areas that your business could explore.
- ❑ Use it as a reference guide when you are interested in finding out more.
- ❑ Organize a short or long course around this information.
- ❑ Use it as a way to learn more about what business is doing to make smarter choices as a consumer.

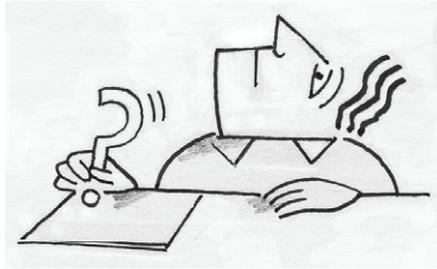
Planet Earth fact sheet

- There are over 7 billion people in the world. The world's population is predicted to reach 8 billion early in 2025 and top 9 billion in 2050, with the majority of the increase taking place in developing countries. Median age: 28.4 years.
- We live in 196 countries in the world (193 of them are members of the UN). Much of this population is concentrated in coastal cities, with several hundred million living within 1 meter elevation of mean sea level.
- We speak 6000 to 7000 different languages, half of which are at risk of disappearing. There are 962 properties on the UNESCO World Heritage list, a list of sites around the world considered to have outstanding universal value.
- There are over 300 million indigenous peoples around the world, including at least 5000 distinct peoples in over 72 countries.
- The Earth is 70.8% water and 29.2% land. Of all water, 97% is salt water and only 3% is fresh water. Of the 3%, only 5% is readily available – mostly in underground aquifers. Nearly 20% of the population lacks access to safe drinking water and 40% are without adequate sanitation. By 2025, 40% of the world will live in water-scarce regions.

- If the GDP of countries is compared to the annual revenue of companies, 111 of the top 175 economic entities are corporations.
- Over two-thirds of the world's 785 million illiterate adults are women.
- One million people become new mobile subscribers every day. Some 85% of them live in emerging markets. There are more than 6 billion mobile subscriptions. Over 2 405 518 376 people use the Internet.
- Ten largest urban agglomerations: Tokyo (Japan) 36 933 000, Delhi (India) 21 935 000, Mexico City (Mexico) 20 142 000, New York (United States) 20 104 000, Sao Paulo (Brazil) 19 649 000, Shanghai (China) 19 554 000, Mumbai (India) 19 422 000, Beijing (China) 15 000 000, Dhaka (Bangladesh) 14 930 000, Kolkata (India) 14 283 000.
- The world's population drives over 1 billion cars, while more than 1 billion bicycles are in use.
- Forests cover 30% of the planet's total land area, the ten most forest-rich countries are Russia, Brazil, Canada, the USA, China, Australia, Congo, Indonesia, Peru, and India.
- Out of the world's 500 largest companies, 18 are run by female executives. Of the 196 countries in the world, 16 are led by women.
- There are at least 15 million other species on the planet. Nearly 30% of all medicines found in pharmacies were developed from wild plants and animals.

2

What is Sustainability?



'You can resist an invading army; you cannot resist an idea whose time has come.'

VICTOR HUGO

The basics

In 1983, the World Commission on Environment and Development (also referred to as the Brundtland Commission, named after its chair Gro Harlem Brundtland) was convened by the United Nations to address growing concern ‘about the accelerating deterioration of the human environment and natural resources and the consequences of that deterioration for economic and social development.’ In 1987, the Commission’s report (known as the Brundtland Report or *Our Common Future*) alerted the world to the urgency of making progress toward economic development that could be sustained without depleting natural resources or harming the environment. The report provides the world with the most widely quoted definition of sustainable development:

‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

the concept of needs, in particular the essential needs of the world’s poor, to which overriding priority should be given;

and the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs.’

As the International Institute for Sustainable Development puts it, ‘Sustainable development focuses on improving the quality of life for all of the Earth’s citizens without increasing the use of natural resources beyond the capacity of the environment to supply them indefinitely. It requires an understanding that inaction has consequences and that we must find innovative ways to change institutional structures and influence individual behavior. It is

about taking action, changing policy and practice at all levels, from the individual to the international.' They provided a variation of the Brundtland definition aimed at business:

'For the business enterprise, sustainable development means adopting business strategies and activities that meet the needs of the enterprise and its stakeholders today while protecting, sustaining and enhancing the human and natural resources that will be needed in the future.'

The idea of sustainable development is nothing new. Societies over time have had to learn to balance social, environmental, and economic concerns in order to prosper and continue for generations. At its core, sustainable development is about creating the appropriate balance and interaction between:

- **Social equity**, which refers to issues such as human rights, peace, security, justice, gender equality, and cultural diversity, among others (also referred to as People).
- **Environmental protection**, which refers to the natural environment including water, energy, agriculture, biodiversity, fish, forests, and air (also referred to as Planet).
- **Economic development**, which refers to an understanding of the limits and potential of economic growth and includes issues such as poverty reduction, responsible consumption, corporate responsibility, energy efficiency and conservation, waste management, employment, and education (also referred to as Profit).

Two other elements tie social, environmental, and economic issues together. These are:

- **Governance**, which acts as an overarching principle that provides the context for sustainable development to occur by promoting structures at the local, national, and international levels that are transparent and effective.

- **Culture**, including our shared attitudes, values, goals, and practices, provides the framework for sustainability as it guides and shapes our day-to-day behavior.

All three issues are intertwined and affect each other. As outdoor gear and apparel retailer REI's CSR Manager put it, 'We don't distinguish between environmental and social challenges around sustainability for business. In fact, all these issues intermingle. Eventually, someplace along the way, there's really no such thing as an environmental problem that doesn't have social consequences, and there's really no such thing as a social problem that doesn't really fold into or have dimensions that are environmental.'¹ Sustainability, therefore, involves seeing the world as a system and looks at how things interact within that system.

Other definitions

Many models have been developed around the world by business, NGOs, and international organizations to provide other ways of understanding sustainability, based on the balancing of social, environmental, and economic factors.

The **Five Capital Model** looks at different kinds of capital from which we derive the goods and services we need to improve the quality of our lives:

- *Natural capital* is any stock or flow of energy and material that produces goods and services.
- *Human capital* consists of people's health, knowledge, skills, and motivation.
- *Social capital* concerns the institutions that help us maintain and develop human capital in partnership with others; e.g., families, communities, businesses, trade unions, schools, and voluntary organizations.

- *Manufactured capital* comprises material goods or fixed assets which contribute to the production process rather than being the output itself; e.g., tools, machines, and buildings.
- *Financial capital* plays an important role in our economy, enabling the other types of capital to be owned and traded. However, unlike the other types, it has no real value itself but is representative of natural, human, social, or manufactured capital; e.g., shares, bonds, or banknotes.

The **Natural Step** framework derives from systems thinking; recognizing that what happens in one part of a system affects every other part. It takes an upstream approach to sustainability and addresses problems at the source. The framework begins by understanding the broader system within which problems occur and developing effective, durable solutions to the environmental and social issues of the new century. According to the Natural Step, 'Creating a sustainable world means creating new ways for people to live and thrive – while keeping the planet's ecosystems and the global social tissue healthy and able to sustain us and future generations' (www.naturalstep.org).

The **Earth Charter** (2000), initiated by Maurice Strong (Chairman of the Rio Summit) and Mikhail Gorbachev, was the result of a call from the World Commission on Environment and Development for a 'universal declaration' to guide the transition to sustainable development. It is the product of a decade-long, worldwide, cross-cultural conversation about common goals and shared values. It looks at respecting and caring for the Earth's community through ecological integrity, social and economic justice, democracy, non-violence, and peace, among other things (www.earthcharter.org).

The **Ecological Footprint** is a resource management tool that measures how much land and water area a human population requires to produce the resources it consumes and to absorb its wastes using prevailing technology. It can be used by a country, a region, a city, a business, or an individual. It now takes more than one year and

six months for the Earth to regenerate what is used in a single year. As long as our governments and business leaders do not know how much of nature's capacity is being used or how resource use compares to existing stocks, overshoot may go undetected – increasing the ecological deficit and reducing nature's capacity to meet society's needs (www.footprintnetwork.org).

Underlying many of these models for defining sustainability are several principles that guide accountability and responsibility:

- The ***precautionary principle*** states that 'In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost effective measures to prevent environmental damage' (www.pprinciple.net).
- The ***proximity principle*** says that the treatment and disposal of waste should take place as near as possible to the point of production as is technically and environmentally possible.
- The ***polluter-pays principle*** says that the cost of pollution should be covered by those who cause it. It is generally recognized as a principle of International Environmental Law and a fundamental part of the environmental policy of both the OECD and the EC (www.eoearth.org/article/Polluter_pays_principle).

The number of terms used to better understand and communicate what sustainability means to business and society and how to take action seems to grow by the day. The 'sustainability glossary' includes concepts such as corporate social responsibility, corporate citizenship, tools such as eco-design, and anything starting with the word 'green.' The choice of terms is usually made by the individual, the company, or the country, based on the strategy they are implementing, the issues that are most important to them, the tools they decide to use, or simply on what they believe speaks most to their people. **Although the myriad of terms represent a variety of concepts, principles, distinct tools, and ways of understanding the issues, they all come together in a field that in this book we call 'Sustainability.'**

Sustainable development: A global effort

'Earth provides enough to satisfy every man's need, but not every man's greed.'

MAHATMA GANDHI

The actions that the business sector are taking in sustainability are part of global efforts to move the sustainable development agenda forward in conjunction with national governments, NGOs, and other major groups recognized by the UN. Several major international conferences over the past three decades have focused on sustainable development.

The first conference to focus the world's attention on the environment was the UN Stockholm Conference on the Human Environment in 1972. This led to the creation of national agencies for the environment, as well as the UN Environment Program (www.unep.org), which today has many programs focused on business and industry (www.uneptie.org).

1972–1992: During this time, several major international conferences and agreements started taking shape, including the Convention on International Trade in Endangered Species of Flora and Fauna, Convention on the Law of the Sea, and the first global meeting to link environment and human settlements (Habitat).

1992–2000: Twenty years after the initial international conference, the world reconvened in 1992 for the UN Conference on Environment and Development, more popularly known as the Earth Summit, which took place in Rio de Janeiro, Brazil. One of its major accomplishments was the development of Agenda 21, a comprehensive plan of action toward sustainable development to be executed globally, nationally, and locally which still today is a good reference on the issues (sustainabledevelopment.un.org). In the eight years that followed, several international conferences were organized to focus on different aspects of sustainable development. This included the creation of new organizations such as the World Trade Organization and events such as the World Conference on Human Rights, the World Summit for Social Development, and the signing of the Kyoto Protocol on Climate Change.

2002: Ten years after the Earth Summit, the world came together again in Johannesburg, South Africa, for the World Summit on Sustainable Development, which aimed to adopt concrete steps and identify quantifiable targets for better implementation of Agenda 21. Attendees placed important focus on partnerships (in particular

(continued)

between the private and public sectors) and their role in development (www.johannesburgsummit.org).

2000–2015: In 2000, the United Nations Millennium Summit brought together world leaders who committed their nations to a new global partnership to reduce extreme poverty and set out a series of time-bound targets, with a deadline of 2015, which have become known as the Millennium Development Goals. The eight goals (www.un.org/millenniumgoals) are:

- Goal 1: Eradicate extreme poverty and hunger
- Goal 2: Achieve universal primary education
- Goal 3: Promote gender equality and empower women
- Goal 4: Reduce child mortality
- Goal 5: Improve maternal health
- Goal 6: Combat HIV/AIDS, malaria, and other diseases
- Goal 7: Ensure environmental sustainability
- Goal 8: Develop a global partnership for development.

The Millennium Project was commissioned by the United Nations Secretary-General in 2002 to develop a concrete action plan for the world to achieve the Millennium Development Goals (www.unmillenniumproject.org).

2000–2012: The UN Global Compact was launched in 2000 as both a policy platform and a practical framework for companies that are committed to sustainability and responsible business practices. It is the largest corporate citizenship and sustainability initiative in the world, with over 10 000 corporate participants and stakeholders from over 130 countries. Compact members support broader UN goals, such as the Millennium Development goals, and also the mainstreaming of its ten principles in business activities around the world:

1. *Human rights*

Businesses should support and respect the protection of internationally proclaimed human rights;
And make sure that they are not complicit in human rights abuses.

2. *Labor standards*

Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
the elimination of all forms of forced and compulsory labor;
the effective abolition of child labor; and
the elimination of discrimination in respect of employment and occupation.

3. Environment

Businesses should support a precautionary approach to environmental challenges; undertake initiatives to promote greater environmental responsibility; and encourage the development and diffusion of environmentally friendly technologies.

4. Anti-corruption

Businesses should work against corruption in all its forms, including extortion and bribery (www.unglobalcompact.org).

2012–today: In 2012, 20 years after the first Earth Summit, governments, NGOs, and businesses came together in Rio, Brazil for Rio+20. The themes included how to build a green economy and how to improve international coordination for sustainable development (www.uncsd2012.org). Discussions are also taking place on what will happen after 2015 (the deadline for the MDGs).

For a full timeline of Sustainable Development conferences and events, see www.iisd.org/sd.

Working together: Stakeholders in sustainability

The UN recognizes nine ‘major groups’ in society. These groups participate actively in all UN meetings and present internationally coordinated positions on the issues discussed.

- **Women** make up half of the global population and are key actors because of their role and influence in communities and families. For more, see the work by the Women’s Environment and Development Organization (www.wedo.org).
- **Children and youth** comprise nearly half of the world population and will inherit the responsibility of looking after the Earth. Take a look at International Youth Caucus (www.youthlink.org)
- **Indigenous people** comprise 5% of the world’s population but embody 80% of the world’s cultural diversity. It is estimated that they occupy 20% of the world’s land surface but nurture 80% of the world’s biodiversity on ancestral lands and territories. For more see Tebtebba (www.tebtebba.org).

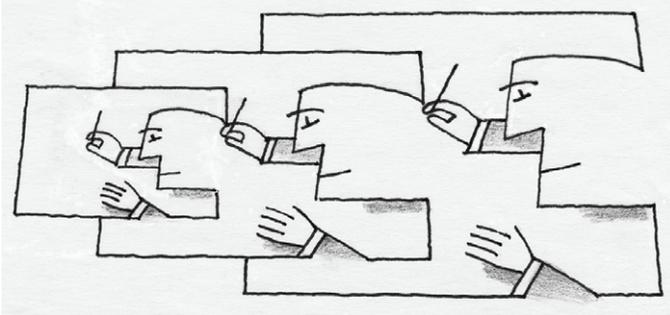
(continued)

- **NGOs** perform a variety of services including bringing citizens' concerns to government, monitoring policy and program implementation, and encouraging participation at the community level (www.un.org/dpi/ngosection).
- **Workers and trade unions** work at addressing industrial change, with a high priority given to protection of the work environment and the related natural environment and promotion of socially responsible and economic development. See the International Confederation of Free Trade Unions (www.icftu.org).
- **Business and industry** have an important role in ensuring that sustainable practices are incorporated throughout their operations. See the International Chamber of Commerce (www.iccwbo.org) and the WBCSD (www.wbcsd.org).
- **Science and technology** are developing environmentally friendly technologies and making discoveries in health and disease eradication, to name just a few. See the International Council for Scientific Union (www.icsu.org).
- **Farmers** play an important role as agriculture occupies one-third of the land surface of the Earth and is the central activity for much of the world's population. See the Federation of Agricultural Producers (www.ifap.org).
- **Local authorities** include city mayors and local governments. Because so many problems and solutions have their roots in local activities, city governments play a key role. See the International Council for Local Environmental Initiatives (www.iclei.org).

For more on the different actors involved in sustainability, see the **Who** section at the end of this book.

3

What does this Mean for Business?



'We are launching Ecomagination not because it is trendy or moral, but because it will accelerate our growth and make us more competitive.'

GENERAL ELECTRIC CEO JEFF IMMELT²

The business case

You are certainly not alone if you are wondering, ‘What does this have to do with my business?’ However, the answer is simple – everything. In 1970, Milton Friedman said ‘There is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game.’ Over 40 years on, it is the way companies create those profits and the rules of the game that have changed, as we realize both the necessity of adopting sustainability into everyday business practices, as well as the business opportunities this brings. Today, employees in organizations of all sizes and in all sectors are applying sustainability strategies to their work and are increasingly outspoken about the benefits. Those who are successful are building a business case for sustainability that suits the unique needs of their project, their initiative, their division, or even their whole company. While the details of the sustainability strategy adopted by each business will vary, here are some compelling reasons why businesses are incorporating sustainability concepts into their day-to-day operations:

<ol style="list-style-type: none"> 1. <i>To reduce costs</i> 2. <i>To preserve resources</i> 3. <i>To comply with legislation</i> 4. <i>To enhance reputation</i> 5. <i>To differentiate</i> 6. <i>To attract quality employees</i> 	<ol style="list-style-type: none"> 7. <i>To satisfy customer needs</i> 8. <i>To meet stakeholder expectations</i> 9. <i>To attract capital investment</i> 10. <i>To capitalize on new opportunities</i> 11. <i>To increase transparency</i>
---	--

1. Reduce costs. All companies have an interest in keeping costs in check. Sustainability provides a mechanism to reduce costs by focusing on using less resources (e.g., raw materials, energy, hazardous materials, people, and water), making processes more efficient, and minimizing or eliminating waste. Often these kinds of changes are referred to as ‘low-hanging fruit’ or ‘easy wins’ because,

at least initially, small changes can have a big impact. However, larger structural changes that can be more complicated and take a longer time to implement can also have the greatest impact in the long run. Procter & Gamble's program to 'Design manufacturing waste out,' for example, has saved the company over US\$500 million and eliminated 2 million tonnes of waste.

2. Preserve resources. A key element of sustainable business practices is the preservation of the resource base. Companies are realizing that the raw materials they depend on to produce their products are being threatened. For example, Brazil-based Natura has a program to sustainably use locally available raw materials that form the basis of their range of cosmetic products. Natura works closely with certifiers to guarantee the proper sourcing of its resources and to promote conservation through compliance with environmental and social guidelines.

3. Comply with legislation. There are an increasing number of control mechanisms, regulations, and standards being put in place that companies must follow. These cover a wide range of areas, including discharge of pollution, worker safety, product content, technical performance, labeling, requirements for reusing and recycling, and ecosystem protection. Some of these, such as the Global Reporting Initiative, are currently voluntary but will increasingly be considered industry standards. Others are mandatory, such as the European WEEE initiative or 'take back' laws, which require manufactures to take back all vehicles and electronics equipment sold in a particular country and recycle or dispose of them safely after use. It is likely that regulations and 'voluntary' standards will increase, both in number and stringency. In addition, the costs or consequences of not conforming, or leaving it to the last minute to conform, need to be considered in a business case.

4. Enhance reputation. As Warren Buffett puts it, 'it takes twenty years to build a reputation and five minutes to ruin it.' Today, those five minutes may feel more like 30 seconds. Petrobras, Brazil's national energy company, stunned by a series of catastrophic oil spills and other accidents around the turn of the century, realized it would have to fundamentally change to protect its business

and reputation. The company launched the biggest environmental and operational safety program in Brazil's history, overhauled its operations, and pushed cultural change from the top down. Environmental and social performance is now central to the firm's strategy and Petrobras is recognized as a global leader in the oil and gas sector, led actively by its CEO.³

5. Differentiate. Being seen as sustainable can help differentiate your business. This can increase income by securing the loyalty of current customers and attract new ones, resulting in increased market share. Businesses can grow revenue from new markets for sustainable products and services, and they can also grow market share through better-quality products that benefit the customer. One example of this is MAS, a Sri Lankan apparel manufacturer with customers including Victoria's Secret, Gap, Marks & Spencer, and Nike. In a market replete with low-cost rivals, MAS differentiated itself based on its exemplary employment practices (called 'Women Go Beyond'), its green plant, and organic and fair trade products. This persuaded several western firms to choose it as a strategic partner.

6. Attract quality employees. The former CEO of IKEA, Anders Dahlvig, said that the pressure to be 'green' is 'now coming from underneath, from our co-workers themselves who expect us as a company to do more, faster.' Employees are more likely to feel proud of working for employers who take their responsibilities to society seriously. More businesses are realizing this, and are prioritizing these issues in order to maximize their capacity to attract and retain skilled and talented employees, which in turn increases their ability to innovate and compete.

7. Satisfy customer needs. Public expectations of what is possible are ever increasing. The eco-conscious consumer is a growing population who expects the brands they buy to meet their green standards while also meeting their product needs. Many organizations are getting involved in sustainability because their customers, clients, or business partners are asking them to. People are increasingly looking to do business with companies that share their level of commitment.

8. Meet stakeholder expectations. In 2005 the then CEO of Wal-Mart, Lee Scott, recognized that the time when CEOs could sit in their towers and make decisions without consulting stakeholders was over. ‘We thought we could sit in Bentonville, take care of customers, take care of associates – and the world would leave us alone. It doesn’t work that way any more.’⁴ Companies need to earn their ‘license to operate.’ They kicked off an environmental initiative to improve their environmental stewardship reputation and increase their bottom line. Conversely, constant failure to address the concerns and expectations of these groups will reduce investor confidence in the firm’s stock, impacting the cost of financing and thus profit-making opportunities.

9. Attract capital investment. Just as consumers are becoming more aware of the importance of sustainability issues, so are investors and shareholders. There is growth in socially responsible investment and ethically screened funds, embedding ESG issues into investment analysis, as well as a growth in industry standards such as the Dow Jones Index, FTSE4Good, London principles for financial institutions, and Equator principles for project finance. As environmental and social criteria are becoming a standard part of lending risk assessments, sustainable businesses are more likely to be able to attract capital from banks and investors.

10. Capitalize on new opportunities. Mexican cement company Cemex considered ways to create a whole new business around improving the living standards of the 20 million people with inadequate shelter in Mexico. As a result, they now provide housing for poor people at a profit through a special program that enables low earners to pay weekly installments of US\$11.50 for 70 weeks to gradually buy the building materials they need to build a home. The program, called Patrimonio Hoy, provides quality products on low-cost credit at fixed prices, as well as technical building advice. So far 83 million US dollars have been granted, with an on-time payment rate of more than 99%. The program has expanded to over 100 centers across Mexico and South America.

11. Increase transparency. Customers, investors, and businesses are asking for more and more information about what a company

is doing in sustainability, not just in terms of its own operations but also those of their suppliers and sometimes even the suppliers of their suppliers. They are being asked to share this information publicly, both good and bad, on their websites, in annual reports, and increasingly it is required for the growing number of ratings and awards that categorize companies based on their efforts and the sustainability aspects of their products.

While the previous list shows some of the reasons you *should* consider adopting a sustainability strategy for your business, the *actual* reasons why managers are getting involved in the sustainability debate can vary widely. For some, involvement occurs as part of a personal journey, a realization that what they do today will affect their children and families, and the desire to contribute in a meaningful way. Others are forced into reacting as a result of a public relations scandal or accident, or because customers, regulations, or other employees are asking for action on these issues. Regardless of how it starts, there are some points to keep in mind:

- ***Sustainability is already a part of how you do business.*** For most businesses this does not mean starting from scratch. Sustainability is about making the business more efficient and can be built into the way that companies already operate.
- ***It doesn't matter how or why you begin . . .*** Exploring sustainability in a company can begin in the smallest way, such as through a recycling program or offering employees a subsidy for taking public transportation to work. Simple, small things can make an impact over time.
- ***. . . what matters is how you continue.*** The benefits you get from particular decisions or choices to start exploring these issues, or the reasons that you continue to develop them further, might be quite different from the original reasons you chose to get involved.
- ***The potentially high cost of inaction for both the business and society.*** Even if an organization can find no obvious opportunities to cut costs or increase revenues through sustainability initiatives, inaction in this area can lead to increased costs and loss of revenue.

- **Multiple benefits.** A positive change in one area can also result in positive changes in others. For example, applying eco-design principles to a product can not only result in a superior product but also save money, give access to new markets and new customers, and inspire and engage employees and stakeholders.
- **The impact is strongest when it is embedded into strategy and culture.** Virtually every sustainability expert will tell you the same thing – a company will experience some benefits of sustainability, but will not maximize these until it is mainstreamed into the way that the company does business. Look for truly sustainable solutions that make sense for both business and society.
- **The CEO must be on board.** The leading companies in this area all have programs that were started by, or actively driven and pushed by, their upper management, in particular their CEOs.
- **But employees are key.** Without employees engaged and active in sustainability, a sustainability strategy will go nowhere.

These are some of the primary reasons why adopting sustainable business practices makes good business sense. You will find more details on the business case as it applies to each core discipline throughout the book.

Want more?

Other work on the business case has been done by consulting firms and companies themselves. A few to start with include the work done by UNEP and Sustainability (www.sustainability.com), To Whose Profit? Building a Business Case for Sustainability by the WWF (www.wwf.org.uk), and WBCSD Business Case (www.wbcsd.org). The Network for Business Sustainability is an excellent resource (www.nbs.net). Also take a look at the many excellent books that explore the business case, including *The Sustainability Advantage* by Bob Willard and *Green to Gold* by Daniel C. Esty and Andrew S. Winston.

The sustainability sales pitch

Author Bob Willard tells the story in his book, *The Sustainability Advantage*, of when he worked at IBM. He writes that he spent six months drafting a letter to the then CEO, Lou Gerstner, asking him to embed sustainability into IBM's business strategy. His letter included phrases such as 'business will play a vital role in the health of our planet' and 'funding research on causes of environmental issues.' When written, in 1997, the letter was treated as a philanthropic request and directed to the corporate community affairs director. Thinking back, Bob says that his original letter should have said 'Dear Lou: I have some thoughts on how IBM could increase its profit by 38%. Interested? Yours truly . . .'⁵

'That all sounds nice but . . .' is a familiar phrase to sustainability champions. In fact, it seems to be much easier for people to come up with excuses and reasons for why not, than to try new things, even if they think that it may make sense. Proper presentation of sustainability-related projects and strategies is crucial in gathering initial and continued support. To do so, consider the following advice:

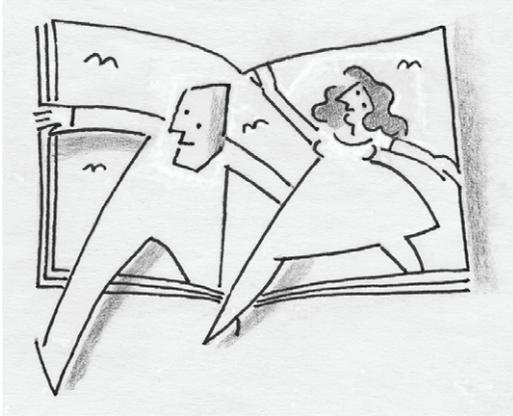
1. **Be informed.** Collect all the information you can about what is happening in your own company, in other companies (not just your competitors), work being done by NGOs, and current issues relating to the work you want to do. If you know what you are talking about, it will make answering questions and getting people on board a lot easier.
2. **Create a coalition.** Engage other people who share your viewpoint or who are also interested. Focus on getting key people on board who can really help move these issues forward.
3. **Pick your moment carefully.** Different individuals, teams, departments, or whole companies will be ready at different times to put some of these tools into action. Focus on doing things right the first time, rather than finding a quick fix.
4. **Package that information appropriately.** People react to information in different ways, so knowing what kind of information to present to a specific decision-making person is key. An HR manager will be interested in employee motivation and hiring better people, while a CEO will be interested in reputation, brand, and financial impact.
5. **Choose who will give the information.** Whether rightly or wrongly, people tend to believe information when it comes from

certain sources. For example, many are skeptical when NGOs tell business what they should do, as they are seen as outsiders. Find the right people to present the information, people who are well respected in the organization – even the converted skeptic – and you can make your case more compelling.

6. **Think of the reasons why not.** In bringing these issues to your team or your organization, make sure you think carefully about the objections your company might raise to doing this. Consider the different perspectives around the table, the roles they play in the organization, their backgrounds and personalities, and you can gain critical understanding of why people may be unwilling to move on certain issues, as well as ideas on how your interests could converge.
7. **Make a strong case.** Have a strong case for why people should be interested in moving forward on these ideas. Make sure you outline all the potential benefits, both the direct ones and the indirect ones. Just as important, describe what would happen if the organization doesn't move forward, such as missed opportunities or negative PR.
8. **Offer a vision.** Offer a vision of where you want to go in the short, medium, and long term, and concrete ideas on how to get there. Use stories, pictures, and videos along with hard facts to make your case. Build excitement about being part of something bigger. Think big.
9. **Present the underlying problem rather than your solution.** Don't just show up at your team meeting proposing your solution. Instead, discuss the original problem that needs solving. This helps an organization or team gather around an issue and work together to solve it.
10. **If calling it Sustainability or CSR won't work, then don't.** In marketing, a product is often more successful if it's marketed as high-performing rather than solely as an environmentally or socially friendly product. In this same way, if a business is skeptical of sustainability, present it as what it is, good business sense, as ways to cut costs, generate revenue, and make production more efficient.
11. **Make it straightforward.** Where possible, integrate new thinking and requirement into existing processes, which enables others to more easily revise their thinking about existing company resources. Make it easy and straightforward for people to start. Link projects to the company's ambitions, values, culture, and history.
12. **Be patient.** Even though you may be ready, for others this may represent a change in mindset and it will take them longer to come on board.

4

The Sustainability Journey



'It is not the strongest of the species that survives, or the most intelligent, but the one most responsive to change.'

CHARLES DARWIN

The journey

Sustainability is a journey rather than a destination in itself. It starts with the decision to explore these issues. The obvious issues are usually visited first – energy consumption, recycling, finding ways to minimize risk. Some companies move past these to the less obvious opportunities, such as product innovations. Other leading companies will take the less traveled routes and make discoveries which will put them ahead of the pack. Sustainability for business is always changing and evolving. Managers often think that once they have put a strategy in place, they have reached their destination. But there is no final destination, it is the journey that counts.

To take your sustainability journey, it is important to understand where you currently stand and where you want to go. Whether you are just starting out, or you have already begun to explore sustainability issues, your journey will be different depending on the needs of your company. However, there are some common stages that companies might find themselves at along the way.

Not yet on board . . .

1. **Reject sustainability.** Rejection may occur because a company is unaware of sustainability, or believes it has nothing to do with their business. In some cases, it may be because a company is involved in illegal activities – either through ignorance or inaction, or deliberate actions. Others will see what they can get away with, and think that even if they get caught they can still get around it.
2. **Bare minimum.** Companies are compliant, but barely so, and not necessarily on everything. They have no sustainability strategy, and at this level, a company is doing the absolute minimum required to stay in business. Typically, they only act when a situation occurs that forces them to react. If they do anything beyond the bare minimum, they often expect to be rewarded for it.

3. **Seen as a cost.** Some companies see sustainability as a philanthropic activity that is just a cost. There may be other smaller initiatives, or individuals across the company who are interested in sustainability, but nothing is coordinated. In some cases they will communicate things that they haven't actually done, or exaggerate claims for things they have done.

Jump on board . . .

4. **Cutting costs.** Companies begin exploring the opportunity to cut costs by reducing consumption. This usually starts with office-greening projects coordinated by inspired employees. It can then progress to finding ways to save costs across the operations.
5. **Risk management.** At this stage, companies begin to see that governance structures – including policies, performance standards, management systems, reporting, assurance processes, and sustainability tools – allow them to better manage their risks.
6. **Indirect benefits.** Companies now begin looking beyond just saving costs and managing risks, to identify the opportunities that sustainability can present. They are also beginning to recognize how it can have a benefit across the business, such as internal benefits of recruiting better employees and suppliers.

Moving forward . . .

7. **Opportunities.** Companies are now actively engaged on multiple fronts, exploring opportunities across the business in the form of new products, exploring new markets, and partnerships with outside organizations.
8. **Strategic approach.** Beyond significant levels of activity on new opportunities, companies begin to look at these individual activities across the organization with the goal of bringing them together as part of an overall strategy. Upper management

is fully involved and reinforces these messages in communications internally and externally. Sustainability reporting is adopted throughout the organization. Efforts have become cohesive, moving the whole company in a common direction.

9. ***Integrating.*** Sustainability begins to be really integrated into the way that everyone at every level does business. It is part of people's job descriptions and is incorporated into compensation, rewards, and performance evaluations. All departments are involved in doing their part to move the agenda forward.
10. ***Continuous improvement.*** A company works with other businesses to really push these issues forward, raising the bar throughout the areas in which they operate. At this stage, companies continually revisit their processes to make them stronger and to acknowledge and work on their weak spots.

Some points to keep in mind when trying to assess where you currently stand:

- ***Different initiatives will be at different points along this journey.*** The inherent complexity of organizations means that a company or an organization will have many different departments, projects, and activities that are at different signposts on the sustainability journey. Use the above model to see where different parts of the business stand, and also for the company as a whole.
- ***Sustainability is a complex area that is continually changing and growing.*** Everyone is still learning and the bar is constantly being raised. Therefore, it is not just about whether or not you are involved in the debate, but at what level. Are you:
 - Saying you are when you aren't really? (Greenwashing)
 - Doing just enough?
 - Doing the same as other companies in your industry? In other industries? In your country?
 - Doing better than other companies in your industry? In other industries? In your country?
 - Doing the same as other companies internationally?

- Doing better than other companies internationally?
- A leader in this area?
- **How to move from one level to the next.** There are many drivers that push companies to move from one level to the next. Most often this will be a passionate CEO or manager, or engaged employees. It could be a negative event that forces a company to react. Anything in the business case can be a driver to change. Ultimately, a company can only reach the higher levels with senior management involvement, and where sustainability is part of a cohesive strategy.
- **Remember, this all takes time.** Sustainability isn't a light switch that you turn on and off. Implementing a sustainability strategy takes time, energy, resources, real commitment, and often a cultural change within your company. However, done properly, the paybacks more than justify the investment.

What does a leading company look like?

Companies getting involved in sustainability are providing more and more information on their activities through their websites, annual reports, and other communication means. However, even with all this information, many consumers are not convinced. So how can you distinguish a leading company from a laggard? Unfortunately, this is not always easy. We often judge organizations as single entities, but they are made up of many separate parts, some good and some not so good. Here are some things you can look at to help you decide whether a company is serious about these issues:

- **Look at whether or not it makes sense.** Can you understand their sustainability strategies? Do their products and messages make sense? Is their sustainability strategy consistent? Are they seeing themselves within a larger system of the world? Are they focusing on the issues that you think are most important, or that their stakeholders think are important?

(continued)

- **Look at their approach to sustainability.** Is the company proactive or reactive when it comes to sustainability? Is the company going beyond minimizing risk to exploring new opportunities? When a problem occurs or the company is criticized for their actions/inactions, how does the company react? Do they take proactive measures to make sure it doesn't happen again?
- **Look at how they engage.** How do they engage with business and non-business partners, their suppliers, their peers, the community, their employees? Are they actively involved in sustainability networks at the local, national, or international level? Are they fulfilling their membership requirements of these networks?
- **Look at the future.** Although the past will tell you where the company has come from and what their record is, it is not necessarily a good guide to future activities. Look at their current performance and published policies and future commitments. How quickly are they moving? How does this compare to their peers? Are they focused on continuous improvements? Leading companies set goals that challenge and inspire. They also have clear steps that show how they will attain those goals.
- **Look at who is driving the change.** The commitment of the board and the CEO is a good indicator of how seriously a company is taking these issues. Speak to employees working for a company. Do they know about the company's sustainability strategy? Are they involved? Is it part of their jobs? If sustainability strategy is part of the way that they speak about business then this is a good sign that management is committed.
- **Look at the resources allocated to sustainability.** How many people are responsible for implementing sustainability strategies within a company? How much power and influence do they have? What kind of budget do these activities have? How much time do people have to work on these issues?
- **Look at how they communicate.** Do they make claims in their promotional materials? Are these backed up? Are they credible, or are they greenwashing? Do they seem to be genuinely engaged in these issues? Don't just base your opinion on what you hear. Just because a company is not vocal about its sustainability commitment, in no way means it is inactive. Some companies are very active in this area but just don't have the budgets or choose not to communicate these efforts widely.

- **Look at how they report.** Look at the quality, quantity, and transparency in the information they put in their annual reports. Do they truly understand the issues affecting themselves and their stakeholders? Do they follow certain reporting guidelines such as the Global Reporting Initiative?
- **Look at the whole as well as the parts.** It is often difficult to say whether a whole company is good or bad. All companies will have examples of successful projects in this area and parts of the business that need more work. Leading companies are those that are proud of their successes and who acknowledge and are working on their weak spots.
- **Look at what gets cut.** When times get tough, are the sustainability policies the first to go?

Where to find leading sustainable companies

One way to identify which companies are doing interesting work is by looking at the annual awards and rankings. There are now countless awards given at the local, national, and international levels, many of which are mentioned throughout this book. Companies take their position on some of these lists very seriously and will often use this in their communication material if they are ranked highly, and respond by making changes in their organization when lower down on the lists. A few examples of international rankings include:

- The Global 100 Most Sustainable Corporations in the World, announced each year at the World Economic Forum in Davos (www.global100.org).
- The Sustainability Yearbook, an initiative with SAM and PwC of the world's 2500 largest companies based on the Dow Jones Global Index (www.sam-group.com/yearbook).
- *Business Ethics* magazine and KLD Research and Analytics' list of 100 Best Corporate Citizens (www.thecro.com).

Some tips for navigating the different rankings and awards lists:

- **Look at the scope of the award.** Is the award being given to companies who are part of a particular industry? Is it about one particular element of their strategy, such as their approach to supply chain management, or does it cover the full company and all its activities?

(continued)

- ***Look at which companies are up for the award.*** Awards don't always invite all companies to enter a given award or ranking. More often than not, rankings and lists focus on larger, international companies, or only those who choose to nominate themselves. Does it include both public and private companies? Is it looking at both big and small ones?
- ***Look at who is giving the award.*** Is the ranking or award being given by a consulting firm, the media, consumers, international organizations, an NGO? Is it being given by a recognized organization?
- ***Look at what kind of data they are measuring.*** Companies often tend to use data that are readily and inexpensively available. Do companies submit the information themselves? Is it collected through questionnaires, media and stakeholder reports, publicly available information, interviews directly with the company? Is the awarding organization doing its own independent research?
- ***Look at the criteria and weightings.*** What are the criteria for the award? Every ranking or award will have a different set of criteria to determine the winners. These criteria should be transparent and easily accessible in order to give some insight on how the awardees are being chosen.

5

Getting Started



‘Many companies have already done much to improve the social and environmental consequences of their activities, yet these efforts have not been nearly as productive as they could be – for two reasons. First, they put business against society when clearly the two are interdependent. Second, they pressure companies to think of corporate social responsibility in generic ways instead of in the way most appropriate to each firm’s strategy.’

MICHAEL PORTER⁶

Step by step

In the same way that there are no simple checklists on what to do to create a successful business, there is also no single way for a company to incorporate sustainability into its operations. But the good news is that employees and managers can get involved in sustainability without becoming experts in this area (in fact, the information in this book is more than enough to get anyone started). Employees at all levels are coming up with an incredible variety of very different ways to bring sustainability into their employer's strategy and operations. For instance, some test out sustainability tools on a small scale – with a particular product, site, or service – while others choose to embed it across the whole business.

Every organization will develop these issues in widely different ways and needs to find the way that works best for their particular situation, location, client base, or strategy. The following list provides a guideline for getting started.

<ol style="list-style-type: none"> 1. <i>Understand where you are now</i> 2. <i>Find out what is happening around you</i> 3. <i>Decide where you want to go and why</i> 	<ol style="list-style-type: none"> 4. <i>Engage others and gather support</i> 5. <i>Put your plan in place and make it happen</i> 6. <i>Keep it going</i>
--	--

1. Understand where you are now. Start by taking some time to think about what kind of company you work for. How is your organization impacted by society? How does it impact society? What are the issues that are important to you? Explore what is currently happening and whether you could build on from initiatives already taking place in the company or whether to start a new one.

- ***Where do you currently stand?*** Does your company reject sustainability, is it non-responsive because of a lack of awareness? Is it interested but not sure where to start? Has it already

started? What kind of expertise is currently in the company in this area? Are there any projects that already exist to build on?

- ***How is your organization impacted by society and the environment?*** What issues affect your company's operations? Climate change? Water? Human rights? What issues do your stakeholders think are important for you to consider? What issues affect your competitors?
- ***What impact does your organization have on society and the environment?*** How do your operations impact society in positive ways? What about negative ways? Are you releasing pollutants? Generating waste?
- ***What issues are important to you? To your stakeholders?*** What about to your employees, your customers, your business partners?
- ***What kind of culture does your company have?*** Is your company open to exploring new opportunities? Is it fast or slow to respond? Is it innovative? Does it have employees who would be keen to explore these issues?

2. Find out what is happening around you. Once you understand what is happening inside your organization and the issues that affect you, take a look at what is happening around you in terms of regulations, best practices, and interesting initiatives that others are doing.

- ***What regulations affect you?*** Understand which regulations and industry standards affect you and your operations now and how they could impact you in the future. Above all, make sure you are compliant with the regulations that affect you.
- ***What voluntary mechanisms are out there?*** Which standards, certification systems, and eco-labels are relevant to your business? Are your competitors using them? Are your customers and stakeholders asking for them? Are they becoming widely accepted industry standards?
- ***What is the rest of the industry doing?*** What are your competitors doing? What about the organizations in your supply chain, your customers, your suppliers? What about other industries?

- **Look at the 'best practices.'** What are the leaders doing in this area in your sector? What about in other sectors? What challenges have they encountered and what lessons have they learned that you can apply?

3. Decide where you want to go and why. Once you understand what is happening around you and how that affects you now and may affect you in the future, determine how you are going to proceed.

- **What are your drivers?** Why are you looking at these issues? Is it because of a passionate CEO? Are your employees asking for it? Your customers? What pressures are pushing you to do this? Are you looking to strengthen your brand, or grow revenue or market share?
- **What is the business case?** Translate the drivers into business reasons. What is the business case? What are the costs? What are the benefits? Will it increase employee retention? Will it serve to build better products or increase market share? What impact could it have on your reputation and brand? On your relationship with your stakeholders?
- **What frameworks and tools work for you?** An organization can choose a sustainability framework (or create a hybrid) to develop a vision for sustainability. Is it one offered by an NGO (such as the Natural Step)? Is it the Triple Bottom Line? Is it a framework offered in a book or through a consulting firm? Is it your own? Use these as a starting point.
- **What is your baseline?** Conduct audits and assessment in order to identify where your strengths and weaknesses lie, to create a baseline to better understand your business and products and track progress toward your goals.
- **What is the best point of entry?** Does your organization want to focus on a particular issue, such as water or climate change? Create new or improved products and services? Does it want to start small with a particular product or process, or does it want to start big? Are you looking to enter new markets? Do you have any 'unsustainable' products that you want to remove from the marketplace?

- ***At what scale?*** Look at individual processes or groups of processes (i.e., production line), a system (lighting or packaging), a product or product line, a facility, department, or location, by regional or geographical groups of departments or facilities, or for the entire company.
- ***What is the budget?*** What resources are you willing to put toward your plan? How many employees, how much of their time? Will you have a whole team looking at these issues or just a few people?

4. Engage others and gather support. Experience shows that in order for sustainability to be successfully mainstreamed into an operation or business, employees, the CEO, and other stakeholders must be fully engaged. Engagement requires building active relationships not only with customers and suppliers but also with local communities, social groups, governments, citizens, and employees. Each has the power to welcome the company with open arms and help it achieve its goals, or to block, disrupt, and make its life difficult.

- ***Confirm CEO/management commitment.*** If the CEO or management is not on board, sustainability activities will remain of secondary importance. CEOs must assign clear responsibility, resources, and authority and communicate these messages consistently.
- ***Build cooperation internally.*** Involve people from across departments and from all levels of the company. Employees are also a valuable sounding board, they often sense a problem before management acknowledges it.
- ***Engage business partners.*** Involve suppliers, joint venture partners, contractors, shareholders, and customers in carrying out sustainability strategy. Begin implementing sustainability screens in purchasing decisions.
- ***Identify and engage stakeholders.*** This includes all groups that are directly affected by your operations, including shareholders, investors, employees, client companies, consumers, local community groups, and supplier companies. Although this can be a

challenging and time-consuming exercise, stakeholder engagement can help identify potential problems before they arise and help a company understand the wider context in which it operates, and where opportunities and threats might come from.

- **Outside networks.** A business can choose to take part in any number of different business and sustainability networks available locally, national, regionally, and internationally, which share best practices. This includes creating alliances with other companies, NGOs, business industry sector organizations, and industry-specific networks.
- **Engage your customers.** Leverage the unprecedented power of consumers to share information about companies, products, and services to promote sustainable products, usage, consumption, and lifestyles.

5. Put your plan in place and make it happen. Develop a roadmap, revisit it regularly, and build it with clear objectives and goals to help the company go where it wants to go. Consider short-, medium-, and long-term perspectives when putting together a strategy.

- **Create realistic targets and objectives.** Define actions and set targets that are SMART (Specific, Measurable, Achievable, Realistic, and Time-Specific). Break down sustainability targets and objectives in order to make them meaningful for individuals, subsidiaries, divisions, and departments. Select appropriate indicators and metrics to help you keep track of your progress.
- **Prioritize.** Determine what the most important issues are. Be selective and look at prioritizing based on both importance and difficulty. Where do you want to be in 1, 5, 20 years? What do you have to do to get there?
- **Create a structure.** Choose a structure that will enable your strategy to be a success. Will you have a sustainability coordinator? Task forces? A chief sustainability officer? Will it be incorporated into individual jobs? Who will have overall responsibility?

- **Create pilot projects.** Pilot projects and prototypes are a good opportunity to test ideas and show others the impact they can have and learn some important lessons.
- **Align business systems.** Look at ways to embed sustainability goals across all functions of a business; whether it is revisiting incentive systems to align them with sustainability goals in the HR department or exploring eco-efficiency and waste minimization opportunities in the production lines. Also look at budgeting and training. Depending on the strategy you choose, certain systems and processes may need to be modified to ensure that day-to-day activities are performed in a manner consistent with these objectives.
- **Give people the tools.** Include sustainability targets and objectives in performance appraisal so they have the right incentives. Run workshops to train staff, ensuring that sustainability is the responsibility of everyone in the organization and not just of a specific department.

6. Keep it going. It doesn't stop once you have started implementing your sustainability plan. With a strategy in place that engages internal and external groups, and activities starting up, continue to monitor the progress of your strategies and the impact they have on your business, both directly and indirectly, and revise as needed. Successful strategies take time and effort to implement and should be continually revisited.

- **Communicate internally.** Do other employees know what the sustainability strategy is? Do they know what their role is? Communicate continually internally about status, the successes, what needs more work, and so on.
- **Communicate externally.** Publish reports at least annually that detail your sustainability impacts, goals, and progress, and disseminate information to your stakeholders. Use websites and other communication media to tell others about what you are doing.
- **Monitor.** Use status checks and regular audits to monitor how you are doing and communicate that to all relevant parties.

- **Scaling up.** Review what has worked and what hasn't before increasing the scale of the effort. What lessons have been learnt? Can they be applied to other parts of the business?
- **Look for continuous improvement.** Put the plan into action, with a focus on achieving continuous improvement rather than trying to reach a goal and then stop. Keep revisiting the process. A sustainability strategy should complement and build on existing programs and initiatives.

Want more?

The International Chamber of Commerce (ICC), founded in 1919, 'serves the world business community by promoting trade and investment, opening markets, services and the free flow of capital.' The Business Charter for Sustainable Development has 16 principles, which provide business with a basis for sound environmental management (www.iccwbo.org).

The Guidelines for Multinational Enterprises of the Organization for Economic Cooperation and Development (OECD) are recommendations addressed by governments to multinational enterprises operating in or from adhering countries. They provide voluntary principles and standards for responsible business conducted in a variety of areas (www.oecd.org).

Getting past internal excuses

This book should be approached with an open mind. Some parts of it will be directly relevant to you, others won't. For sustainability to work for you and the organizations that you are involved in, you should take a moment to think about the reasons why, and what this could mean for your organization, rather than thinking about the reasons why not. The majority of people have built up a list of

internal excuses not to take the plunge into something new. The following will help you, and those around you, to get past the most common excuses.

- ***'I have no time.'*** Do an audit of your time. This often shows that you spend a lot of time on tasks that do not actually benefit your work. At the same time, the audit can reveal that many of the things you currently do are already related to sustainability issues.
- ***'It's not my job.'*** Imagine if everybody said this – nothing would ever get done! If your job is to help your business be or continue to be successful, then yes, some of the ideas introduced in this book are and increasingly will be part of your job.
- ***'I want to make money, not give it away.'*** Look at sustainability as being a tool to reduce costs and increase revenue. Revenue minus costs equals profit. Even if you don't make money by doing the right thing, you can certainly lose money if you do the wrong thing.
- ***'I'm not important enough.'*** If you were hired then it is because you play a role. There is always something you can do regardless of what position you have within your organization.
- ***'It's all too complicated.'*** There are a growing number of resources out there to help individuals and companies explore these issues (i.e., this book!). Find those things that make sense to you and start with them first.
- ***'No one else around me is doing it.'*** If no one else is doing it, then you have an even better opportunity; in addition to the business benefits to your organization, it will give you a way to differentiate yourself and get ahead of the pack.
- ***'My company isn't interested.'*** Your company is made up of many different individuals, some will be interested, some won't. Your company may not be interested, but other employees might be. By connecting with them and creating a group, you may be able to influence your company.
- ***'My company really isn't interested.'*** You may find rare instances where these issues are important to you but not to the company you work for. Remember how many companies there are, and how many of them can use your skills – it may be time to move on to one of those.

(continued)

- ***'It costs too much.'*** This all depends on how you approach it. Pursuing sustainability strategies that make sense to your business can involve upfront costs with less than hoped for short-term results. Find the 'low-hanging fruit,' where simple changes to sourcing or processes can make a big difference. And remember, middle- and long-term results consistently show both business and societal benefits.
- ***'All this sustainability stuff will pass.'*** Whether you like it or not, this represents the new business reality.
- ***'I'm not creative.'*** Getting involved in sustainability requires commitment more than creativity. If you really have no ideas at all, even after reading this book, then support other people who do have good ideas.
- ***'It isn't important in our industry.'*** All industries are getting involved in these issues. Make sure you're not left behind. Take the opportunity to be an industry leader.
- ***'We don't really impact the environment.'*** Although the impacts may not always be obvious, every company and every individual impacts the natural and social environment around them in some way.
- ***'We can't make a difference.'*** Companies of all sizes and individuals in all sectors are making a difference. Some of the leaders are individuals and small companies.

PART 2

THE CORE TOPICS



Accounting

Economics

Entrepreneurship

Ethics and corporate
governance

Finance

Marketing

Operations

HR and organizational behavior

Strategy

Bringing the pieces together: The sustainability puzzle

Sustainability ideas are increasingly being explored across all industries around the world. Within each company, sustainability can be seen as a giant jigsaw puzzle. The chosen sustainability strategy sits at the middle of the puzzle and provides the basis for other areas of the business to get involved in exploring these issues. Entrepreneurship, economics, ethics, and organizational behavior provide the corner pieces of the puzzle, with accounting, finance, marketing and operations, and information management tying everything together.

<p>Entrepreneurship Identifying and exploring new business solutions both inside and outside an organization.</p>	<p>Accounting Building systems, establishing sustainability targets and objectives, and providing sustainability information to influence decision-making.</p>	<p>Economics Helping to understand the larger environment in which business works and which business influences. Exploring mechanisms to allow companies to internalize costs to society and optimize contributions to economic and social development.</p>
<p>Finance Plays a key role in sending signals to companies that can enable them to invest in longer-term opportunities; and requires them to responsibly and effectively manage their economic, environmental, and social impacts.</p>	<p>Strategy Ensures the right approach is taken for a particular company, and that it is implemented as a real organized effort that mobilizes the whole company.</p>	<p>Marketing Designing and promoting more sustainable options and inspiring change.</p>
<p>Ethics Without good management, strong corporate governance, ethical behavior, and open and transparent relationships with stakeholders, sustainability issues, policies, and goals can go nowhere.</p>	<p>Operations Taking responsibility for all the impacts, both social and environmental, across the lifecycle of a company's products and services.</p>	<p>Organizational behavior Translating sustainability policy into action and creating a work environment where sustainability is embedded in the culture of the company and every aspect of the employee lifecycle from recruitment to retirement.</p>

This part of the book introduces a range of tools that can be used to understand how sustainability affects different core areas of a business. Each core topic provides the following information:

- An *introduction* of the role the topic plays in sustainability.
- An introduction to the *business case* for why sustainability is important to that topic.
- An introduction to the different *key concepts* and *tools* relevant in that topic.
- An overview of some of the *challenges* faced with moving the agenda forward in this area.
- A list of some of the *trends and new ideas* being explored in this topic.
- Some *tips* for how you can explore these issues as an employee or as a consumer.
- *Additional resources* where you can get more information on everything introduced in the chapter.

6

Accounting



'One ton of carbon dioxide is presently trading on European markets at about £10. A hectare of rainforest stores about 500 tons and therefore has a potential value of £5,000; but, as the New York Times recently pointed out, millions of hectares of rainforest are being cut down to create agricultural land worth £100 a hectare. Why are we allowing people to be deprived of their natural habitats, biodiversity to be diminished and climatic catastrophe to be hastened, and all at a loss of £4,900 a hectare? There are no easy answers, but I am sure that part of the blame, and more importantly of the solution, is down to us accountants.'

SIR MICHAEL PEAT⁷

At the 2007 launch of the Carbon Disclosure Project, Bill Clinton referred to the need for more ‘scorekeepers’ in sustainability, ‘we don’t have the systems in place to know what the problem is, to know what the progress is to maximize the likelihood of the best outcome.’ This is a vast uncharted area which is under-organized, where consumers have imperfect levels of knowledge about what their options are and what impact they are having.⁸ Accountants certainly can play a crucial role as ‘scorekeepers’ in building these systems, helping to establish sustainability targets and objectives, and providing this information so it can influence decisions.

Accounting may not seem like the logical place to start efforts to green a company, but in fact, without the involvement of the accounting sector, many initiatives simply never take off. ‘Although the accounting sector itself might be considered a relatively low-impact sector in terms of direct environmental and social impacts, it is the accountant’s involvement in the twin issues of organizational decision-making and external reporting that imposes on the accounting profession the responsibility for understanding, absorbing and articulating the implications of the sustainable development debate’⁹ according to the Association of Chartered Certified Accountants (ACCA). It is this that makes accountants well placed to influence the processes that would make sustainability part of day-to-day management.

Why is it important?

- ***The rules of the game are changing.*** Creating long-term sustainable stakeholder value is slowly replacing maximizing shareholder return as the prevailing paradigm.
- ***More people are asking for sustainability information.*** Stakeholders are increasingly asking for better, more consistent information to understand how a company is performing. Governments and the business sector are putting forward

voluntary and mandatory disclosure and reporting standards that can significantly impact business. Accountants need to be able to understand this information in order to report on and comply with requirements.

- ***What gets measured gets managed . . . and what gets managed gets done***, as the saying goes. One decisive element of any sustainability strategy is the development of measurable objectives and targets. Accounting has an important role in collecting data to support the decision-making process and to measure the results and improvements.
- ***Better decision-making***. Accounting for environmental and social costs and allocating them to the appropriate processes, products, or systems allows a company to make better decisions in relation to strategic planning, projects, material choices, product pricing, and product mix. The accounting perspective not only enables better understanding of the business but also helps to identify possible cost reductions or elimination, and exploration of potential revenue opportunities.
- ***Recognizing opportunities***. Identifying and gathering the right kinds of information also permits an organization to anticipate and adapt to a rapidly changing world, including identifying new business opportunities and managing risks.
- ***Getting ahead of the game***. Companies will fall behind if they do not stay up to date and active in this area, in particular in the current debates, for example around climate change. The efforts in climate change are increasingly leading to disclosure requirements in other areas such as water, energy usage, and emissions.
- ***Economic instruments***. Accountants need to understand how business may be affected by the increasing number of economic and market-based instruments associated with sustainability issues such as permits, liabilities, charges, and taxes.
- ***Increased demand***. Companies are receiving an increasing number of surveys and requests for information in this area, which is leading them to disclose more information publicly.

The key concepts

The role of the accountant in sustainability is primarily to collect information to assist internal decision-makers (management accounting); to prepare financial and sustainability information for external stakeholders (financial accounting); and to provide assurance on the published results.

- Identifying the full costs of products and services → ***Full or true cost accounting***
- Determining which sustainability-related issues are important to the business → ***Materiality***
- Setting and measuring progress toward goals → ***Key performance indicators***
- Measuring the impact of a company's activities in society → ***Measuring social impact***
- Incorporating sustainability into financial statements → ***Sustainability in financial statements***
- Integrating financial and sustainability information together → ***Integrated reporting***
- Verifying the accuracy of sustainable information and claims → ***Assurance***
- Reporting on sustainability programs and progress through standalone reports → ***Box: Sustainability reporting***

Full or true cost accounting

One of the roles of the management accountant is to measure the full costs of a firm's products and services and to correctly assign them to the appropriate parts of the business. This is important in

order to better understand the profitability of their products, product lines, departments, and customers and to make more informed decisions. Many would argue that clearer identification of those environmental issues which actually drive costs (i.e., activity-based costing) will reduce costs, squeeze out inefficiencies, and improve margins. However, many significant environmental and social costs that could affect these decisions are currently not being identified or measured. Thus, the typical management accountant has an incomplete understanding of the true costs the business faces. This can lead to an inaccurate understanding of the true costs associated with a particular product or process, and can lead managers to miss opportunities to make their products and processes better and more efficient.

Understanding the true cost is not only important for strategic decision-making but also for determining how a product should be priced. While consumers buy a product based on a price (among other factors), the price often does not fully reflect the real cost of that product to society. Better incorporation of true costs into products can result in better pricing that allows customers to make purchasing decisions based on information regarding the costs to society of a product and letting them know that these costs have been paid for.

Typically, accounting systems classify costs as direct materials and labor, manufacturing or factory overhead, general overhead, and research and development. Conventional environmental expenses may be classified in any or all of these categories. Several tools aim at trying to take the environmental expense out of these categories so that they can be understood independently. For example, a particular product may need certain chemicals in its production. The product price may only include the cost of buying those chemicals but may not include other costs connected with their use, such as training employees to handle them safely, storing them, and insuring against damage caused by possible spills. Even if the product price includes all the costs paid by the business, it often does not

include the social and environmental costs associated with use of those chemicals, such as the eventual damage of a spill on the health of local people, animals, and plants. Government legislation has been working to internalize environmental costs through use of taxes and fines to ensure that these costs are being adequately passed on to the firm and thereby more effectively allocating them to particular products and processes.

Conventional operating costs such as the use of raw materials, utilities, and waste can be identified and quantified. However, other costs can be much more difficult to identify and quantify. These include:

- ***Hidden and overhead costs.*** Certain types of environmental costs may be hidden from managers because they are buried in overhead accounts, rather than being allocated to the particular project or process to which they relate. This affects the actual and perceived viability of such activities. These costs can include:
 - Initial costs relating to R&D, eco-design, qualification of suppliers, and evaluation of alternative pollution control.
 - Regulatory and voluntary environmental costs such as monitoring.
 - Back-end environmental costs that will occur at some point in the future; for example, the costs of decommissioning an old laboratory, waste disposal costs, closing a landfill, or complying with future regulations.
 - Costs incurred because of past pollution, including clean-up of closed or existing sites, in order to mitigate current pollution and prevent future health and environmental risks.
- ***Contingent or liability costs.*** These are costs that might be incurred at some point in the future. These are usually estimated based on the probability of occurrence. Examples include the costs of remedying and compensating for future accidental releases of contaminants into the environment (e.g., an oil spill), or fines, and penalties for future regulatory infraction.

- **Intangible costs.** These are costs that go into one element of the business but that have consequences for other parts of the business. For example, a company that cuts its sustainability program because they want to save money may experience a drop in the company's reputation, less motivated staff, decreased productivity, and increased worker absenteeism.
- **Societal costs.** These represent the costs of a business's impact on the environment and society for which the business is not legally accountable (also known as externalities; see Chapter 7 for more details). For example, the cost of delivering goods includes petrol, but not the emissions of air particulates which have an impact on human health.

According to the US Environmental Protection Agency (EPA), 'the success of environmental accounting does not depend on "correctly" classifying all the costs a firm incurs. Rather, its goal is to ensure that relevant information is made available to those who need or can use it.'¹⁰

Tools such as Activity Based Costing are used to assign general overhead costs to particular products or services. Resources include the US EPA Introduction to Environmental Accounting (www.epa.gov), Full Cost Accounting: An Agenda for Action ACCA (www.accaglobal.com), and CMA Activity Based costing/management (www.cma-canada.org).

Materiality

There are a growing number of sustainability-related issues, from water to climate change. No organization can be expected to respond to all of them, especially when the issues are not all seen as equally important to them. In the world of finance, any issue that has (very) roughly a 5% impact on the net income has traditionally

been considered to be material. However, when it comes to sustainability, it is not always so easy to tell because it isn't as easy to put a price tag on the potential impacts. So, organizations need to determine which issues are material – meaning which issues could make a major difference to an organization's performance both in the short and long term. According to assurance organization AccountAbility, 'Materiality is determining the relevance and significance of an issue to an organization and its stakeholders. A material issue is an issue that will influence the decisions, actions and performance of an organization or its stakeholders.'

The first step in determining which issues are material is to make a list of all the issues that are, or could be, relevant to the business and its stakeholders, and collect the information needed to assess their significance. This includes:

1. ***Issues that have a direct short-term financial impact.*** These are resulting from aspects of social and environmental performance that have short-term financial impacts. For example, carbon emissions have become financially significant for many companies over the past few years.
2. ***Issues where the company has made policy-related statements or commitments.*** Issues are material where a company has agreed to policy commitments of a strategic nature, including regulatory or voluntary requirements for non-financial disclosure. Tesco in the UK, for example, has publicly set out the significance of its treatment of people to its core business strategy.
3. ***Issues which other comparable organizations consider to be material.*** To understand the materiality of a specific issue or aspect of performance, look at whether a company's peers consider it material. For example, in the pharmaceutical sector access to medicine in developing countries is an increasingly important issue.
4. ***Issues which stakeholders consider important.*** It might sound obvious, but a company should take into account the

concerns of stakeholders, including employees and customers. If certain issues are important to your stakeholders, then they should be taken seriously.

5. ***Issues that are considered social norms.*** Areas that are covered by regulations or could be in the future, best practices, and emerging norms should all be evaluated to determine which ones are material to a business. This includes international initiatives such as the Global Reporting Initiative and the Global Compact.

Companies differ dramatically, so what is material for one company may not be for another. Not all the issues a company identifies will end up being significant to its long-term success. Therefore, once all the sustainability issues that could be material to an organization are identified and assessed, they should then be prioritized according to criteria determined by its management, such as whether they are of high, medium, or low materiality.

Many companies map this information into a materiality matrix, where the extent to which issues are deemed significant to stakeholders is mapped on one axis and significant to the company on the other. Therefore, the issues that show up in the top right corner are significant to both groups while those issues in the bottom left corner are less significant for the particular company.

Once mapped, and the level of materiality determined for each issue, this information can be used:

- To determine the scope of corporate reports and other communication so that they are more strategically aligned and useful to external stakeholders.
- To promote internal understanding of the link between sustainable development issues and business strategy.
- To feed into ongoing strategy development by highlighting rapidly emerging issues and enabling them to be factored into strategy development.

Anglo American, a global mining company, has determined that their most material issue and number one priority is safety.

The company has created a list of targets around safety and regularly reports on progress made toward those targets. Based on their efforts, which have included engaging not just their employees but unions and government as well, they have seen a decline of around two-thirds in number of fatalities since 2007. They have also formed the Tripartite Safety Initiative in South Africa to work on understanding global safety standards, which has not only increased safety at Anglo American but also the safety standards of the mining industry in South Africa.

See AccountAbility's work on materiality (www.accountability.org). The Global Reporting Initiative has guidance on materiality (www.globalreporting.org), as does the International Integrated Reporting Council (www.theiirc.org). A large number of companies such as SAP, Daimler, Ford, and Vodafone have been developing rigorous practices for determining and communicating their approach to materiality and have a materiality matrix in their sustainability reports and/or websites.

Key performance indicators

Having the right kind of information at the right time, and in the hands of the right people, ultimately allows for more effective decision-making. Once environmental, social, and economic goals and targets are identified, key performance indicators (KPIs) are used by organizations to measure their progress against these goals. Before choosing KPIs, many organizations think they know how they are doing, however they're often surprised when they start collecting real numbers. In order to be meaningful and effective, a company should select KPIs in context with the organization and its industry, so that they make sense for their business and its stakeholders.

While there is no agreement on which indicators to use or how to construct them, there is plenty of guidance. The Global Reporting Initiative, for example, provides guidance for indicators on economic performance, environmental, human rights, labor, product responsibility, and society. It also provides sector-specific guidance.

KPIs can be used to measure progress on anything from how an office greening program is going (e.g., percentage of paper recycled) to something much larger, such as measuring the impact of certification programs. For example, Danone's KPIs on projects always include environmental measures. The company incorporates monthly carbon footprint data at an individual product level in its group financial management systems. They also introduced a new capital expenditure category, Green CAPEX, which allows for investing in new projects that show a high environmental interest but have a longer financial payback period. Changes are incentivized by, for example, the inclusion of carbon as a KPI in the calculation of management bonuses.

Whatever KPIs are chosen, care must be taken to present them clearly. Many indicators start out as absolute numbers of whatever is easiest to measure. Since these metrics measure basic data (such as total energy use), it becomes all too easy to draw false conclusions from this information. For example, a fall in emissions could be due to a downturn in business rather than efficiency gains. Therefore, relative/normalized measures such as ratios can be more useful in understanding a company's performance (e.g., energy use per unit of output). Some pointers to keep in mind when choosing metrics:

- ***Make sure the metrics are related to the goals and objectives of the company.*** As simple as it may sound, it is important to make sure that indicators are providing information that is useful to the company and provide data on progress toward the company's goals.
- ***Choose driving metrics.*** Metrics should drive performance rather than just measure outputs. For example, a company trying to improve its compliance record with regulators should

develop metrics that identify and measure the root causes of non-compliance, rather than simply track the number of occurrences of non-compliance.

- **Choose leading metrics.** Metrics should not just measure things that occurred in the past, such as energy use, but also capture a vision for the future (e.g., size and quantity of clean tech investments).
- **Leaders are using not just quantitative measures but qualitative as well.** Explore using KPIs to measure areas that may not be as simple to quantify, such as intangibles like reputation with customers.
- **Who is the audience for your metrics.** Is it management, government, voluntary business initiatives, investors, employees, consumers? The indicators selected should be relevant to the audience, give the information needed by or of interest to these parties, and be easy to understand and use.
- **It doesn't have to be perfect.** A certain level of inaccuracy is inevitable. The key point is to collect information that is useful in moving forward. Indicators should allow you to understand and measure progress. It is better to estimate what you can't measure, rather than leave it out altogether.
- **It doesn't have to be overly complex.** Avoid using too many indicators. Limit the number of metrics that need attention at any one time. A lot of the data needed may already be available within the company.

More guidance on indicators can be found in ISO's Environmental Performance Valuation (ISO 14031) (www.iso.org) and the WBCSD (www.wbcSD.org) report on measuring eco-efficiency. The UN Conference on Trade and Development (UNCTAD) produced a guide for users and preparers of eco-efficiency indicators (www.unctad.org). Also, see Deloitte CFO's insights on developing key performance indicators (www.deloitte.com).

Measuring social impact

Organizations often try to positively influence the communities in which they operate. In order to do this they must be able to define the social proposition they are offering and measure the impacts of their activities on the local environment. This is important in order to improve the effectiveness of programs, increase understanding of the impact of their work, and communicate the value of that work to their stakeholders. Indicators are used to measure the impact of businesses' activities on society. According to the Foundation of Social Return on Investment, there are four main elements needed to measure social value creation:

- **Inputs** are the resources you need in order to make something happen. They are measured as a cost (e.g., cost of program, value of time contributed).
- **Outputs** are the direct result of your business objectives or program goals (e.g., number of people trained or trees planted).
- **Outcomes** are changes that occur over the longer term as a result of the activity (e.g., new jobs, increased incomes, improved stability of life as a result of programs).
- **Impacts** are the outcomes less an estimate of what would have happened in the absence of your program.

Tools such as Social Return on Investment are used in order to explain social value in monetary terms. Return on Investment (ROI) is a tool used to understand financial value creation. If you invest one dollar in a project and more than a dollar is returned, then the project is probably worth further consideration. Social Return on Investment (SROI) works in the same way. It is a tool used to understand the environmental, social, and economic value being created by organizations. Value is something that cannot always be measured specifically, but SROI tries to provide an approximate value. 'The essential rationale for calculating SROI separately from financial returns is because the market's valuation of social benefits is imperfect. In cases where it is perfect, there would be no need for an SROI analysis.'

SROI analysis should include both positive and negative impacts in the assessment and should only include impacts that are clearly and directly attributable to the company's activities. SROI analysis takes organizational time and resources. However, when done properly, it can be an effective tool to improve your programs and communicate the value of the work you are doing, whether you are a commercial company or a not-for-profit one.

Several organizations have developed systems to better understand social impact. Anglo American created the Socio-Economic Assessment Toolbox in order to better understand whether its operations were living up to the company's stated goal of making a contribution to the economic, social, and educational wellbeing of the communities associated with its operations. The International Finance Corporation uses a Development Outcome Tracking System in order to track the development results of its activities to assess whether or not it is achieving its mission.

The Global Social Venture Competition has resources that help in measuring social value (www.gsvc.org). Other social entrepreneurship organizations – such as Skoll Social Edge (www.socialedge.org), the SROI Primer (sroi.london.edu), REDF (www.redf.org), and the SROI Network (www.thesroinetwork.org) – provide many resources. The London Benchmarking Group is a group of over 100 companies working together to measure corporate community investment (www.lbg-online.net). The WBCSD also developed a tool for its members to aid in measuring impact (www.wbcscd.org).

Sustainability in financial statements

Although much of the emphasis regarding sustainability concerns disclosing information in separate sustainability reports (explored at the end of this chapter), there is increased work being done

on how to include sustainability information in annual financial reports.

Today, the majority of annual financial reports are still issued with little or no environmental or social information. However, more organizations themselves have been exploring ways to incorporate sustainability and financial information into their annual reports.

Within current standards, environmental issues are treated in more depth than social issues. Some examples of environmental issues currently covered by financial reports include:

- **Liabilities.** These can include having to pay fines for non-compliance with laws, legal fees from court cases by stakeholders against the company, or costs for cleaning up a polluted site. Liabilities can either be from events that happened in the past, or provision for events that may happen in the future.
- **Intangible assets.** Those elements of a business that do not have a specific financial value, but which increasingly represent a significant part of the value of a company such as brand, intellectual property, and reputation.

Sustainability issues that impact a company's financials can also be included in the narrative sections of the report. This gives management the opportunity to provide contextual and non-financial information about how sustainability issues have impacted, or may impact, financial conditions and results (also referred to as operating and financial review, business review, management discussion, and analysis depending on the country).

Other resources include the IFAC Sustainability Framework (www.ifac.org), KPMG Reporting Surveys (www.kpmg.com), and IAS Plus (www.iasplus.com). IASB has different resources on management commentary (www.iasb.org). PwC did a survey of the Fortune Global 500 companies' narrative reporting (www.pwc.com), as well as among the FTSE 350 companies (corporatereporting.com). Also see the trends section.

Integrated reporting

Companies have several different ways to report on sustainability, including sustainability reports (explored later in this chapter) and reporting on sustainability issues directly in their financial reports (explored above and in the trends section of this chapter). Increasingly, companies are choosing to integrate the two reports together into one. The level of integration varies, ranging from including information on sustainability in the annual report, to combining the two reports one after the other, or fully integrating the two sets of information together – also known as integrated reporting.

Integrated reporting is about exploring the interaction between financial and non-financial performance. According to the International Integrated Reporting Committee (IIRC), an integrated report is ‘a concise communication about how an organization’s strategy, governance, performance and prospects lead to the creation of value over the short, medium and long term.’ It combines the different strands of reporting (financial, management commentary, governance and remuneration, and sustainability reporting) into a coherent whole that explains an organization’s ability to create and sustain value.

While sustainability reports are often aimed at engaging a range of stakeholders, they are often perceived to be of limited use to investors. Integrated reports are intended for investors as well as for those stakeholders who want a more holistic view and insight into the company’s strategy and performance. They aim to communicate the factors most important to the creation of value over time. It is about improving the basis of capital allocation by enabling the capital markets to better understand a company’s strategy, align their models with business performance, and make efficient and forward-looking investment and other key decisions.

The Integrated Reporting Committee of South Africa suggests that the following elements be included in an integrated report:

-
- A description of the scope and boundary of the integrated report.
 - A concise overview of the organization and its activities, a statement of its business model describing the manner in which it currently creates value, and an overview of its governance structure.
 - A description of the risks and opportunities that are material to the organization's current and anticipated activities.
 - A description of the organization's strategic objectives demonstrating how these have been informed by the risks and opportunities, including sustainability issues.
 - An account of the organization's performance in terms of its strategic objectives, material social, environmental, economic, and financial impacts, and KPIs and KRIs.
 - A statement of the organization's anticipated activities and future performance objectives, informed by its assessment of recent performance and understanding of societal trends and stakeholder expectations.
 - An overview of how the organization remunerates employees and senior executives, including factors that could influence future remuneration.
 - A brief analytical commentary that reflects the understanding of the organization's governing structure and executive team regarding the nature of the organization's current and anticipated performance in the context of the organization's strategic objectives.

One of the challenges to integrated reporting is that many organizations' ability to produce quality non-financial data is not as high as financial data, meaning it needs to be improved by improving the timeliness and robustness of the data. At Novo Nordisk, who have been publishing integrated reports since 2004, financial and non-financial performance is reviewed by the Audit Committee of the Board at the same time. The process for reviewing performance is therefore aligned throughout the company and this increases the robustness of data systems and confidence in data quality.

There is a push internationally to bring integrated reporting to the forefront and to develop standards and guidance in this area. The IIRC was established in 2010 to achieve a globally accepted integrated reporting framework. Since 2011 all companies listed on the Johannesburg Stock Exchange are required to file their integrated reports on an 'apply or explain why not' basis, and most have. The Corporate Sustainability Reporting Coalition urged UN member states at the Rio+20 conference in 2012 to require public and large private companies to integrate sustainability information in their annual financial reports.

The International Integrated Reporting Council (www.theiirc.org) is working on a framework for integrated reporting and also has a database of integrated reports (examples.theiirc.org). Also see KPMG's work in this area (kpmg.com/integratedreporting). There are a growing number of awards for integrated reports, including Ernst & Young's Excellence in Integrated Reporting (www.ey.com), PWC's Integrated Reporting Award (www.pwc.co.uk), and the Corporate Register (www.corporateregister.com). There are a range of resources on this topic coming from South Africa, including Sustainability South Africa and the Integrated Reporting Committee of South Africa (www.sustainabilitysa.org). Also, take a look at the reports of companies such as Sasol, Eskom, Vodafone, Truworths International, ABSA Group, Liberty Holdings Clorox, Southwest Airlines, Philips, PotashCorp, and Vancity.

Assurance

Annual financial statements are subject to an audit or assurance process, which is done by an accounting firm to ensure accuracy and enhance credibility. This assurance statement is usually found

within the first few pages of the report. Although no such regulatory requirements exist for sustainability reports, readers are increasingly looking for voluntary assurance that covers two areas:

- Assurance on management and reporting systems and associated performance, which assesses the strengths and weaknesses of the company's sustainability programs and initiatives.
- Report content assurance that looks at the accuracy, completeness, reliability, balance, and fairness of the report, similar to the verification of financial statements on stand-alone sustainability reports and on integrated reports.

Companies that report on their environmental and social performance rely on accounting firms, consultancies, certification bodies, and CSR specialists for assurance of these reports to ensure credibility. Some – such as Shell, GE, and Nike – have panels of independent advisers that provide expert views as an alternative avenue to enhance credibility.

Although companies are increasingly commissioning assurance statements (more than 70% of the 250 biggest global companies have some sort of assurance), there is no single international set of principles or standard for assurance of non-financial reports. The leading international standards for assurance are the accounting standard ISAE 3000 and 3410, as well as the multi-stakeholder-created AA1000AS, which looks at both the verification of data and the underlying management and reporting systems. Even with these emerging international standards, there are still inconsistencies and wide variations in the approach taken for sustainability assurance.

An assurance statement typically looks at the following:

- *Specific declarations* in terms of what kind of audience the statement is aimed at, and whether or not it was made independently from the company, outlining the respective responsibilities in the audit process of the auditor and the company.
- *An outline of the methodology*, how the assurance provider undertook the audit, such as conducting internal interviews,

scrutinizing internal data systems, reviewing external documents, interviewing external stakeholders.

- In the case of AA1000AS, assurers can provide high assurance or moderate assurance based on the amount of evidence obtained and assurer access to that evidence to support statements regarding the following three principles:
 - **Inclusivity.** Has the organization been inclusive in how they engage stakeholders in achieving an accountable and strategic response to sustainability?
 - **Materiality.** Have they identified what the material (most important) sustainability issues are to the organization and to its stakeholders?
 - **Responsiveness.** Have they responded to these and communicated appropriately (i.e., establishing policies, objectives and targets, management systems, action plans)?
- **Recommendations and opinions**, which offer insight in terms of performance, strengths and weaknesses, challenges, etc.

In some instances, the reporting organization will also provide a report to management. Such additional reports should not communicate different conclusions than those found in the publicly available assurance statement, but rather include any limitations in the scope of the disclosures on sustainability, the assurance engagement, or the evidence gathering.

International Auditing and Assurance Standards Board (IAASB) standards deal with auditing, review, other assurance, quality control, and related services (www.ifac.org/IAASB). AA1000AS standards (www.accountability.org). The Corporate Register also has some guidance on assurance, including trends and examples (www.corporateregister.com).

Challenges?

Despite all the work that is happening in the area of sustainability and accounting, there are still several challenges.

- **Awareness.** Many accountants simply don't see sustainability as relevant to their jobs. The first step is to raise awareness about their crucial role and provide them with further resources and training at all levels to allow them to incorporate these issues into their work.
- **Quantifying the qualitative.** There are many difficulties in estimating the costs of environmental and social issues across the full lifecycle of a product or process (see the Valuation box in Chapter 7).
- **Moving from costs to revenues.** There is a need to move beyond seeing environmental initiatives and values as just costs to be suffered (through legislative imperative) or costs to be reduced at the first possible opportunity. Companies need to identify the business benefits, and ultimately profits, that correspond to the costs that must be incurred for better environmental and social performance.
- **Consumers.** Responsible companies have competitors who often price their goods below their true cost, discounting the social and environmental costs. In some cases managers who price their goods and services based on full social and environmental costs will suffer until consumers recognize this in their purchasing decisions.
- **Traditional accounting systems** were not designed to enable environmental data to be separately identified or evaluated – such as data on waste management, compliance with laws, insurance. There is a need for more robust information, data, methodologies, and collection systems to allow for more integration of these factors into decision-making.
- **Assets versus costs.** Using traditional accounting methods, end-of-pipe technologies to reduce environmental impacts are accounted for as assets, while attempts to eliminate sources of pollution at the source appear as costs. Similarly, investments in training and

development are recorded as costs, while the collective knowledge and experience this creates is not recorded as an asset.

- **Short-term versus long-term.** There is a need to shift the mentality and accounting practices to look more at the long-term effects, as opposed to simply short-term implications of decisions. The challenge is to incorporate longer-term, less tangible environmental and social costs into the balance sheet rather than just measuring short-term tangible metrics.
- **Information not tracked adequately or not available.** Available information is often not sufficiently accurate or detailed for decision-making purposes. Sometimes the information is collected, but stays within different divisions of the company, where the accountants may never even become aware of its existence. These divisions will often have different goals, perspectives, and even language with regard to sustainability and inconsistencies may arise in how information is communicated.
- **Comparability of data.** Company disclosures on sustainability issues are often inconsistent and difficult to compare across a single industry. Several sustainability threads are common to all sectors (e.g., energy and water consumption, greenhouse gas emissions) and should be reported consistently across industries.

Trends and new ideas

- | | |
|--|---------------------------------------|
| – <i>Bringing it all together</i> | – <i>Different forms of reporting</i> |
| – <i>Increased disclosure</i> | – <i>Shadow reporting</i> |
| – <i>Recognizing unrecognized assets</i> | |

Bringing it all together

Until now the accounting profession has dealt with economic, environmental, and social issues in relative isolation from each other. However, increasing attempts are being made to bring these

together in recognition that conventional accounting numbers do not always tell the 'full story' of how businesses impact the environment in which they work. An example includes work being done by an initiative called Accounting for Sustainability around 'integrated thinking,' which looks at new approaches to accounting that will enable organizations in business, investment, and the public sector to better understand, and where appropriate value, 'externalities' and incorporate these into decision-making processes (www.accountingforsustainability.org). The International Integrated Reporting Council also looks at integrated thinking, the ability of an organization to understand the relationships between its various operating and functional units and the capitals the organization uses and affects. Integrated thinking leads to integrated decision-making and actions that focus on the creation of long-term, as well as short- and medium-term, value. All companies rely on a variety of different forms of capital for their success, including financial (funds), manufactured (physical objects), human (skills and experience), intellectual (intangibles), natural (inputs to production of goods), and social and relationships capital (links between stakeholders). Value is created or destroyed as a result of the use of, impact on, and interplay between the capitals caused by the organization's activities (www.theiirc.org).

Increased disclosure

The key role of accountants is in measuring and communicating information used both internally and externally in decision-making. One of the key requirements for moving sustainability forward at the organizational and societal levels is better and more complete information. Several international initiatives are under way to increase the level of information available and make it comparable across or between industries. The Carbon Disclosure Project is one example, which collects data and disseminates information on a range of environmental issues from the world's largest companies

and makes it available to a group of institutional investors with a combined US\$87 trillion of assets under management. It holds a database on corporate climate change and water use information on companies around the world (www.cdproject.net). There is also a growing push toward mandatory carbon disclosures; for example, all companies listed on the main London Stock Exchange are now required to report their greenhouse gas emissions.

Recognizing unrecognized assets

Accountants are in an ideal position to uncover where potential revenue-generation opportunities lie and how to take advantage of them. One example discussed in Chapter 12 is selling waste for profit, thereby transforming it from a cost into an asset. The protection of natural resources can provide in some instances a credit in market-based regulatory systems that can be sold or traded. It also gives a company a 'license to operate' in a given community. The Elgin Air Force Base in Florida has 400 000 acres of longleaf pine forests. Because of its fire resistance, slow growth, long lifespan, and high value for lumber and resin, longleaf pine has been logged almost to extinction. In fact, 72% of all remaining old-growth populations in the world are at the base. The US Air Force performed studies in 2004 to assess the potential value of the forest for environment, economy, and surrounding communities. Today, timber sales generate US\$1.2 million a year, and 280 000 acres are open to the public for recreational opportunities that could be worth an additional US\$8–12 million a year in usage fee revenues.¹¹

Different forms of reporting

Companies are experimenting with and exploring a range of alternative options to collecting and presenting their environmental and social data beyond sustainability and integrated reporting outlined

in this chapter. Because of the importance that the company places on sustainability, Timberland reports their sustainability numbers on a quarterly basis rather than yearly. The information is presented online, comparing progress against the company's sustainability goals. Another example is Puma, who have created an environmental profit and loss statement (Environment P&L) that analyzes and puts a monetary value on key environmental impacts that arise due to Puma's business from the production of raw materials through to the point of sale and even to the product level. Their work in this area is inspiring a range of other companies and governments to explore how the Environment P&L could be mainstreamed and used across the business sector.

Shadow reporting

In 2010 Hershey released its first CSR report outlining all of the chocolate company's sustainability related successes. Shortly after, a group of activists and NGOs published their own version of Hershey's CSR report which instead focused on the company's human rights abuses in the production of its cocoa. This kind of report, also called a shadow report, is put together by NGOs to supplement or present alternative information to government and UN reports however there are several instances of NGOs presenting such reports about companies too. Shadow reports aims to supplement or present alternative information to what the company is discussing, to highlight issues not raised by the original report that the shadow report is based on. Friends of the Earth, a large international NGO has produced a few shadow reports, first in 2009 they released an alternative report for Shell called The Other Shell Report and in 2009 they did the same for BHP Billiton, both times focusing on the company's exaggerated claims. CSEAR (www.st-andrews.ac.uk/csear) has done some research in this area including creating shadow reports for Tesco, HSBC and Ryan Air.

Want more?

- The major *accountancy firms* are getting more involved in providing guidance on this issue to their clients and to the public via their international and country-specific websites, including KPMG (www.kpmg.com), Ernst and Young (www.ey.com), PwC (www.pwc.com), and Deloitte and Touche (www.deloitte.com).
- The major *international accountancy bodies* also have increased resources for members and the public, including the Association of Chartered Certified Accountants (www.accaglobal.com), the Chartered Institute of Management Accountants (www.cimaglobal.com), and the International Federation of Accountants (www.ifac.org).
- Some other *international initiatives* to take a look at include the UN Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (www.unctad.org/isar) and the report 'Environmental Management Accounting Procedures and Principles' (www.un.org).
- Many interesting resources are also coming out of national accounting bodies, for example the ICAEW (www.icaew.com/sustainability), CPA Australia (www.cpaaustralia.com.au), and AICPA in the USA (www.aicpa.org).
- The Environmental and Sustainability Management Accounting Network (www.eman-eu.net), SASB (www.sasb.org), and the Centre for Social and Environmental Accounting Research (www.st-andrews.ac.uk) also provide several resources on the topic. The Accounting for Sustainability Group was established by the Prince of Wales and has several resources, including a forum that brings together the work being done in sustainability by different accountancy groups around the world (www.accountingforsustainability.org).
- If you are an accountant, also take a look at Accountants Changing the World (accountantschangingtheworld.com).

Sustainability reporting

'A sustainability report enables companies and organizations to report sustainability information in a way that is similar to financial reporting. Systematic sustainability reporting gives comparable data, with agreed disclosure and metrics.'

GLOBAL REPORTING INITIATIVE

Many organizations are incorporating environmental and social information into their public reports in response to demands from shareholders and other stakeholders for more information so that they may make better-informed decisions about a company's performance in this area.

Organizations of all sizes (including commercial companies, organizations, NGOs, schools, and small companies) are choosing to report on their sustainability strategies for several reasons:

- Increased understanding of risks and opportunities in the short and long term as well as emphasizing the link between financial and non-financial performance.
- Benchmarking and assessing sustainability performance with respect to laws, norms, codes, performance standards, and voluntary initiatives.
- Comparing performance internally, and between organizations and sectors.
- Being transparent and improving reputation and brand loyalty by enabling stakeholders to better understand the company.
- Demonstrating how the organization influences, and is influenced by, sustainability.

Although sustainability reporting remains a largely voluntary exercise in most countries, it is increasing in popularity and in the past years has moved from an optional but nice activity to one that most companies are engaging in. Over 95% of the largest global companies were reporting on their sustainability activities.

Defining report content Organizations around the world can take one of many different approaches, based on local cultures and regulatory differences, and on availability of the different mandatory and voluntary initiatives. The most commonly accepted framework has been created by the Global Reporting Initiative (GRI). The

(continued)

vision of the GRI is that disclosure on economic, environmental, and social performance is as commonplace and comparable as financial reporting. The GRI guidelines present four principles for defining report content:

- **Materiality.** The report should cover topics and indicators that reflect the organization's significant economic, environmental, and social impacts, or that would substantively influence the assessment and decisions of stakeholders.
- **Stakeholder inclusiveness.** The reporting organization should identify its stakeholders and explain in the report how it has responded to their reasonable expectations and interests.
- **Context.** The report should present the organization's performance in the wider context of sustainability.
- **Completeness.** The information presented in the report should be sufficient to reflect significant economic, environmental, and social impacts, and enable stakeholders to assess the reporting organization's performance in the reporting period.

The guidelines also have six principles defining report quality:

- **Reliability.** Information and processes used in the preparation of a report should be gathered, recorded, compiled, analyzed, and disclosed in a way that could be subject to examination and that establishes the quality and materiality of the information.
- **Clarity.** Information should be made available in a manner that is understandable and accessible to stakeholders using the report.
- **Balance.** The report should reflect positive and negative aspects of the organization's performance to enable a reasoned assessment of overall performance.
- **Comparability.** Issues and information should be selected, compiled, and reported consistently. Reported information should be presented in a manner that enables stakeholders to analyze changes in the organization's performance over time, and could support analysis relative to other organizations.
- **Accuracy.** The reported information should be sufficiently accurate and detailed for stakeholders to assess the reporting organization's performance.
- **Timeliness.** Reporting occurs on a regular schedule and information is available in time for stakeholders to make informed decisions.

Finally, the guidelines have an extensive set of indicators which give details on the kind of data that should be included in reports. The indicators cover several areas, including economics, environment, human rights, labor, product responsibility, and society. There is also guidance on unique indicators for particular industry sectors (sector supplements) and country-level information (national annexes). GRI provides special guidance for SMEs and microbusinesses and has several examples of reports produced by these.

Best practices Companies themselves are also raising the bar by instituting their own new practices. Some trends include:

- ***Growth in assurance.*** An increasing number of reports begin with an assurance statement (explained earlier in this chapter).
- ***Materiality.*** Companies are increasingly choosing to focus their sustainability reports on the most material issues, leading to generally shorter reports with greater links to business strategy. Information on less material issues is still available, usually through the companies' websites.
- ***From risk to opportunity.*** We are seeing a steady shift toward a more progressive reporting approach, one that seeks to identify opportunities for strategic innovation and market building rather than focusing solely on risk.
- ***Interaction with investors.*** Many reports still lack the hard targets and forward-looking information typically sought by investors, but this is slowly changing with development of appropriate KPIs.
- ***Disclosures on public policy initiatives.*** Most reports currently fail to sufficiently discuss and link their sustainability initiatives and commitments to the lobbying activities they undertake, either directly or indirectly. A small but growing group of companies are becoming more transparent in this area.
- ***Integrated reports.*** Companies are choosing to report on their sustainability activities in their financial reports (see the section on integrated reports in this chapter).
- ***Mandatory.*** Although still mostly a voluntary exercise, sustainability reporting has already become mandatory in some countries, including France and Denmark, and as a condition of membership to certain networks such as the Global Compact.
- ***Supplier requirement.*** Some companies are testing out requiring their suppliers to produce sustainability reports. For example,

(continued)

Microsoft has started a pilot program requiring GRI-compliant reports from a number of the suppliers they work with, in the hope of scaling it up to all their suppliers.

- ***Around the world.*** The continued growth in sustainability reporting is primarily driven by its spread to smaller companies and emerging markets. Europe is leading in terms of number of organizations reporting, but other geographic areas are catching up fast.

Want more?

See the GRI's sustainability reporting guidelines (www.globalreporting.org). There are several other initiatives aimed at providing guidance in this area, including Accounting for Sustainability (www.accountingforsustainability.org) as well as government-issued national guidelines such as, for example, by the Government of Canada (www.ec.gc.ca).

The System of Environmental-Economic Accounting contains the internationally agreed standard concepts, definitions, classifications, accounting rules and tables for producing internationally comparable statistics on the environment and its relationship with the economy (unstats.un.org). See the winners of different sustainability report awards for a look at different approaches – for example, Ceres/ACCA (www.ceres.org), PWC Reporting Award (www.pwc.co.uk), ACCA's Sustainability Reporting Awards (www.accaglobal.org), GRI's Readers' Choice Award (www.globalreporting.org), and Corporate Register (www.corporateregister.com). SustainAbility, UNEP, and Standard & Poor's and KPMG both produce an international benchmark of corporate sustainability reporting regularly. For regular news on sustainability reporting, see www.enviroreporting.com/.

7

Economics



'The Earth as a whole is approximately in a steady-state. Neither the surface nor the mass of the earth is growing or shrinking . . . None of this means that the Earth is static – a great deal of qualitative change can happen inside a steady-state, and certainly has happened on Earth. The most important change in recent times has been the enormous growth of one subsystem of the Earth, namely the economy, relative to the total system, the ecosphere.'

HERMAN DALY

In 2005, South Korea passed a law requiring all retailers to charge customers for items that are ‘one-use’ disposable items, such as paper cups and plastic bags. The results were significant: the use of paper bags decreased by 24% as many Koreans now bring their own shopping bags to stores and their own cups to cafés to avoid the charges. By putting a price on waste, the South Korean government created economic incentives for environmentally friendly behavior. These regulations impact sustainability through the channel of economics.

Although economics is often blamed for creating the unsustainable world we live in, it plays an important role in sustainability. Economics is a tool that helps us to understand how we got where we are now, and more importantly, how to move forward. It helps to explain the unintended incentives present in society that increase unsustainable behavior, and can help us change these to incentives that support the desired, more sustainable behavior.

Economics is also the study of how people choose to use resources. Scientists agree that drastic action is needed to save the planet and, if we are serious about doing that, we need to reshape the way that we use these resources. The good news is that economists are starting to explore opportunities to do just that by creating mechanisms that assist organizations in internalizing these costs so that buyers and sellers can make decisions based on complete information about products and services, as well as understanding the broader social and environmental consequences of the consumption of these products and services.

Why is it important?

- ***Because the world is changing.*** The context in which organizations are doing business is rapidly changing. Where before the USA, Europe, and Japan were the leading economies, today

there are many other players in the world, including developing and emerging markets. This is creating a more complex business environment with increased risks, but also increased opportunities for business.

- ***Ecosystem services.*** Nature provides many freely available benefits such as erosion control, climate regulation, and pollination, not to mention freshwater, forests, and wetlands. Ignoring the environmental impacts associated with economic growth will result in these resources becoming more costly for business.
- ***Understanding regulatory and market-based instruments.*** Many problems in sustainability, such as externalities, represent market failure where the production or use of a good or service by the free market is not efficient. The mechanisms being put into place to address these market failures will directly affect businesses.
- ***Better understanding of the full cost of business and society's decisions.*** The costs of activities are not always borne by the parties directly involved, which often results in consumers demanding more of a particular good or service than they would if they had to pay a price that included the full costs.
- ***Increased regulations and standards.*** Organizations will be faced with an increase in regulations and standards that they will have to comply with from the local to the global level.

The key concepts

Economics is about understanding the incentives in place to pursue unsustainable behavior and in particular how to change these to support more sustainable behavior. It is also about understanding the wider environment in which business operates and how this is changing.

- The rise of consumer societies → *Sustainable consumption*
- The way we manage shared resources → *The commons*
- Understanding the costs a company's activities have on people and planet → *Externalities*
- Using market forces as a way to protect the planet → *Market-based incentives*
- Re-evaluating the way we measure progress → *Re-evaluating GDP*
- The impact of emerging markets on global sustainability → *Emerging markets*
- Understanding the value of biodiversity → *Box: Environmental valuation*
- Working with the bottom of the pyramid → *Box: Business and the world's poor*

Sustainable consumption

Consumption patterns have been growing rapidly because of population growth combined with the rise of a culture of consumerism. It is estimated that there will be 9 billion people in 2050, which represents a huge increase in the number of consumers. Globalization and increasing economic power are giving more and more of these consumers access to an increasing number of products and services. A significant amount of GDP is accounted for by consumer spending on goods and services. However, the resources needed to support these global consumption patterns are putting unsustainable pressures on the Earth's ecosystems and on human social systems and wellbeing.

Several tools and indices have emerged to measure and track the state of the world's ecosystems. The Ecological Footprint, for example, measures how much land and water area a human population requires to produce the resources it consumes and to absorb its wastes, using available technology. This technique can be used to calculate

the footprint of an individual, a city, a business, a nation, or the whole planet. Today, humanity uses the equivalent of 1.5 planet Earths to provide the resources we use and to absorb our waste. Since the mid-1980s, humanity has been in ecological overshoot with annual demand on resources exceeding what the Earth can regenerate each year. It now takes the Earth one year and six months to regenerate what we use in a year. If we continue with business as usual, by the early 2030s it is estimated that we will need two planet Earths to keep up with humanity's annual demand for goods and services.

The problem obviously is that we don't have two planet Earths, we only have one. But with that one planet, if we change our lifestyles and consumption patterns we can free up the resources needed to support humanity. As the WWF Living Planet Index Report states, 'there are many effective ways to change course. While technological developments will continue to play an important role in addressing the sustainability challenge, much of what needs to be done is already known, and solutions are available today.'

Consumers are increasingly concerned with the negative effects that products they consume have on their health and on the environment, as well as the impact of the production process on the environment. As a result, sustainable consumption policies and initiatives are broadening to take into account the effects of processes as well as products, and the provision of services as well as goods. The need for policies that foster sustainable consumption has been recognized as a priority at the international level.

The Ecological Footprint (www.footprintnetwork.org). The WWF Living Planet Index Report is a periodic update on the state of the world's ecosystems (www.wwf.panda.org). The Marrakech Process is a global multi-stakeholder process to promote sustainable consumption and production (www.unep.fr/scp/marrakech). The World Economic Forum also does work on this topic (<http://www.weforum.org>).

The commons

According to the UN, over 80% of the world's fisheries are in jeopardy of collapse due to over-fishing. Restrictions are not working because fish are accessible to everyone, and it is difficult to prevent fishermen from taking all the fish they want. In this situation everyone races to catch as many fish as possible, reaping all the benefits of this natural resource but paying none of the costs. In the long run, when fish are caught faster than they can reproduce, this will result in no more fish for anyone. A 'commons' is a geographical area not owned by any private person or legal entity, and any natural resources contained in a commons thereby belong to everyone. These natural resources include the things that we inherit – such as nature, air, and water. Often, people will misuse or overuse resources that are freely available, making them increasingly scarce. This is referred to as the 'tragedy of the commons.'

How to manage the commons has always been an issue of debate. Some say a Chamber of Commons is needed to regulate and protect the commons. Others try to put a financial value on the commons (see Environmental Valuation). Some of the debates raise the question of whether these common assets which are already being bought and sold in the market – such as trees, water, and fish – are being responsibly managed on behalf of the general public who are the 'owners' of these assets.

Tradable permits are one option for protecting the commons. The European Union defines these as 'an economic policy instrument under which rights to discharge pollution or exploit resources can be exchanged through either a free or a controlled permit-market.' For example, in the case of fisheries, New Zealand put in place a quota management system to manage its fisheries in a sustainable way. Once it was determined how many fish could be caught without depleting the fish population, this number was divided up into quotas and given to companies. Companies own the quotas, and are allowed to sell or trade them. The result is that they are treated with the same respect as any other valuable asset. Today, approximately 80% of fish

stocks are at or near target levels of sustainable harvest and the total allowable catch for some fish species has even increased.

Another example is from the island of Bali in Indonesia. Rice farmers have been coordinating their use of scarce water for centuries through social networks built around 'water temples,' where they meet to discuss water allocation issues. Modern analysis shows that the way they allocate water is close to ideal. However, in the 1960s the government decided to intervene, bypassing the temples and hiring hydrologists to install modern water systems and introduce heavy pesticides. The result was a disaster, so much so that in the end the government let the farmers return to their original system.

The commons does not just refer to environmental systems. Knowledge and culture created by society are also part of the commons. Some companies are exploiting traditional knowledge, for example in relation to medicinal and agricultural plants, and creating products for which they are awarded exclusive rights under patent laws (this practice is known as bio-piracy). For example, the Hoodia cactus plant in South Africa – which has been used for centuries by the Kalahari San bushmen to suppress hunger – was patented by a pharmaceutical company and developed into an appetite-suppressant drug. The pharmaceutical company eventually returned the patent to the South African Council for Scientific and Industrial Research. In response to incidences of bio-piracy, databases and archives such as the Traditional Knowledge Digital Library in South Asia have been constructed to try to stop bio-piracy by establishing 'prior art,' which disallows patents on anything that has been disclosed to the public in some form.

Creative Commons provides tools to let creatives mark their work with the freedoms they want it to carry (www.creativecommons.org). On The Commons is dedicated to exploring the ideas and action about the commons (www.onthecommons.org). *The Gridlock Economy* by Michael Heller explores how too much

private ownership can create a gridlock rather than wealth. The Eco-Patent Commons is an initiative to create a collection of patents on technology that directly or indirectly protects the environment, available free of charge (www.wbcd.org/web/epc). For an interesting video explaining the commons, see YouTube (search term: ‘The Commons, video nation’).

Externalities

A company deals with costs and services that have a value set by the market in the normal course of business. For example, if a company needs to clean up a polluted site, the cost is processed through the traditional accounting system. However, the company’s activities also give rise to external costs, known as externalities, which relate to the effects that the company’s activities have on the environment and on people. For example, if a company releases untreated water into a nearby river, this has a detrimental effect on both the ecosystem of the river and those communities that rely on the river to survive. In most cases, these costs (cleaning up the river, helping the people) are currently absorbed by society as a whole, instead of by the company that damaged the environment. In contrast, an externality can also be positive. For example, if a landowner chooses not to develop his or her land and in doing so preserves a local water source for an aquifer, the landowner usually won’t get any economic benefit from the decision, but society does.

Externalities are important to consider because the costs or benefits to the company are often different from the costs or benefits to society as a whole. For example, if the cost of polluting is not borne by the polluters, then they will feel no economic motivation to reduce their discharge of waste. If the price of water is set below the true cost to society of using this resource, this will produce incentives to use excessive amounts of water. Because these costs and benefits are paid by society as a whole, private economic actors (individuals

and corporations) cannot make appropriate and correct calculations about whether it makes economic sense to go ahead with an activity. In this sense, externalities are often considered a form of market failure, since the amount of activity carried out by private parties in a free market will result in an inefficient use of resources.

Economists are interested in externalities as a market failure for theoretical reasons (e.g., because they can help us to understand how markets work in different societies) and practical reasons (e.g., because market failures justify the intervention of government through legislation, regulations, and other tools that work through the market). Accounting for externalities is not an easy task because in many cases the extent of the impact is either unknown or difficult to measure. Even when it can be identified, there are significant challenges related to measuring and quantifying the impact to society and the environment. The most efficient solutions have been to work with the private companies and individuals to internalize externalities through mechanisms such as taxes and compliance costs.

The Coase Theorem is about the economic efficiency of an economic allocation in the presence of externalities. ExterneE is a project by the EU on externalities (www.externe.info). UNPRI does work on how externalities affect investors (www.unpri.org).

Market-based incentives

There is a growing realization that one way to reverse the trend of environmental decline and protect many of our common resources on Earth is to use market forces. The idea is that certain unsustainable behaviors of firms or individuals are caused by a lack of economic incentives to pursue sustainable behavior. For example, landowners who have a wetland or an endangered species on their land may be providing a service to society by choosing not to develop their land, but in the process are losing the financial

opportunity associated with developing that land. In response to this, market-based instruments (MBIs) are being created to provide financial incentives aimed at protecting the environment by altering market prices, setting limits on resource use, improving the way a market works, and creating a new market where one previously didn't exist. In the case of the landowners, they can collect payments or 'credits' from the conservation of the land, and can then sell these credits to developers who are looking to offset the harm they have caused to the environment. About US\$3.4 billion of regulated biodiversity offset transactions currently occur per year, a number which could grow to US\$10 billion by 2020.¹²

Although not all MBIs fit neatly into a single type, there are broadly three types: price-based, quantity-based, and market friction.

1. **Price-based instruments** work by changing the prices of goods and services to reflect their relative impact on the environment by either adding or removing a tax or fee. The advantage of these mechanisms is that a company knows how much it will cost to comply, but the overall environmental outcome can be uncertain. These can take several forms:

- **Taxes** not only generate the revenue needed to mitigate the negative impacts, but also raise the price of the good or service in question, thereby decreasing the demand. This can be in the form of charges, fees, or user charges.
- **Subsidies** in the form of a payment or tax concession can help encourage changes in behavior that reduce pollution. For example, a subsidy could be offered for the purchase of clean technology in order to achieve a reduction in overall pollution levels.
- **Charges** can be imposed to encourage companies or individuals to change behavior. For example, by charging a volume- or weight-based fee to dispose of garbage, companies can be encouraged to minimize the total waste they produce.
- **Deposit-refund systems** include schemes where a buyer pays an upfront charge in addition to the price of the product,

which is then refunded when the product is returned. One common example of this is the beverage container deposit scheme, which is usually introduced to encourage the return of drink containers for recycling.

2. **Quantity-based instruments** involve creating markets for the right to undertake an activity that has a negative environmental impact, such as discharging pollutants into a river or the air or for the right to have access to a scarce resource, such as water. These are used when there is a measurable target that needs to be achieved. As opposed to the price-based instruments, these provide certainty regarding the environmental outcome, but not for the cost to industry of achieving that outcome.
 - **Tradable permits (cap-and-trade)** involve determining the amount of pollution that can be released, or how much of a resource can be sustainably used, and then issuing permits for that amount. Organizations can only pollute as much as the permits they own allow. If they put in place mechanisms that allow them to cut their pollution significantly, they can sell unused credits to other companies that perhaps have not been able to cut their pollution.
 - **Quota management** is a way to protect natural resources such as fisheries. Once the total amount of fish available to catch is determined, quotas are then given to fishers. One fisherman from the Alaskan halibut fishing industry said about the quotas put in place in that industry, 'Most fishermen will now support cuts in quotas because they feel guaranteed that in the future, when the stocks recover, they would be the ones to benefit.'¹³
 - **Offsets** are conservation actions designed to compensate for unavoidable impacts on the environment. For example, clearing native vegetation for a development can be offset by protecting another ecologically equivalent area of vegetation. These are usually only appropriate when the participant has first taken all available measures to avoid and minimize harm.

- 3. Market friction instruments** aim to influence how existing markets work in order to improve environmental outcomes. One example of this is through *product differentiation* in the form of certification schemes and eco-labels. Putting these on products enables consumer preferences to be expressed through markets. For example, the FSC label allows customers to choose products that are made of wood from sustainable forests, thus increasing the incentives for companies to produce such products (more on this in Chapter 11).

There are many potential advantages of MBIs. They can be more cost-effective for delivering environmental outcomes than regulations or other traditional methods, and often give better results. They provide flexibility for participants to choose how they will reach goals and to reduce pollution beyond targets. In that way they can act as a more positive influencer, leading to more long-term and self-sustaining solutions. However, markets themselves do not allow us to solve all problems. Markets are very complex and it can be difficult to predict the outcomes of certain initiatives. For this reason, different types of MBIs are currently being tested around the world, especially around carbon and increasingly around biodiversity and conservation.

Sources of information on conservation finance include WWF (www.worldwildlife.org/conservationfinance) and the Conservation Finance Alliance (www.conservationfinance.org). The WBCSD and IUCN have developed a free role-playing game called 'Buy, Trade, Sell' which shows how ecosystem markets work (www.wbcds.org). www.ecosystemmarketplace.com and www.ecosystemsproject.org have information on markets and payment schemes for ecosystem services. The Australian government also has a useful resource describing MBIs (www.marketbasedinstruments.gov.au).

Re-evaluating GDP

Economic progress is usually measured by gross domestic product (GDP). This represents the total dollar value of all goods and services produced over a specific time period. Although this can give a pretty good indication of the size of the economy, it does not include a number of factors that determine the wellbeing of people. As author Paul Hawken puts it, 'We have an economy where we steal the future, sell it in the present, and call it GDP.' There are also several problems with how GDP itself is measured. For example, GDP focuses on short-term economic activities rather than on developments in the assets of natural, economic, and social capital, which are more important from a long-term, sustainability perspective. Both the 'beneficial' activities that cause pollution and the costly activities necessary to clean up the pollution are counted toward a country's GDP. Cutting down trees and selling timber boosts GDP, but loss of forests does nothing to decrease it.

Studies often show that as GDP goes up, other measures are leveling off and even declining. For example, the New Economic Foundation's Happy Planet Index – which ranks a nation's progress based on the amount of the Earth's resources its inhabitants use and the length and happiness of people's lives – found that high levels of consumption do not necessarily guarantee happiness. As Herman Daly, one of the founders of Ecological Economics, puts it, 'economic growth may already be making us poorer rather than richer.'¹⁴ In response, several alternatives have been presented which look at economic, environmental, and social wellbeing. These include:

- **Green Net National Product (GNNP).** GDP less the costs of degradation and depletion of natural resources.
- **Genuine Progress Indicator/Index of Sustainable Economic Welfare (GPI).** Personal consumption expenditures plus the value of 'unpaid' work, capital services, and education less the costs of inequality, crime, pollution, loss of leisure, unemployment, and natural capital depletion.

- ***Regional Quality of Development Index***. Attempts to identify and connect the components of development quality based on environmental sustainability, promotion of rights, and quality of life.
- ***Wellbeing Index (WBI)***. Goes beyond GPI; this index also incorporates measures of civil freedom, security, biodiversity, health, justice, and self-sufficiency.
- ***Human Development Index (HDI)***. Averages three indices reflecting a country's achievements in health and longevity (life expectancy at birth), education (adult literacy and school enrolment), and living standard (GDP per capita in PPP terms) (hdr.undp.org/en/statistics).

Several countries have moved to exploring these alternatives to GDP. According to the Center of Bhutan Studies, 'GDP is heavily biased towards increased production and consumption, regardless of the necessity or desirability of such outputs, at the expense of other more holistic criteria . . . Indicators determine policies. The almost universal use of GDP-based indicators to measure progress has helped justify policies around the world that are based on rapid material progress at the expense of environmental preservation, cultures, and community cohesion.' Bhutan came up with 'gross national happiness' (GNH). The idea is that a country should not sacrifice elements important to people's happiness to gain material development, so GNH focuses on not just flows of money but also access to healthcare, free time with family, conservation of natural resources, and other non-economic factors (www.grossnationalhappiness.com).

The Beyond GDP project in the EU looks at improving measures of progress, wealth, and wellbeing and has a long list of potential alternatives (www.beyond-gdp.eu). Redefining Progress is a think-tank based in the USA that is looking at sustainability indicators at the national, regional, and community level (www.rprogress.org). See also the Happy Planet Index (www.happyplanetindex.org).

Emerging markets

The global economy is changing from one that was dominated primarily by a few countries, to one where there are a larger number of global economic powers coming from developing and emerging economies. Developing world economies will account for nearly 60% of world GDP by 2030 according to the OECD. The big emerging markets include Brazil, China, Egypt, India, Indonesia, Mexico, Poland, the Philippines, Russia, South Africa, South Korea, and Turkey.

Emerging markets are crucial players in sustainability for many reasons:

- **Talent.** People have become one of the most highly sought after and valuable resources on Earth, fought over by multiple competitors. Of the 438 million people to be added to the global workforce by 2050, 97% will come from developing countries.
- **Resources.** With increased levels of business comes increased competition for resources such as energy, commodities, and raw materials. Since 2000, these economies have been responsible for 85% of the increase in world energy demand.
- **New consumers.** With up to a billion new consumers in these emerging markets, there are plenty of opportunities to grow market share. Emerging economies will account for more than half of global consumption by 2025.
- **Because they are growing.** From the emerging economies, there are now more than 70 companies in the Fortune Global 500 list of the world's biggest companies, a number that is rapidly growing as these companies expand and acquire new businesses. Many everyday brands in Western markets are owned by companies in the developing world (e.g., Tetley in the UK is owned by Tata in India).

Emerging market companies fit into the following categories:

- **Fully fledged globalizers** tend to be older, more established companies that have attained a scale and geographic span on

a par with big Western multinationals (e.g., CEMEX in Mexico, SABMiller in South Africa).

- **Regional players** aim to break out of their domestic market in search of greater scale, often fixing their sights initially on neighboring markets (e.g., Vina Capital from Vietnam are expanding into Southeast Asia).
- **Global sourcers** are interested principally in selling to their domestic market but, because of resource constraints at home, they source internationally.
- **Global sellers** primarily manufacture or source at home, but are seeking new consumer markets abroad in order to increase sales.
- **Multi-regional niche players** tend to be smaller companies operating across multiple regions in niche sectors, usually on the basis of innovative technology or processes.¹⁵

Where traditionally communication was a one-way street, with help in the form of aid going from developed to developing countries, and developed countries holding the power in terms of business relations with developing nations, it is increasingly the other way around, in particular when it comes to sustainability. There is a growing range of innovations coming from emerging markets, driven by two factors. First, the cumulative performance of these companies matters because emerging markets in total are set to contribute more than three-quarters of global growth by 2025. Second, those very regions will increasingly be the ones feeling the pressure of resource depletion the most.

Companies in emerging markets are increasingly proving to be leaders in this field because:

1. **They innovate continuously to turn constraints into opportunities.** Rather than focusing on expensive research into new technologies they focus instead on making products cheaper, more widely available, or better suited to local production processes while also turning constraints in delivery channels into opportunities. They are doing this by:

-
- *Using fewer resources.* Shree Cement in India which, when faced with limited access to low-cost energy, developed the world's most energy-efficient manufacturing process and set a global benchmark in cement production.
 - *Turning resource constraints into opportunity.* Broad Group in China, a large producer of air chillers, uses alternative energy sources such as waste heat from buildings to power its range of non-electric air-conditioning units.
 - *Educating customers.* Jain Irrigation in India uses dance and song to explain the benefits of drip irrigation to local communities, which not only allows them to sell effectively but also to work collaboratively with local communities.
 - *Giving access to financial assets.* Kenya's Equity Bank uses mobile phone technology to enable it to reach small farmers in rural Kenya by partnering with Safaricom to use the M-Pesa financial services platform.
2. ***They embed sustainability into their company cultures.*** Companies in these regions are also exploring how to make sustainability an integral part of how they do business.
- *Define a bold vision.* In Egypt Sekem, an organic food producer, uses organic farming as a way to reclaim desert land, producing food for the local market and reinvesting the profits into the community. Sekem also shares profits with the small-holder farmers in its network.
 - *Integrate it into operations.* Masisa, a wood products manufacturer in Chile, developed a balanced scorecard on sustainability.
 - *Engage their staff.* Natura in Brazil invests heavily in staff training on identifying socio-environmental challenges and turning them into business opportunities.
3. ***They proactively shape their own business environments.*** Companies in these regions recognize that in order to have a larger impact they need to engage the wider business system

of regulators, competitors, suppliers, customers, and other stakeholders.

- *Influence policies and standards, especially those operating in weak regulatory regimes.* Grupo Balbo, an organic sugar producer in Brazil, is working to turn the entire sugar industry in Brazil into an organic sector.
- *Partner to achieve mutual goals.* New Britain Palm Oil in Papua New Guinea works closely with local NGOs to engage with local communities.
- *Raising awareness of the importance of sustainability.* Suzion in India, a wind power producer, helps shape the debate locally in wind power and works to educate policymakers.¹⁶

There are a growing number of emerging market countries actively participating in international agreements and organizations, as well as a wide range of emerging market-specific sustainability indexes such as the SSE Social Responsibility Index in China, the Korea Stock Exchange SRI Index, the S&P ESG Index in Egypt, the BMV Sustainability Index in Mexico, and the S&P ESG Pan Arab Index. Countries in these regions are becoming global leaders in certain areas of sustainability. For example, South Africa, as discussed in Chapter 6, is a global leader in integrated reporting. Nevertheless, the challenge will be to see how emerging countries and companies in these countries choose to embrace sustainability in their operations at home and abroad. As *The Economist* asks, ‘could the rise of the new champions reflect the advance of bad forms of capitalism at the expense of good forms? . . . How can western firms compete in countries where bribes are seen as an ordinary cost of business?’ There are many other uncertainties about emerging markets, in particular local governments and their attitude to the rule of law. ‘Will theft of intellectual property be punished? Will lax regulatory enforcement allow your company’s supply chain to be contaminated?’¹⁷

Developing Value: The Business Case for Sustainability in Emerging Markets (www.sustainability.com/developing-value). Accenture has a publication with more information, called Multipolar Business World (www.accenture.com) as does the World Economic Forum (www.wef.org).

Challenges?

- ***Uncertainty.*** Uncertainty is present in how we value all environmental and social problems, as well as the policies that are being put in place to address these problems. Any analysis that fails to recognize this runs the risk of not only being incomplete but also misleading.
- ***Free riders.*** Free riders are those who don't take on their fair share of responsibilities, but who benefit from those that others take on. Free riders in the field of sustainability take the form, for example, of firms that sign up to international initiatives and use the logo but who fail to pay their dues or follow the requirements listed for membership.
- ***Everyone needs to do their part.*** In order for sustainability to move forward, businesses need to do their part but so do consumers, buyers, government, and other actors.
- ***Determining the tradeoffs.*** Although we would like to believe that all sustainability initiatives are win/win, the fact is that many are not in the short term. This leads us to have to make tradeoffs in our daily decisions and daily lives. How much are we willing to pay? What are we willing to do? How far are we willing to go?
- ***Getting incentives right.*** Reportedly, only a small fraction of houses being rebuilt in New Orleans after the hurricane meet new stricter building codes. Better-built houses are more likely to survive a storm, but the builders and homeowners know the

government will pay them to rebuild if it happens again. This is referred to as moral hazard, ‘where people behave differently if they are insured against risk. In this case you have a moral hazard when people choose to build in disaster proven areas because they don’t have to take on the full cost of their decisions.’

- ***Determining what ‘optimum’ means.*** If you were to ask environmentalists, they would say that the optimum level of pollution is zero, but economists don’t necessarily see it that way. Pollution is a byproduct of many things that we value and, therefore, some amount of pollution is warranted. For example, even renewable energy produces some quantity of pollution. The question therefore is, how much is optimum?

Trends and new ideas

- | | |
|--|-------------------------------------|
| – <i>Alternative trading systems</i> | – <i>From free to fee</i> |
| – <i>A new economic model</i> | – <i>Valuing future generations</i> |
| – <i>Estimating the cost of inaction</i> | – <i>Regulatory instruments</i> |

Alternative trading systems

The Seikatsu Club Consumers’ Cooperative Union won the Honorary Right Livelihood Award in 1989 because it was a form of ‘alternative economic activity against industrial society’s prioritization on efficiency.’ This network, made up of Japanese housewives, has approximately 600 consumer cooperatives with 2 million members in Japan. The cooperative takes advance orders from its members for daily goods such as eggs and milk, and thus is able to ensure proper sourcing and good prices. It also works together to ensure the right quality by refusing to purchase products that are detrimental to the environment or human health. The club has gone beyond providing daily goods such as eggs and milk to providing other services such as recycling, health, education, and childcare.

Other models exist where goods and services are traded without money, also referred to as Local Exchange Trading Systems. Members earn credit by providing a good or service that they can later use to pay someone else from the network to provide them with a different good or service. Transactions are recorded in a central location that all members have access to. These are being used to support local businesses and strengthen communities. Banco Palmas in Brazil works with the country's official currency and a social currency issued by the bank called the Palmas currency. The bank is owned and managed by the community and offers loans for productive activity to stimulate local enterprise and consumer credit, including a local Palmacard credit card, for products and services produced inside the community. Their intention is to create a local financial system based on a network of producers and consumers.

Ashoka Changemakers and the Banking on Social Change competition (www.Changemakers.net). There is a growing number of communities creating their own local currencies, all with slightly different approaches (http://en.wikipedia.org/wiki/Local_currency). Also take a look at the work of Time Banks (timebanks.org), Our Goods (ourgoods.org), and Skillshare (www.skillshare.com).

A new economic model

The conventional neoclassical economic model is based on perpetual growth and is seen as the way to achieving wellbeing. The news media have been full of articles describing how it took just a few days for governments to abandon decades of economic doctrine to try to rescue the financial system. Why shouldn't it take as long to introduce a plan for a new, more relevant economic model?

In October 2008 UNEP and leading economists launched the Green Economy Initiative, which ‘will encourage and enable economic, planning, finance, labour, environment, and other policy-makers to support increased investments in environmental assets and green production while ensuring a fair and just transition towards a green economy.’ The ambitious plan calls on world leaders to promote a massive redirection of investment away from the speculation that has caused the bursting ‘financial and housing bubbles’ and into job-creating programs to restore the natural systems that underpin the world economy. Its mission is to communicate a global plan for a green industrial revolution to be supported by strong and convincing evidence of income generated, decent jobs created, and poverty reduced through investing in a new generation of assets including: ecosystems (or environmental infrastructure), clean and efficient technology, renewable energy, biodiversity-based products and services (such as organic foods), chemical and waste management and mitigation technologies, and green cities with ecologically friendly buildings, construction, and transport systems. All this could create millions of green jobs.

For more on the Green Economy Initiative visit (www.unep.org/greeneconomy). Also take a look at some of the winners of the Nobel Prize in Economics who have been exploring sustainability (www.nobelprize.org/nobel_prizes/economics/laureates). Several organizations are also looking at new economic models, including the Foundation for the Economics of Sustainability (www.feasta.org), Center for the Advancement of the Steady State Economy (www.steadystate.org), and the New Economics Foundation (www.neweconomics.org). Also take a look at the work by the Ellen Macarthur Foundation around circular economy (www.ellenmacarthurfoundation.org).

Estimating the cost of inaction

One of the areas slowing down global action in sustainability is the perceived high cost of taking action. In response, there has been an increased effort to calculate the costs of not taking action in areas such as water and sanitation, clean air, and climate change. A report submitted to a UN biodiversity conference in 2008 said mankind was causing US\$68 billion of damage to the planet's land areas every year, through factors including pollution and deforestation. The UNEP Finance Initiative estimates that environmental costs from global human activity cost about US\$6.6 trillion estimated annually, with US\$2.25 trillion of that caused by the 3000 largest publicly listed companies. The 2006 Stern Report put a £2.3 trillion price tag on the consequences of ignoring climate change. It said, 'The costs of action to the global economy would be roughly 1 percent of GDP, while the costs of inaction could be from 5–20 percent of GDP.' The OECD also published a report that looked at the costs of inaction on a range of key environmental challenges such as air and water pollution, natural resource management, environment-related industrial accidents, and natural disasters. For example, the costs of natural disasters (e.g., floods, hurricanes, earthquakes, etc.) to the poorest countries are estimated to be as much as 13% of annual GDP. A KPMG study showed that environmental costs have risen 50% from 2002 to 2010 for 11 industry sectors. Although the cost of taking the required action today seems significant, many agree that the costs if we take action today are trivial compared to how much this will cost us in the future.

Stern Review on the Economics of Climate Change (www.hm-treasury.gov.uk/sternreview_index.htm), OECD Costs of Inaction Project (www.oecd.org/env/costofinaction), UNEP's Costs of Inaction Initiative (www.unep.org), and the Global Environmental Outlook (www.unep.org/geo).

From free to fee

We've seen plastic shopping bags move from being a free handout to one that consumers are required to pay for in some countries. In the past, many naturally occurring resources were free (fish, water, and air to name a few). Future generations will increasingly be living in an environment where these same resources will be priced. It is easy to imagine new housing developments that use the clean air and water in their neighborhood as an important selling point. The opposite is also starting to happen; sustainable products that were once more expensive to produce will become increasingly less expensive as the materials they use are more readily available and savings from reducing the use of chemicals, petroleum, and other expensive inputs start to show.

Valuing future generations

If valuing current generations and their environmental needs wasn't difficult enough, policymakers also have to contend with how to value future generations. The question then arises – how much should be reserved for the needs of the future when making decisions that affect us today? In calculating the costs of greenhouse gas reductions one needs to see how these compare to the benefits of the reduced risk of climate change many decades, even centuries, into the future. Should a dollar spent today to prevent climate change weigh equally against a dollar in benefits 100 years from now?

This is where discount rates come in. They are increasingly important and used in cost-benefit analysis and long-range environmental planning. The decision of which rate to choose can have serious implications; higher discount rates make investments less attractive, while lower discount rates make them appear more attractive. For example, if we estimated the benefits of climate change mitigation at approximately US\$1 trillion 100 years from now, and we used a discount rate of 5%, that US\$1 trillion would only be worth

US\$7.6 billion today. Instead, if we choose a rate of 0.1% then that US\$1 trillion 100 years from now would be worth over US\$900 billion today, more than 100 times the amount. The Stern Review chose 0.1% per year to calculate the present value of the benefits of climate change mitigation for future generations. Many environmentalists argue that the discount rate should be zero because it is immoral to value our wellbeing over that in the future. There is no correct discount rate.¹⁸

Read *What Environmentalists Need to Know About Economics* (2008) by Jason Scorse and Nobel Laureate Robert Salow's essay on 'Sustainability: An economist's perspective explores the idea of future generations.' The Long Now Foundation looks at long-term thinking (longnow.org). UNPRI have also been doing some work on discount rates (www.unpri.org).

Regulatory instruments

The regulatory framework within which companies operate is extensive and complex. As governments become increasingly conscious of environmental concerns and the public demand action, companies are faced with a growing number of regulations that they must comply with. The situation becomes even more complex for companies that conduct business across borders where regulations can differ from one jurisdiction to the next, often significantly.

Enforcement of these different mechanisms varies depending on the nature and location of the regulation. Many have their own dispute-settlement mechanisms. The European Commission is exploring plans to take environmental offences to criminal courts. Infringers could face jail time for dumping toxic waste or illegally trading endangered species, for example. The US EPA has

also launched an environmental crimes fugitive website to assist law enforcement agencies and the general public in finding fugitives who have violated environmental laws. At the international level, the International Court of Justice is one mechanism that can be used. However, often the most effective is public and political pressure.

Ecolex is a database of information on environmental law at the international and national levels (www.ecolex.org). The Centre for Environmental Law (www.ciel.org), International Court of Justice (www.icj-cij.org), and the Centre for International Sustainable Development Law (www.cisdl.org) also work in this area. Guidance for compliance with multinational environmental agreements can be found at www.unep.org and www.inece.org. NetRegs helps smaller businesses navigate laws affecting their activities. An increasing number of voluntary standards have been developed to fill the gaps which currently exist in regulations. Many of these are explored in the different relevant sections of this book.

Want more?

The World Bank Environmental Economics and Indicators has many resources, including the *Little Green Data Book*, available free online (www.worldbank.org). Other sources include the International Society for Ecological Economics (www.isecoeco.org), Vox (www.voxeu.org), World Economic and Social Survey (www.un.org/esa/policy/wess), and Environmental Economics – Economists on Environmental and Natural Resources (www.env-econ.net).

Read: *Common Wealth: Economics for a Crowded Planet* by Jeffrey D. Sachs (2009), which argues that the crises facing

humanity are daunting. *Capitalism as if the World Matters* by Jonathon Porritt (2005) looks at whether capitalism can be retooled to deliver a sustainable future. *Limits to Growth* and *Limits to Growth: The 20-Year Update* by Donella H. Meadows, Jorgen Randers, and Dennis Meadows (1972 and 2004) look at the consequences of a rapidly growing world population and finite resource supplies. *Ecological Economics* by Herman E. Daly (2008) addresses fundamental flaws in conventional economics. *Small is Beautiful* by E.F. Schumacher (1973) critiques Western economics. *The Natural Advantage of Nations* by Karlson Hargroves and Michael H. Smith (2005) looks at how it is possible and profitable to achieve sustainable development in our lifetimes. *Enough is Enough* by Rob Dietz and Dan O'Neill (2013) looks at how to create a new kind of economy.

Environmental valuation

'Is it true that the service of pollination, provided mainly by bees for free, is estimated to be at least worth US\$ 4 billion a year to the agricultural sector in the US alone? Or that coral reefs provide ecosystem services vital to off-shore fisheries and shoreline protection worth as much as US\$ 600 000 per square kilometer? Or that the world's protected areas (accounting for only 12% of total land surface) sustain a rapidly growing eco-tourism sector, support local livelihoods, and overall produce benefits for society in excess of US\$ 4 000 billion a year? The answer is yes, but there is the paradox: 20% of the world's coral reefs and 35% of all mangroves have been destroyed, and two-thirds of all ecosystem services degraded, some perhaps beyond repair.'

WBCSD¹⁹

(continued)

Despite growing awareness about the importance of ecosystems and biodiversity, as well as commitments by the international community to significantly reduce the current rate of biodiversity loss, ecosystems continue to be mismanaged, misunderstood, and destroyed. As stated by the World Bank, ‘There are many reasons for the gap between aspiration and reality. One of the most important is that economic policies and markets generally fail to value biodiversity or the conservation of ecosystems. With few exceptions, there is little financial reward for conserving biodiversity, nor much penalty for destroying it.’²⁰

Businesses often place zero value on natural assets and natural systems. For example, a fishing fleet counts the cost of vessels, fuel, people, and transportation, but it treats fish as free. This can lead to a ‘tragedy of the commons’ problem: as fish become scarcer, they become more valuable, which encourages more fishing. Valuation is difficult, because typically neither the economic value nor the degradation of these services is included in the market price. At the same time, the alternate goods and services needed to replace them – such as water treatment plants in the case of water – do contribute to GDP, which can be rather misleading.

Valuing natural resources may seem straightforward; one only has to consider market transaction prices. However, market prices do not cover the true value of these resources, or the broader ecosystems of which they are part. For example, an ecosystem service plays a significant role in many transactions, as breeding grounds for fish and barriers for storms, or the role of biodiversity in water and air purification. Ecosystems provide a range of services, including:

- **Provisioning** – in providing goods such as food, water, raw materials, and medicinal resources.
- **Regulating** – in regulating biophysical processes and controlling natural processes such as climate and air quality and erosion prevention.
- **Cultural** – by providing recreational, aesthetic, or spiritual value.
- **Habitat or supporting** – in providing habitats for species and maintaining genetic diversity.

Markets are likely to undervalue ecosystem services if these are not in some way quantified and recorded. Only then can these values be

used when deciding on alternative uses of ecosystems or the activities that will impact them. The following criteria are often looked at when calculating total economic value:

- **Direct use value.** Ecosystem goods and services that are used directly by humans, for consumptive uses such as harvesting food, timber, or fuel, and non-consumptive uses such as recreational and cultural activities.
- **Indirect use value.** Ecosystem services that provide benefit outside the ecosystem itself, for example natural water filtration, storm protection function of mangrove forests, etc.
- **Option value.** Derived from preserving the option to use ecosystem goods and services in the future that are not used in the present.
- **Non-use value.** For the enjoyment people may experience simply by knowing that a resource exists even if they never expect to use that resource directly.

The Millennium Ecosystem Assessment (MEA) and TEEB are two groups that have been working to assess the state of ecosystem goods and services and work toward valuing these. The MEA used cost-benefit analysis as the main method for valuation. Typically, this determines the costs of a project as well as the benefits then translates them into monetary terms. Projects with benefits that outweigh the costs generally move forward. However, this type of analysis may be misleading, as the true or total value is not included. Although costs are often known, environmental benefits often lack market value. Benefits are often collected over time, while costs are upfront. As a result, it is often difficult to understand what is being measured or to determine values for what is being measured.

Companies are taking a comprehensive approach, assessing their impacts and dependencies on ecosystems to provide a fuller picture. Tools often used include the Ecological Footprint (explored in the Introduction) and Lifecycle Assessment (explored in Chapter 12). Dow Chemicals partnered with The Nature Conservancy to link the value of nature's services to its business decisions and strategies as well as create a range of tools that could be used by other

(continued)

companies. Puma looked at the impacts, both direct and indirect, that ecosystem services have on its operations and supply chain and produced an Environmental Profit and Loss Statement.

A wide range of tools exist to assist in this area, including cost-benefit analysis, sustainable value added, and triple bottom line reporting. Two of the most commonly used tools are:

- The Environmental Input–Output Model, which looks at an organization’s flow of goods and services. It looks at how organizations are linked together, since they use products and/or services from other organizations to produce their own goods.
- Ecosystem Service Valuation, which looks at how the values of ecosystem services will change as a consequence of a project. Valuation includes looking at market values such as the sale of fish caught, but also non-market values.

An assessment can make use of several methods to determine the value of a benefit. The decision of which one to use usually comes down to the time and resources available, and can include:

Direct market methods . . .

- ***Market Price Method.*** Estimates economic values for ecosystem products or services that are bought and sold in commercial markets. For example, a cultural site could be valued based on the entrance fees collected.
- ***Damage Cost Avoided, Replacement Cost, and Substitute Cost Methods.*** Estimate economic values based on costs of avoided damages resulting from lost ecosystem services, costs of replacing ecosystem services, or costs of providing substitute services. For example, the costs avoided by providing flood protection.
- ***Preventive Expenditure Method.*** Based on actual expenditure incurred to prevent, eradicate, or reduce adverse environmental effects.
- ***Productivity Approach.*** Estimates economic values for ecosystem products or services that contribute to the production of commercial goods. For example, the benefits of different levels of water quality improvement would be compared to the costs of reductions in polluting runoff.

- ***Benefit Transfer Method.*** Estimates economic values by transferring existing benefit estimates from studies already completed for another location or issue. For example, an estimate of the benefit obtained by tourists viewing wildlife in one park might be used to estimate the benefit obtained from viewing wildlife in a different park.

Revealed preference methods . . .

- ***Hedonic Pricing Method.*** Uses information from a surrogate market to estimate the implicit value of an environmental good or service. For example, housing prices can be used to estimate how much extra people are willing to pay for residential property in areas free from traffic.
- ***Travel Cost Method.*** Estimates economic values associated with ecosystems or sites that are used for recreation. The value of a site is reflected in how much people are willing to pay to travel to visit the site.

Stated preference methods . . .

- ***Contingent Valuation Method.*** Estimates economic values for virtually any ecosystem or environmental service. It asks people to directly state their willingness to pay for specific environmental services, based on a hypothetical scenario.
- ***Contingent Choice Method.*** Estimates economic values for virtually any ecosystem or environmental service based on asking people to make tradeoffs among sets of ecosystem or environmental services or characteristics. It does not directly ask for willingness to pay – this is inferred from tradeoffs that include cost as an attribute. For example, a person would state their preference between various locations for a landfill.²¹

Once companies have collected this information they can then use it to plan their strategy moving forward.

- Optimize resource use to minimize environmental degradation, such as making commitments to reduce resources across the life-cycle of your products and services in the present and looking at how to continue to do so into the future (e.g., Unilever’s commitment to sourcing 100% sustainable palm oil by 2020).

(continued)

- Invest strategically in conservation and restoration, for example companies that depend heavily on water are investing in watersheds to avert water scarcity that could drive up costs.
- Engage your value chain to bring solutions to scale, for example SAB Ltd engages hop growers in the Eastern Cape region of South Africa to conserve water in the agricultural supply chain, which makes up more than 90% of the water consumed in the beer value chain.
- Build natural instead of manmade infrastructure, for example putting funds into maintaining a wetland near a processing or manufacturing plant can be a more cost-effective way of meeting regulatory requirements than building a wastewater treatment facility.
- Leverage new natural capital markets and investment tools, for example by exploring payments for ecosystem services.
- Join forces through collaboration and collective action.²²

Want more?

The Economics of Ecosystems and Biodiversity is a leading source of information in this area (www.teebweb.org). The EU has put together a list of valuation studies (www.europa.eu). The World Resource Institute's 'Corporate Ecosystem Services Review' is also a good reference (www.wri.org). Ecosystem Valuation describes how economists value the beneficial ways that ecosystems affect people (www.ecosystemvaluation.org). Several organizations such as the World Bank, WBCSD, the Millennium Ecosystem Assessment, the IUCN, UNEP, and the Global Environment Facility are working on valuing ecosystem services as well as Natural Capital Project (www.naturalcapital.org) and the World Resources Institute Ecosystem Services Experts Directory (projects.wri.org/ecosystems/experts). Other networks of interest are the Network for Business Sustainability's Measuring and Valuing Environmental Impacts (www.nbs.net) and the Valuing Natural Capital Collaborative Project (www.corporateecoforum.com/valuingnaturalcapital). The Natural Capital Declaration brings together banks, companies, and countries to develop the field of natural capital valuation (www.naturalcapitaldeclaration.org).

Business and the world's poor

'Beside their philanthropic efforts and their policy influence, companies can contribute significantly to meeting the development goals through their core business operations, either by involving the poor in their supply chain activities, or by supplying appropriate products and services to improve people's livelihoods in developing countries.'

WBCSD

In the year 2000, the world's leaders came together and signed the Millennium Development Goals; 8 goals related to poverty, education, health, and gender issues for the world to work together to reach by the year 2015. In 2012 the international community came together again to discuss the targets post-2015. The Millennium Development Goals are to:

1. Eradicate extreme poverty and hunger.
2. Achieve universal primary education.
3. Promote gender equality and empower women.
4. Reduce child mortality.
5. Improve material health.
6. Combat HIV/AIDS, malaria, and other diseases.
7. Ensure environmental sustainability.
8. Develop a Global Partnership for Development.

Business's contribution to the achievement of these goals has been through partnerships, aid donations, and other philanthropic activities, but increasingly its impact has been through a focus on exploring business opportunities directed at and working with the world's poor by creating opportunities for them to improve their own lives. As stated by the WBCSD, 'business is good for development and development is good for business.'

Market-based approaches to poverty reduction focus on enabling opportunity rather than providing aid. Traditionally there has been an assumption that the very poor are unable to help themselves and therefore need charity and aid. However, as the World Resource Institute (WRI) writes, the fact is that even within the poorest communities there are still commerce and market processes.

(continued)

‘A market-based approach thus focuses on people as consumers and producers and on solutions that can make markets more efficient, competitive, and inclusive – so that the BOP (Base of the Pyramid) can benefit from them. It looks for solutions in the form of new products and new business models that can provide goods and services at affordable prices.’

Who are they?

The ‘base of the pyramid’ is an expression that refers to the 4 billion low-income consumers who constitute the foundation of the economic pyramid. BOPs are generally ‘not integrated into the global market economy and do not benefit from it.’ They are often rural, very poorly served, dominated by informal economy, and as a result relatively inefficient and uncompetitive. According to the WRI they share the following characteristics:

- ***Significant unmet needs.*** Many have no bank accounts, no access to modern financial services, phones, water and sanitation services, electricity, and basic health care.
- ***Dependence on informal or subsistence livelihoods.*** Most lack access to markets to sell their labor, handicrafts, or crops and therefore have no choice but to sell to local employers or middlemen, who often exploit them.
- ***Impacted by a BOP penalty.*** Many in this segment actually pay more, either in terms of cash or effort, to obtain basic goods than most in developed countries.

	Market size (US\$)	Population (%)	Buying power (%)
Africa	429bn	95	71
Asia	3.47tn	83	42
Eastern E	458bn	64	36
LA and C	509bn	70	28

Source: The World Resource Institute’s *The Next 4 Billion: Market size and business strategy at the base of the pyramid.*

Why?

Business is increasingly interested in the world’s poor for several reasons:

- ***Companies realize they can make a difference.*** Companies have the potential to make a positive impact in communities and influence the business environment, support international norms relating to corruption and human rights, share know-how, and engage in multi-stakeholder dialogues.
- ***Part of a long-term strategy.*** Companies are starting to see the need to break out of mature markets and include this large potential market as part of their company's growth strategy.
- ***Vast amount of opportunities.*** Over 2 billion people live on less than US\$2 per day and by 2050, more than 90% of the world's population will be living in developing countries. Individuals with incomes below US\$3000 in local purchasing power represent a US\$5 trillion global consumer market, those between US\$3000 and US\$20 000 a US\$12.5 trillion dollar consumer market.
- ***Conditions are improving.*** Often the necessary conditions for doing business – such as transparency, effective legal systems, low levels of corruption, and efficient government bureaucracy – remain poor in many countries (e.g., in Djibouti it takes 185 days to incorporate a business compared with 3 days in Canada). Although there are still challenges with working in certain markets, countries are investing time and effort to strengthen their governance, legal structures, and investment structures.
- ***Better partners available.*** There are an increasing number of partners – such as not-for-profits, foundations, and multilateral organizations – that are not only willing but also able to work with the private sector in these BOP markets.
- ***Public expectations of companies are changing.*** Communities and consumers are expecting companies to become more involved in issues such as poverty alleviation and be accountable for the impact they have on developing countries.
- ***Transfer lessons learnt to and from other markets.*** Working in these new markets can bring about innovative ideas and products that can be used in other developing and emerging markets in which a company operates.
- ***Building better capacity locally and internationally.*** Building better communities creates better employees, partners, etc. but also enhances the skills and knowledge of employees and companies.

(continued)

How?

Companies are getting involved in development and poverty alleviation in several ways:

- **By collectively engaging** in public policy dialogues and through national or international coalitions, such as the Global Business Coalition Against HIV/AIDS and the UN Global Compact.
- **By buying products or services from the poor** as suppliers, employers, and distributors. Companies such as Unilever and Starbucks are working with small-scale producers to source raw materials.
- **By providing products and services** companies are providing access to pro-poor financial services (Citigroup, Deutsche Bank, Credit Suisse), information technology (Microsoft, Dell, IBM), water and energy (EDF, Suez, General Electric). Health care companies are engaged in R&D initiatives, preferential pricing, and product donations.
- **Through community investment** companies continue to donate money into communities to help strengthen them and empower entrepreneurs.
- **By creating innovative business models** that reach and are accessible to the world's poor.

Companies are currently developing and testing new ideas and business models to work with the poor across the full value chain of the company, from R&D, raw material sourcing, production, distribution, and marketing to consumption. According to C.K. Prahalad and Stuart L. Hart, authors of *The Fortune at the Bottom of the Pyramid* (2002), 'Doing business with the world's 4 billion poorest people . . . will require radical innovations in technology and business models. It will require MNCs to re-evaluate price–performance relationships for products and services. It will demand a new level of capital efficiency and new ways of measuring financial success. Companies will be forced to transform their understanding of scale, from a "bigger is better" ideal to an ideal of highly distributed small-scale operations married to world-scale capabilities.'

DuPont Thailand had a program that donated lunches to pupils in rural locations. It decided to treat the program as a marketing opportunity in order to find ways to expand the program beyond the two schools with which they were working. In 2002 they identified several schools to run a farming program using DuPont corn seeds, materials, and farming supervision. The crops were sold to local dealers earning

the school over US\$10700, which was invested back into their lunch programs. DuPont invested US\$5600 in the project and exceeded sales forecasts in the region for similar seeds as local farmers had seen the success of that particular variety of corn in their area.

Many businesses, such as P&G, have already learnt numerous lessons about the challenges of entering these markets. Based on conversations with UNICEF, the company decided to provide products with micronutrients like iodine and iron that children in certain countries were missing and that were key to their growth. In 2000 P&G launched a product called NutriStar, a low-cost, powdered milk drink with micronutrients. It was launched in the Philippines using strategies similar to those used to launch other products in developed markets, including a campaign to educate people on the benefits. However, a local competitor copied the product, without all the nutritional content, and sold it at a lower price. They built on the demand produced by P&G for a product with micronutrients, but did not provide the same product. Despite this, P&G has continued to develop their NutriStar range.

Some things to keep in mind:

- **Focus on core competencies.** Focus on what the company does well and build from there. Often it requires a shift in mindset. Look for business and non-business partners locally who could handle those competencies that your business lacks across the supply chain, including helping to understand what the real needs of the market are.
- **Focus on high standards.** It is key that businesses live up to high standards in these new markets. There is sometimes a low level of trust in business in these areas, so companies need to make a real, honest effort.
- **Start early as it takes time.** Allocate resources and R&D into testing new business models and ideas on the ground. Also, review what your company has done before as there could be expertise hidden away internally.
- **Provide unique products and services.** This either means creating new ones that are appropriate to BOP needs, or adapting an existing product. This also includes enabling access to these goods and services through innovative packaging strategies (e.g., single use), novel distribution strategies (e.g., service rather than product), and financing options (e.g., prepayment, collective billing systems, or incentives for paying).

(continued)

- **Localized value creation through franchising.** Through agent strategies that involve building local ecosystems of vendors or suppliers, local entrepreneurs, and SMEs. Local phone entrepreneurs and resellers, mini-hydropower systems, community-based water treatment systems.
- **Don't just rely on market research.** Businesses interested in reaching these markets need to immerse themselves in the lives of their target customers in order to understand challenges relating to access, awareness, affordability, etc.
- **Two-way learning.** There is a lot that companies can learn from these communities. Keep an open mind.

Want more?

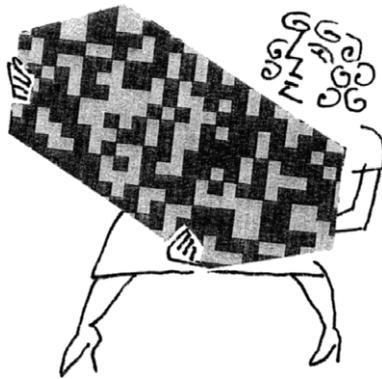
- For more on the Millennium Development Goals and the post-2015 discussions, see www.un.org/millenniumgoals and www.unmillenniumproject.org. The World Resource Institute's *The Next 4 Billion* looks at market size and business strategy at the base of the pyramid (www.nextbillion.net). For more on business and development, see the WBCSD programs and publications on development and sustainable livelihoods (www.wbcsd.org).
- The World Bank has several resources including Poverty Reduction Strategy Papers that help to identify which agency to work with and understand the development priorities (www.developmentmarketplace.org). See also www.doing-business.org, which provides information on doing business in countries across the world.
- **Read:** *The Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits* by C.K. Prahalad (2004), which looks at the immense untapped buying power of the world's poor. *The Next 4 Billion: Market size and business strategy at the base of the pyramid* (2007) looks at the 4 billion low-income consumers at the base of the economic pyramid.

'Business cannot succeed in a society that fails.'

BJORN STIGSON, WBCSD, PRESIDENT

8

Entrepreneurship



'The social entrepreneur wouldn't be happy just to give someone a fish or teach them to fish – they'd want to reinvent the fishing industry.'

BILL DRAYTON, ASHOKA

While large companies usually receive the majority of attention, it is the small and medium-sized enterprises (SMEs) that make up 90% of all businesses in the world, and are responsible for between 50% and 60% of total employment. They are the fastest-growing part of the economy and account for the major share of exports and the bulk of new jobs in most countries. SMEs are responsible for providing the products and services that larger companies rely on. They are also largely responsible for innovation. The Babson Center for Entrepreneurship in the USA estimates that in the last hundred years, 95% of the significant innovations in products and services came from firms with fewer than 20 employees.²³

SMEs in many cases are leading the way in sustainability. Because of their small size they are often more nimble and able to adapt quickly to sustainability practices. There is a major need for new, innovative business ideas and services and often SMEs are better positioned than larger companies to provide these. In addition to SMEs, there are a growing number of entrepreneurs both outside and within organizations, who have the ability to identify underserved markets and come up with innovative ideas to provide new sustainable products and services, either for profit or not for profit.

Why is it important?

- ***Innovation.*** There are opportunities and demand for a growing number of new more sustainable products, services, and technologies. SMEs and entrepreneurs are in an ideal position to explore and develop these opportunities.
- ***Building a stronger business.*** Many of the points introduced in the business case introduction are just as relevant to SMEs as they are to large companies, perhaps even more so. Sustainability policies and practices can help a small company identify and manage risks, cut costs, explore new revenue-generating

opportunities, find, retain, and have more productive staff, and increase efficiency.

- ***Business partners are asking for it.*** For those SMEs that supply, or want to supply, larger companies, these larger companies are increasingly looking to work with companies that share their social and environmental values. Failing to take these issues seriously can result in a loss of business opportunities.
- ***No longer invisible.*** Gone are the days when SMEs could slip under the radar. Laws and regulations that once mostly affected larger companies are starting to apply to smaller ones as well.
- ***Flexibility.*** SMEs are able to respond to the changing business environment with greater speed and flexibility, meaning they will be able to integrate sustainability directly into their business plans more efficiently.
- ***Reach and opportunities.*** SMEs and entrepreneurs may be able to identify and reach markets and groups that are currently not being effectively reached, resulting in new opportunities. This is especially true with the growing number of active social entrepreneurs working around the world.
- ***Influence.*** SMEs can have an important impact on larger companies. There are many examples now where SMEs with a strong sustainability culture have been bought by larger companies who are interested in capturing and diffusing their approach to sustainability.

The key concepts

SMEs have a potentially large impact because of their sheer numbers. As there are so many different types of SMEs, there are several different ways these groups are having an impact and can benefit from sustainability. While the key concepts presented below are all important for SMEs, it is worth noting that the other chapters in this book are equally applicable.

- Entrepreneurs focused on large-scale change → *Social/environmental entrepreneurs*
- What are the different options for new companies? → *Exploring new business models*
- Working from inside a company as an entrepreneur → *Making changes from within*
- Exploring new business opportunities that are sustainable → *Generating ideas*
- Finding money for new sustainability ventures → *Funding*
- Toward success → *Box: Some advice for entrepreneurs*
- Democratic businesses → *Cooperatives*

Social/environmental entrepreneurs

Although the definitions of what exactly constitutes a social entrepreneur vary, the term ‘social entrepreneur’ is used to refer to people who create businesses, both big and small, where social and environmental issues are at the core of their business offerings. According to the Skoll Foundation, social entrepreneurs ‘seize opportunities that challenge and change forever established but fundamentally inequitable systems.’ The Schwab Foundation refers to a social entrepreneur as a leader or pragmatic visionary who:

- Achieves large-scale, systemic, and sustainable social change through a new invention, a different approach, a more rigorous application of known technologies or strategies, or a combination of these.
- Focuses first and foremost on the social and/or ecological value creation and then tries to optimize the financial value creation.
- Innovates by finding a new product, a new service, or a new approach to a social problem.

According to the Skoll Foundation, the difference between standard and social entrepreneurship does not come down to motivation – with entrepreneurs spurred on by money and social entrepreneurs driven by altruism. ‘The truth is that entrepreneurs are rarely motivated by the prospect of financial gain, because the odds of making lots of money are clearly stacked against them. Instead, both the entrepreneur and the social entrepreneur are strongly motivated by the opportunity they identify, pursuing that vision relentlessly, and deriving considerable psychic reward from the process of realizing their ideas.’ Instead, they say the real difference lies in the value proposition itself. Social entrepreneurs aim for value in the form of large-scale, transformational benefit that accrues either to a significant segment of society or to society at large.

There are many examples of social enterprises working around the world. The microcredit movement introduced further in Chapter 10 is one of the best-known examples. Another is Riders for Health, created by the Grand Prix motorcycle racing community. This enterprise looks to tackle a simple yet critical element of the African healthcare system: transportation. By providing motorbikes and maintenance support services, Riders for Health have extended the reach of healthcare providers to 11 million Africans. The founder of Sammaan, a rickshaw company in India, found that over 90% of rickshaw drivers were illiterate, unable to purchase their rickshaws, and made very low salaries. The new rickshaw company has worked to improve the lives of its drivers by redesigning the rickshaws to include, among other things, a mobile shop that stocks newspapers, water, and mobile recharge coupons to increase the revenue opportunities of the drivers. Drivers are provided with free uniforms, a savings bank account, free insurance, and even free evening classes for drivers and their children.

The book *The Power of Unreasonable People* notes that successful social entrepreneurs:

- Try to shrug off the constraints of ideology or discipline.
- Identify and apply practical solutions to social problems, combining innovation, resourcefulness, and opportunity.

- Innovate by finding a new product, a new service, or a new approach to a social problem.
- Focus – first and foremost – on social value creation and, in that spirit, are willing to share their innovations and insights for others to replicate.
- Jump in before ensuring they are fully resourced.
- Have an unwavering belief in everyone’s innate capacity, often regardless of education, to contribute meaningfully to economic and social development.
- Show a dogged determination that pushes them to take risks that others wouldn’t dare.
- Balance their position for change with a zeal to measure and monitor their impact.
- Have a great deal to teach change-makers in other sectors.
- Display a healthy impatience (e.g., they don’t do well in bureaucracies, which can raise succession issues as their organizations grow – and almost inevitably become more bureaucratic).

There are several foundations actively working to advance social entrepreneurship, including Social Enterprise UK (www.socialenterprise.org.uk), the Skoll Foundation (www.skollworldforum.org), the Schwab Foundation (www.schwabfound.org), Ashoka (www.ashoka.org), Acumen Fund (www.acumenfund.org), and Institute for Social Entrepreneurs (www.socialent.org). Startuplab connects entrepreneurs with founders of successful startups for advice and learning (www.mystartuplab.com). CoFoundersLab is a matchmaking app that connects entrepreneurs who are interested in starting new ventures (www.cofounderslab.com). Also take a look at the Unreasonable Institute (unreasonableinstitute.org). The Global Social Venture Competition is a global MBA student business plan competition. Winners get mentorship, exposure, and cash prizes (www.gsvc.org).

Read: *Design Your Life, Change the World* (<http://www.profmichaelgordon.com/DYL.pdf>).

Exploring new business models

A number of companies are exploring completely different ways of doing business to be more sustainable, reinventing the business model, and looking at how business can do what it does differently. Throughout the book we look at quite a few examples of this, for example product service systems in Chapter 12, which looks at turning a product into a service or companies that take garbage and turn it into new products.

Many SMEs are in a perfect position to question the way we currently do business and to come up with innovative new ways of doing business. The Soap Dispensary in Vancouver, Canada, has eliminated all packaging and invites customers to instead bring their own or buy containers that can be filled with a variety of soaps, household cleaners, and other ingredients. Guayaki, while marketing yerba mate as an alternative to coffee in the US market, is enabling the reforestation of the Atlantic Forest in Paraguay, Argentina, and Brazil, which has been largely cut down over the past 30 years. Guayaki's business model is that they partner with local communities, paying them for the sustainable harvest of shade-grown yerba mate. In return, the farmers must repopulate their rainforest with native hardwood trees. Since the income provided by yerba mate is higher than that from cattle, there is an incentive for local communities to protect and reforest the area.

Rethinking the business model is not just happening with small companies. There are a growing number of larger companies that are also exploring alternative business models as a way to deliver their services, including incorporating aspects of social and environmental ventures. Cemex, a global leader in the building materials industry, created a program in Mexico called 'blockeras comunitarias,' where people who want to build a home can use Cemex cement and a block-making machine to produce bricks. One out of every two bricks goes to the person producing it; the other is taken by Cemex to be sold, which enables the project to remain economically sustainable. The program is so well accepted that people often need to wait up to two months to use the machine.

This model is now being replicated in other countries that the company operates in. Another example is a partnership between two organizations, Grameen Bank and Danone Foods. They paired up to create a unique community-based joint venture in Bangladesh, which is based on social and environmental concerns and operates in parallel but independently from the rest of the company. In 2006 they launched a yoghurt product called Shoktidoi designed to provide for the nutritional needs of Bangladeshi children at an affordable price that can be bought by even the poorest families. The plant hires local workers and relies on developing microfarms which supply raw materials used to produce the yoghurt. The business provides income to more than 1600 people within a radius of 30 km around the plant. The plant has a rainwater recovery system and the yoghurt pots are made of a material that is entirely biodegradable. Profits are reinvested in the initiative.

Different countries are exploring new alternatives to register companies that consider themselves social/environmental ventures. Slovenia recently passed a Social Entrepreneurship Act which gives special status to social enterprises that employ at least two employees and generate at least 50% of their total revenues from social entrepreneurship activities, or a business where at least one-third of all employees come from the most vulnerable groups in the labor market.

Forum for the Future is doing some work around sustainable business models (www.forumforthefuture.org). WWF Green Game Changers Bank provides links to case studies of different business models (www.wwf.org.uk), as does the WBCSD (www.wbcsd.org).

Making changes from within

Entrepreneurs are not just individuals working outside an organization to develop new ideas. Individuals can also become entrepreneurs from within a company or organization, an idea referred to

as intrapreneurship. Intrapreneurs develop and promote practical solutions to environmental and social challenges within the organizations they work for, regardless of size.

Companies, in particular larger ones, although often slow to change, can bring about significant weight when they do change. Employees working for these companies are in a unique position to push for change as they have a good understanding of the inner workings of the company. Working from within can give them access to resources, such as people and finances, to make a difference. It also enables them to incubate their social idea at lower risk than if they were to go at it on their own. If the idea becomes successful, they have helped drive the future success of the company.

This whole book provides a range of tools for individuals within businesses and organizations to develop new ideas and see how they can apply sustainability to their own businesses and be an intrapreneur. Several ways of engaging employees, in particular around sustainability, are presented in Chapter 13.

Companies are finding that promoting and supporting intrapreneurship from within can bring about potentially substantial advantages. Because of this they are looking at ways to encourage intrapreneurship by providing employees with the space, time, and resources to test out new ideas, empowering individuals to make decisions, and making risk-taking and failure acceptable. It is often not about creating intrapreneurs as they surely already exist in the organization, but about finding them and helping them. Some companies have created more structured ways of empowering intrapreneurs:

- ***Provide space (time and resources) for employees to test out new ideas . . .*** Google allocates 20% of employee time to innovate and the remaining 80% to work on improving existing projects.
- ***Create more structured roles in the company for intrapreneurs . . .*** Companies such as Dell have formalized the role of the intrapreneurs with official positions such as ‘Entrepreneur in Residence’ or ‘Chief Innovation Officer.’
- ***Have internal competitions . . .*** At movie company Dreamworks staff are trained on how to pitch new ideas, whether it involves

creative input for a new film or adding a new food choice to the cafeteria.

- ***Encourage collaborations across departments . . .*** 3M allows employees to use 15% of their time as ‘innovation’ time. The condition is that they need to share their insights with others across the company.
- ***Create an in-house venture capital pool or grant program to help fund intrapreneurial ideas . . .*** LinkedIn launched ‘InCubator,’ which is an internal startup incubator where engineers get 30–90 days away from their regular work to develop ideas for their own products. The program is highly structured, with rounds of judging including a final round with the CEO to filter ideas for the most viable and potentially profitable new products.
- ***Celebrate and reward intrapreneurial behavior . . .*** through a range of mechanisms including awards, recognition, and/or financial incentives such as profit sharing.

Companies are also looking for entrepreneurs outside the company and giving them the opportunity to work with and within the company. This can be by acquiring new companies or by creating a space for internal initiatives to grow on with some or a lot of independence. Many companies have discovered the advantages of having teams, also known as ‘skunk works,’ working apart from the main, bureaucratic engine of the company on new projects. This freedom allows them to be creative in ways they could not from within the company’s mainstream structures. Companies have explored several different ways of fostering new enterprise development from within their organizations:

- ***Islands.*** This involves initiatives being incubated away from the mainstream business so that they can enjoy a degree of freedom. One of the best ways to do this is to work from a separate building.
- ***Bridges.*** Some projects will have clear but relatively loose links to the host company, often enjoying more freedom than traditional business units. Shell’s wind division in the North Sea was physically located outside corporate headquarters but with

access to Shell's capital and other resources. Their companies and brand give them access to resources they wouldn't enjoy as a traditional entrepreneur.

- ***Symbiosis.*** Intrapreneurs that incubate their initiatives right inside the host organization. Unilever's Shakti program looks at increasing market share in rural villages in India by providing women with training in selling, commercial knowledge, and book-keeping. These women can then choose to set up their own business or become Shakti distributors. This department sits at the center of Hindustan Unilever's sales department and is completely integrated into the business.

This book is full of resources for intrapreneurs within any type of company of any size. Look within the different sections of the book for more ideas and tools.

Generating ideas

Small businesses usually think about how to reach new markets before anyone else does, and typically move faster. So how do they find their inspiration? Entrepreneurs need to ensure that they are targeting real opportunities. Some tips on identifying these include:

- ***Put sustainability at the center right from the start.*** Taza Chocolate in the USA makes chocolate from all organic and fair trade-sourced ingredients. They make their chocolate in small batches using traditional stoneground techniques and have incorporated sustainability into all aspects of the business, from sourcing to operations.
- ***Put a sustainable spin on something that currently exists.*** This involves turning an already existing business into a 'green' one. Whole Foods Market is a food store that sells natural and organic products. It started as one small store in 1980 in Texas and now has hundreds of stores in the USA, Canada, and the UK.

- ***See something that you think can be done better.*** Sometimes the idea already exists, but with some tweaks it can be reinvented to make it much better. Clif Bar, an industry leader in all-organic energy bars, began with the founder being frustrated by the taste of the available energy bars. He thought he could make a better bar. Two years later, Clif Bar became a reality and today they focus on continually improving their products, their company, and the planet.
- ***Identify a need that can be better fulfilled.*** Many entrepreneurs simply see a need for something and come up with innovative ideas on how to better fill that need. The founder of Adventerra Games saw a need for fun activities to get kids and their families excited about saving the Earth. The result is a small company that invents, produces, and distributes board games in four different languages that help children and their families learn about the planet and how they can make a difference by changing their behaviors and habits.
- ***Operate in a sustainable way.*** The business does not sell ‘green’ products per se, yet as part of its mission is working in the field of sustainability. UKOS, an office equipment supplier in the UK, was initially skeptical about sustainability. They started by joining a local network that looked at resource efficiency to see if there were ways they could save on resources like gas and electricity. This led to realizing that they could differentiate themselves from their competitors by being more environmentally friendly.
- ***Understand environmental laws, regulations, and standards as drivers.*** Current regulations on pollution, safety, product content and performance, labeling, reusing and recycling, and protection of endangered habitats and species can all present substantial business opportunities for those who know how to identify and assess them. The lengthy time it takes for these to come into effect often presents a window of opportunity during which time entrepreneurs can judge whether a profitable business will result.
- ***Exploit new demand for sustainable technology.*** Reducing the volume and toxicity of waste and developing products

made from secondary materials, also known as clean tech, have become big business.

- ***Change the way a product is presented.*** Several entrepreneurs have chosen to sell their food from mobile trucks rather than restaurants. Gmonkey, a 100% vegetarian food truck in the USA, uses resources directly from local farms in its products while Organic Falafel food truck Liba uses leftover cooking oil as bio-diesel fuel for traveling.
- ***Create the environment for others to be more sustainable.*** GreenEarth Cleaning, founded in 1999, is now the world's largest solution provider for environmentally friendly dry cleaning. Customers have the choice to use environmentally safe dry cleaning processes. It is now used by quality dry cleaners operating more than 1 500 stores worldwide and works with companies such as P&G, GE, and Sanyo.
- ***Identify a resource that is currently being underutilized.*** Several companies are identifying resources that aren't being fully utilized and turning those into new business opportunities. In France old refrigerators are collected, fixed, and resold by disadvantaged youth, a business that took 4 years to become profitable but is now doing well. Whip Car is a company where individuals with cars they don't use often can register their cars online and others who are looking to rent a car for an hour or even a few days can connect and rent those cars directly from the owners.

There are many websites and books to help take your ideas to reality. One is Entrepreneurship, a website which assists nations in developing the environment to allow entrepreneurs to organize and operate a business successfully (www.entrepreneurship.org). Ecopreneurist is a collection of regular blogs of green entrepreneurial ideas from around the world (ecopreneurist.com). Global Ideas bank is a website full of interesting ideas for social invention (www.globalideasbank.org).

Funding

As an entrepreneur, where you look for funding will depend to a certain extent on the chosen company structure (e.g., not for profit or for profit). There are a growing number of different financing options for sustainable companies. As with any new business, social enterprise funding sources are similar to those of traditional business ventures and can include:

- **Family and friends, or personal savings.** Often entrepreneurs start out by using their own resources and savings, or by taking loans from family and friends who believe in their vision.
- **Foundations.** A foundation is a not-for-profit group that gives out grants to other organizations and individuals. Each foundation chooses to fund based on different criteria. Some of the large foundations include the Rockefeller Foundation, Bill and Melinda Gates Foundation, David and Lucile Packard Foundation, MacArthur Foundation, and Ford Foundation. Foundations can be private individuals but increasingly are set up by companies, such as the Burberry Foundation.
- **Investment funds.** The Global Environment Fund invests in businesses around the world that provide cost-effective solutions to environmental and energy challenges. They have approximately US\$1 billion aggregate capital under management.
- **Partnerships and in-kind donations.** Funding does not just have to come in the form of cash, it can also come in the form of other kinds of resources including people or organizations donating time, office space, trading of services or products, or even advice. Combining forces with another entrepreneurial team can make your business case stronger and provide additional opportunities for financing from banks and investors.
- **Venture capital (VC).** Several large VC firms have special divisions focused on social, green, and cleantech ventures. In the not-for-profit sector, there are also social venture funds developing which operate similarly to traditional venture funds but expect a

different level of return. The Acumen Fund is a non-profit global venture fund that uses entrepreneurial approaches to solve the problems of global poverty. Green VC provides additional news and resources on green venture capital, funding, and start-ups.

- **Angel investors.** Angel investors are high-net-worth individuals with extensive business experience who invest in companies. They generally provide advice and a funding amount that bridges self-funding and large venture capital investments. These investors add value to the organizations they invest in because they bring expertise along with capital investment.
- **Business plan competitions.** There are a growing number of sustainability awards and business case competitions which have various prizes, including cash rewards, associated with them. For example, the Global Social Venture Competition is a global MBA student business plan competition for social ventures. Winners get mentorship, exposure, and cash prizes.
- **Government and local grants.** Government grants can be a good source of funds for starting social enterprises. Grant writing, application processes, and making deadlines can be challenging, so be sure to understand all requirements as early as possible. There are several websites that can be resources to finding available grants: www.businesslink.gov.uk has a well-defined grant section for UK businesses, www.grantslink.gov.au in Australia, and www.grants.gov can be a source for US-based start-ups. Many other countries have similar sites of their own.
- **Going public.** An IPO is a way for a privately owned SME to take in additional capital for growth. When Google went public, it included in the provisions of the original IPO that 1% of its equity, 1% of its profit, and 1% of its manpower would go to solving major world problems.
- **Company challenges.** A growing number of large companies involved in sustainability are looking for new ideas to invest in that could help the company moving forward. GE invited small businesses with innovative products in renewable energy, grid efficiency, and ecohomes/ecobuildings to compete in the

Ecomagination Challenge. Winners were provided with a US\$200 million capital pledge from GE and its venture capital partners, evaluation of the entrant's business strategy through in-depth discussions with GE's technical and commercial teams, exploration of partnership opportunities with GE to scale a business and create global reach, leverage of GE's technical infrastructure and global research centers to accelerate technology and product development, and the opportunity to utilize existing GE customer relationships for their go-to-market strategy.

- **Investing in individuals.** Around the world there are a growing number of organizations that provide small amounts of funding to individuals who have passion and an interest in social entrepreneurship, to enable them to start exploring their idea. This includes Unltd (unltd.org.uk), Pave (www.pave.com), and Echoing Green (www.echoinggreen.org).
- **Crowdsourcing.** A growing number of entrepreneurial ideas are being funded by the public. Kickstarter, for example, is a funding platform where since its start in 2009, more than 3 million people have pledged over US\$450 million to fund more than 35 000 creative projects. Mosaic connects investors to high-quality solar projects. Other similar sites exist for specific kinds of projects and entrepreneurial activities, including IndieGoGo, Quirky, Etsy, RocketHub, FundRazr, and PledgeMusic.

US International Grantmaking Project (www.usig.org). Investors Circle is a network of over 200 angel investors, professional venture capitalists, foundations, family offices, and others who are using private capital to promote the transition to a sustainable economy.

Read: Social Investment Task Force, *Social Investment Manual: A Guide for Social Entrepreneurs* (evpa.eu.com).

Challenges?

- **Resources.** Insufficient technology, expertise, training, and capital can be a barrier for SMEs interested in adopting environmental and social responsibility. The need to deal with more pressing matters – such as upgrading the quality of technology, management, and marketing – often prevents them from taking a more sustainable approach.
- **Part of the problem.** There is an increased recognition that many SMEs are part of the problem when it comes to unsustainable business practices. In many countries, environmental health and safety inspections of SMEs are either not required or are not being performed as rigorously as with large enterprises. Although one small business may not think that it can have any impact, collectively they can and do have a major impact.
- **Balancing priorities.** Finding time to incorporate sustainability practices into a start-up or SME can be challenging, as entrepreneurs and SMEs typically have a lot of things to be thinking about and seemingly never enough time to do them all.
- **Tailored initiatives.** There are a growing number of initiatives open to larger businesses focused on different sustainability issues. However, there is still a lack of initiatives tailored for small companies, although some organizations are starting to work on this (e.g., GRI reporting guidelines for SMEs).
- **Gaining recognition.** Most of the leaders we hear about in sustainability are those that have the time and budget to communicate their successes. The kind of sustainability practices which are common amongst SMEs, such as their role in the local community, also need to be celebrated.

Trends and new ideas

- *Merging and selling*
- *Microbusinesses*
- *Social stock exchange*
- *Working with big business*
- *Marketing on a shoestring*

Merging and selling

As the number of companies focused on sustainability continues to grow, these same companies are becoming more powerful and visible because of an increase in mergers and sales deals. We are seeing sustainability-focused companies coming together to create larger companies that are starting to be able to compete against the mainstream companies. For example, Ecover, a leading environmental cleaning company in Europe, and Method, a leading environmental cleaning company in North America, merged to create the largest environmental cleaning company in the world.

Founders of SMEs focused on sustainability are also seeing the opportunity to sell sometimes very young companies to much larger companies. Some larger companies interested in green business are choosing to buy green companies rather than reinvent the wheel. When Danone took over Stonyfield Farm, the CEO of Stonyfield Farm said he accepted the deal because he wanted to change Danone from inside in order to have a greater leverage on the food market. While Danone took an 80% share in Stonyfield Farm, they left him in complete control. Coca Cola bought a 58% stake in Innocent fruit juice company, hoping to learn more about its sustainability approach. This not only gave Innocent access to Coca Cola's network, but also enabled it to scale up its sustainability operations.

Microbusinesses

Microbusinesses are small businesses that can easily be replicated by following proven marketing and operational concepts. These

can sell for anything between US\$25 and US\$6000. For example, The HealthStore Foundation, based in the USA, gives healthcare workers in Kenya microloans to open their own for-profit Child and Family Wellness shops that distribute medical products and services to remote communities in Kenya. Applying the basic principles of successful franchising, the foundation then trains the franchisees in uniform procedures, carefully selects locations, and conducts regular inspections to ensure quality and consistency. The franchise can also exploit economies of scale to obtain safe and effective drugs at low costs. Microleasing is another opportunity available. In the case of Honey Care in Kenya, beehives are sold, or leased, to individuals who are also provided with basic training in bee-keeping, basic record-keeping, and management skills. The group also offers the farmers a stable and year-round market for their honey by agreeing to buy their honey at a guaranteed and mutually acceptable price for a period of 2 years or more, allowing farmers to plan ahead.

Social stock exchange

In order to develop strong social enterprises, large amounts of capital and support need to be made available. Therefore, organizations are starting to explore alternatives to the traditional stock exchange by putting in place exchanges that focus on developing social value rather than financial value. Global Exchange for Social Investment, launched in 2002, worked to create such a global social capital market by linking charitable donors, entrepreneurs, and investors in funding social businesses in low-income regions around the world. The Social Stock Exchange in Brazil, launched in 2003, brings together non-profit organizations with the São Paulo Stock Exchange investors who are interested in supporting those efforts. The South African Social Investment Exchange, launched in 2006, makes carefully selected social development projects available as investment opportunities with a social return. Investors can buy shares in SASIX projects and can track online how their investments are performing and view the impact they are having. Keep

an eye out for other social stock exchanges being developed in England, Germany, New Zealand, Portugal, the USA, and Thailand.

Working with big business

For businesses, working with entrepreneurs can be one of the most effective ways to explore and ultimately serve underserved markets. Enabling small, local firms to supply goods and services to larger enterprises creates more efficient supply chains by optimizing cost, quality, flexibility, and other considerations. This can also allow a larger company to gain the local knowledge and contacts required to operate effectively and profitably. It also encourages small companies to improve their standards and practices to meet the stricter requirements of the larger company. Often, larger companies include working with and supporting local SMEs as part of their sustainability initiatives. In 2007, HP globally invested US\$47.1 million (or 0.51% of pre-tax profits) in educational, economic development, environmental, and local community investment projects. There are several ways for large companies to work with SMEs:

- **Create links** with local SMEs in the different areas of the value chain; for example, procurements, agriculture, manufacturing, subcontracting, etc. Fortescue in Australia is committed to providing sustainable business opportunities to local Aboriginal people by allocating over US\$1 billion in contracts to Aboriginal businesses.
- **Work to strengthen the SME environment** and its role in local economic development by supporting their activities, providing financing, training centers, etc. COOP Italia, a large retailing enterprise, is helping its 350 SME suppliers to meet CSR standards by providing training and support. TriSelect, a French urban waste recycling business, offers distance learning for low-skilled employees to improve their knowledge of health and safety in the workplace.
- **Create new distribution networks.** Amanco worked with a farming cooperative in Mexico to develop a new distribution

system that enables it to sell its irrigation systems to small farms in poor rural areas.

- ***Deliver better-quality products.*** SC Johnson is the largest buyer in Kenya of pyrethrum, produced by some 200 000 subsistence farmers. SC Johnson worked with local organizations to provide these farmers with better access to manually operated irrigation pumps, which has not only helped the Kenyan farmers, but also ensured the long-term availability, quality, and lower cost of natural pyrethrum for SC Johnson products.

Marketing on a shoestring

In 1997, according to Interbrand, the Body Shop – which had less than 0.5% of the global cosmetic market – was the 28th most valuable brand in the world. How? These companies, who have today grown into international leaders, looked to market their products in whatever way they could, online, on-pack, in-store, through their positions on different issues (in this case animal testing), and through strong relationships with NGOs. Some common threads to the marketing approach of these companies are:

- ***Intuition led.*** Based on the founder's intuition and vision rather than on market surveys, finding innovative low-cost techniques to use because of tight budgets.
- ***Guerrilla marketing.*** Online, on-pack, and in-store campaigns where companies take strong stands on issues which, among other things, spotlight the controversial practices of their competitors and highlight the comparative benefits of their products. The Body Shop took a stand on animal testing, Ben and Jerry's took a stand on bovine growth hormones.
- ***Strong relationships with NGOs.*** Through charitable donations, cause-related marketing, joint campaigns, or activities in which they are involved.
- ***Limited use of mass advertising.*** Either due to cost constraints or the necessity to communicate a sophisticated positioning,

they remain consistent with their activist approach. Most companies have been reluctant to use ‘traditional’ forms of mass media advertising.

- ***Their communications focus on the high quality of their products and services.*** These companies go beyond social and environmental selling points (i.e., Patagonia’s outdoor clothes have a lifetime guarantee).
- ***Accountability and transparency.*** Ben and Jerry’s was the first company to voluntarily report on social performance in 1989.
- ***Using social media.*** Whether it is Twitter, Facebook, or Pinterest, social media platforms provide a growing range of ways to reach your target audience for free.

Want more?

- There are a growing number of resources specially tailored to SMEs on the subject of sustainability. For example, in the area of reporting, the Global Reporting Initiatives offer guidance and reporting guidelines for SMEs who want to create sustainability reports (www.gri.org). CPA Australia created a guide for assurance of SME’s sustainability reports (www.cpaaustralia.com.au).
- There are also many networks that SMEs can join (including all those mentioned in this book). Some are more tailored to small businesses, such as the Business Alliance for Local Living Economies which is made up of nearly 80 local networks of independent businesses in the USA and Canada (www.livingeconomies.org).
- The Efficient Entrepreneur is an online tool that provides practical advice on how SMEs can take steps to reduce costs, increase productivity, and satisfy clients while at the same time reducing business risks and protecting the environment

(www.efficient-entrepreneur.net). The Kauffman Foundation is one of the largest foundations devoted to entrepreneurship in the world (www.kauffman.org).

- World Bank Business Environment Snapshots provides information about how easy (or difficult) it is to do business in more than 200 countries (rru.worldbank.org).
- The Global Entrepreneurship Monitor (GEM) research program is an annual assessment of the national level of entrepreneurial activity (www.gemconsortium.org).
- Social Innovation Conversations brings social change ideas through audio lectures, speaker series, and conference recordings (sic.conversationsnetwork.org).
- The European Union has developed a documentation center for SMEs with examples of best practice (ec.europa.eu/enterprise/csr/sme.htm). SME Toolkit contains research by the IFC and IBM and offers resources to help small businesses in emerging markets grow and succeed (www.smetoolkit.org). Business and Development Network's SME resources can be found at www.bidnetwork.org. New Ventures, a program of the World Resource Institute, promotes sustainable growth in emerging markets (www.new-ventures.org).

Read: *How to Change the World: Social entrepreneurs and the power of new ideas* by David Bornstein (2004), which provides examples of people around the world who have found innovative solutions to a wide variety of social and economic problems. *The Power of Unreasonable People: How Social Entrepreneurs Create Markets that Change the World* by John Elkington and Pamela Hartigan (2008) shows how social entrepreneurs are solving some of the world's most pressing economic, social, and environmental problems.

Some advice for entrepreneurs

- ***Failure is an option.*** The fact is that the majority of entrepreneurial projects fail. If failure isn't an option, then there is no room for experimentation or risk or growth. Most successful entrepreneurs talk more about their failures and the lessons they learnt that enabled them to have some successes.
- ***Keep an open mind.*** Think as if there were no borders, no constraints. What could you do? Often companies spend their time trying to preserve the status quo rather than trying to open new markets.
- ***Money does matter.*** Whether or not you are starting a for profit, a not for profit, or a charity you still need to approach any new venture as a business. Even not for profits need money to operate.
- ***Focus on solving a problem, not selling a solution.*** Often people are quicker to recognize the problem than the value of a particular solution. Position your product or service as a solution to a particular problem that is easily recognizable by your target audience.
- ***There is no right or wrong way to do it.*** There is no one way to be an entrepreneur. There are no rules as to what you do and when you do it. For many people it is just something they have in them. The combination of personal drive and focus combined with a winning idea makes it happen.
- ***Focus on people.*** It doesn't matter how great you think your idea is, if people don't buy it, want it, or need it, it won't go anywhere. Without good people working with you, life will be difficult so treat your people well.
- ***Network.*** Almost every person that you speak to could possibly support your success through offering contacts, ideas, references, time, or even just an ear to allow you to practice speaking of your organization so that you are more effective in future conversations with investors.
- ***Continuous focus on your key priority.*** Whether it is getting members signed, selling the product . . . make sure this is a driver every day as all of the little stuff and side ideas can really distract from this key success factor.

- ***Do not be afraid to reposition based on new information gained.*** If it is discovered that the original idea is not the ideal solution, avoid becoming discouraged, focus on the specific area of problem or issue, and adjust it to become the ideal solution . . . continuously remolding the idea so that it achieves the driving goal.
- ***Don't do it alone.*** Great ideas are usually not developed alone, but with a partner. If it isn't a co-owner or formal partner, there at least has to be one person to brainstorm with who knows the plan as intimately as you do and cares about it almost as much. So much the better if they have good intuition in the areas you don't.
- ***Support.*** Many people with knowledge, connections, influence, or simply time to burn on Internet research want to help entrepreneurs. Find them; you don't have to do it all yourself.

Checklist for getting started . . .

- Identify a problem. What would you like to change? What do you think could be done better? What is missing?
- Think about many possible solutions. Have some of them already been started? Did they work? If they didn't, why didn't they?
- Pick a solution and devise a strategy. How are you going to sell that solution in practice?
- Think about all the strengths and weaknesses of the ideas.
- Build the business case. How are you going to be self-sufficient? Are you looking to make a profit? Will the profit be reinvested into the company?
- Explore the potential social and environmental impacts your solutions could have. Look at quantifying these.
- Assemble your team. Find a partner – two minds are usually better than one.
- Network and create partnerships. Which groups can help you bring your solution forward?
- Gather resources to get started, such as office space and initial cash.
- Many entrepreneurs and small businesses are also choosing to report. Of course, the scope and scale is not at the level of large companies. GRI has a special section for SMEs on sustainability reporting.
- Get working! If you succeed, congratulations. If you don't, learn from your mistakes and start again.

Cooperatives

'The resilience of cooperatives, including in times of crisis, testifies to the sustainability and adaptability of the cooperative enterprise.'

INTERNATIONAL LABOUR ORGANIZATION

The UN defines cooperatives as 'business enterprises owned and controlled by the very members that they serve.' A cooperative is a business like any other. It is subject to the same needs and demands. But, in several important ways, cooperatives are also unique and different. Most distinctly, a cooperative is created, owned, and democratically controlled by the people who use it – its members. For cooperatives, generating a profit is only part of the story. Cooperatives put people before profit by helping their members achieve their shared social, cultural, and economic aspirations.

Cooperatives seek to optimize outcomes for a range of stakeholders without seeking to maximize the benefit for any single stakeholder. In that way they are increasingly important builders of sustainability. They make significant contributions toward alleviating world problems such as environmental degradation and resource depletion, increasing inequality, and a growing global governance gap. In many cases cooperatives have been innovators in this area. For example, food cooperatives have provided important innovations in the areas of unit pricing, consumer protection, organic and bulk foods, and nutrition labeling.

Cooperatives also, by their very nature, internalize many of what economists would term 'externalities' (see Chapter 7 for more details). Governance based on balanced democratic control means a cooperative holds itself accountable for limiting impacts that might otherwise go overlooked. This makes it an interesting sustainable alternative to the typical viewpoint of a public or private enterprise.

There are over 1.4 million cooperatives around the world, with over 1 billion members. The largest 300 cooperatives account for over US\$2 trillion in turnover, equal to the 10th largest national economy. In India, the consumer needs of 67% of rural households are covered by cooperatives. 40% of African households belong to a cooperative,

and 250 million farmers in developing nations belong to a cooperative. In Finland, 62% of households are part of the S-Group cooperative. In New Zealand, cooperatives are responsible for 95% of the dairy market and the export dairy market and 70% of the meat market. Cooperatives are present in nearly all economic sectors, including agriculture and food, consumer and retail, industry and utilities, health and social care, banking and financial services, insurance and mutual, and a range of other services.

Mountain Equipment Co-op in Canada produces and sells a range of outdoor equipment and clothing. For CDN\$5 you get membership, which allows you to buy from stores located across the country. The business already has 3.3 million members. Mondragon – a worker federation cooperative in Spain involved in manufacturing, retail, and financial services and created to support employment for residents of the Basque region – is made up of more than 83 000 employees and 9000 students, making it a force to be reckoned with.

Because so many individual consumers as well as SMEs are members of cooperatives they have the potential for a significant impact on sustainability in the business sector, including but not limited to:

- **Reducing costs.** Several communities are putting into place wind-power cooperatives where local communities provide funding for a wind farm that then allows them to reduce their energy costs in the long term. In North Frisia, Germany, 90% of the 60 wind farms are community owned.
- **Empowering individuals.** The Vanlaxmi Women's Tree Growing Cooperative was organized by women farmers who had lost access to their land. The cooperative uses scientific agricultural practices, including horticulture, agro-forestry, drip irrigation, compost pits, and rainwater harvesting techniques in their operations.
- **Recovering from adversity.** The Watthan Artisans Cooperative in Phnom Penh, Cambodia, brings together individuals with injuries from landmines and bombs, suffering from deafness, psychological scars, or the aftermath of polio. They are trained to work with cotton, silk, reclaimed hardwood, and recycled materials to create artisanal products.

(continued)

- ***Inspiring change.*** In Brazil, Sicredi Pioneira RS has a membership of 70 000 and is one of 116 credit cooperatives in the historic Sicredi organization. Sicredi Pioneria supports a range of initiatives including another cooperative, the Scholar Cooperative, which encourages students to organize themselves into cooperatives.
- ***The power of consumers.*** Seikatsu Club Consumers' Cooperative Union in Japan was started in 1965 by a single housewife, who organized 200 women to buy 300 bottles of milk in order to reduce the price. It has since grown and now places an emphasis on direct product/consumer links and is dedicated to the environment, the empowerment of women, and improvement of workers' conditions. Today there are 600 consumer cooperatives with over 22 million members who buy a wide range of food products, clothing, publications, and daily goods.
- ***Setting fair prices.*** The Kuapa Kokoo cooperative in Ghana is made up of 6 500 cocoa farmer members who receive a fair trade price for their cocoa. They also own a 45% share in Divine Chocolate company, which uses their cocoa to produce high-quality chocolate sold around the world.
- ***Selling direct.*** Associations for the Preservation of Peasant Farming (AMAP) in Italy allow consumers to deal directly with growers, committing themselves several months ahead of the harvest to buy a selection of fruit and vegetables from a particular farmer. AMAP regularly delivers over 66 000 boxes of fresh vegetables.
- ***Providing benefits.*** In Stockholm, Sweden, the HSB Housing Cooperative comprises 31 regional associations representing 330 000 apartments and 555 000 members, about 10% of all housing in Sweden.
- ***Providing services to the needy.*** Cooperatives will do business where others might not consider it economically viable. Financial cooperatives are some of the largest providers of microfinance services to the poor, reaching 78 million clients living below the poverty line of US\$2 per day. Pamecas in Senegal provides affordable insurance for savings and health care to disadvantaged and low-income families.
- ***Long-term view.*** Mondragon in Spain, mentioned earlier, has groups specializing in cross-product initiatives coming from different divisions to explore new business ideas, which eventually are elevated to the cooperative-wide level for production. A funding

mechanism ensures the survival and success of new initiatives. 21% of its sales are for products that are less than 5 years old.

- **Break down of organizational silos.** Cooperatives can offer a range of different services to serve more of their members' needs. For example, the Co-operative group in the UK has a presence in food retail, banking, insurance, funeral care, pharmacy, travel, and other services.

Want more?

The UN International Year of Cooperatives, International Day of Cooperatives on July 7th (social.un.org/coopsyear), and International Cooperative Alliance (ica.coop) are good sources of information. Stories coop tells the stories of cooperatives around the world (<http://www.stories.coop/>), as does news coop (www.thenews.coop) and the book *Building a Better World – 100 stories of co-operation* by Kate Askew. The International Summit of Cooperatives takes place yearly (<http://www.2012intlsummit.coop/>). The World Co-operative Monitor ranks the largest cooperatives by turnover and industry (www.monitor.coop). Countries also have their own specific cooperative networks, for example Canada's Cooperative Association, iCOOP in Korea, and the New Zealand Cooperative Association.

9

Ethics and Corporate Governance



'Let's start with what is legal, but always go on to what we would feel comfortable about being printed on the front page of our local paper, and never proceed forward simply on the basis of the fact that other people are doing it.'

WARREN BUFFETT

If marketing, accounting, finance, and the other core topics introduced in this book are the various pieces of the sustainability puzzle, each playing its part in creating more sustainable companies, ethics forms the glue that holds these pieces together. Business ethics goes beyond choosing to ‘do the right thing’ in day-to-day operations and business decisions; it is a core principle of good management and sustainability. Without good management, strong corporate governance, and open and transparent relationships with customers, business partners, and stakeholders, sustainability issues, policies, and goals can go nowhere. Ethics enters into every aspect of sustainable business, such as quality standards, honest payment terms for both customers and suppliers, staff relationships, and tax returns to mention only a few. Regardless of your position in a company, ethics is a foundational part of your job.

Despite its importance, ethics is often forgotten, pushed aside, or taken for granted. Most companies have some set of ethics and management codes in place that the company stands for, but many employees just assume that their company is properly managing ethical issues. Thus, general managers play an important role in ensuring that ethical standards are upheld, and in promoting sustainability principles throughout their workplace.

Why is it important?

- ***Investors are looking for good governance.*** Investors are looking at companies that have good, strong governance practices and principles and see sustainability as a proxy for good management.
- ***Quality of relationships.*** A company or manager that conducts business ethically and legally develops higher-quality relationships with customers, suppliers, employees, and others, which can directly improve the business.
- ***Reputation.*** Companies with policies and practices based on less than the highest ethical standards, or that are enforced with a relaxed attitude to compliance, risk damaging their reputation. This is especially true today as news, both positive and negative, travels fast.

- **Financial costs.** There is clear evidence that in many countries corruption adds more than 10% to the cost of doing business, and as much as 25% to the cost of public procurement. Other unethical behavior can have significant costs, such as fines for non-compliance, lost customers, and damages to brands due to loss of reputation, to name just a few.
- **Legal risks.** Many forms of unethical behavior, such as corruption, are illegal both in the country in which they occur and in the country the company is originally from. This is particularly relevant for companies based in OECD countries and was universally recognized in 2003 with the adoption of the UN Convention against Corruption.
- **Indices.** Respecting human rights and other topics within ethics are part of the criteria in a number of indices and standards, such as the UN Global Compact, ISO 26000, and the Dow Jones Sustainability Index. In 2012, several companies were deleted from the FTSE4Good for human rights violations.

The key concepts

Good governance comprises the actions that managers and companies need to take in order to ensure legal and ethical underpinnings of their organization and operations. Many people consider ethics and governance to be vague topics; however, there is plenty of practical and specific guidance available for businesses to operate ethically. This includes:

- Upholding universal human rights → **Business and human rights**
- Promoting worker rights and standards → **Labor and working conditions**
- Making difficult decisions → **Ethics and the individual manager**
- Creating strong control systems in organizations → **Corporate governance**

- Stopping the misuse of power → *Corruption*
- Stopping the misuse of power for private gain → *Bribery*
- Getting access to information → *The power of media*
- Moving the sustainability agenda forward → *Box: The role of the CEO*

Business and human rights

The Declaration of Human Rights, which has been translated into more than 360 languages, is the foundation of international human rights law. It is codified in international law through two treaties: the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights, each of which has been ratified by over three-quarters of all countries. These, in addition to the International Labour Organization conventions and laws, provide a universal benchmark for minimum standards of behavior. According to the Office of the High Commissioner for Human Rights (OHCHR), ‘Human rights are fundamental principles and standards that enable individuals everywhere to have freedom to live in dignity. All human rights are universal, interrelated, interdependent and indivisible.’

In order to assist business in understanding the growing number of declarations related to human rights, the UN Norms for Business with regard to human rights were compiled. These include:

- ***Right to equal opportunity and non-discriminatory treatment.*** Business should ensure equality of opportunity and treatment for the purpose of eliminating discrimination based on race, color, sex, language, religion, political opinion, national or social origin, social status, indigenous status, disability, or age.
- ***Right to security of persons.*** Business should not engage in, or benefit from: war crimes; crimes against humanity; genocide; torture; forced disappearance; forced or compulsory labor; hostage-taking; extrajudicial, summary, or arbitrary executions; other

violations of humanitarian law; or other international crimes against the human person. Business should observe international human rights norms as well as the laws and professional standards of the country or countries in which they operate.

- ***Rights of workers.*** Business should:
 - not use forced or compulsory labor;
 - respect the rights of children to be protected from economic exploitation;
 - provide a safe and healthy working environment;
 - provide workers with remuneration that ensures an adequate standard of living for them and their families;
 - ensure freedom of association and effective recognition of the right to collective bargaining.
- ***Respect for national sovereignty and human rights.*** Business should:
 - recognize and respect applicable *norms* of international law, national laws, and regulations, as well as administrative practices, the rule of law, the public interest, development objectives, social, economic, and cultural policies (including transparency, accountability, and prohibition of corruption) and the authority of the countries in which the enterprises operate;
 - not offer, promise, give, accept, condone, knowingly benefit from, or demand a *bribe* or other improper advantage;
 - refrain from any activity which supports, solicits, or encourages States or any other entities to abuse human rights;
 - respect economic, social, and cultural rights as well as civil and political rights, and contribute to their realization – in particular, the rights to development, adequate food and drinking water, the highest attainable standard of physical and mental health, adequate housing, privacy, education, freedom of thought, conscience, and religion, and freedom of opinion and expression, and shall refrain from actions which obstruct or impede the realization of those rights.

- ***Obligations with regard to consumer protection.*** Business should take all necessary steps to ensure the safety and quality of the goods and services they provide, including observance of the precautionary principle. They should not produce, distribute, market, or advertise harmful or potentially harmful products for use by consumers.

According to the UN Global Compact, ‘Business should support and respect the protection of internationally proclaimed human rights and make sure that they are not complicit in human rights abuses.’ An organization can do this in two ways:

- ***Sphere of influence*** concerns the boundaries of a company’s human rights responsibilities, whose human rights the company should be concerned with, and which human rights a company should pay particular attention to. Each company has a particular sphere of influence based on their geographic presence, industry, size, and particular business relationships, which can include the workplace (rights of employees), supply chain (partners do not engage in rights abuses), marketplace (products do not harm customers), community (no negative impacts on the communities in which they operate), and government (using influence to develop public policy that promotes and rewards good behavior).
- ***Complicity*** is about business ensuring that it does not assist or encourage human rights abuses committed by governments, rebel groups, other companies, or individuals. It is made up of two elements:
 - An action or omission (failure to act) by a company or individual representing a company that ‘helps’ (facilitates, legitimizes, assists, encourages, etc.) another, in some way, to perpetrate a human rights abuse.
 - The company was or should have been on notice that its action or omission could provide such help.²⁴

The Declaration of Human Rights (and the short online course on human rights and business) (www.ohchr.org) and the UN Guiding Principles on Business and Human Rights (www.business-humanrights.org). International standards for corporate responsibility on human rights include the OECD Guidelines for Multinational Enterprises, the ILO Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy, the UN Global Compact, and the IFC Performance Standards on Social and Environmental Sustainability. There are also a number of voluntary initiatives, often industry-specific, including the Ethical Trading Initiative and the Voluntary Principles on Security and Human Rights. Take a look at toolkits developed by the UNEP Finance Initiative (www.unepfi.org/humanrightstoolkit), the Institute for Human Rights and Business (www.ihrb.org), and the Guide to Corporate Human Rights Impact Assessment Tools (www.humanrightsimpact.org). For a good overview, see Monash University's *Human Rights Translated: A Business Reference Guide* (www.law.monash.edu.au).

Labor and working conditions

Today, globalization has made rights and standards more relevant than ever and companies need to uphold local and international labor standards. According to the International Labour Organization (ILO), a specialized agency of the UN responsible for protecting and promoting worker safety and standards, such standards provide the following benefits:

- To ensure that economic development remains focused on improving the lives of human beings rather than treating labor as a commodity, which can be bought or sold for the highest profit or lowest price.

- To provide an even playing field by helping governments and employers to ‘avoid the temptation of lowering labour standards in the belief that it could give them a greater comparative advantage in international trade.’
- To improve economic performance because although many companies believe that there are significant costs associated with meeting such standards, there is growing research indicating that compliance often accompanies improvements in productivity and economic performance.

The ILO has established an extensive series of labor standards, including a series of ‘fundamental conventions’ that cover:

- ***Child labor.*** The ILO provides a minimum age to be able to work. In developing countries this is 15 for regular work, 18 for hazardous work, and 13 for light work while in developed countries it is 14, 18, and 12, respectively. It is estimated that over 215 million children are involved in child labor. June 12 is the World Day Against Child Labour.
- ***Collective bargaining.*** This is a voluntary process through which employers and workers discuss and negotiate their relations in particular terms and conditions of work and can organize themselves into organizations and trade unions.
- ***Discrimination and equality.*** This occurs when a potential candidate is treated differently or less favorably because of characteristics that are not related to his/her merit or the inherent requirements of the job. These characteristics include race, color, sex, religion, political opinion, national extraction, or social origin and can also include sexual orientation, age, health issues, etc. This can occur in respect to recruitment, remuneration, hours of work and paid holiday, maternity protection, job assignments, training and promotion opportunities, etc.
- ***Employment promotion.*** Businesses should endeavor to increase employment opportunities and standards. Youth employment opportunities are a particular area where companies can play a major role, for young men and women as well as persons with disabilities.

-
- ***Forced labor.*** This is any work or service that is exacted from any person under the menace of any penalty and for which that person has not offered himself or herself voluntarily. Providing wages or other compensation does not necessarily indicate that the labor is not forced. The ILO estimates that at least 12.3 million people are victims of forced labor worldwide. Furthermore, labor exploitation can occur in many forms and includes threatening workers with severe deprivations such as withholding food, land or wages and physical violence.
 - ***Freedom of association and the right to organize.*** Freedom of association implies a respect for the rights of all employers and all workers to freely and voluntarily establish and join groups for the promotion and defense of their occupational interests.
 - ***Occupational safety and health.*** It is estimated that 160 million people suffer from work-related diseases and an estimated 337 million fatal and non-fatal work-related accidents occur every year. The ILO estimates that 4% of the world's annual GDP is lost as a consequence of occupational diseases and accidents. Workers have an important role to play in ensuring safe work-place practices and cooperation between workers and management is essential.
 - ***Security of employment.*** This is about actively managing a business's human resources needs to provide to the greatest extent possible stable employment for their employees. Arbitrary dismissal should be avoided.
 - ***Wages and benefits.*** This calls for policies with regard to wages and earnings, hours and other conditions of work, designed to ensure a just share of the fruits of progress to all and a minimum living wage to all employed and in need of such protection. It looks at best possible wages, benefits, and working conditions, promotion of equal pay for equal value.
 - ***Working time.*** Excessive hours of work and inadequate periods of rest and recuperation can damage workers' health and increase the risk of work accidents. Most countries have statutory limits of weekly working hours of 48 hours or less. This also includes overtime and paid holidays.

Swedish jean company Nudie Jeans believes that everyone who participates in the manufacturing of their clothes should have a wage enough to live on. So since 2012 they are paying their share of the living wage to workers at suppliers in India, an increase of approximately 17% of a worker's annual salary.

The International Labour Organization provides detailed information on all labor standards. Read their *Rules of the game, a brief introduction to international labour standards* and visit their Helpdesk for Business (www.ilo.org/business). International Organisation of Employers (www.ioe-emp.org), International Trade Union Confederation (www.ituc-csi.org), UN Global Compact Labour Working Group (www.unglobalcompact.org), Fair Labor Association (www.fairlabor.org), and Verite Fair Hiring Toolkit (www.verite.org).

Ethics and the individual manager

Why do managers make unethical choices? Our ethical judgment is influenced by our moral principles, which come both from our background (e.g., religion, upbringing, social and cultural norms) and also from norms learned from working in a particular industry or firm. Research shows that there are four main reasons why managers make bad choices:

- ***A belief that the activity is not 'really' illegal or immoral.*** Be clear about the kinds of activities that are acceptable, those that will be tolerated, and what behavior will be condoned.
- ***A belief that the activity is in the individual's or the corporation's best interests.*** Often this belief results from pressure to achieve short-term results. To prevent this, do not focus too much on short-term gains while neglecting the long-term consequences of management decisions.

- ***A belief that the activity is 'safe' because it will never be found out or publicized.*** To discourage this belief, engage in communications that increase the perceived probability of being caught, persecuted, and punished, and announce misconduct.
- ***A belief that because the activity helps the company, the company will condone it and even protect the person who engages in it.*** To prevent this, stress the responsibility of senior managers to clearly communicate the norm that company loyalty should not go against the laws and values of society.²⁵

Sometimes unethical decisions are made as a result of 'groupthink.' It has been observed that a group of people working together will sometimes make unethical decisions that few, if any, of them would make individually. This appears to be due to the reluctance of individuals to press for the serious consideration of sensitive ethical issues.

Managers encounter complex business problems on a day-to-day basis that have strong social and ethical components. These problems have no simple solution and neither the optimal decisions nor their consequences are always obvious. The Ethics Resource Centre recommends applying the following ethics filters to decision-making:

- ***Policies.*** Is it consistent with my organization's policies, procedures, and guidelines?
- ***Legal.*** Is it acceptable under the applicable laws and regulations?
- ***Universal.*** Does it conform to the universal principles and values my organization has adopted?
- ***Self.*** Does it satisfy my personal definition of right, good, and fair?

They have also come up with a six-step ethical decision-making model for use by managers and their teams:

1. ***Define the problem.*** Describe why the decision is called for and identify the most desired outcome(s).
2. ***Identify available alternative solutions to the problem.*** Consider more than five in most cases. At a very minimum, three

options should be identified to allow people to escape from having to choose between two opposing options.

3. **Evaluate the identified alternatives.** Look at the likely positives and negatives for each and differentiate between what information you know for a fact and what you believe might be the case.
4. **Make the decision.** Ensure that all members of the team have clear information about the problem and alternatives.
5. **Implement the decision.** Once decided, tangible steps should be put in place to move forward with the solution. A decision only counts if it is implemented.
6. **Evaluate the decision.** Did it fix the problem? Is it better now, or worse, or the same? What new problems did the solution create? What lessons were learned that could be applied to help next time a similar problem arises?²⁶

Once a decision has been made, the next most important step is how employees can voice these concerns or put into place their solutions. This is where the challenge lies for individual employees, as they often do not know who to turn to or what the repercussions of exposing what they believe to be unethical behavior will be for them. Siemens provides employees with in-person and web-based training on how to make more ethical decisions. They also provide a helpdesk where employees can call anonymously to get advice on how to handle ethical situations. The company has developed a policy for whistleblowers, which includes a confidential 24-hours-a-day helpdesk in 150 languages and an external ombudsman. There is also no retaliation against those who have reported compliance concerns in good faith.

For more on this topic visit the Ethics Resource Centre (www.ethics.org), Business Roundtable Institute for Corporate Ethics (www.corporate-ethics.org), Caux Round Table Principles for Business: Ethical and responsible behaviour (www.cauxroundtable.org), and Giving Voice to Values (www.babson.edu).

Corporate governance

The OECD defines corporate governance as the system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as shareholders, board members, managers, employees, and other stakeholders, and spells out the rules and procedures for making decisions on corporate affairs. Corporate governance also refers to the rules governing the process through which the company objectives are set, and the means of attaining those objectives and monitoring performance.

The OECD Principles of Corporate Governance represent certain common characteristics that are fundamental to a good corporate governance framework. These principles are:

- ***Ensuring the basis for an effective corporate governance framework.*** Promote transparent and efficient markets, be consistent with the rule of law, and clearly articulate the division of responsibilities among different supervisory, regulatory, and enforcement authorities.
- ***The rights of shareholders and key ownership functions.*** Protect and facilitate the exercise of shareholders' rights.
- ***The equitable treatment of shareholders.*** Ensure the equitable treatment of all shareholders, including minority and foreign shareholders. All shareholders should have the opportunity to obtain effective redress for violation of their rights.
- ***The role of stakeholders in corporate governance.*** Recognize the rights of stakeholders established by law or through mutual agreements and encourage active cooperation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises.
- ***Disclosure and transparency.*** Ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including the financial situation, performance, ownership, and governance of the company.

- ***The responsibilities of the board.*** Ensure the strategic guidance of the company, the effective monitoring of management by the board, and the board's accountability to the company and the shareholders.

When analyzing a company's corporate governance structures, companies such as Deutsche Bank look at four factors:

- ***Board independence.*** This is the board's ability to act independently from management in the best interest of shareholders, including the board's structure, composition, and overall capabilities.
- ***Shareholder treatment.*** This addresses questions relating to the treatment of minority shareholders as well as issues around capital structure and its impact on shareholder rights.
- ***Information disclosure.*** This focuses on the quality, extent, and timeliness of the information provided by companies to analysts and investors as well as internal verification mechanisms.
- ***Corporate compensation.*** This addresses the compensation of directors and executives as well as systems to monitor and measure this compensation.

For more information on this topic visit IGPG Evaluating and Improving Governance in Organizations and IFAC's Enterprise Governance (www.ifac.org), Global Corporate Governance Forum (www.gcgf.org), World Bank Corporate Governance Toolkit (www.wbginvestmentclimate.org), European Corporate Governance (ec.europa.eu), International Corporate Governance Network (www.icgn.org), and OECD Corporate Governance (www.oecd.org/corporate). The Black List is an annual published list of the least transparent companies (www.thecro.com).

Corruption

Corruption is defined as the misuse of entrusted power for private gain. According to the World Bank, corruption is the single greatest obstacle to economic and social development. The bank estimates that it costs more than 5% of the world's GDP, or approximately US\$3 trillion. For business, corruption is estimated to add 10% or more to the cost of doing business in many parts of the world and up to 25% to the cost of procurement contracts in developing countries.²⁷ Further research found that moving a business from a country with low levels of corruption to a country with medium or high levels of corruption is the equivalent to a 20% tax on foreign business.²⁸ The Global Compact and Transparency International suggest three practical steps to fight corruption:

1. **Internal.** Introduce anti-corruption policies and programs within the organization and business operations.
 - Top management must send consistent messages, directing all managers to apply stringent codes and high standards, while at the same time making it clear that these codes are not open to interpretation.
 - A company should adopt its own business principles and ethics code, and publish it to employees.
 - Training and continuous efforts must be made to ensure that principles and codes are integrated into other management systems.
 - Adopt internal reporting procedures to ensure that appropriate systems are in place to ensure that if something does happen, the company is the first to know.
2. **External.** Report on anti-corruption work and activities in the annual communications and share experiences and best practices.
3. **Collective.** Collective action among businesses can help business managers in making the right decisions. For example,

Publish What You Pay, a coalition of over 200 NGOs, calls for the mandatory disclosure of the payments made by oil, gas, and mining companies to all governments for the extraction of natural resources (www.publishwhatyoupay.org).

Germany chemical company BASF put in place a Chief Compliance Officer who is supported by a network of over 100 compliance officers worldwide. Their work is not only to train employees in this area but to prevent a wide range of legal violations, including incidents of corruption.

The growing number of international initiatives aimed at helping companies to stop and deal with corruption indicate how important anti-corruption practices have become in the global business community. The UN Convention Against Corruption is an independent legal instrument against corruption started in 2000, and December 9th is International Anti-corruption Day. The Global Corruption Barometer is a survey that assesses general public attitudes toward and experience of corruption in dozens of countries around the world. The Corruption Perceptions Index ranks more than 150 countries by their perceived levels of corruption as determined by expert assessments and opinion surveys.

For more, visit the International Chamber of Commerce Rules on Combating Corruption (www.iccwbo.org/policy/anticorruption), World Economic Forum Partnering Against Corruption Initiative (www.weforum.org/paci), World Bank Anti-corruption Knowledge Centre (www.worldbank.org), UN Global Compact resource section on corruption (www.unglobalcompact.org/Issues/transparency_anticorruption), and GoodCorporation Framework on Bribery and Corruption (www.goodcorporation.com).

Bribery

Bribery is a major part of corruption. According to Transparency International, bribery is an offer or receipt of any gift, loan, fee, reward, or other advantage to or from any person as an inducement to do something which is dishonest, illegal, or a breach of trust, in the conduct of the enterprise's business. Different forms of bribery include:

- ***Bribes.*** An enterprise should prohibit the offer or actual transfer of a bribe in any form, including kickbacks on any portion of a contract payment, or the use of other routes or channels to provide improper benefits to customers, agents, contractors, suppliers, or employees of any such party or government officials. The enterprise should also prohibit employees from accepting bribes.
- ***Political contributions.*** An enterprise, its employees, or agents should not make direct or indirect contributions to political parties, organizations, or individuals engaged in politics, as a way of obtaining advantage in business transactions. The enterprise should disclose these contributions.
- ***Charitable contributions and sponsorship.*** Ensure that these sorts of contributions are not being used for bribery. An enterprise should publicly disclose all its charitable contributions.
- ***Facilitation payments.*** These are small payments made to secure or expedite the performance of a routine or necessary action to which the payer of the facilitation payment has legal or other entitlement. Recognizing that facilitation payments are a form of bribery, the enterprise should work to identify and eliminate them.
- ***Gifts, hospitality, and expenses.*** The enterprise should prohibit the offer or receipt of gifts, hospitality, or expenses whenever such arrangements could affect the outcome of business transactions and are not reasonable and bona fide expenditures.

Several initiatives such as the OECD Anti-bribery Convention and the anti-bribery provisions of the revised OECD Guidelines for Multinationals attempt to curb its effect and in fact, for the over 40 countries that have signed the convention, bribery is illegal. The ICC Rules of Conduct to Combat Extortion and Bribery provide the following guidance on how to approach anti-bribery policies:

- Enterprises should make their *anti-corruption policy* known to all agents and other intermediaries and make it clear that they expect all activities carried out on their behalf to be compliant with their policy.
- In order to prevent bribery and extortion, enterprises should implement *comprehensive policies or codes* reflecting these Rules of Conduct as well as their particular circumstances and specific business environment. These policies or codes should include (a) training, (b) confidential channels to raise concerns, (c) disciplinary procedures, and (d) applicability to all controlled subsidiaries, foreign and domestic.
- All *financial transactions* must be properly and fairly recorded in appropriate books of accounts available for inspection by boards of directors (i.e., no off-the-books or secret accounts);

For more on this topic visit the OECD Anti-bribery Convention (www.oecd.org). The Business Principles for Countering Bribery provide a framework for companies to develop comprehensive anti-bribery programs, both large and SMEs. They also have an Assurance Framework for corporate anti-bribery programs (www.transparency.org). See also Principles for Countering Bribery (www.weforum.org/paci), Resisting Extortion and Solicitation in International Transactions (www.iccwbo.org), and the UN Global Compact work on bribery (www.unglobalcompact.org).

transactions should be inspected within established independent systems of auditing and comply with all provisions of national tax laws and regulations.

- The *board of directors* (or other body) with ultimate responsibility for the enterprise should take reasonable steps to ensure compliance with these Rules of Conduct.

The power of media

Media companies shape public opinion. They influence what we read, listen to, and watch. Despite this, companies in the media sector are often overlooked as major social and environmental actors. The responsibility of the media is not so much in terms of how sustainable their operations are. Rather, it is about their ability to influence, what they choose to report, what they don't report, and how they report.

Despite this important role, media companies have been slow to engage in sustainability. Some journalists say that the word 'sustainability' itself can be both a common platform to explore these issues as well as a word that risks making people disinterested. Often, sustainability stories are given to specific 'environmental' reporters rather than being embedded into a range of stories, or are just not reported on at all.

What can be done:

- ***Develop the capacity of reporters.*** The UN Global Compact of Turkey organized a 2-day conference for nearly 30 journalists from daily national newspapers, television, and trade magazines with the aim of building the journalists' knowledge about sustainability issues.
- ***Create a platform for these issues.*** *The Guardian* in the UK has more than 25 editorial staff specifically focused on sustainability and on developing their range of sustainability and business-related events and online programs.

- **Get information to those who need it.** One World produces Internet and mobile phone applications that the world's poorest people can use to improve their life opportunities and that help people everywhere understand global problems (www.oneworldgroup.org).
- **Provide in-depth news on sustainable topics.** Many news initiatives, in particular online, cover sustainability stories exclusively, including Inside Climate News (insideclimatenews.org), GreenBiz (www.greenbiz.org), and Just Means (www.justmeans.org).
- **Increase transparency in media companies.** The Global Reporting Initiative has a set of reporting guidelines specifically for the media industry.

In many countries the media doesn't have the freedom to choose what they report, making it difficult for citizens to have the information they need to make decisions. The Freedom of Press Index and the Media Sustainability Index rank countries and their media systems yearly. They look at a range of issues, including but not limited to:

- **Free speech.** Protection of free speech, free access to media, access to information.
- **Diversity.** Diversity of viewpoints, multiple news sources.
- **Supporting environment.** Institutions that protect the professional interests of independent media, access to journalistic education, entry to media markets, penalties for libeling.
- **Ethics and human rights.** Crimes against media workers, corruption, self-censorship, transparency of media ownership.

International Federation of Environmental Journalists (www.ifej.org). Media CSR Forum is a group of media companies developing sustainability practices for the media sector (mediacsrforum.org). Also see the resources section of this book for a list of media outlets that cover sustainability issues.

Challenges?

- ***What is legal versus what is ethical.*** Just because a practice is not illegal, this does not mean it is ethical. Ethics is much wider than law.
- ***Implementation.*** Ethics programs, codes of conduct, and other mechanisms put in place to stop unethical behaviors provide little help if managers at all levels do not know them or implement them consistently. It is not enough to have an ethics statement, it needs to be understood, used, and enforced.
- ***Consistency.*** Even companies with strong ethical policies and processes will encounter problems with ethics. Create a safe environment where employees can raise concerns about possible misconduct and wrong doings. Despite the proliferation of help lines and ethics offices, employees still suffer from a ‘fear of retaliation.’
- ***Pressures to be unethical.*** A study based on in-depth interviews with 30 recent graduates from the Harvard MBA working in banks, consulting, and advertising firms found that many young managers received explicit instructions from their middle-manager bosses or felt strong organizational pressures to do things that they believed were unethical or even illegal.²⁹
- ***Misleading the public.*** There are many groups working in the field of sustainability. While some are working to raise awareness, others are not quite what they seem – they are, in a sense, ‘greenwashed’ organizations. Full Frontal Scrutiny, a joint project by the Consumer Reports WebWatch and the Centre for Media and Democracy, looks at raising awareness of what it calls front groups – organizations that state a particular agenda while hiding or obscuring their identity, membership, and/or sponsorship. This can include organizations that avoid mentioning their main sources of funding or have misleading names (e.g., the

National Wetlands Coalition actually opposes policies to protect US wetlands) (www.frontgroups.org).

- **Incentives.** The fact is that there is still a place in society for both responsible and irresponsible companies. Good companies, even good employees, aren't penalized for doing the 'right thing' but they are not necessarily rewarded either.

Trends and new ideas

- | | |
|------------------------------------|----------------------------------|
| - <i>Transparency and honesty</i> | - <i>Crowdsourcing the truth</i> |
| - <i>The company of the future</i> | - <i>Whistleblowing</i> |
| - <i>Fair trade</i> | |

Transparency and honesty

Increased honesty is helping businesses move forward in sustainability, and protecting them when they encounter problems. In fact, companies are choosing to disclose more and more information, both the positive but also the negative. In its Footprint Chronicles, Patagonia allows consumers access to the complete picture of the impact a product has on the environment – the good, the bad, and the ugly. They openly recognize that they sometimes have a negative impact, and they are working to minimize this. Mountain Equipment Co-op (MEC) in Canada disclosed a list of factory names and locations from where they source MEC-brand products, the first Canadian retailer to do so. In their annual report they also discuss their progress made in being a more sustainable company and openly discuss their challenges. For more about transparency and trust, see the Edelman Trust Barometer which measures the level of trust in institutions, industries, and leaders (trust.edelman.com).

The company of the future

What would a corporation look like that was designed to seamlessly integrate both social and financial purposes? Management Lab wondered what would happen if you asked progressive business thinkers to reinvent management for the 21st century, throwing away years' worth of assumptions and radically re-imagining the ways in which companies could work. Some of the thoughts collected include:

- **People.** Manage as if everyone mattered – stakeholders, employees. Work to maximize system success. Enable communities of passion. Increase trust and reduce fear.
- **Purpose.** Seek orientation in a higher and broader purpose. Purpose generates energy, passion, and commitment.
- **Rewards.** Stretch executive timeframes and perspectives. Change incentives to reward executives and investors who nurture the small projects that have the potential to become big ones over time. Develop holistic performance measures.
- **Question.** Substantially reduce the gravitational pull of the past. Explicitly challenge industry (and corporate) orthodoxies.
- **Structure.** Expand the freedom for autonomous action. De-organize – dissolve (formal) hierarchy, eliminate silos, and collapse the distance between center and periphery. Abolish the myth of the imperial CEO. Lead from behind.
- **Decisions.** De-politicize decision-making. Surface conflict – allow minority views to be heard. Exploit the wisdom of the crowd in critical decisions.
- **Information.** Create a democracy of information. Create an internal market for ideas, talent, and resources.
- **Creativity.** Overcome the prejudice that people aren't creative; create space and time to give them time to reflect, dream, and innovate. De-stigmatize failure and build cultures that reward much more small-scale innovation (www.management-lab.org).

Fair trade

According to the Fair Trade Labelling Organization (FLO; www.fairtrade.net), 'Fairtrade is about better prices, decent working conditions, local sustainability, and fair terms of trade for farmers and workers in the developing world. By requiring companies to pay sustainable prices (which must never fall lower than the market price), Fairtrade addresses the injustices of conventional trade, which traditionally discriminates against the poorest, weakest producers. It enables them to improve their position and have more control over their lives.' Today, fair trade organizations around the world come together under the FLO, which includes over 990 producer organizations, 1.2 million farmers, and workers in 66 countries. Fair trade products are sold in over 120 countries and sales numbers have been steadily increasing. The six biggest fair trade products are bananas, cocoa, coffee, cotton, sugar, and tea. The key objectives of the FLO standards are to:

- Ensure a guaranteed fair trade minimum price which is agreed with producers.
- Provide an additional fair trade premium which can be invested in projects that enhance social, economic, and environmental development.
- Enable pre-financing for producers who require it.
- Emphasize the idea of partnership between trade partners.
- Facilitate mutually beneficial long-term trading relationships.
- Set clear minimum and progressive criteria to ensure that the conditions for the production and trade of a product are socially and economically fair and environmentally responsible.

Crowdsourcing the truth

There are a series of websites and apps that allow the public to get more engaged in bringing out unethical behavior. Bribespot

is an app that lets users report instances of bribery, including amounts that were requested. They place the instances on a map of the world so the public can see where these bribes are taking place (www.bribespot.com). Bribr does the same in Russia (bribr.org). TruthMarket is a platform where users can pledge to pay for others to find evidence for or against the unverified statements of public and influential figures (www.truthmarket.com). Threatened Voices tracks suppression of online free speech (threatened.globalvoicesonline.org). In India, the zero rupee note created by 5th Pillar is a tool that aims to help fight bribery. When a bribe is asked for the individual can hand over fake rupees rather than real ones to send a strong message against corruption (www.5thpillar.org).

Whistleblowing

Whistleblowers, those who release information about suspected corruption and unethical behavior within an organization, are often seen as bad individuals, and whistleblowing actions are often seen as being disloyal and creating a distrustful atmosphere. The fact is, this could not be any further from the truth. Having in place a system where individuals within the company and who deal with the company – such as suppliers and buyers – are encouraged to report unethical or corrupt behavior can be an important tool that allows the company to detect and fix eventual problems. In addition, these systems can play a key role in preventing significant financial consequences in the company, or in extreme cases, have the consequence of bringing down the whole company, if such fraud were to become public. According to a 2007 study by KPMG, 25% of the incidents of fraud uncovered among 360 incidents analyzed came to light thanks to a whistleblowing system put in place by companies. However, only 33% of companies surveyed in Europe had hotlines

for employees to report incidents of possible fraud. In 2008, the International Chamber of Commerce launched a set of guidelines aimed at helping companies establish and implement internal whistleblowing programs:

- Create a whistleblowing program as part of internal integrity practices.
- Handle reports early on, in full confidentiality.
- Appoint a high-level executive to manage the whistleblowing unit.
- Communicate in as many languages as there are countries of operation.
- Abide by external legal restrictions.
- Allow reporting to be anonymous or disclosed, compulsory or voluntary.
- Acknowledge, record, and screen all reports.
- Enable employees to report incidents without fear of retaliation, discrimination, or disciplinary action.

The World Bank's anti-corruption program includes a list of blacklisted companies and individuals, as well as a phone line to report corruption in bank-related projects (www.worldbank.org), as does the International Chamber of Commerce whistleblowing initiative (www.iccwbo.org). Also look at projects such as Wikileaks, where individuals publish information online anonymously (www.wikileaks.org).

Want more?

- There are quite a few resources on different groups that are often the victims of human rights abuses. For example, for more on indigenous peoples see the State of the World's Indigenous People (www.un.org), the UN Declaration on the Rights of Indigenous Peoples (www.un.org), the ILO Convention on Indigenous Peoples (www.ilo.org), and the work of NGOs in this area – such as the Indigenous People's International Centre for Policy Research and Education (www.tebtebba.org).
- Several rankings exist of the most ethical companies, including the '100 Best Corporate Citizens' (www.thecro.com) and *Business Ethics Magazine* 100 Best Corporate Citizens (www.business-ethics.com).
- The Conference Board is a global organization based in the USA working to help businesses strengthen their performance and better serve society (www.conference-board.org).
- The Institute of Business Ethics has a range of Briefings and Good Practice Guides on ethics and business (www.ibe.org.uk).
- Business in Society Gateway is a comprehensive online resource center on business in society issues and corporate responsibility (www.businessinsociety.eu).

Read: *The Market for Virtue: The Potential and Limits of Corporate Social Responsibility* by David Vogel (2006), which provides an analysis of the CSR movement in the USA and Europe.

The role of the CEO

'Senior management commitment is key to a company's successful approach to corporate responsibility; while it is essential that senior management assign clear responsibilities, resources and authority to company managers for addressing corporate responsibility issues on an ongoing basis, leadership in these matters rests with the chief executive, the chairman and board directors.'

INTERNATIONAL CHAMBER OF COMMERCE

The World Economic Forum conducted a survey of CEOs around the world, which indicated that business leaders have three responsibilities:

- 1. *Our companies' commitment to being global corporate citizens is about the way we run our own business.*** The greatest contribution we can make to development is to do business in a manner that obeys the law, produces safe and cost-effective products and services, creates jobs and wealth, supports training and technology cooperation, and reflects international standards and values in areas such as the environment, ethics, labor, and human rights.
- 2. *Our relationships with key stakeholders are fundamental to our success inside and outside our companies.*** Being global corporate citizens requires us to identify and work with key stakeholders in our main spheres of influence: in the workplace, in the marketplace, along our supply chains, at the community level, and in public policy dialogue.
- 3. *Ultimate leadership for corporate citizenship rests with us as chief executives, chairmen, and board directors.*** Although it is essential that we assign clear responsibilities, resources, and leadership roles to our managers for addressing these issues on a day-to-day basis, ultimate responsibility rests with us (www.weforum.org).

It has been said time and time again that without the support of senior management, initiatives cannot have their full impact. The

role of the CEO is not only to steer the ship in the right direction, but also to be able to see over the horizon and be able to plan ahead. As such, the chief executive plays a key role as a champion on sustainability strategies:

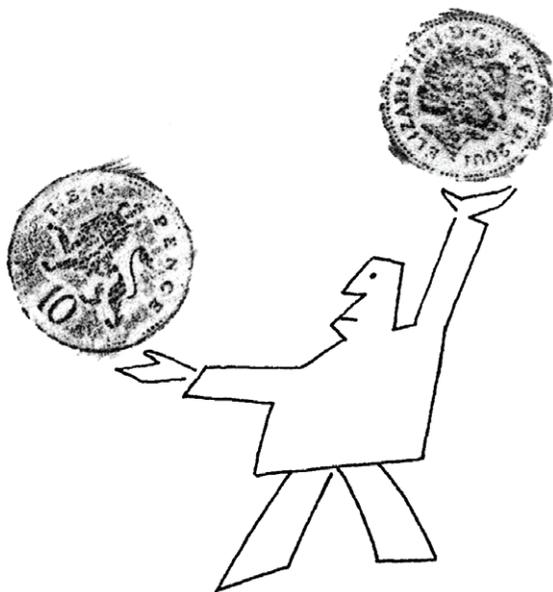
- CEOs can make sure the issues are part of information conversations that take place on a daily basis and make sure it is part of their language.
- CEOs can make sure they walk the talk by sending clear and consistent messages about the importance of sustainability in the organization, and matching this with their own actions.

They are the ultimate supporter and enabler of the issues within their organization, and thus have a vital role to play in a company's adoption of sustainability.

Want more?

The International Business Leaders Forum works with business, governments, and civil society to enhance the contribution that companies can make to sustainable development (www.iblf.org). There are several annual surveys that look at CEOs' thoughts on sustainability, including Accenture and the UNGC CEO study (www.accenture.com). CEOs are increasingly writing articles and blogs which include their organizations' commitment to sustainability. Many also have Twitter accounts that you can follow, as do their companies' sustainability managers.

Read: Several CEOs of leading sustainability companies are releasing books about their work, for example *Mid-Course Correction: Towards a Sustainable Enterprise: The Interface Model* by Interface CEO Ray Anderson (1998) and *Let My People Go Surfing: The Education of a Reluctant Businessman* by Patagonia CEO Yvon Chouinard.



'If you want to make capitalism sustainable, you might as well start with capital.'

NICK ROBINS, AUTHOR

Martin Hancock, the former chair of UNEP Finance Initiative from Westpac, tells the story of a man who turned to him during a conference on sustainable banking and whispered, ‘It must be serious if the banks are coming around the table.’ Indeed, sustainability must be making real progress if the finance sector, known for being conservative, is starting to become interested. One might even argue that finance is the most important sector in sustainability, as it reaches every corner within companies and throughout the economy.

According to the International Finance Corporation, ‘The biggest impact of banks, investors and insurers on sustainable development is not their own environmental footprint but their pivotal role in allocating financial capital between different economic activities, both at home and abroad.’³⁰ The financial sector plays a key role by sending signals to companies that can enable them to invest in longer-term opportunities. Financial institutions, such as banks, are also partially responsible for managing social and environmental risks in decision-making and lending, as well as helping identify opportunities for innovative product development in new areas related to sustainability. In addition to what they choose to finance, the financial sector can have a crucial impact by not investing in products, initiatives, or projects that are unsustainable or damaging to society and the environment.

Why is it important?

- ***To better understand companies.*** Evaluating environmental, social, and governance (ESG) factors can lead to a more thorough understanding of both the risks and opportunities and how these will impact the bottom line both today and in the future.
- ***To anticipate problems.*** Many investors are reacting to bad corporate governance news rather than anticipating potential problems. A greater consideration of these issues allows

investors and financial professionals to see the problems before they occur and plan accordingly.

- ***To increase profitability.*** For companies that are able to move beyond merely looking at risks and to start identifying and acting on opportunities, there are many avenues to explore, for example in sustainable energy, cleaner production, biodiversity conservation, and the fast-growing environmental technology industries.
- ***Intangibles.*** ESG issues can have a strong impact on intangible assets such as reputation and brand, which can represent over two-thirds of the total market value of a listed company. As the Chartered Financial Analyst Institute puts it, ‘Investors should consider what a company does to maintain and protect one of its most important assets: its reputation.’
- ***As part of your fiduciary responsibilities.*** According to UNEPFI, ‘appropriate consideration of these issues is part of delivering superior risk-adjusted returns and is therefore firmly within the bounds of investors’ fiduciary duties.’
- ***As a proxy for good management.*** Groups such as Goldman Sachs’s Sustain use management of environmental, social, and governance issues as a proxy for overall strong company management. ‘Because the world is more difficult to operate in, we think there are certain factors companies will need to manage if they are to succeed.’³¹ Investors have a preference for companies with strong governance and are prepared to pay a premium for this.
- ***Increased demand.*** There is an increased demand for sustainable finance options, from businesses and customers.
- ***Mergers and acquisitions.*** Sustainability issues should be of particular concern for those involved at all stages of the M&A lifecycle, including target screening, deal structuring and valuing, assessing the strategic, financial, and operational goals of the deal, merger integration, and long-term planning for operations or exit strategies. These issues can affect both the viability and the ultimate value of deals.

The key concepts

Sustainability affects both the financial sector and financial activities undertaken by a company.

- Incorporating sustainability issues into investments → *Sustainable investment*
- Integrating ESG criteria into investments → *Integrating ESG*
- The responsibilities of those people who manage money → *Fiduciary responsibilities*
- Shareholders seeking to influence companies → *Shareholder engagement*
- Providing global indexes to benchmark sustainability performance → *Ratings and indexes*
- Exploring sustainability issues within projects → *Project finance*
- Providing financial services to the poor → *Box: Microfinance*

Sustainable investment

According to the World Economic Forum, sustainable investing (SI) ‘is an investment approach that integrates long-term environmental, social and governance criteria into investment and ownership decision-making with the objective of generating superior risk-adjusted financial returns. These extra-financial criteria are used alongside traditional financial criteria such as cash flow and price-to-earning ratio.’ Sustainable investment, also referred to as socially responsible investment or responsible investment, is a term used to describe an investment process which takes environmental, social, ethical, and governance considerations into account. This process is in addition *to*, or is incorporated *into*, the usual investment selection and management processes and can be adopted across asset

classes (private equity, real estate, etc.). There is increasing demand for each of the different forms of SI:

1. Screening of investments

- **Negative screening.** SI started with investors choosing not to invest in sectors or companies that were seen as 'bad' because of their policies, actions, products (e.g., tobacco and weapons), or services (e.g., gambling). For example, the Co-operative Asset Management in the UK has a long list of areas, determined in part by customers, where they will not invest.
 - **Positive/norms-based screening.** Portfolios are chosen based on a set of non-traditional criteria, which can include environmental, social, governance, and ethical issues. These screens are seen as having an impact on both financial and non-financial measures. Common positive screens include energy efficiency, environmental management, and employment standards.
 - **Best in class.** A subsection of positive screening, this involves selecting the best performers based on environmental, social, and governance parameters. There are a growing number of indexes that provide information on these companies.
 - **Sustainability themed.** Investments are made in themes of assets specifically related to sustainability, such as clean energy, green technology, or sustainable agriculture.
2. **Stakeholder engagement.** Fund managers actively engage with companies in which they invest to seek improvement on environmental, social, and governance issues if their research indicates a shortfall in these areas.
 3. **Proxy voting and shareholder resolutions.** Owners exercise their right to vote and their right to file shareholder resolutions in order to achieve better management outcomes from the companies they invest in. Even ESG resolutions that attract less than majority support can still capture the attention of a corporate board and lead to change. GE's Ecoimagination was created in part because of an environmental resolution raised by a group of nuns, even though at the time it only gained 24% support.

4. **ESG integration.** Sustainability issues are incorporated into investment decision-making in the same way as other financial information based around seeking opportunities or avoiding risk associated with these issues. One example of a group working in this area is GenerationIM. They don't have one team doing the sustainability analysis and another doing the financial. Instead, each analyst is trained to do both.
5. **Community investing.** Investor capital is used to finance or guarantee loans to individuals and organizations that have historically been denied access to capital by traditional financial institutions, such as disadvantaged urban and rural communities (www.communityinvest.org).

There are a wide range of different types of sustainable investment, some of which – at the 'ethical' or deep green end – are very much about saving the Earth or meeting other social or environmental objectives, which deliberately take precedence over financial objectives. Investors in this type of product, driven by ethical values more than financial value, make up a small minority. The term 'responsible investments,' on the other hand, represents investments that are focused much more on the potential for more attractive returns over the longer term by taking advantage of ESG trends or better managing ESG risks. Financial returns are still the driver and there is a clear recognition that it is simply not possible to maintain strong financial returns over a long period of time if they are achieved at the expense of people or the environment.

Global Sustainable Investment Alliance is made up of different associations including Europe (www.eurosif.org), the USA (www.ussif.org), Canada (www.socialinvestment.ca), Asia (www.asria.org), Australia and New Zealand (www.responsibleinvestment.org), Japan (www.sifjapan.org), and Africa (www.Africasif.org). FS Insight has a section on Sustainable and Responsible

Investments with a range of resources (fsinsight.org). Mercer created a dictionary on the language of responsible investment (www.mercer.com/ri). Global Impact Investing Network is working to increase the impact and scale of impact investing (www.thegiin.org).

Read: *A Hitchhiker's Guide to Research on Social and Sustainable Investment* by Lloyd Kurtz (2013), *Sustainable Investing* by Cary Krosinsky and Nick Robins (2008).

Integrating ESG

Financial markets have great transformational power to accelerate the transition toward more sustainable business practices and value creation. The integration of ESG factors into mainstream investment analysis is therefore key to moving the business sector forward. Sustainable or responsible investment recognizes that the generation of long-term sustainable returns is dependent on stable, well-functioning, and well-governed social, environmental, and economic systems and that ESG issues are an increasingly fundamental part of assessing the value and performance of an investment over the medium and longer term. It requires investors and companies to acknowledge the full spectrum of risks and opportunities facing them in order to allocate capital in a manner that is aligned with the short- and long-term interests of their clients and beneficiaries.

There is an increasingly strong case for sustainable investing. Evidence indicates that sustainable investing can lead to better risk-adjusted financial returns that help to identify new opportunities for revenue improvements. The investment community is becoming increasingly active in this area thanks to a growing awareness of these issues and increasing demand from asset owners and retail investors as well as increased external pressure from stakeholders such as the media and NGOs. Investors themselves

are becoming more active in this space and coming together in networks to move this space forward. The Principles for Responsible Investment, an investor initiative in partnership with UNEP FI and the UN Global Compact, currently has over 1000 signatories representing US\$32 trillion in investment capital, and the Carbon Disclosure Project has over 700 institutional investors representing US\$78 trillion signed up.

Although surveys have shown that the majority of the mainstream investor community believes sustainability should be part of discussions with financial analysts, only half admitted that they had achieved that. The challenge is similar to the ‘chicken and the egg’ scenario; more investors would consider ESG information if more corporations provided it and more corporations would provide ESG information if investors demanded it.

So how do we move forward? There is a need to improve ESG information and ensure that it is widely shared between corporations and investors, ensure that both corporate executives and investors have the skills to assess ESG factors, and link incentives in the investment chain to more long-term adjusted financial performance.

- **Investors.** Asset owners and managers play a role in developing performance measurement systems for fund managers that balance long term and short term. Traditional valuation models do not sufficiently integrate ESG factors, which means investors need to be trained to be able to incorporate them into their decision-making process. In particular, investors should look at how ESG factors contribute to long-term investment strategy, and how to assess materiality of these factors and work with companies to determine financial material KPIs. Investors can also demonstrate more active ownership through engagement, shareholder resolutions, and/or proxy voting.
- **Corporations (listed and non-listed).** There is a need to strengthen communication between investors and corporate executives around ESG issues, including what issues are financially material

and in what timeframe. This is increasingly being done through CEO presentations, integrated reports, and structured, regular dialogue about not just how ESG factors are fully integrated into the process of developing corporate strategy, but also the process of corporate capital allocation. There is furthermore a need to link the remuneration of corporate executives not only to short-term financial results but also to longer-term financial and non-financial performance.

- ***System-wide level.*** In order to mainstream responsible investing, changes need to be made to the system as a whole. This includes, but is not limited to, changing our focus from being disproportionately on the short term to putting equal weight on the medium and long term. Accounting bodies and public authorities play a key role in creating frameworks and tools to enable companies to disclose information. Last but not least, business schools need to incorporate responsible investing into their training so that the next generation knows how to do this.

One of the main challenges is bringing together the information required to make decisions, as it is often difficult to acquire consistent, comparable, and audited information. Many are finding that companies themselves are frequently doing more than they disclose (see Chapter 6) and sometimes more than their ratings would suggest (see ‘Ratings and indexes’ in this chapter). Much of the ESG data is presented without context, which can be misleading because of different disclosure requirements around the world. There are a growing number of companies, such as Trucost, who aim to make it easier for investors to get their hands on environmental data right next to financial data to allow them to make better decisions. There are also a growing number of CEOs pushing investors to take these issues more seriously. For example, on an analyst call, Paul Polman (CEO of Unilever) criticized analysts for not doing more to understand the company’s Sustainability Living Plan, which is a core part of their strategy today and moving forward.

A good resource for responsible investment is the Principles for Responsible Investment (www.unpri.org), which also has an academic network with research in this area, as well as the UNEP Finance Initiative (www.unepfi.org). The Chartered Financial Analyst Institute (CFA) has done some work in ESG, including a manual for investors on these issues (www.cfainstitute.org). See WWF's 2050 Criteria Guide to Responsible Investment in Agricultural, Forest and Seafood Commodities (wwf.panda.org); International Corporate Governance Network's Model Mandate Initiative, a model contract between asset owners and their fund managers (www.icgn.org); CFA Institute's Asset Manager Code of Professional Conduct (www.cfainstitute.org). The International Federation of Accountants has several resources, including Project and Investment Appraisal for Sustainable Value Creation. They also give out prizes for Sustainable Investor and Investment of the year (www.ifac.org). Also see the World Economic Forum's work on sustainable investing (www.wef.org). Specific topics include:

- **Property.** Global Real Estate Sustainability Benchmark (www.gresb.com); UNPRI Responsible Property Investing resource database (www.unpri.org).
- **Hedge funds.** Hedge Fund Standards Board standards (www.hfsb.org); discussion paper on the responsible investment of hedge funds (www.unpri.org).
- **Private equity.** The Environmental Defense Fund (business.edf.org) and the IFC (www.estoolkit.com) have both created tools with leading private equity players which provide a framework to assess and improve ESG management across the investment lifecycle. See also the EVCA Professionals Standards Handbook (www.evca.eu) and Private Equity Growth Capital Council Guidelines for Responsible Investment (www.pegcc.org).

Fiduciary responsibilities

Today, the majority of investment assets are controlled by pension funds, mutual funds, insurance companies, or other institutional investment funds. In the case of pension funds, the assets are overseen on behalf of beneficiaries by a relatively small number of trustees who act as fiduciaries to control large pools of retirement savings. Legally, their job is to act in the best interests of the savers whose money is in the funds.

However, are they? What exactly are the best interests of those individuals? A report by UNEP and Freshfields law firm says,

'This is where the interesting questions concerning fiduciary responsibility come to the fore: are the best interests of savers only to be defined as their financial interest? If so, in respect to which horizon? Are not the social and environmental interests of savers also to be taken into account? Indeed, many people wonder what good an extra percent or three of patrimony are worth if the society in which they are to enjoy retirement and in which their descendents will live deteriorates. Quality of life and quality of the environment are worth something, even if not, or particularly because, they are not reducible to financial percentages.'

Many funds fail to look at these issues for two reasons. Many fiduciaries question whether they are legally allowed to take action on such issues, despite the growing body of evidence that ESG issues can have a material impact on the financial performance of their portfolio. However, as the report says, 'On that basis, integrating ESG considerations into an investment analysis so as to more reliably predict financial performance is clearly permissible and is arguably required in all jurisdictions.' Much of this boils down to the simple rule of the Precautionary Principle: whereby if one may, through exercising a degree of caution, avoid exposing oneself (or one's investments) to risk, one should certainly take appropriate steps to do so.

The second reason that many funds fail to integrate ESG issues into their investment decisions relates to the culture of investing. Investors have a ‘herd mentality’ in that they assume safety in numbers by following largely similar strategies when it comes to investing. In part they do this because of the pressure felt to justify their existence based on a quarterly if not daily basis by focusing on short-term profit opportunities. According to William Donaldson, former Chairman of the Securities and Exchange Commission, ‘Over time, analysts have become obsessed with the question of whether a company meets its quarterly EPS numbers and not with whether a company is built to last. And because of the considerable clout of the sell-side analyst, this shift from long-term thinking to short-term results has echoed through to company management and to professional investors.’³²

Fortunately, things are changing. The financial crisis is leading to major changes in public attitudes and regulations. The focus is on filling the gaps in the regulatory apparatus and legislative frameworks that allowed banks to get into such deep trouble with such unsustainable investments. In some countries, such as France, ESG issues must be considered for investment, and have been put into the investment management mandate issued to fund managers by the French retirement reserve fund. In 2010 Intel amended its corporate charter to include mandatory reporting on corporate responsibility and sustainability performance after an investment firm introduced a shareholder resolution asking them to. Intel’s decision was also influenced after their corporate council stated that under Delaware law, directors had fiduciary duty to address these issues.

A range of states in the USA have passed legislations enabling companies to register as a Benefit Corporation. Benefit Corporations are a new class of corporations that create a material positive impact on society and the environment, expand fiduciary duty to require consideration of non-financial interests when making decisions, and report on overall social and environmental performance using recognized third-party standards. A range of companies have changed their status to Benefit Corporation, including Patagonia and Seventh Generation.

A few resources on the topic include The Prudent Trustee (www.genfound.org), UNEPFI's Fiduciary Responsibility (www.unepfi.org), and A Climate for Change – a trustee's guide to understanding and addressing climate risk (www.carbontrust.co.uk).

Shareholder engagement

Shareholders are becoming more aware of the financial risks associated with social and environmental issues and are deciding to voice their concerns with companies in which they own shares. Long-term activists are being joined by mainstream investors who are both looking to shape and influence companies through their rights as shareholders.

A shareholder proposal is a document that a shareholder formally submits to a publicly traded company asking the company to take a specific course of action. There are two kinds of proposals made.

1. **Governance Proposals** focus on traditional management issues such as election of directors, board structure, and compensation as well as increased transparency, disclosure, and corporate investments in sustainability.
2. **Social and Environmental Proposals** call for changes in a company's response to issues such as climate change and employee discrimination.

Proposals can be submitted by individuals but are most likely submitted by one of the following groups on behalf of a group of individuals:

- ***Socially responsible investors*** who make decisions based on a company's social, environmental, and governance performance as well as financial returns. For example, Calvert Investment Management and Trillium Asset Management asked Smuckers Jam Company to report within 6 months on its plans for managing climate change risks to its coffee supply chain.

- **Pension funds** are not only increasingly applying a sustainability lens to their investments but also doing a lot of research in this area. Several retirement fund groups, including the New York City Retirement System, recently urged Hewlett-Packard Co. to address corporate governance policy and board composition.
- **Faith-based institutions** were instrumental in creating the movement of shareholder activism, a movement which gave rise to the Interfaith Center on Corporate Responsibility, an association of 275 faith-based institutional investors who sponsor 200 shareholder resolutions a year on behalf of its members who view their investments as a catalyst to promote justice and sustainability.
- **Special interest groups** use resolutions to promote their own issues such as animal welfare. These resolutions usually get low votes but can be an effective way of raising awareness about a particular issue.
- **Individuals** who own a certain amount of shares are also putting forward proposals.
- **Labor unions** are looking at using their shareholder power to influence companies in the areas of labor rights and worker safety, for example.
- **Foundations** such as As You Sow, which utilizes proxy voting to file resolutions on a range of issues and in partnership with other NGOs and organizations around the topics of energy, environmental health, waste, and human rights.

The number of resolutions being filed has been steadily increasing. While shareholder votes are typically advisory in nature, they send a strong message to management about issues of concern to investors. Companies do not have to comply with the vast majority of shareholder proposals; however, those with good management values generally respond to the concerns raised and those that do not respond put themselves at further risk. Most shareholder concerns are addressed successfully via dialogue and do not end up at the resolution stage. In 2012, Calvert Investments won commitments

from Colgate to source 100% certified palm oil for their products. Shareholders also pushed companies such as Garmin and Crocs to publish sustainability reports. In 2009, in response to shareholder resolutions filed by among others Bard College Endowment, McDonald's agreed to formally survey and promote best practices in pesticide use reduction within its American potato supply chain. This agreement led to the withdrawal of a shareholder resolution filed by the university endowment, as well as a project to share best practices across the industry in this area.

One challenge is that many shareholders do not know what their money is invested in, and if it is being invested through a fund, what that fund is investing in. There are several projects to raise awareness in this area. For example, Calvert Social Index, which measures the social performance of the largest 1000 US-based companies, has a service called Know What You Own, which allows you to see what is in your US mutual funds and if the companies held meet Calvert's social standards.

Ceres is a US coalition of investors, environmental groups, and other organizations that among other things track proxy voting. Resources include Proxy Voting for Sustainability (www.ceres.org). The CEO Pay Survey (info.gmiratings.com), Council of Institutional Investors (www.cii.org), and Proxy Democracy (www.proxydemocracy.org) are all interesting resources. Investor Environmental Health Network is a partnership with investment managers who – through dialogue and shareholder resolutions – encourage companies to adopt policies to reduce and eliminate toxic chemicals in their products (www.iehn.org). Transparent Democracy (transparentdemocracy.org) provides tools for investors to use their voting power to produce positive changes in the companies they own.

Ratings and indexes

A variety of external ratings, rankings, indexes, and awards are seeking to measure and track the environmental, social, and governance performance of leading sustainability-driven companies around the world. They provide asset managers with increasingly reliable and objective benchmarks to manage sustainability portfolios and are used as a basis for responsible investment decisions. They are also being used by consumers to influence their buying decisions and by employers looking at where to apply for jobs. For these reasons it is important that these ratings be accurate and credible.

For businesses, participation in these programs can have several benefits:

- Communication of their sustainability efforts to a wide audience, thus enhancing their reputation and brand as a good corporate citizen.
- Third-party authentication for their ESG efforts, if the ESG firms rate them well or include them in indexes.
- Access to additional investment through inclusion on sustainability indexes.
- Understanding of their own strengths and weaknesses, identification of potential opportunities for improvement, and self-benchmarking against competition through the response process and research firm feedback.
- Many companies also link management performance evaluation on ratings and indexes.

There has been a significant increase in ratings since 2005 (from 21 to over 110 today) as well as an increase in the variety of such ratings and how information is collected to create them. For some, the information is collected through surveys sent directly to businesses and is complemented by additional information collected through various media and stakeholder reports. Some are focused

entirely on publicly available information. In some cases analysts personally contact individual companies to clarify points that arise from the analysis of the information collected. Some indexes provide in-depth information about their methodology on their website, while others disclose very little information on what they base their decisions on.

There are several different types of ratings. Investor-focused indexes tracking the financial performance of leading sustainability-driven companies internationally are increasingly important for investors and analysts. Launched in 1999, the Dow Jones Sustainability Index chooses companies based on a set of criteria and weightings covering economic, environmental, and social areas. Every year the 2500 largest companies in the world are invited to take part in the assessment, which looks at:

- Economic dimensions. Codes of conduct, compliance, corruption and bribery, corporate governance, risk and crisis management.
- Social dimensions. Corporate citizenship, labor practice indicators, human capital development, social reporting, talent attraction and retention.
- Environmental dimensions. Eco-efficiency, environmental reporting.

Another example is the FTSE4Good Index series launched in 2001. To be included, companies need to demonstrate that they are working toward environmental management, climate change mitigation and adaptation, countering bribery, upholding human and labor rights, and supply chain labor standards. A small number of sectors – such as tobacco and weapon companies – have been excluded. Companies who do not comply are taken off the list.

Indexes are also active at the national level. Brazil Nuevo Mercado, part of the São Paulo Stock Exchange in Brazil, has stricter reporting rules and expanded share-owner rights, in order to attract investment from outside the country. The promise of greater transparency

and higher corporate governance standards by the companies listed has led to great increases in foreign capital invested in Brazilian listed companies.³³ The Janzi social index consists of 60 Canadian companies that pass a set of broadly based environmental, social, and governance rating criteria.

A second group of indexes and ratings are those that are consumer focused. Also introduced in Chapter 11, this includes ratings such as Greenpeace's Supermarket Seafood Sustainability Scorecard or more product-level ratings such as Good Guide and the Sustainable Consortium. These ratings can be more influential for a company's brand image.

A third group of indexes and ratings are those that are industry, region, or topic focused. This includes Tomorrow's Value Rating, Global 100 World's Most Sustainable Companies, regional indexes such as the Asian Sustainability Rating, topic specific such as CR Magazines 100 Best Corporate Citizens or the Carbon Disclosure Project Leadership Index, or more industry-specific ones such as the Access to Medicine Index which measures pharmaceutical companies' efforts to improve universal access to medicine.

As the number of indexes grows, so does the number of surveys companies are being asked to fill out. One challenge companies are facing in this area is that filling out the surveys takes up company resources, in particular time. In an attempt to solve this issue, HSBC has started having regular webcasts where analysts are invited to hear about the sustainability strategy and ask questions – hoping that these regular conversations will minimize the requirements to fill out questionnaires. Companies are encouraging financial institutions and information requestors to take steps together to improve the information-request process in order to increase the likelihood of participation. There is also a growing movement to take these specialized indexes and merge them into traditional indexes in order to have all the information available in the same place.

Sustainable Stock Exchanges Initiative is a coalition of stock exchanges representing more than 4500 companies working together in this area (www.sseinitiative.org). Other indexes include the London Stock Exchange's Corporate Responsibility Exchange Sustainability indexes, KLD Indexes Bloomberg SRI, ASSET4, and NASDAQ OMX CRD Global Sustainability 50 Index. SAM and PwC's Sustainability Yearbook breaks down the leading companies into Gold, Silver, and Bronze classes (www.sam-group.com). SB20 is a list released yearly of the world's top sustainable stocks (www.sustainablebusiness.com). Also see UNEPFI's publication Understanding Corporate Sustainability Disclosure Requests (www.unepfi.org), consulting firm SustainAbility's Rate the Raters (www.sustainability.com), and the work of the Global Initiative for Sustainability Ratings (ratesustainability.org). Also see the box 'What does a leading company look like?' in Chapter 4.

Project finance

Environmentalists, who have for decades been raising awareness on the negative social and environmental impacts of certain large infrastructure projects, are now beginning to make the connection between the projects they campaign against and the financiers who back those projects. At the same time, financiers have begun to understand that social and environmental risks pose a threat to long-term shareholder value and must be taken seriously.

Project finance, according to the Equator Principles, 'is a method of funding in which the lender looks primarily to the revenues generated by a single project both as the source of repayment and as security for the exposure.' Project finance is generally used to finance

large projects such as processing plants, mines, infrastructure, dams, and power plants. Owing to their complexity, size, and location, these projects often have challenging environmental and social issues that may include involuntary resettlement, loss of biodiversity, impacts on indigenous and/or local communities, worker safety, pollution, etc. Because these large projects generally face high scrutiny from regulators, civil society, and financiers, there is often a need to allocate more resources to manage environmental and social risks and, more importantly, prevent them from happening in the first place.

In 2002, led by the World Bank Group's International Finance Corporation (IFC), banks working in the project finance sector developed the Equator Principles, a common set of environmental and social policies and guidelines that could be applied globally across all industry sectors. The principles are voluntary and aim to ensure that projects – whether they are large infrastructure projects such as dams or smaller projects – are financed in a manner that is socially responsible and reflects sound environmental management practices. Basically the institutions that are signatories have committed to not providing loans to projects where the borrower will not or is unable to comply with social and environmental policies and procedures.

While voluntary standards and principles are an encouraging step toward sustainable business in the project finance world, implementation of these standards and principles is where the greatest challenge lies. Sometimes, despite a company's efforts in this area, things go wrong. In these cases increasingly institutions are looking to put mechanisms in place to create a space for those in the communities negatively affected by the project to have a voice. In Chapter 9 we looked at, for example, the UN Business and Human Rights Guiding Principles, of which one is around grievance mechanisms. One example of such a mechanism is the Compliance Advisor Ombudsman (CAO), an independent recourse mechanism for the International Finance Corporation and Multilateral Investment Guarantee Agency – two private-sector arms of the World Bank

Group. The CAO responds to complaints from communities affected by IFC/MIGA-sponsored projects with the goal of enhancing social and environmental outcomes on the ground and provides greater public accountability for the work of the two agencies. The CAO has three roles: first, acting as a neutral third party to help resolve community/company disputes using dispute-resolution approaches, such as mediation, facilitated dialogue, and participatory processes that are voluntary between the parties; second, overseeing compliance investigations of IFC's/MIGA's social and environmental performance; and third, acting as an independent advisor to the World Bank Group President and IFC/MIGA senior management on systemic social and environmental concerns.

See the Equator Principles (www.equator-principles.com). The IFC applies certain good practice standards to all the projects it finances to minimize their effect on the environment and on affected communities (www.ifc.org/sustainability). The CAO has some good resources in this area, as well as in-depth details on the cases they are working on (www.cao-ombudsman.org). There are a growing range of independent accountability mechanisms for large international banks (<http://www.cao-ombudsman.org/about/partners/>). BankTrack is a global network of civil society organizations tracking the operations of the private financial sector and its effect on people and planet (www.banktrack.org).

Challenges?

- ***From short term to long term.*** The financial sector is built around institutional incentives that reward short-term results more than long-term ones. Pressure to meet quarterly targets and market expectations makes it challenging to focus on long-term results.

- ***Shareholders and customers.*** There is still a disconnect between shareholders' professed values and what they expect from their investments. The same is true of customers, who are pressuring banks to move forward on these issues without supporting the banks' efforts by using these products. There are many reasons why this is the case, including staff and customers not being aware of the different sustainability products on offer and a continuing belief that all responsible investment products will underperform financially.
- ***Failure to price.*** The failure to put a correct price on environmental and social goods and services that really matter means that they are often ignored or undervalued. The financial system as it is now has limited capacity for exploring the wider social impact of investments.
- ***Competencies.*** Most analysts have limited knowledge of sustainability, and new analysts are not receiving enough training to use non-financial criteria in financial valuation.
- ***Free-riders.*** Companies will pay less than their peers for protecting the external environment if they can get away with it, and may even be rewarded by an increase in their share price (in the short term at least).
- ***Siloed thinking.*** Many products and discussions are focused only on one topic, for example climate change. But is that really your biggest and only risk? The range of sustainability issues is very broad, and all aspects should be considered.
- ***Cost payback analysis.*** The number of years required for some sustainability projects to pay for themselves may appear high with a traditional payback analysis. However, many times these are revealed to be more than cost-effective over the long term.
- ***Access to better information.*** The current availability of data varies widely between companies, sectors, and regions, and is based on different voluntary and mandatory reporting regulations.

Trends and new ideas

- *Cross-disciplinary collaboration*
- *New landscape for corporate ownership*
- *Long-term value*
- *The role of the CFO*
- *Insurance sector*
- *A new kind of bank*

Cross-disciplinary collaboration

While many had their thoughts and opinions not just on what caused the financial crisis but how to prevent it from happening again, an unlikely group emerged with their suggestions; the biologists. A number of biologists have been advising the Bank of England on how to reform global finance. This is part of an emerging trend of interdisciplinary thinking around sustainability, brought up several times in this book. Making sense of the relationship between the individual and the system is what biologists do. After taking a look at a model of the financial system they were able to see parallels with their work in biology. For example, less stable ecosystems have less diversity and a high degree of connectedness between species. The banking model is a system that is not only relatively homogeneous but also very connected – meaning, like an ecosystem in the same state, it is very vulnerable to shocks. Another field of biology also had its say; infectious disease epidemiology noted that when a disease outbreak occurs, the superspreaders need to be identified and isolated from the rest of the population. In banking, during the crisis, the equivalent of the superspreaders (those institutions with the most toxic debt), instead of being isolated, were supported with taxpayer money and encouraged to merge with others.³⁴ Biologists are now working at providing some feedback on how, based on their experiences in their own field, the financial sector could be strengthened.

New landscape for corporate ownership

Shareholders in large companies are no longer limited to the wealthy, privileged few. Today, working people around the world have their pensions and other life savings invested in shares of the world's largest companies. For example, the biggest shareholding body in Canada is the teachers and civil servants of Ontario, while in Denmark it is the workers' pension fund. TIAA-CREF, the pension plan for US teachers and university staff, itself controls about 1% of all US stock market capitalization, and CALPERS, the California Public Employees Retirement System, is almost as big. Through pension, insurance, and savings institutions millions are inheriting power. So, as the World Economic Forum puts it, 'Each pensioner owns a tiny interest in a vast number of companies. From the telecoms of Panama to the chemical companies of Germany, from the electronic companies of Silicon Valley to the oil wells of Nigeria, millions of citizens are the beneficial owners.' This is important for two reasons. First, it means that the responsibility of investors will increasingly be to meet the intrinsic interests of owners in the long term, owners who represent people internationally. Second, this group of people could start speaking up as they become more aware and engaged.

At the other end of the spectrum, approximately 11 million high-net-worth individuals (HNWI) worldwide hold at least US\$1 million in financial assets, a number which is increasing rapidly. These investors are increasingly interested in green tech and alternative energy investments in their portfolios (12% of HNWI and 14% of ultra-HNWI), according to the World Wealth Report produced yearly by Capgemini and RBC. A yearly study by Eurosif found that sustainable investments by HNWI rose to 1.5 trillion euros in 2012 compared with 729 billion euros in 2009, reflecting persistent demand even in volatile markets.

Long-term value

Jack Welch, the former CEO of GE, was quoted as saying ‘Shareholder value is the dumbest idea in the world. (It) is a result, not a strategy. Your main constituencies are your employees, your customers and your products.’ The recent economic and financial events sent out a clear message about the consequences and costs of short-termism. Survey after survey reports CEOs, senior executives, and sustainability experts agreeing that short-term profit motives are one of the biggest obstacles to environmentally responsible business and that the pressure to deliver immediate financial results is a big barrier to sustainability efforts. In response to this the CEO of IKEA, Mikael Ohlsson, was quoted as saying ‘While many current-day CEOs may agree in principle, the pressure of quarterly earnings reports can nevertheless push executives to favor short-term profits over long-term success.’ He also said ‘What is good for our customers is also good for us in the long run. We are not on the stock exchange, so we can act long term.’

Another interesting quote comes from an article in the FT which says ‘Strong total shareholder returns are what ultimately matter to investors in a company. But there are reasons to think that shareholder value, like happiness and many of life’s other good things, is best achieved by not aiming at it too directly.’ For example, an executive is compensated based on stock price which means that over the 3 years they have the job, they may take dangerous short-term business risks, the results of which will only become evident long after those options have been monetized.³⁵

Several projects are under way to look at how we can move away from short term to long term. Aspen Institute’s long-term value creation guidelines focus on corporate–investor communication and look at aligning company and investor compensation policies with long-term metrics (www.aspenbsp.org). Also see The Future Quotient by Volans (www.volans.org) and the World Future Council (www.worldfuturecouncil.org).

The role of the CFO

Traditionally, the CFO has not been involved in sustainability, instead running the numbers and letting others handle these issues. Not any more. The role of the CFO is in integrating sustainability with business planning to support targets and objects to embed sustainability within the core decision-making of the organization. CFOs can link sustainability to business performance systems to drive better decisions and then apply financial expertise to ensure they create more value.

Moreover, the corporate finance team often leads key business processes, such as budgeting, capital appropriations, internal and external financial reporting, executive compensation, and energy management that directly affect the achievement of sustainability goals. So, CFOs are increasingly pushing sustainability and becoming active about their efforts in this area. One-third of CFOs surveyed on behalf of Deloitte by Verdantix said that they are ‘fully involved in all aspects’ of sustainability strategy at their firms; another 36% said they are periodically involved and these numbers are increasing. The Chartered Institute of Management Accountants provide the following guidance for CFOs to get engaged:

- Make it strategic, not just tactical.
- Apply a financial mindset and link sustainability business performance.
- Identify and use the right metrics consistently.
- Improve the process of data collection, analysis, and reporting.
- Integrate with business planning and reporting.

There is a range of papers on the role of the CFO in sustainability produced by the different consulting companies, such as Ernst & Young, Deloitte, and Accenture in partnership with the Chartered Institute of Management Accountants (www.cimaglobal.com).

Insurance sector

The insurance sector is the world's largest economic sector, which reaches virtually every customer and business around the world. Without insurance, businesses and individuals would be afraid to take the risks that are necessary for the continuous development of a capitalist society. It is in the insurer's interest to reduce risks and improve sustainability. According to UNEPFI, 'The insurance industry is a strong lever for implementing sustainability due to its size, the extent of its reach into the community and the significant role it plays in the economy.'

The sector is increasingly concerned with climate change, health, man-made risks, and environmental liability, to name a few. Two types of insurance products have appeared in response: (1) products which differentiate insurance premiums on the basis of environmentally related characteristics; and (2) products specifically tailored for clean tech and emission reduction activities. Argentina's government is the first in the world to require companies involved in potentially hazardous activities to purchase insurance covering environmental damage to the country. In 2012 the Principles for Sustainable Insurance were created to provide guidance for insurance companies on how to progress in this area (www.unep.org/psi). Another initiative in this area is Climate Wise, which is working to develop the insurance industry's strategy on climate change and currently includes over 40 members (www.climatewise.org.uk).

A new kind of bank

It is probably safe to assume that most individuals are not happy with their bank for some reason or another, from hidden fees to poor service. Combine high customer dissatisfaction with the current global financial turmoil and it is easy to conclude that banking is an area just begging for innovation and change. Now some banks

are stepping up to answer the call for change – from new product offerings to redefining the whole concept of banking to be more transparent and inclusive.

Many mainstream banks, such as Nedbank in South Africa, have now started exploring how to be more sustainable first in their operations, for example by sending statements, invoices, and other notices by e-mail to save paper, but more importantly in the sustainability-related financial services and products offered to retail and business customers. ‘Green mortgages’ are available with considerably lower interest rates for clients who purchase new energy-efficient homes and/or invest in retrofits. A range of green loans are available in all categories including home equity loans and car loans. An increasing array of credit cards donate a percentage of every purchase to different charities.

Where individuals and small businesses are getting fed up with the big banks, they are turning to a growing number of successful alternatives. In the UK, the Co-operative Bank continues to grow largely due to the explicit ethical policy first launched in 1992, which is based on continued customer consultation. In Europe, Triodos Bank is committed to transparency and the realization of social, environmental, and cultural objectives in day-to-day banking. As a result, it only finances enterprises and organizations that add social, environmental, and cultural value. Community-based banks are often more focused on small business loans and personal service to the community. Umpaqua Bank sets up its branch locations like neighborhood hubs, with a focus on community and a range of green products and free events and seminars. ShoreBank Pacific reported its tenth consecutive quarter of record earnings. San Francisco-based New Resource Bank formed in 2005 with the aim to build a bank that was ‘by the people for the people’ of their community. Khazana, a bank in India, is exclusively run by and for children, in particular street children who earn just US\$1 a day. Started in 2001, it now has 400 branches in six countries.

The Collevocchio Declaration, signed by over 100 NGOs, calls on big banks and investors to take responsibility for the environment and socially harmful impacts of their activities. 'Green Financial Products and Services' by UNEPFI has a long list of different products now being offered by banks (www.unepfi.org). The *Financial Times* and IFC give out sustainable banking awards yearly: past winners for sustainable bank of the year include Nedbank (South Africa), Itau Unibanco (Brazil), YES Bank (India), Standard Chartered (UK), and Credit Suisse (Switzerland).

Want more?

- The Chartered Financial Analyst Institute (CFA) has done some work in ESG, including a manual for investors on these issues (www.cfainstitute.org). The GRI has a special supplement for the financial services sector that provides guidelines for reporting (www.globalreporting.org). CFO released 'The role of finance in environmental sustainability efforts' (www.cfo.com).
- Several international initiatives are working to build understanding of the impacts of environmental and social considerations on financial performance. The UNEP Finance Initiative is a global partnership between UNEP and the financial sector, with over 170 institutions. Signatories (representing more than US\$15 trillion) include most of the major banks (www.unepfi.org). The London Principles outline seven characteristics that underpin the sustainability of financial markets (www.cityoflondon.gov.uk).
- Ceres is a coalition of investor groups, environmental organizations, and investment funds that engage directly with

companies on environmental and social issues. Based in the USA, it currently has more than 70 members and 60 companies who follow the Ceres principles (www.ceres.org).

- Network for Sustainable Financial Markets (www.sustainablefinancialmarkets.net) and FSinsights (fsinsight.org) are both groups of academics and finance-sector professionals exploring how to make the financial markets deliver long-term sustainable value.
- The Climate Principles are a voluntary framework to guide the finance sector in tackling the challenge of climate change (www.theclimategroup.org). The Natural Value Initiative works with the finance sector to evaluate biodiversity risks in their portfolios (www.naturalvalueinitiative.org). The Finance Lab looks at how to innovate across the whole financial system (thefinancelab.org).

Read: *Sustainable Banking and Finance: People, the Financial Sector and the Future of the Planet* by Marcel Jeuken and J. Smits (2001).

Microfinance

'We are aiming at a world where a wide variety of strong institutions jostle and compete with one another for poor people's business, innovating and improving services to earn their loyalty.'

CEO OF CGAP

For the most part, the financial sector works well in countries where individuals have a place to put their money, borrow, and have access to a variety of other financial services. The story is very different in developing countries, where around 2.5 billion people have no or little access to financial services and when they do have money, they have nowhere to put it.

Historically, banks dismissed the opportunity to provide services to the poor because it was not seen as a viable alternative, and the barriers to working in certain countries, and reaching the customers, were seen as insurmountable. In the 1970s the shift to microfinance began – as different groups in Columbia, Brazil, and India started testing the disbursement of microloans to individuals (often women, pensioners, artisans, and small farmers), which could be used to start or build up their businesses.

The initiatives were a success. One woman in Bolivia who sold flowers from a street corner in La Paz, together with three other women, was able with a small loan from ACCION International to buy flowers in bulk at a much cheaper rate. Because of her strong repayment record, she was approved for larger loans until she was able to borrow on her own. Today she has been able to send all three of her children to school and even has money left to make improvements on her house.

Some 97–99% of loans from well-performing microfinance institutions are repaid. Experts point to several reasons for this repayment success. First, these loans represent one of few, often the only, opportunities poor people have to access money. Second, prompt repayment of loans allows individuals to have access to more funds and other financial services, which builds a continuing cycle of creating a better, more sustainable life for themselves. Also, in some cases group lending is used where a number of individuals provide collateral or guarantee a loan through a group repayment pledge. The incentive to repay is enhanced based on peer pressure to pay (the stick) and peer support to help a member in difficulty (the carrot): the group has a structural incentive to get involved because if one person in the group defaults, then other group members are required by the contract to pay back the loan.

Microfinance is often seen as a win/win solution. The availability of financial services to the world's poorest gives them opportunities and options to go beyond meeting basic needs, increase their household income, save, and take on credit. Many microfinance institutions report having better returns on equity than large banks do.

Today the boundaries between microfinance and the formal financial sector are starting to break down and the term 'microfinance' now

(continued)

encompasses an ever-growing range of organizations and services, experimentation and new entrants, new delivery channels, and new clients. Finca, for example, provides micro-energy loans that allow Ugandans to buy solar energy systems for their homes. This provides opportunities for a wider range of individuals to access microfinance and not just entrepreneurs. In effect, microfinance is now going mainstream – with national and international banks such as ICICI, Citigroup, Deutsche Bank, and HSBC testing the waters. Development finance institutions such as the International Finance Corporation are also getting involved.

Although the benefits and success of microfinance are clear, there have been some growing pains for this movement. Some institutions are charging higher interest than usual, up to 200%, and siphoning money to unrelated activities. Over-indebtedness, lack of professionalism, and corporate governance are also common criticisms of institutions. There is still much work that needs to be done.

- ***From a charity to a business.*** Work needs to be done to change something that started as a charity into a proper business. This includes bringing down the cost of operation, which at the moment is very high, increasing efficiency, and focusing on human capital.
- ***Information sharing.*** There is a need to increase transparency regarding performance, which is currently low, and share information systems such as client credit histories.
- ***Interest-rate ceilings.*** Some countries impose interest-rate ceilings that discourage firms from entering the market, because these ceilings make small loans cost more than large loans.
- ***Expensive.*** Because of the small size of the loans and fixed transaction costs, the interest on the loan can be high. However, informal lenders can charge 100–150% per annum, so while microfinance is expensive, it still offers funds at rates way below the informal loan market.
- ***Beyond business loans.*** Microfinance is slowly expanding to provide a larger variety of services for the poor, including credit, savings, remittances, insurance, and different kinds of loans for both consumers and businesses.
- ***Source of money.*** The money in microfinance has historically come from charities, governments, and international organizations, with

growing interest from large banks and private investors. Going forward, microfinance applicants will increasingly be funded by domestic savings and local banks with the aim to help build domestic financial markets. Increasing interest from mainstream social investors, a very fragmented sector, will continue to cause shifts and consolidations.

It isn't just financial institutions getting into microfinance – several platforms have emerged online inviting the general public to invest their money in microfinance. Kiva, MyC4, and Zidisha are all person-to-person microlending websites where individuals can browse through real individuals in need of funding, including entrepreneur profiles. Once a person chooses who they want to loan to and make the loan, they receive e-mail updates and can track repayments.

Technology is also being used to make it easier for people to have access to their money. In Kenya, the M-Pesa telecommunications system allows people to send money over mobile phones. Cash is handed over to registered retailers who credit customers' virtual accounts. Customers can then send between 100 and 35 000 shillings via text message to another person, who can then pick up the money at another registered retailer using a secret code and ID.

Want more?

- UN Capital Development Fund has an online course on microfinance which provides a good introduction (www.uncdf.org). The year 2005 was the International Year of Microcredit and the website has quite a few resources on the topic (www.yearofmicrocredit.org). CGAP is an independent policy and research center dedicated to advancing financial access for the world's poor. It also produces a yearly survey of microfinance (www.cgap.org). The Microfinance Gateway is a large online resource on microfinance including research, publications, articles, news, and job opportunities (www.microfinancegateway.org). Over 2000 MFIs report to the Microfinance Information Exchange (www.themix.org). See Principles for Investors in Inclusive Finance (www.unpri.org).

- *Forbes* magazine regularly ranks the 50 top microfinance institutions. Leaders include ASA in Bangladesh, Bandhan in India, Banco de Nordeste in Brazil, Fundacion Mundial de la Mujer Bucaramanaga in Colombia, and FONDEP Micro-Credit in Morocco (www.forbes.com).
- Rating agencies such as Moody's (www.moody.com), Fitch (www.fitchratings.com), and Standard & Poor's (www.standardandpoors.com) have begun either to rate microfinance transactions like bond issuances or to rate the institutions themselves, and provide research on the subject. Microrate is a rating agency dedicated to the evaluation of microfinance institutions (microrate.com).

Read: *Creating a World without Poverty: How Social Business Can Transform Our Lives* by Muhammad Yunus (2008), who won a Nobel Peace Prize in 2006 for his work on microfinance with Grameen Bank. *More than Good Intentions* by Dean Karlan (2011), *Financial Promise for the Poor* by Kim Wilson (2010), *Confessions of a Microfinance Heretic* by Hugh Sinclair (2012).



'Sustainable Marketing is about influencing customer behavior to create both profit and positive societal change. It is about what you market and the way in which you market.'

BUSINESS IN THE COMMUNITY

Marketers are both the supervillains and superheroes of sustainability. As supervillains they spend their time encouraging people to buy more, promoting unsustainable consumption. As the WWF puts it, ‘Marketers are blamed for a multitude of sins: encouraging ever greater consumption of alcohol, fatty foods, empty calories, water and biological resources; using too much packaging; limiting the useful life of products so that people are forced to replace them earlier than necessary; producing greenhouse gases. The list seems never-ending.’³⁶ On the other hand, as superheroes, ‘the real power lies in the hands of the marketer – the creative folks who have the power to design and promote cleaner products and technologies and help consumers evolve to more sustainable lifestyles.’³⁷

The way that people buy and consume products has an impact on the planet and society. So as superheroes, marketers can use their power to inspire and orient positive changes in consumer behavior in several ways. First, they work to identify, anticipate, and satisfy customer requirements profitably by identifying opportunities for more sustainable products. Second, they market their products in a responsible way that does not promote over-consumption or misinformation through greenwashing. Third, they communicate information about the product and how best to use and dispose of it so we can make more educated decisions.

Why is it important?

- **Opportunities.** Although surveys differ (estimates range widely from 5% to 75%), a potentially large percentage of consumers are ready and looking to purchase products on sustainability grounds but currently don’t because these products are either not accessible or unavailable. It is a growing market that is not yet being effectively reached.
- **Bad news can spread quickly.** Whether the news has substance or not, the rise of social networks and influencers means that you are not the only one developing your marketing message. Not

having a consistent, well-thought-out message will be picked up and can have a lasting negative effect on your brand.

- ***Good news can also spread quickly.*** If you take sustainability seriously, and it shows through in your products and marketing campaigns, others will do the marketing for you by spreading the news as best practice. In some markets, such as organics and fair trade products, governments and NGOs run awareness campaigns that indirectly promote products with these labels.
- ***Return on ignoring.*** By being transparent in their communications with stakeholders, companies can build trust and loyalty with their customers. Leading companies in this area are building their reputations on years of work rather than a campaign they can stand behind for a month.
- ***Internally and externally.*** Marketers have a crucial job in providing consistent messages about sustainability and the company not only to external customers, but also, perhaps more importantly, to employees and internal teams.
- ***Impact is in the use.*** Considering that the majority of the impact of a product (80%) is actually in the way that it is used and disposed of, marketers can play a key role in educating the consumer on how to best use and dispose of the product in order to reduce the full lifecycle effects of the company's products.
- ***Selling products.*** A company can put a lot of effort and investment into creating a new, more sustainable product but if the marketing department doesn't do its job, the product will not sell – sending a strong message to the company that sustainability isn't worth it.

The key concepts

Marketers are present throughout the lifecycle of a product and have many opportunities to embed sustainability in their work in the following ways:

- Identify who your customer is → *People*
- Identify what your customer wants → *Products*
- Determine how much to charge for those products/services → *Price*
- Determine how best to sell those products/services → *Place*
- Determine the best way to present and protect those products → *Packaging*
- Communicate your sustainability commitments and characteristics → *Eco-labels*
- Increase awareness about the issues that are important to your company → *Social marketing*
- Help raise money for causes that are important to your stakeholders → *Cause-related marketing*
- How to promote your sustainability commitments → *Box: Advertising dos and don'ts*

People

Increasingly, customer concern for the environment and society is translating into a demand for more sustainable product options and choices. The extent of this increased demand, however, is a contentious issue.

Numerous studies propose numbers of consumers being prepared to buy 'green' that range from 5% to 75%. Private research firms and the producing companies themselves are working to segment the green consumers to better understand who their customer

is and what they want. This has resulted in an ever-growing variety of groupings, for example:

- Those who will buy sustainable products no matter what.
- Those who will buy green but expect high standards and quality.
- Those who are not sure what to think but do want to buy green if it is easy and straightforward.
- Those who are completely confused as to what to buy and therefore end up not buying green.
- Those who stay away from green products and are uninterested in this area altogether.

The majority of consumers are in the middle group. They are ready to purchase green but influenced by a variety of different sustainability factors to different degrees.

It has proved difficult to isolate the so-called 'green consumer' for several reasons:

- Some studies tend to overstate green behavior by focusing on what people say they do, but not on what they actually do.
- Other studies understate the potential by focusing on only one element of green products (e.g., whether a consumer would buy products that are organic but not looking at products designed to increase efficiency).
- The potential market can be overlooked by looking only at the demand for existing products but not the potential demand for products that do not yet exist in this area.
- Decisions are based on a range of factors often combined together. Consumers will choose a hybrid car for both environmental and cost-saving reasons, or may choose organic food because it tastes better and is healthier, not just because it is better for the environment.
- As mainstream products become more sustainable, consumers will be buying green whether or not they consciously realize it.
- Consumers are not always familiar with or may not truly understand the meaning of the terms used in the surveys – such as

‘green,’ ‘sustainability,’ etc. They do not necessarily know what exactly a green product is or how to recognize a green company.

- By attempting to relate a consumer’s environmental concerns to what they purchase, we may be looking in the wrong place. Many of the significant contributions the consumer can make toward environmental quality actually come from product use, maintenance, and disposal.

Therefore, when considering why people would purchase sustainable products, it is more important to understand the compromises and tradeoffs consumers are being asked to make. Getting to this stage will then allow companies to focus on providing the products that people actually want and need, thereby making it simple for consumers to do their part. Some of the hurdles to be overcome are:

- **Performance.** Many consumers still see ‘green’ products as being inferior. Consumers are looking for green products that work as effectively, or better than, non-green options. Often, they will not buy green products on the basis of environmental benefits alone, and instead are looking for added selling points.
- **Price.** Consumers don’t want to pay much extra or sacrifice quality for greener products. They will only pay a premium if they feel that premium is justified, based on the guarantee of certain environmental or social factors, or added value to the consumer.
- **Personal benefit.** Consumers are looking for products that aren’t just making an impact far away, but that impact them directly as well. They will be more likely to respond to product attributes that will personally benefit them, such as ‘safe,’ non-toxic, cost-effective rather than just biodegradable or fair trade.
- **Convenience.** Consumers will tolerate only minimal inconvenience in using green products and don’t want to have to go out of their way to buy them. Products need to be easy to use and available at mainstream distributors.
- **Information.** Many consumers may be interested in buying more sustainable products but currently lack the right information at

the right time to make those decisions. They don't necessarily expect companies to have perfect green credentials, but will look for a commitment to improve and evidence backed by facts, for example through recognized eco-labels.

If a product is of high quality, readily available, and at a reasonable price it has the potential to capture market share. In an interview with *Harvard Business Review*, Steve Bishop from Ideo said 'don't bother with the green consumer.' He said that companies spend time trying to connect with those people who really understand the issue, the green niche so to speak, but in the process risk alienating their base who have different values and who are interested in solving their own personal needs before saving the planet. The solution? Rather than focusing on the features of a product, focus on consumer needs in order to cater to all consumers.

Those involved in marketing sustainable products should be interested in the following categories of consumers:

- The ever-growing *conflicted consumer*. This group, which is estimated at being anywhere between 25% and over 50% of consumers in some markets, believes that the companies they currently buy from are unethical and are building resentment toward the brands. Examples include certain fast-food restaurants for the perceived damage their food causes to children. This is a group of apparently loyal customers that are ready to leave as soon as a more ethical alternative product or service becomes available.
- Another important consumer group for green products is *women*. Women spend about 85 cents of every dollar spent and make more than half of family and business-to-business spending decisions.³⁸ Consumers are taking sustainability labels seriously and are asking companies to react to these issues.
- Product *evangelists* are your free sales force, they are the ones that do not just believe in your product, but believe in it so much that they will tell others about it. Finding the right tools to

engage with this group will increase sales, loyalty, and generate consumer insight.

- With increased levels of awareness about sustainability issues, *young people* are not just getting involved, but are increasingly influencing their parents' decisions in this area.

Sustainability consumers often get put into a group described as LOHAS (Lifestyles of Health and Sustainability) (www.lohas.com). Much of the research in this area is done by companies themselves or research companies such as Roper Green Gauge survey (www.gfkamerica.com), GlobeScan Green Behaviour Segments (www.globescan.com), and the National Geographic Society's 'Greendex' (environment.nationalgeographic.com). You can also find information about demand for different products from specialist organizations. For example, to find out more about the demand for fair trade products see www.fairtradefederation.org or for social investment see www.socialinvest.org.

Products

A sustainable product is one that provides environmental, social, and economic benefits over its full lifecycle. Some could argue that there is no such thing as a truly sustainable product. All products need energy, water, and materials to be designed, produced, and used. But much work is being done to reduce the impacts of products across the lifecycle.

Companies have two fundamental choices when it comes to creating sustainable products. First, they can take an existing product and make it greener. This involves many of the concepts introduced in eco-design, including using more sustainable materials, production processes, disposal, etc. Second, they can identify customers'

needs and wants and develop entirely new products that are able to better address these in a more sustainable way.

Consumers are looking for a variety of different kinds of sustainable product options (or combinations of), including:

- ***Products that present a solution.*** This could be a product that is a better alternative to what is currently available. The focus is on identifying a need and providing a product that satisfies that need.
- ***Products that are safer.*** Several sustainability products, for example those that use fewer chemicals and have more natural ingredients such as organic, aim at providing healthier, safer options for consumers (e.g., green cleaning products such as 7th Generation and Ecover).
- ***Products that save money.*** Many green products on the market right now, especially new technologies (both very simple or complex), allow consumers to not only reduce their energy or water use for example, but also to save them money (e.g., solar panels which enable a consumer to both generate their own power and sell excess power into the grid).
- ***Products that make them feel good.*** Certain products may or may not have any intrinsic sustainability characteristics but the companies producing them or the products themselves support causes that the consumer perceives to be important. Supporting those products makes the consumer feel as if they have done their part in making the world a better place.
- ***Products that make them look good.*** Some consumers are looking for products that look like they are green in order to communicate to others their green credentials (e.g., hybrid cars or green luxury goods).
- ***Products that make it easy to switch.*** Consumers are looking for products that make their life simpler, not more complicated, and they are looking for products that make it easy to switch. Consumers are also looking for products, brands, or retailers that are doing the work for them, such as products that all uphold certain standards so that they do not have to think about every single purchasing decision.

- **Products that are high quality.** Consumers are looking for products that are high quality (e.g., Mountain Equipment Co-op in Canada guarantees its products, which can be returned at any time for exchange, refund, repair, or credit).
- **Products that aren't doing harm.** Consumers are increasingly interested in supporting products that are not doing harm to society and the environment, in particular as the levels of awareness increase about the impacts of many of these products and processes.

Marketers have a role to not only question the underlying assumptions behind product development, but also, in some cases, to question the product altogether. Some producers may assume that consumers need to physically own a product in order to be satisfied with their purchase. But generally, it is the use of the product itself rather than the purchase that generates the satisfaction. With this in mind, marketers should rethink not only the way that products are designed, but how the entire product experience is designed. Can the product be rented, borrowed, reused, or repaired? Will it need to be disposed of? Traditional discussions around the purchase itself need to make way for more discussions about what happens after the purchase.

See Chapter 12 for more information on the design of sustainable products. IDEO in collaboration with BSR has created design toolkits for social impact and human-centered design (www.hcdtoolkit.org).

Price

A post on the blog of TerraCycle's founder explains some of the dilemmas that companies face with price. The company has a line

of eco-friendly cleaners that are just as good as synthetics and, in some cases, better. They are packaged in used soda bottles and retail at US\$2.99, cheaper than other eco-brands, but 70 cents more expensive than other household cleaners. ‘So here’s the question,’ asks Tom Szaky: ‘Our sell through at our retailers is very strong, so we could keep our price at \$2.99, and be the best price in the eco-field but still be a premium to the national brand. Or we could cut our margin and either match or even beat the prices of the conventional brands. It would hurt margin, but it should increase market share. It would be a bold but tempting move since we may be able to gain market share beyond the “eco-cleaner” category. What do you think we should do?’

Pricing products is a tricky business, whether they are green or not. Getting the price right is crucial; price it too high and you may miss the mainstream market but price it too low and consumers may see it as a lesser quality product. Price consistently comes up as a barrier to moving sustainability to become more mainstream, but it is not alone. It is only one part of the decision-making process for customers, along with quality for example. ‘How much more would you be willing to pay for greener products?’ contains a powerful message which promotes the image of the environment as an additional cost burden on business and consumers. It would perhaps be more appropriate to ask consumers, ‘Do you want to continue buying products that are inexpensive because they damage the environment?’³⁹

While the pricing of the product from the company’s side often rests on their actual costs, what a consumer is willing to pay for a more sustainable product is more related to the perceived value it brings to both the customer and to the environment and society as a whole. Determining how much a consumer is willing to pay for a sustainability product comes down to these points:

- ***The perceived value (financial).*** This has to do with the total value that the customer is getting from the product or service

itself, and how much value they are getting from this product as opposed to another one. This includes:

- *Operating costs.* CFC light bulbs, for example, may be a little bit more expensive than traditional light bulbs to buy, but they will cost the consumer less over time because they last longer and use less energy.
- *Indirect costs.* Is the product worth enough to the consumer that they are willing to go out of their way to buy it? Is it higher quality, or does it result in increased consumer satisfaction? Is the product easy to find, easy to use?
- *The perceived value (ethical).* This does not have to do with the product itself, but rather with the claims that the product makes. How much does the consumer value the environmental and social guarantees the product is making? This also depends on how much knowledge the consumer has about different issues, and therefore whether they are able to understand the positive changes that the company has made to society or to the environment. It also has to do with how far they believe the impacts being claimed are true. This includes:
 - *Direct impact.* Supporting a product that was made using sustainable materials, sustainable processes, fair trade, recyclable materials, etc. For example, a consumer choosing to buy paper that is recycled and FSC certified knows that they are protecting forests and supporting the responsible management of the world's forests.
 - *Indirect impact.* For example, some companies will link parts of their profit to social and environmental causes relevant to or of interest to their business. This is either through the price you pay, or as a percentage of profits. Customers then feel that they are doing something good by buying the product, especially if they care for the cause, and that if they are being asked to pay a premium it is going to the right place (see 'Cause-related marketing').

Another challenge in this space is companies who overcharge for green products knowing that a particular group of consumers will be willing to pay for them. A study by Accenture found that 60% of respondents admitted to charging a premium of 5% to 25% compared with non-sustainable goods. The price premium on sustainability items was often seen by the customer as a sort of sustainability tax, and taxes are typically meant to penalize and discourage a behavior. Surveys show that consumers overwhelmingly want to buy healthier, greener products but do not want to pay more for them. Therefore, competitive pricing is sustainability's path to mass-market adoption. Wal-Mart has realized this and is working to provide more sustainable options at competitive prices.

Place

The place in the marketing mix generally refers to where and when consumers will acquire a particular product or service. This includes several elements such as where the product is made and how the products are transported (see Chapter 12 for more). Here we will focus on where the product is being sold; the retailer. In this context, retailer includes any organization that sells and delivers a product to the consumer, and it can include supermarkets, stores, restaurants, and department stores.

Retailers have often been perceived as not only playing a passive role in sustainability, but in some cases being part of the problem. According to UNEP, the world's 200 largest retailers account for 30% of worldwide demand. Therefore, actions by retailers have a significant effect in this area, and in many cases, retailers are actually leading the changes. Wal-Mart, for example, states that with roughly 10 000 suppliers, 200 million customers each week at 10 000 retail units in 27 countries and more than 2.2 million associates, they 'have the ability to reach and influence people on a level unattainable by any other company.' Their strategy includes goals and targets in their supply chain, in the products they sell, their employees, and

the communities they operate in and source from. Wal-Mart aims to be supplied by 100% renewable energy, to create zero waste, and to sell products that sustain our resources and the environment.

Retailers have a number of areas to review in building and improving sustainability:

- ***Store management.*** Retailers should ensure that their own operations are sustainable, and that they are controlling and managing their environmental and social impacts in energy and water conservation, waste management, and recycling in stores and distribution centers. Over 130 Kohl department stores in the USA now have 40% of their power provided by solar panels on the roof. Because of the high upfront costs of the panels, SunEdison, a solar energy services company, paid for the panels and is selling the electricity to Kohl.
- ***Site selection.*** Retailers are looking not just at how they build their new buildings but also where. Tesco, a supermarket chain in the UK, has looked to build new stores on brownfields, meaning redeveloping lands in urban areas for new uses rather than expanding outward to rural or agricultural areas.
- ***Where products come from.*** The sourcing of consumer products includes working with suppliers to favor development of products that are more sustainable. For example, Starbucks started integrating conservation principles into its best-buying practice, and by working with Conservation International implemented CAFE standards which set ambitious goals to ensure high-quality coffee is grown and processed in a manner that is both socially and environmentally responsible.
- ***Eliminating unsustainable products.*** Some retailers are eliminating products they consider to be unsustainable from their stores and, where possible, offering more sustainable alternatives. After a 6-month consultation with its over 100 000 members, The Co-op, a food retailer in the UK, revised its product portfolio in support of more sustainable options, including banning the sale of eggs from caged hens in favor of free-range and organic eggs.

- ***Educating the customer.*** Retailers are providing more sustainable options for their customers to choose from. They are also educating their staff about these options, and pricing and promoting them appropriately. Spanish supermarket Eroski offers – as part of their campaign for more responsible consumption – a school for consumers where they can learn, among other things, how FSC-certified forests are managed.
- ***Where the product is placed.*** Retailers are making more sustainable products easier to find and easier to buy. Green products in some countries are confined to the health food aisle or store, which can limit the number and kinds of customers these products potentially attract. Office Depot publishes a special catalogue with its green offerings (over 2200 items), and in-store these offerings are placed alongside less green alternatives which has significantly increased sales.
- ***How the product is sold.*** Retailers are also exploring new ways to get the products to consumers in the first place. Allegrini, an Italian producer of biodegradable detergents, developed Casa Quick. Casa Quick takes its detergents in mobile vans from house to house and allows families to refill their bottles, paying only for the quantity taken. Consumers receive a kit of plastic flasks which are easy to carry from house to van.
- ***Presentation of products in-store.*** Several international companies – such as Unilever, IKEA, McDonald's, and PepsiCo – are working together through the global initiative Refrigerants Naturally! to combat climate change by replacing harmful gases with natural refrigerants in point-of-sale cooling machines.
- ***Retailing differently.*** The REI (an outdoor company) store in Boulder, Colorado, is not just a LEED-certified green building but also a community center. The floor plan is designed around a central resource area with meeting rooms, information kiosks, and a children's play area.
- ***Reverse logistics.*** Retailers can also provide a spot for consumers to bring back products for reuse and recycling. Many electronic

stores already have facilities to collect used batteries and supermarkets will collect used plastic bags. Electronic store Best Buy offers several recycling programs to the public, whether they bought the products at the store or not. They can bring them in for free recycling, they can trade in used electronics for gift cards, they can bring them in for repairs via their 'Geek Squad' program, or they can sign up for the Buy Back program when they buy a new product, allowing the customer to bring the product back in-store for a partial refund at the end of the product's life.

There are several groups looking at this topic, including the Retail and Industry Leaders Association's Sustainability Initiative (www.rila.org) and Greening retail (www.greeningretail.ca). For more, look at the five largest retailers in the world: Wal-Mart, Carrefour, Tesco, Metro AG, and Schwarz.

Packaging

Packaging is the first part of the consumer's tangible experience with your product. If a product or a company promotes itself as green and then uses excessive or unsustainable packaging, it is not sending a consistent message to the customer. Packaging should not only be seen as something that protects the product, but also as an opportunity to connect with the customer and transmit information about the product, what it is made of, how best to use it, and how to dispose of it when a consumer is finished using it. There are two components to sustainable packaging:

1. **The packaging.** Companies are making the packaging itself more sustainable. This includes looking at:

- *Materials used.* According to the Sustainable Packaging Coalition, sustainable packaging is packaging that:
 - is beneficial, safe, and healthy for individuals and communities throughout its lifecycle;
 - meets market criteria for performance and cost;
 - is sourced, manufactured, transported, and recycled using renewable energy;
 - maximizes the use of renewable or recycled source materials;
 - is manufactured using clean production technologies and best practices;
 - is made from materials healthy in all probable end-of-life scenarios;
 - is physically designed to optimize materials and energy;
 - and is effectively recovered and utilized in biological and/or industrial closed-loop cycles.
- *Reducing the amount of packaging.* The European Packaging Directive, for example, sets strict requirements to prevent the use of excessive packaging. In response to this, Danone spent three years re-engineering their yoghurt packaging to significantly reduce the packaging used, saving the company US\$2.5 million a year in the process.
- *Proper packaging.* Getting rid of all packaging is not the answer either. Under-packaging can be as much of an issue as over-packaging in terms of wasted energy and resources from ruined goods. Packaging needs to be considered in the context of the design and manufacturing of the product.
- *Packaging across the lifecycle of the product.* Producers must think about how much is being used and what kinds of materials are being used as part of the packaging, whether it is primary (the packaging customers see), secondary (the

packaging used to ship to retailers), or tertiary (the packaging used to ship the products from the manufacturers).

- *Keeping it simple.* Amazon's Frustration-Free Packaging initiative is designed to free customers from difficult packaging. Instead of being packaged in hard-to-open and hard-to-recycle plastic and cardboard packaging, Amazon works with leading manufacturers such as Microsoft and Mattel to package products in a simple, recyclable cardboard box.
 - *The design of the packaging.* O2 redesigned their packaging to encourage customers who didn't need a charger to opt out of receiving a new one when they upgraded their phone. This had a multiple knock-on effect, allowing phones to be posted through letterboxes (reducing courier deliveries), and offering a simple way to recycle their current phone.
 - *Rethinking the packaging.* There are large numbers of innovations in the area of sustainable packaging – from stores such as Upackaged in London, which only sells products in bulk and encourages customers to bring their own packaging, to toys whose packaging can be transformed into a second toy.
 - *Eliminating packaging.* In 1985 Swiss retailer Migros began selling toothpaste tubes without the unnecessary boxes they usually come in and went on to remove excess packaging from everything from yoghurt to drinks.
2. **The messages on the package.** Companies should also take the opportunity to communicate with the consumer through the packaging in the following ways:
- *Sustainability information.* Several companies take the space on the packaging as an opportunity to communicate their commitments and actions in this area, including goals and information on the causes that are important to the company as well as how the consumer can get more involved.
 - *Materials used (or not used).* Timberland's EcoMetrics label is a sort of nutritional label for shoes that lets customers know exactly what went into making the shoes. It lists the

product's energy use, global warming contribution, and materials efficiency.

- *How to use.* Labels are also the ideal location to give users simple and easy-to-understand information about how best to use the product in order to minimize the negative impacts, and also maximize the positive impacts.
- *How to dispose of.* Labels are being used to provide information for consumers on what to do with the product, or packaging, once they are finished with it. This can involve:
 - *Providing details on how the product itself can be returned, repaired, or reused.* Kiehls, a skin and hair product company, has a loyalty card which is stamped every time a customer returns an empty Kiehls container. Once you get a certain number of stamps, you can get free products. Other companies provide financial incentives, for example a deposit that is refunded if you return the used packaging or a discount on your next purchase.
 - *Providing details on how to dispose and recycle.* Marks and Spencer in the UK provides clear information on its packaging telling the consumer which parts of the packaging are recyclable and which are not.

Sustainable Packaging Coalition works to promote more sustainable packaging options (www.sustainablepackaging.org). The Packaging Design Library showcases packaging innovation and solutions that implement sustainable attributes (spcdesign-library.org). The Reusable Packaging Association has created an online calculator to help businesses determine the cost savings of converting to reusable packaging from single-use corrugated packaging (usereusables.com). The Sustainability Consortium is leading industry-wide efforts to create a sustainability labeling system for consumer goods (www.sustainabilityconsortium.org).

Eco-labels

As the market for socially and environmentally preferable products continues to grow, so does the need for customers to sift through the increasing number of environmental and social claims used in the marketing of these products and services and to understand what they mean. Eco-labels, found on a wide variety of products, tell consumers about certain environmental or social standards the product complies with. Labels exist for a wide range of product and service qualities, including, but not limited to, energy and other resource efficiency, sector-specific labels, organic and other food-related labels, social labels such as fair trade, recycling, product content, and design.

The variety and types of eco-labels continue to grow, and many eco-labels are introduced throughout this book in the relevant areas. According to the ISO standard on eco-labels (14020), there are three major categories of eco-labels.

Type 1: *Third-party claims* are awards given by a third party requiring a product to meet certain independently set criteria. These show leadership characteristics rather than just presenting information, and are often accompanied by public awareness campaigns to educate consumers about what the label means. (For more on this, see ISO 14024.) Examples include:

- Regional and national eco-labeling schemes such as the EU Flower, Germany's Blue Angel – considered the first and oldest environmental label, Nordic Swan, Japan's Eco Mark, India's Indocert, and New Zealand's Environmental Choice.
- Sector- or issue-specific labels which have a narrower focus than national programs, such as the Rainforest Alliance certification which promotes and guarantees improvements in agriculture and forestry, the Fair Trade label which guarantees producers were paid fair prices, or industry-specific labels such as the chemical industry's Responsible Care Initiative.

Type 2: Green claims are the manufacturers' or retailers' own declarations. Since these are not given by a third party, it is more difficult for consumers to compare them with other brands or to fully understand what the claim means. (For more on this, see ISO 14021.) Examples include:

- Statements such as '100% recycled,' 'natural,' 'carbon neutral,' and 'environmentally friendly.' Where not regulated by law, or no evidence is shown, these statements are often not reliable and are found on products that are not always what they claim to be.
- Company private labels. Private label initiatives have a wide range of truthfulness and usefulness. An example of a well-regarded private label is the Philips' Green Logo, which is used on electronic products that meet certain environmental criteria across the whole lifecycle. Products with the logo have been certified by external auditors that they are 10% more efficient than other products on the market within a given product category.

Type 3: Environmental declarations quantify information about a product based on lifecycle impacts and should allow products to be compared easily because they consist of quantified information about aspects such as energy output. Unlike other labels they do not judge products, leaving that task to consumers. Rather, they provide something similar to a nutrition label found on food products but instead this label outlines environmental impacts throughout the lifecycle. Compared with type 1 and type 2, much less work has been done in this area but some examples include labeling products with their carbon footprints (www.carbontrust.com) and Timberland's 'nutritional label' featured on its products that gives buyers information about the environmental footprint of that product. (For more on this, see ISO 14025; also see the Global Type 3 Environmental Product Declarations Network – www.gednet.org.)

Good eco-labeling initiatives involve the participation of government, industry, and commercial associations, retailers and companies, consumers, as well as other interested parties such as academics, media, and the international community. A product must comply with all the required criteria to be awarded a label and must be retested regularly. According to the Global Eco-Labeling Programme, an effective labeling program should:

- Be *voluntary*. It should be the decision of the business to participate in the program.
- Distinguish *leadership*. Claims should not imply a product is exceptional if all other products share the same general characteristics.
- Be based on *sound scientific and engineering principles* with a strong focus on lifecycle considerations to assure customers that all aspects of the product's development have been taken into account.
- Be *credible*. Often eco-labels are managed by well-respected and recognized third-party organizations and used by well-respected companies, which increases the product's credibility.
- Be *measurable* and *comparable*. Claims should be made only if they can be verified. Methods used can include international standards, recognized standards, or methods developed by industry, provided that they have been subjected to peer review.
- Be based on *open and accountable processes* that can be monitored and questioned. They should operate in a business-like and cost-effective manner.

Several challenges exist in this area. The range of existing and new eco-labels is making it confusing for customers to understand what it all means, especially when private company labels are added to the mix. Some labels have strict requirements to adhere to while others require very little effort to get certified. However, more work is being done in this area to make it easier for consumers and companies to understand these labels.

The Global Eco-labelling Network is a non-profit association of third-party, environmental performance labeling organizations founded in 1994 to improve, promote, and develop the 'eco-labeling' of products and services (www.globalecolabelling.net). The European Eco-label catalogue aims to help European consumers distinguish greener, more environmentally friendly products of high quality (<http://ec.europa.eu/ecat/>). The Consumers Union Guide to Environmental Labels in the USA looks at providing information to consumers about eco-labels (www.greenerchoices.org/eco-labels).

Social marketing

Social marketing refers to programs and campaigns that aim to raise public awareness in order to introduce more sustainable behaviors relating to the environment (e.g., energy or water conservation and waste reduction) or society (e.g., health, voting). Social marketing does not look to sell a product or service, but rather to encourage or modify a behavior by applying traditional marketing principles and techniques to influence a particular audience's behaviors for individuals' and society's benefit.

The goals of social marketing can include:

- accepting a new behavior (e.g., composting food waste);
- rejecting a potentially undesirable behavior (e.g., starting smoking);
- modifying a current behavior (e.g., increasing physical activity from 3 to 5 days of the week);
- abandoning an old undesirable behavior (e.g., talking on a cell phone while driving).

Social marketing campaigns can be focused either on one-time actions (e.g., install a low-flow showerhead) or on promoting

repeated behavior (e.g., take 5-minute showers). One example is the Rock the Vote campaign in the USA, which aimed to engage the political power of young people through the use of music, popular culture, and new technology to incite young people to register and vote in elections.

Governments and not for profits regularly run these sorts of campaigns, but increasingly industry is doing so as well, as a way to gain support for their sustainability efforts. As NGO Utopies puts it, 'these campaigns often seek to encourage consumers to behave responsibly and are usually the work of companies which, having incorporated social responsibility into the products or services they supply, require a matching commitment from their customers for their actions to be really effective.'

Among the best-known private-sector social marketing campaigns was the Body Shop's Against Animal Testing campaign in the mid-1990s, which led to a UK-wide ban on animal testing of cosmetic products and ingredients in 1998 and raised awareness with consumers about their products which were not tested on animals. The 'look behind the label' campaign at Marks and Spencer in the UK was an educational campaign aimed at teaching its customer base to appreciate the changes that the company was about to make to their products relating to fair trade, sustainability, non-GM, and animal welfare. It then followed with Plan A, outlining all the steps that the retail company was going to take to be more sustainable in those areas. In France, food retailer Leclerc conducted a campaign about the impact of plastic bags in 2003 that was followed by the adoption of an amendment banning non-biodegradable plastic bags in stores. Social marketing applies traditional marketing techniques to sell a particular behavior rather than a product or service. These include:

1. *What is the issue that you are communicating about and why is it important?* What is the behavior you want to change

and why? Take a look at successful campaigns that have taken place around the world as a starting point. Understand why people don't want to change and help them get over those hurdles.

2. ***Who are you communicating with and why?*** This is the group of people that the campaign will be focused on. Focus on target markets that are ready and willing to act rather than one that is resistant to change.
3. ***What are your messages?*** The message should include clear instructions on how to act. Make sure it is simple and doable. Sometimes this message will be accompanied by a physical product that helps with the change. For example, encouraging people to use less water could be accompanied by a list of where to buy low-flow showerheads.
4. ***What are they giving up/gaining?*** The audience should be given information about the costs (both monetary and non-monetary) of the current and any alternative behavior (e.g., smoking includes the cost of a box of cigarettes but also the cost to your health and the health of others around you). You can also add incentives to help guide the behavior, for example having special lanes on the highways for cars with two or more people.
5. ***How will your message reach the audience?*** This includes how you promote the message as well as the physical location where the audience will perform the desired behavior or where the message is made available to the public.
6. ***How will you know if the campaign has been a success?*** Social marketing campaigns will also often include working on laws or regulations that influence the desired behavior. Monitoring the campaign allows you to learn how the message changed your target audience, whether it had an impact, and revise it as needed. Use prompts such as stickers and commitments to motivate people to continue to change. Let people know how the campaign went.

Some resources in this area include UNEP and Futerra's Communicating Sustainability – How to produce effective public campaigns (www.unep.fr/scp/) and the Social Marketing Institute (www.social-marketing.org). Network for Business Sustainability systematic review of business-driven social change (www.nbs.net). For more, also see the box 'Managing change' in Chapter 13.

Read: *Social Marketing* by Philip Kotler, which provides a good introduction, and *Good Works!* by Nancy Lee.

Cause-related marketing

Cause-related marketing differs from social marketing in that it focuses on raising awareness and concern for a social issue (e.g., global warming), but it typically stops short of trying to change the behavior itself. Companies explore cause-related marketing as a way of differentiating themselves, or of enhancing their reputation, and also to increase sales and contribute to a cause that is important to their stakeholders. Cause-related marketing usually involves a partnership between a for-profit company and a not-for-profit organization promoting the product to raise money for the not for profit. Cause-related marketing can take several different forms:

- ***Sales based.*** Donation programs, where a company donates a percentage of its sales to a particular charity over a certain period of time.
- ***Support for customer-aligned charities.*** Provide funds to charities that support causes that are important to your stakeholders.
- ***Support causes aligned with business purpose.*** Endorse a cause that is a natural extension of the company's own business.

The phrase 'cause-related marketing' was first used by American Express in 1983 to describe its campaign to raise money for the restoration of the Statue of Liberty. American Express made a donation to the Statue of Liberty every time someone used its charge card

in the area. As a result, at the time not only did they raise US\$1.7 million for the project but the number of new card holders grew by 45% and card usage increased by 28%.

The success of a cause-related marketing campaign depends on finding the balance between doing something that benefits your company and what your customers perceive as being good for the community. Some tips:

- ***Pick a not-for-profit or issue that means something to your target market.*** Over 1000 businesses worldwide make up One Percent for the Planet, where members contribute 1% of sales to environmental groups around the world. Mountain Equipment Co-op joined in 2007 and has since contributed over US\$17 million toward conservation, including launching – with Canadian Parks and Wilderness Society – The Big Wild, an ambitious project to protect at least half of Canada’s public land and water wild forever.
- ***Give your customers a way to showcase their good deed.*** The RED campaign was created to raise awareness and money to help women and children affected by HIV/AIDS in Africa. Companies involved sell a range of red-colored products such as Motorola red phones, American Express red card, Apple’s red iPod, Gap’s red t-shirts, and red Converse shoes. A percentage of each RED product sold is given to AIDS programs through the Global Fund.
- ***Combine efforts for bigger change.*** The Glue Network provides a platform for companies and their customers to come together to raise money to make a bigger change. A range of brands from around the world empower their customers to invest their charity dollars in particular projects that the customers believe are most important.
- ***Give people something to talk about and get engaged in.*** Innocent drinks organize a ‘super gran woolly hats’ promotion every year in the UK to raise money for Age Concern (over 25 000 older people die of cold-related illnesses every winter in

the UK). The public are taught, through the website and knitting sessions at grocery stores, to knit miniature hats. Innocent puts the hats on top of their bottles around Christmas time and 25 pence for every bottle sold with a hat on it is given to Age Concern. Through this campaign over £1 million has been raised since 2008.

- ***Give what you do best.*** Quite a few companies are exploring the ‘one for one model,’ where for every product sold the same product goes to a person in need. For every pair of TOMS shoes purchased, a pair of new shoes is given to a child in need. Ark Collective sells backpacks and then donates one to a poor schoolchild in the USA. Warby Parker not only donates a pair of glasses for every one sold but also provides training to low-income entrepreneurs in developing countries to start their own businesses selling glasses.
- ***Be consistent.*** Made for Good is a consortium of like-minded apparel brands that support a range of charities and issues including curing diseases, educating our youth, assisting the poor, and protecting the environment. A percentage of all product sales is used to raise money for these charities.

The Cause Marketing Forum offers several resources on the topic in its knowledge center (www.causemarketingforum.com).

Read: *Cause Marketing for Nonprofits: Partner for Purpose, Passion, and Profits* by Jocelyne Daw (2006) and *The Art of Cause Marketing: How to Use Advertising to Change Personal Behavior and Public Policy* by Richard Earle (2002).

Challenges?

- ***Green and choice fatigue.*** Customers are being bombarded with so many different kinds of sustainability messages and

products that they often do not know which are real and which aren't. The growing prominence of eco-labels is helping, but also adding to the confusion.

- **Increased risk either way.** There is a risk of not moving into green marketing but also a risk when a company does. Sometimes the media is more inclined to question and attack relatively good companies attempting to move forward on sustainability, rather than highlighting the poor environmental performance of companies who have not become involved in sustainability.
- **Lack of overarching standards.** There is a lack of standards for determining exactly what makes a green product or a green company. Increased regulations and public awareness are needed to help educate consumers how to understand the increasing number of standards.
- **Getting pricing right.** Sustainable products are seen as being more expensive and often consumers don't understand why.
- **Choice editing.** Should retailers be taking unsustainable options off the shelves to favor more sustainable options?
- **Consumer support.** Many companies report producing more sustainable products based on consumer demand but then consumers don't buy these.
- **Confusing messages.** Marketers can work to promote more sustainable products, but this only works if consumers are able to accurately and effectively interpret the information they give and the claims they make on their packaging.

Trends and new ideas

- | | |
|----------------------------------|---|
| – Green = inexpensive | – Communicating with the customer virtually |
| – Eco-iconic to eco-embedded | – Popups |
| – Understanding how people think | – Buycotts |
| | – The barcode reinvented |

Green = inexpensive

Green products are generally seen as being more expensive than conventional choices. This may be true now, but the future is likely to see a dramatic shift. In fact, the same reasons that explain why green products have historically been priced higher could become the reasons why they are more affordable. For example:

- ***Full costs across the lifecycle.*** Green products often already include many of the costs that other products don't (such as the cost of disposal), making them more expensive. When comparing traditional costs of manufacture, many green products actually cost less to produce and to use. They also cost society less in terms of other direct costs and indirect costs, such as pollution and health effects. As more companies begin to analyze and incorporate the true full cost of production, we may actually see a complete flip, where unsustainable products become much more expensive.
- ***Economies of scale.*** Pricing often comes down to simple supply and demand. Many of the materials used in these products have been more expensive because there has been less of a demand for them. As the demand goes up for more sustainable alternatives and they are produced in larger quantities, the price of these products could go down. At the same time, the cost of unsustainable options is going up, for example products produced using petroleum products.
- ***Providing certain guarantees.*** These types of products are often providing a set of guarantees regarding safety, sourcing, health, and environmental impact that may cost a little bit more to insure. As regulations and industry standards start requiring all products to uphold certain standards, other non-green products may also start to bear these costs, creating a more even playing field.

Eco-iconic to eco-embedded

Green products and services have moved from eco-ugly (ugly, overpriced, low-performance, unsavory yet eco-friendly versions of the

‘real thing’) to eco-chic (eco-friendly stuff that actually looks as nice and cool as the less sustainable originals) to eco-iconic. Eco-iconic is defined as ‘eco-friendly goods and services sporting bold, iconic markets and design, helping their eco-conscious owners show off their eco-credentials to their peers.’ Eco-iconic is not about all green products. It is about those that from their appearance or stories actually show that they are green and in doing so attract recognition from their peers, in the same way as traditional status symbols do. The best-known examples are cars such as the Toyota Prius. A *New York Times* article asked the question, ‘Why are Prius sales surging when other hybrids are slumping? Because buyers want everyone to know they are driving a hybrid.’ Another, perhaps more important, trend that is slowly overtaking it is eco-embedding, ‘making products and processes more sustainable without consumers even noticing it, and, if necessary, not leaving much room for consumers and companies to opt for less sustainable alternatives’ (trendwatching.com).

Understanding how people think

One way of bringing about change, fast, is to make it normal. The Sacramento Municipal Utility District in the USA began sending out statements in 2008 to 35 000 randomly selected customers, rating them on their energy use compared with that of neighbors in 100 homes of similar size. Customers who scored high earned two smiley faces on their statement. Good conservation got one smiley face. The utility found that customers who got the personalized energy report worked to cut their energy bills by 2% more than those who didn’t, a number which seems small, but has a big impact.⁴⁰ In the book *Yes!*, the authors write of how they were able to boost participating in a towel recycling program by 26% just by rewording the card to suggest that the majority of hotel guests reused their towels, suggesting it was the social norm to participate rather than something to save the environment (www.neurosciencemarketing.com).

Communicating with the customer virtually

One of the oldest adages in marketing is that ‘word-of-mouth is the best advertising.’ Customers have always received information and made choices based on word of mouth. But the level of information has exploded with the Internet and social media. The amount of information overwhelms – stories, opinions, and facts highlighting both good and bad practices are constantly shared through blogs, wikis, and other social networks where people with the same interests come together to discuss those interests. These networks are not only being used by consumers interested in learning more about sustainability, but increasingly by companies as a way to connect directly with their current or potential customers. Product developers are tapping into them to gather intelligence and ideas, directly from the customer, on what kind of products they should provide and how to make their current products better. Starbucks at mystarbucksidea.force.com is a space where users can post and vote on ideas for everything from new products to store design.

Popups

Retailers are starting to explore a whole new kind of retail space . . . one that either doesn’t last or doesn’t stay in one place. Brands are using empty retail space to create popup stores to increase awareness of their products or create some buzz. Others are creating tiny versions of their stores that can be moved around into public spaces. Illy created a temporary coffee shop out of a standard shipping container in Venice, complete with tables and chairs. Timberland created a micro shop in New York City made out of 450 discarded plastic drinking bottles. Honest Tea put up unmanned popup shops across the USA that relied on an honor system where passers by who wanted to buy one of their products had to drop US\$1 into a box.

Boycotts

Groups have been involved in boycotts for years, encouraging consumers not to buy a particular product or from a particular company because they are seen as unethical or unsustainable. Today this is being flipped around. Boycotts are when individuals are actively encouraged to spend their money at particular stores as a way of supporting the sustainability efforts of those companies. Several groups are setting up around the world to coordinate these boycotts, including Carrotmob. Here, organizers make an agreement with a business that wants to make a change, then Carrotmob organizes hundreds of people to visit that business on a particular day. The business then uses the money to make the proposed social or environmental improvement (carrotmob.org).

The barcode reinvented

Labels are taking on a life of their own. Marketers have been exploring opportunities to tap into the potential of the one item that billions of people have with them all the time and use the most throughout the day: their cell phones. How? Through the use of a barcode called the Quick Response (QR) code. These special barcodes are designed to be read by mobile phones with built-in cameras, a feature now standard on cell phones. Companies put a special barcode on posters, magazines, interactive billboards, even lawns. Once scanned by the cell phone camera, a message or set of instructions (such as a website or phone number) embedded in the QR code is revealed automatically on the phone's display. In Japan, senior citizens use the QR code to check bus times. Others are printed on t-shirts, directing interested people to visit the website of the wearer. Companies are also exploring snap tags, which can also be scanned with a phone camera. Apps for the phone are also proving very popular. Clorox, for example, has an app that provides up-to-date information on all the ingredients in its products.

Want more?

WBCSD Driving Success: Marketing and Sustainable Development (www.wbcSD.org/web/publications/marketing.pdf); UNEP's Sustainable Consumption and Production Advertising section has several documents on communications, advertising, and marketing including a toolkit called 'Sustainable Communications: A toolkit for marketing and advertising courses' (www.unep.org/dtie). Smart: Know-Net The Sustainable Marketing Knowledge Network is an online resource that brings together the worlds of marketing and sustainability (<http://www.cfsd.org.uk/smart-know-net/index.htm>).

Read: *The Green Marketing Manifesto* by John Grant (2007), which provides a roadmap on how to organize green marketing effectively and sustainably. *The New Rules of Green Marketing* by Jacquelyn A. Ottman (2011) looks at how value-based sustainability marketing has become a critical organizational capacity. See also *Sustainable Marketing: Managerial–Ecological Issues* (1999) by Donald A. Fuller.

Advertising dos and don'ts

How not to communicate . . . greenwashing Although there is clearly a rise in sustainability leaders, it seems that there is also a parallel rise in greenwashing. According to TerraChoice, greenwashing is 'the act of misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service' (note that companies will also 'greenwash' social issues). It is believed that the term comes from a journalist who, in 1986, was covering the hotel schemes where you choose to keep your towel rather than washing it 'for the good of the environment.' The journalist examined the record of companies who promoted these schemes and concluded that since they did almost nothing else for

the environment (at the time), and since towel schemes increased their profits by reducing washing costs, guests had to be cynical of their motives.

So why do people greenwash? Some say it is because of ignorance, some do it for quick wins. The best reason for avoiding greenwashing is that you should be spending your money on something better, something which helps people change behavior, to adopt a greener way of life. Ultimately it is your credibility and reputation that are on the line, and once lost, these are very difficult to regain. Consumers and marketers should think twice about:

1. ***Green and social imagery.*** Just because something is packaged green and has trees on it or has pictures of children and farmers, it doesn't mean that it is actually environmentally or socially friendly.
2. ***Using general statements.*** The same thing goes for products that use statements such as 'socially friendly,' 'natural,' 'bio,' 'hypoallergenic,' etc. When checked, many of these fail to live up to their promises unless accompanied by a recognized eco-label or regulated by government. Surprisingly many of these, such as the word 'natural,' are not regulated by national legislation even though they can be very misleading.
3. ***Missing the point.*** A product that is water efficient could be very energy inefficient. Beware of companies using one claim to distract from the key sustainability issues of a particular product.
4. ***When a label is not all it claims to be.*** Having an environmental management system in place, or an environmental or social policy, or being part of a voluntary network, does not automatically make a company, or a particular product, more sustainable. Make sure these are backed up with policies and practices that are auditable, quantifiable, and have targets and objectives.
5. ***Giving options consumers can't act on.*** Saying that a product has an environmental or social feature that consumers not only can't check, but also can't follow up on is misleading. This includes products that are recyclable but where no facilities currently exist to recycle them. The recent push for biodegradable bags could be another example, as many of these are only biodegradable in certain environments, not when buried in landfill.

(continued)

6. ***When it isn't really as good as it seems.*** This relates to claims that may sound good but aren't really doing what they say. For example, organizations which claim to be carbon neutral or have carbon-neutral services when neutral was achieved by buying offsets rather than through actual energy efficiencies.
7. ***The product may be good, but the company definitely is not.*** It is hard to take claims made about environmentally and socially friendly products seriously when the company producing the product has been shown to be anything but environmentally and socially friendly. This includes companies that advertise or speak about corporate 'green' commitments while lobbying against pending or current environmental laws and regulations.
8. ***Baby steps.*** When a product makes tiny improvements and makes a big fuss about it. For example, a magazine claiming to have turned green because one issue was made of 10% recycled paper, leaving you wondering about the other 90% and all other issues of the magazine.

There are several NGOs and online groups working to bring out examples of greenwashing, including the CorpWatch Greenwash awards (www.corpwatch.org) and Greenpeace (stopgreenwash.org). Greenwashing index allows people to view company ads and judge for themselves whether they are greenwashing or not (www.greenwashingindex.com). Consumers can report what they believe to be greenwashing to national advertising organizations in many countries and often these organizations will follow up on claims made.

How to communicate . . . responsible marketing There are an increasing number of advertising and marketing codes, both mandatory and voluntary, which outline responsible marketing practices at the international, national, and company-specific level. These include regulations dealing with misleading or deceitful advertising, voluntary codes, and professional association codes. A few such ideas include:

1. ***Be good.*** Do not market to groups by creating unnecessary pressure or concerns. For example, companies who use awareness campaigns to scare people about a supposed illness and then

sell the medicine. Unilever's Marketing Principles require that marketing practices do not convey misleading messages, do not undermine parental influence, do not suggest time or price pressure, and do not encourage unhealthy dietary habits.

2. **Be honest.** Be transparent about what you are doing and share your successes and your challenges. Don't just make stuff up, make sure whatever you do, say, or claim is backed up and easy for the reader to understand. Seventh Generation reports on all the things that are wrong with its product and that it is still working on those areas. Innocent included on its fruit juice bottles how much of the content of the bottle was recycled and that they were working on the rest (a year later they were at 100%). Avoid abusing consumers' concern for the environment or taking advantage of their possible lack of knowledge in this area.
3. **Be creative.** It seems that all ads for green business use trees and flowers. Look at other ways of getting your message out. The Creative Gallery on Sustainability Communications includes around 1000 campaigns produced by companies, public authorities, and NGOs from all over the world (<http://www.unep.fr/scp/communications/ads.htm>).
4. **Be positive.** Stay away from doom and gloom and instead surprise the customer with a positive message. Keep the message simple and easy to remember.
5. **Be consistent.** Consistency should exist between your engagement or initiatives and your image and product lines. It should be reinforced across your marketing messages as well as between your internal and external operations.
6. **Make the connection.** Communicate how products are relevant to people's lives and needs. Empower your customers by giving them something they can do. Get your customers involved.
7. **Focus on what is important to your audience.** Toyota Prius focused on fuel economy and quiet ride more than saving the planet. Link environmental and social benefits to things that concern customers in their daily lives and of which you can measure the impact.

Consumers are bombarded with messages everyday from supposedly green companies. A lot of the information makes it seem that no matter what a company says, nothing is changing. There are lots of

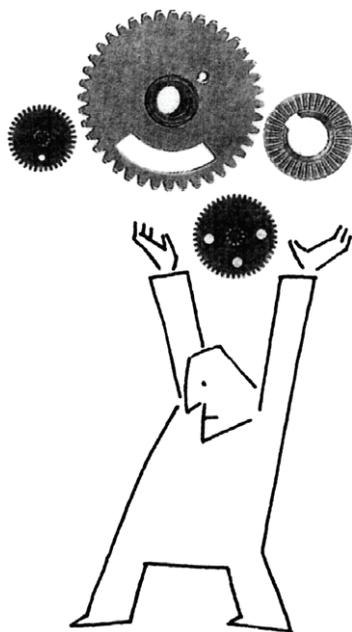
(continued)

companies that are truly working on these issues. For the consumer, here are some tips on how to do your part:

- *Don't assume that everyone is lying or telling the truth*, just pay attention to what they are claiming (for example, on their labels and packaging) and use your common sense to see if it looks right.
- *Don't blindly believe all the bad things or good things you read*, check the sources of the information and where possible check more than one source.
- *Question companies who aren't doing anything at all . . . or who seem to be doing too much*. Don't hesitate to contact those companies and request that they do something or find information to back up what they say they are doing. You are one of their stakeholders, they need to listen.
- *Report misleading messages*. Many countries, including at the international and company levels, have guidelines for environmental and social marketing claims. In many instances, customers who feel that a company is not telling the full truth can report them to relevant authorities who will investigate. Following a complaint to the Council of Better Business Bureau, Clorox was told to make changes to some of the claims it made on how its green products work.
- *Reward companies who you feel are doing it right*. Either through buying their products, telling the company, or telling others.

Want more?

For more on responsible marketing and different advertising codes, see ISO 14020 standard (www.iso.org) and the International Chamber of Commerce consolidated codes of advertising and marketing communication (www.iccwbo.org). Also see professional associations such as the European Advertising Standards Alliance (www.easa-alliance.org). At the national level different groups are set up, for example UK Committee of Advertising Practice (www.cap.org.uk, www.ipa.co.uk), US National Advertising Review Council (www.narcpartners.org), and the Better Business Bureau (www.bbb.org). Companies themselves also have marketing and advertising codes.



'You can't be remarkable by following someone else who's remarkable . . . The thing that all great companies have in common is that they have nothing in common.'

SETH GODIN, AUTHOR

Chefs around the world are exploring molecular gastronomy, mixing science with cooking. Forward-thinking chefs such as Heston Blumenthal bring food to a whole new level by questioning the assumptions about what food is and redefining what food could be. One of his treats is a candied beetroot and grapefruit lollipop with edible wrappers which look like plastic but melt in your mouth. Edible packaging may not take off anytime soon in the world of business, but it does reflect an increasing number of innovative ideas to make the lifecycle of products and processes more sustainable – which can, and will, help businesses flourish.

Increasingly, successful businesses share three characteristics with chefs like Blumenthal: (1) they question assumptions; (2) they think across disciplines; and (3) they are creative about the way that products are made. These characteristics underlie modern operations management. Operations management is all about a company's supply chain and product lifecycles: its products and services; how they are designed, how they are made, how they are used, and how they are disposed of. It is the area that has the biggest direct impact on sustainability, since all the things we make and the way we make them affect our natural and social resources. Sustainability brings innovation into the supply chain, challenging our assumptions about the way things have always been done, and creating products and processes that are not only better for business, but better for society as well.

Until recently, management in many companies believed that what happened in parts of their supply chain, from design choices to overseas contractors, was not their responsibility. Today, organizations are realizing that not only is it their responsibility, but that proper management can bring about competitive advantages. As we continue to move into the 21st century, sustainability and operations management will increasingly go hand in hand.

Why is it important?

- ***There's a lot of room for improvement.*** Considering that on average, 80% of a product's overall cost is a consequence of its

design, 93% of product materials do not end up in saleable products, 80% of products are discarded after first use, and 99% of materials used in the production of or contained within goods are discarded in the first six weeks, there is obviously a lot of room for improvement and innovative ideas.⁴¹

- ***Responsibility is shifting up the supply chain.*** Not long ago, it was up to the consumer to choose to be greener, but today, consumer demand is shifting this responsibility to the retailer to provide these products. In some countries it is becoming mandatory to display the environmental performance of some products, either on the product labels or the shelves. As more retailers decide to engage in more sustainable procurement strategies, the companies making the products will also have to uphold those standards in design and production.
- ***Reduce costs and improve operational efficiency.*** By using fewer and safer source materials and less energy, transportation, and water resources, and by making processes more efficient, a company can significantly reduce production and labor costs. Creating simpler products that are easier to disassemble and recycle reduces waste and disposal costs and gives a company the potential to reuse products. It can also reduce labor costs through reduced need for training.
- ***Compliance with existing and future legislation.*** Steady increases in legislation and regulations drive operations management decisions on many fronts. Regulations are being enacted to increase transparency in supply chains and standards, such as the European Union ‘take back’ laws, which require manufacturers to take back vehicles and electronic equipment sold in a particular country and recycle or dispose of them safely after use. Increasingly, we are seeing product taxes put in place to discourage people from buying certain products; banned materials lists are covering more and more substances (e.g., chemicals) and packaging waste and pollution prevention regulations are on the rise.
- ***Increased risk of bad press.*** Organizational stakeholders, the media, and others no longer hesitate to expose and report any questionable aspects of a company’s supply chain, including

incidents of child labor, forced labor, illegal waste dumping, and product recalls. This can result in significant losses not only to sales, but also to a company's hard-earned reputation.

- ***Improved quality and customer satisfaction.*** Many consumers are looking for products that allow them to save money but also make them feel they have made a positive impact on society and the environment. Delivering and promoting simpler, more efficient products that have reduced operational costs and result in reduced environmental impact can mean improved customer satisfaction and increased market share. Eco-labeling schemes, 'design for' products, and other environmental awareness programs are creating an increasingly educated consumer who is not only willing to buy products designed for the environment and society, but may even boycott those that are not.

The key concepts

The operations management approach to sustainability involves analyzing products and processes throughout their whole lifecycle and ultimately aims to have zero impact. However, products and services are produced and distributed through complex supply chains, where to potentially reach zero impact one needs to:

- Design the product smartly upfront → ***Eco-design***
- Use non-harmful materials and components → ***'Green' chemistry***
- Create more efficient processes → ***Doing more with less***
- Use sustainable technologies to support these processes → ***Sustainable technology***

- Source them through optimized supply chains → *Suppliers and contractors*
- Move products and services from point A to point B → *Transportation*
- Move from waste treatment to waste prevention → *Waste management*
- Consider sustainability aspects across all stages → *Box: Lifecycle assessment*
- Bring information together to enable better decision-making → *Box: Information technology/information systems*

Eco-design

Eco-design, also known as ‘design for the environment,’ concerns designing or redesigning a product or service to take into account the environmental (and social) impacts throughout its lifecycle. Best practices in eco-design involve:

- **Re-thinking** the product and its functions from raw materials on up in order to make it more efficient, thereby reducing use of energy and other natural resources.
- **Re-ducing** energy and material consumption throughout a product’s lifecycle.
- **Re-placing** harmful substances with more environmentally friendly alternatives.
- Selecting materials that can be **Re-cycled**, and building the product so that it disassembles easily to allow recycling.
- Designing the product so parts can be **Re-used**.
- Improving the product durability and ease of **Re-pair** so that the product does not need to be replaced as often.

Products that follow some or all of the above-mentioned eco-design concepts often state that they are a ‘design for’ product (e.g., design for water conservation, design for disassembly, etc.).

Eco-design principles can be applied to a single product or service, or a production process. Computer company HP, for example, has been working to design products that are easier to recycle by integrating clear design guidelines and checklists to assess and improve the recyclability of its products. They do this by using modular design to allow components to be removed, upgraded, or replaced, eliminating glues and adhesives by using snap-in features, reducing the number and types of materials used, using single plastic polymers, and using molded-in colors and finishes instead of paint, coating, or plating.

Some things to keep in mind:

- ***Understand your existing products.*** When redesigning an existing product, a good way to understand eco-design and how it can relate to your project involves physically taking apart the product, looking at the different components, and identifying excessive use of materials as well as opportunities to make improvements in packaging, product use, production, materials, and disposal.
- ***Understand what people really want or need.*** The key to successful design is to observe what people do and understand how people feel and think and to use these observations as inspiration for designing or redesigning a product. Often there is a disconnect between what people say and what they actually do, which is why the insights cannot simply come out of market surveys or focus groups: people often don't say what they think or do what they say.
- ***Create designs that engage the customer.*** The key is to create products and services that inspire engagement and encourage positive behavior. Many people buy the Toyota Prius not for the return on investment, but for the experience. One of the features drivers like is the constant information displayed about the fuel economy drivers are getting and how they can get more. Drivers can then take this information and compare it with other users through an online forum on the Toyota website.

For more on eco-design look at the Design for Sustainability manual (www.d4s-de.org) and 'Aligned for Sustainable Design, An ABCD Approach to Making Better Products' by IDEO and BSR (www.bsr.org). There are several networks in this area, including O2 (www.o2.org) and the Designer Accord (www.designersaccord.org). Clean Production Action is an NGO that works on solutions for green chemicals, sustainable materials, and environmentally preferable products (www.cleanproduction.org).

Read: *EcoDesign: The Sourcebook* by Alastair Faud-Luke (2002), provides hundreds of examples of innovative eco design.

'Green' chemistry

Because of changing oil prices, new regulations, and pressure from consumers and retailers, industrial chemistry is working to clean up its act. Green, or sustainable, chemistry is about designing, developing, and implementing chemical products and processes that reduce or eliminate the use and generation of substances that are hazardous to people and the environment. It involves rethinking the chemicals themselves, and how they are being used, as well as searching for greener, more environmentally and socially acceptable alternatives. Considering that chemistry – chemicals and chemical processes – delivers over 95% of all the products used in society, green chemistry is a key area in sustainability. Green chemistry involves:

- Designing safer chemicals, with little or no human or environmental toxicity.
- Designing less hazardous chemical syntheses.
- Using renewable materials such as wastes or byproducts from other processes.
- Using safer solvents or avoiding their use altogether.

- Increasing energy efficiency by running reactions at room temperature and pressure.
- Designing chemicals that degrade after use rather than accumulating in the environment.
- Providing real-time information during syntheses to minimize or eliminate byproducts.
- Minimizing the potential for accidents.⁴²

Internationally, a number of regulations and laws govern use or prohibition of chemicals' transportation and disposal, including the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants. In Europe, REACH (Registration, Evaluation, Authorization and Restriction of Chemical Substances) gives greater responsibility to industry to manage the risks from chemicals and provide safety information on the thousands of substances in use. A large number of companies – such as BASF, Microsoft, and Johnson & Johnson – are phasing out chemicals considered harmful.

Legislation is not the only driver. Many organizations are using green chemistry as a way to produce unique and innovative products in the market, often to fill a demand by the consumer for more natural products. German carpet producer Donau-Tufting decided to remove heavy metal colorings and vulcanization chemicals from the carpets they make. The company gained an advantage in the market over its competitors, when the new carpet rapidly achieved an additional 25% turnover.

Reducing or eliminating the need for hazardous chemicals means a company does not need to invest in training and systems to manage and dispose of the waste. Dow Chemical Company, an international company which has a focus on exploring sustainable chemistry options, leases the use of its organic solvents rather than selling them through SAFECHEM. Once the customer is finished with them, rather than being left with the responsibility to dispose

of them, Dow recovers the chemical and, where possible, recycles it for future use.

There are also a growing number of initiatives from companies who are releasing more information on the ingredients used in their products, in particular the chemicals. SC Johnson has put together a website which provides a closer look at the ingredients it uses in its products (www.whatsinsidescjohnson.com).

The main green chemistry initiative is Responsible Care, the industry's global voluntary initiative (www.responsiblecare.org), which is coordinated by the International Council of Chemical Associations (www.icca-chem.org). National and regional perspectives include the Royal Society of Chemistry's Green Chemistry Network (www.rsc.org), SETAC (www.setac.org), EPA's Green Chemistry Program and Green Chemistry Challenge (www.epa.gov/greenchemistry), and the ACS's Green Chemistry Institute (www.acs.org/greenchemistry). International and global programs include the UNEP Strategic Approach to International Chemical Management (www.saicm.org), the Inter-Organization Programme for the Sound Management of Chemicals (www.who.int/iomc), and ICIS's blog on green chemistry (www.icis.com/blogs/green-chemicals). The campaign for safe cosmetics (safecosmetics.org). Greener Industry is an excellent resource on the range of chemicals (www.sustain-ed.org) and 'Substitute it now' from the International Chemical Secretariat provides a list of almost 400 that they are pushing to be phased out of products (www.chemsec.org). Zero Discharge of Hazardous Chemicals is a group of major apparel and footwear brands and retailers leading the industry in this area (www.roadmaptozero.com).

Doing more with less

Enter an appliance store in Europe or the USA, for example, and you will see energy labels showing the energy usage of the different products. Consumers, whether to cut bills or be more responsible, are looking for products that use less energy and water. Businesses are also interested in cutting their energy and water use for the same reasons. The growing international movement focused on sustainable consumption and production has roots in both the private and public sectors. The idea is that natural resources can be used more efficiently – it's not just about consuming and producing less, but also consuming and producing differently.

Two concepts that put this idea into practice are gaining momentum:

Eco-efficiency, developed by the WBCSD, 'is a management philosophy that encourages business to search for environmental improvements which yield parallel economic benefits.' It is not simply about making incremental efficiency improvements; it is about stimulating creativity and innovation in search of new ways of doing things throughout the full value chain. The philosophy encompasses three broad objectives:

- *Reducing the consumption of resources* – including energy, materials, water, and land – while also enhancing the recyclability and durability of products and closing material loops.
- *Reducing the impact on nature* – including air emissions, water discharges, waste disposal, and dispersion of toxic substances – while focusing on the sustainable use of renewable resources.
- *Increasing product or service value* – providing more benefits to customers through product functionality, flexibility, and modularity plus additional services, focusing on selling the functional need that customers want.

Cleaner production is a preventative approach to environmental management where environmental impact is minimized.

UNEP, who introduced the concept in 1989, defines it as ‘the continuous application of an integrated preventive environmental strategy to processes, products and services to increase overall efficiency, reduce risks to humans and the environment. Cleaner production can be applied to the processes used in any industry, to products themselves and to various services provided in society.’

For more, see the WBCSD Eco-Efficiency Learning Module and case studies (www.wbcsd.org). For cleaner production, see UNEP Cleaner Production and the International Declaration on Cleaner Production (www.unep.org/scp). In 1994, UNIDO started setting up Cleaner Production Centres to help SMEs, large enterprises, industry associations, universities, consultants, and policy makers in developing and transition countries. UNIDO also has a cleaner production toolkit (www.unido.org). IISD has a series of case studies (www.iisd.org).

Sustainable technology

Technological innovation is an important part of finding solutions to our economic, social, and environmental problems. These technologies are generally categorized into four areas:

- **Remediation technologies** treat environmental problems after they have occurred and attempt to repair or remediate the damage. These include soil and water cleanup methods, and are typically very expensive.
- **Abatement technologies** capture or treat pollutants before they escape into the environment using physical, chemical, or biological mechanisms to reduce emissions, like clean coal or sewage

treatment systems. Abatement technologies are usually capital intensive, require lots of energy and resources to operate, and generate their own waste.

- **Pollution prevention technologies** include improved or alternative industrial and agricultural processes that avoid the production of pollutants (e.g., paper making that eliminates chlorine bleaching) as well as alternative products that result in less pollution through their use and disposal (e.g., lead-free petrol, biodegradable detergents, mercury-free batteries, and water-based paints).
- **Sustainable technologies** are the ultimate goal, and focus on achieving low or no ecological impact (100% recyclable and non-toxic) and using resources efficiently. Examples include daylight-sensitive lighting, bicycles, cost-effective non-polluting renewable energy technologies, and non-bleached recycled paper.

Clean technology or 'cleantech' is considered by many to be the largest economic opportunity of the 21st century. The venture capital industry invested US\$8.4 billion in cleantech in 2008. Clean technologies are technologies that reduce or eliminate their environmental impact through resource efficiency, improving performance, and minimizing waste. Cleantech is seen as so key to the future of their business that GE has committed US\$10 billion cumulative investment from 2010 to 2015 in cleantech. They have been looking in particular at renewable energy, efficiency, and smart grid technologies.

There are a growing number of innovations in sustainable technology in the fields of renewable energies such as solar, wind, and alternative fuels, but also in agriculture, infrastructure, recycling, efficiency, transportation, and storage. Initiatives are abundant, at all levels and in all industries in this area. For example:

- Devices that collect energy to generate electricity are being fitted to bicycles in Times Square, revolving doors in the Netherlands, and even dance floors in night clubs.
- Xerox research concludes that 40% of paper printed in the office is discarded after one use, so the company is developing

reusable paper where the image disappears after 24 hours and is reusable 10 times.

- A scientist in Taiwan invented an organic chlorophyll battery which can supply electricity within 10 seconds of being made wet with water or any kind of beverage.
- The ‘soil lamp’ is an LED light that takes advantage of the electricity generated by the chemical reaction between metallic strips of zinc and the minerals and organisms in damp soil.
- Smog-eating cement was invented in Italy and in the presence of light, breaks down air pollutants like carbon monoxide, nitrogen oxide, and benzene through a natural process called photocatalysis. It is now being used in buildings across Europe, as well as North America.
- Kites are being explored instead of windmills as power generators. Kites eliminate the need for expensive infrastructures such as towers, and have the potential to supply energy at a fraction of the current cost of electricity in Europe today.

Innovation in existing technologies goes beyond alternative energies; it can also be applied to bring about social change. Social change innovations are occurring in the information and telecommunication areas in particular. For example, Vodafone’s mobile payment service allows customers without bank accounts to use mobile phones for financial transactions. Citi’s biometric ATM allows customers in developing countries to access services using fingerprints.

For more, take a look at the ‘Information technology’ box at the end of this chapter. Also see the Technology hype cycle developed by PSFK (www.psfk.com). Greentech media offers up-to-date news on cleantech companies and investment activities and insights (www.greentechmedia.com).

Suppliers and contractors

Why is a close relationship with your suppliers important? One reason: the failure of supplier relationships can have a catastrophic effect on company brand and image. This is clearly illustrated by the example of Nike in the 1990s. The company was held accountable by the global public for the child labor practices of their suppliers in Asia, which in turn had a long-standing detrimental effect on its reputation. Today, companies are realizing that they are accountable to their stakeholders and the public for activities throughout their whole supply chain, including the actions of their suppliers. By working closely with suppliers, companies of any size can minimize the risk of unknowingly being exposed to negative impacts, and can also understand the environmental and social impacts their products and services have throughout their full life-cycle, while exploring ways of creating a better product. Suppliers usually know their products inside and out, putting them in a good position to help maximize efficiencies and minimize waste. At the end of the day, their business is your business as well.

PepsiCo works closely with their suppliers to ensure that they are working with like-minded companies, and to see what they can learn from suppliers who are further ahead in this journey than they are. As their sustainability strategies evolve, they expect their suppliers to evolve with them. According to John C. Scott, PepsiCo Director of Responsible and Sustainable Sourcing, ‘Setting expectations for performance with suppliers is good for PepsiCo because it results in suppliers running their businesses more effectively and reducing costs, which ultimately translates into having a better economic relationship with the supplier. While we recognize we still have a lot to learn in this area, we’re working with them while we continue to refine our approach.’

As you execute your supplier selection strategy and build supplier relationships, keep the following points in mind:

- ***Create a policy for improving the economic, environmental, and social sustainability performance of suppliers.***

Integrate sustainability criteria into supplier contracts (e.g., minimum performance standards, code of conduct, performance against targets). Ford Motor Company requires ISO 14001 certification from 5000 of its suppliers with manufacturing facilities. To help suppliers meet these goals, Ford developed and provided ISO 14001 Awareness Training and created Environmental Recognition awards that recognize suppliers for outstanding environmental achievement and innovation.

- ***Work with suppliers to help them craft their sustainability strategies.*** Consider hosting a forum where suppliers and buyers can discuss and question decisions, and can move forward with real action items. You are likely to find that many suppliers don't know where to start and such a forum allows them to learn from the buyer and other suppliers who have already started the journey. Because of a desire to certify its suppliers that are using forestry products, PepsiCo brought nearly 200 of its largest suppliers together with leading not for profits, NGOs, and government organizations to explain PepsiCo's approach and commitment to work with credible organizations that promote responsible business practices, and how those programs tie into expectations for PepsiCo's suppliers. Through their supplier outreach programs, PepsiCo also empowers employees to work with suppliers to set goals and monitor improvement in resource conservation programs such as Energy Star and carbon disclosure.
- ***Conduct a baseline assessment of suppliers' current sustainability performance.*** HP's Supplier Environmental Performance Review Questionnaire aims to provide a tool to gather consistent information on supplier environmental practices, and to optimize the transfer of environmental performance information between purchasers and suppliers. The Body Shop, Canon, and McDonald's have all instituted rating systems to evaluate existing and potential suppliers on a number of sustainability criteria while others, such as P&G and Wal-Mart, use sustainability scorecards with their suppliers. Vendors with

higher ratings receive a larger percentage of business while increasingly vendors who fail to qualify risk not getting their contracts renewed.

- ***Don't ignore the suppliers of suppliers.*** Many suppliers are themselves managing other suppliers, an area where problems can easily arise if not managed carefully. Companies need to work to make sure their values spread throughout the supply chain. Novo Nordisk's sustainable supply chain management program, launched in 2002, works with their main suppliers as well as their second-tier suppliers (those that supply to main suppliers) to support human rights and labor standards, as well as to ensure that sound environmental practices are in place.
- ***Send consistent messages.*** Many suppliers work with different companies at the same time. Thus, one of the major challenges for suppliers is keeping track of each company's individual sustainability programs and targets that it must meet. In order to ensure that suppliers are receiving consistent messages in terms of minimum standards from the different companies they work with, several international initiatives have also been put into place to help. AIM-PROGRESS is a group of large international companies working together to develop common guidelines on responsible sourcing. Sedex is a service that connects businesses and their global suppliers to share ethical data.
- ***Support local suppliers.*** Wherever possible focus on working with local suppliers and even on developing and empowering the local business network. In South Africa, Spier Vineyard's procurement strategy focuses on supporting locally owned businesses with a focus on creating more wealth and jobs for the local community.
- ***Take a step by step approach.*** In recognition that their suppliers are at different levels when it comes to sustainability, IKEA created a staircase model applicable to suppliers delivering or producing articles that contain solid wood, veneer, plywood, or layer-glued wood. Suppliers range from level 1 where the origin

of the wood must be known and must not originate from intact natural forests, all the way to level 4 where forests are certified through the Forest Stewardship Council.

IKEA aims to have 100% of its suppliers at level 4. This has brought multiple benefits. For example, the number of wood supply chain audits conducted in 2007 decreased from 90 to 50 due in part to the increased documentation requirements for full FSC chain of custody certification.

Fair Factories Clearinghouse provides information on labor practices in factories around the world (www.fairfactories.org). In the USA, the Green Suppliers Network is a collaborative venture between industry, the US Environmental Protection Agency, and the US Department of Commerce (www.greensuppliers.gov). For more on ethical supply chains, see Sedex (www.sedex.org.uk) and AIMProgress (www.aim.be).

Transportation

Transportation systems move goods and people around the globe. However, our increasing reliance upon traditional transportation systems brings its own set of problems to bear: air and noise pollution, traffic congestion and road accidents, over-reliance on non-renewable resources, as well as land use to name a few. Companies today are looking not just at how their products are created and packaged, but also at the impact that transportation has on the lifecycle of a product. Across the sector many initiatives are taking place to positively impact fuel efficiency, and environmental and personnel safety:

- **Cars and trucks.** Companies are choosing to buy more fuel-efficient vehicles, including hybrids and electric cars, and are

filling up with alternative fuels where they are available (www.greenfuels.org) or even using vegetable oil from restaurants. Driver training programs result in better driving practices that not only reduce fuel consumption, but also improve road safety (www.greener-driving.net). In order to reduce the incidence of chemical transport highway accidents, Dow Chemicals and DuPont jointly introduced a Behavior-Based Safety Program to influence the behavior of drivers through observation, coaching, and communication. Wal-Mart, which owns the second largest private truck fleet in the USA, has committed to doubling its fleet's fuel efficiency by 2015. SC Johnson saved US\$1.6 million annually through its Truckload Utilization Project, which combines multiple customer orders and different products to send out the most fully loaded and best configured trucks in order to maximize each truck's carrying capacity and shipping routes. Shipping companies such as UPS, FedEx, and DHL have similar policies.

- **Maritime shipping.** Transportation by sea underpins global trade, with 90% of the world's international trade traveling by sea. While not without its own problems, shipping by sea generally has a lower environmental impact than air or road transport. One example of vessel operators and port authorities working together to reduce pollution is the Los Angeles port in the USA, which now provides clean electrical hook-ups shore side to avoid cruise and container ships from having to operate generators and engines while docked. Shipping company Bremen introduced the world's first cargo vessel with the innovative SkySails towing kite system. This wind propulsion system harnesses wind energy to assist in propelling the ship, and depending on wind conditions can lower fuel costs by between 10% and 35%. A small freighter could save over US\$250 000 in fuel costs per year using this system. The Global Industry Alliance is encouraging the shipping industry to share approaches on limiting the number of invasive species transferred in ballast

water, the leading cause of introducing marine alien species (globallast.imo.org). The Sustainable Shipping Initiative brings together some of the biggest names in the maritime sector to look at how they can contribute to – and thrive in – a sustainable future (www.ssi2040.org).

- **Air transport.** The volume of passenger and freight transport by air is expected to continue to grow, as are demands by stakeholders to make air travel more sustainable. At the current rate of growth in air travel and transportation, the UK's Royal Commission on Environmental Pollution calculates that, by 2050, emissions of greenhouse gases from aviation will account for more than half of the UK's impact on global warming. To combat this, the International Air Transportation Association – as well as the Clean Sky initiative in Europe – are working to cut the industry's emissions. One way to achieve this is through advances in aircraft technology that improve fuel efficiency, while simultaneously reducing both operating cost and pollution. The use of composite materials to reduce weight was introduced in the Airbus A380. The industry is also researching ideas like aircraft with blended wing bodies that would make less noise and use up to 25% less fuel than conventionally shaped aircraft.

Operations managers reviewing their transportation strategy should keep in mind the importance of sourcing raw materials locally where possible, as this can not only reduce transportation costs, but also help support the local industries that supply them.

Scania, a leading manufacturer of heavy trucks and buses as well as industrial and marine engines based in Sweden, has the following recipe for sustainable transportation:

- Transitioning now to renewable fuels.
- Increased investments in developing hybrid technology.
- Driver training can improve fuel efficiency by 10–15% and results in lower damage and maintenance costs.

- Correct tire pressure, rolling resistance accounts for about 30% of a vehicle's fuel consumption.
- Improved efficiency of transport system by eliminating empty or near-empty runs.
- Greater cargo capacity through longer vehicles and maximized cargo space.
- Reduced air resistance by correctly fitting objects mounted on the truck.
- Better fuel economy with the latest technology.

It isn't just about getting goods and services across the globe but also people, see the International Association of Public Transportation for making public transportation more sustainable (www.uitp.org). For more, see the WBCSD's Sustainable Mobility Project (www.wbcd.org), ICLEI's work on sustainable transportation options in the city (www.iclei.org), and WEF (www.weforum.org). For more on sustainable transportation, see Chapter 16.

Waste management

Believe it or not, waste has become exciting. We may have once thought of waste as dirty, uninteresting, expensive, and useless, but today, numerous pressures are combining to make waste management a focal point in sustainability. Faced with increasing regulations, public pressure, raw material and landfill shortages, and the need for increased resource efficiency, companies are moving away from the waste treatment approach and toward waste prevention and reuse.

Apart from obvious environmental and societal benefits, cost remains the most serious driver for improving waste management.

Treatment, handling, transportation, and disposal of waste all add significant costs to a business, especially when the waste is hazardous. Hidden costs, such as the loss of raw materials, cost of treatment, time and energy, are often ignored and can increase the true price tag of waste as much as five to twenty times.

From a business point of view, pollution and waste represent incomplete, ineffective, or inefficient use of raw materials. Since waste does not enhance customer or stakeholder value, it has no place in business. According to the New Zealand Business Council for Sustainable Development, 'Zero Waste means a 100% resource efficient economy where, as in nature, material flows are cyclical and everything is re-used or recycled harmlessly back into society or nature. "Waste" as we think of it today will cease to exist because everything will be viewed as a resource.' Today, many global companies such as DuPont and Xerox are aiming for zero waste. Carpet company Interfaceflor has a mission to achieve zero waste. They define waste as any cost that doesn't produce value to their customers, including scraps or materials sent to landfills as well as resources, time, and energy wasted when they don't do things right the first time. This also includes zero emissions and zero oil, a tough challenge since carpets are currently made with oil.

In rethinking waste management, companies should first and foremost identify what the waste streams are, and how much waste is being generated throughout the lifecycle and supply chain from raw materials to packaging. Then a company should look at:

1. ***Preventing the waste altogether.*** Considering product design to avoid producing waste in the first place.
2. ***Reducing waste.*** Minimizing the amount of waste produced through design, procurement, and less packaging.
3. ***Recycling and reusing.*** Where waste cannot be prevented, as many of the materials as possible should be recovered through recycling or reuse.
4. ***Improving disposal and monitoring.*** Where there is no other choice, waste should be disposed of safely and appropriately.

Several waste management strategies are rapidly gaining popularity that address one or more levels of the waste hierarchy:

Extended producer responsibility. The EU has several directives that oblige member states and EU producers to set up and participate in product take-back schemes for electronic goods and automobiles. These schemes, also called EPRs, have been established to push for changes at the source that reduce the environmental impacts of products throughout the lifecycle. EPRs place the physical and financial responsibility on producers to recover and then dispose, recycle, or reuse their products. These schemes can also be extended to include the responsibility to provide information on the environmental and social properties of the products manufactured. Overall, the EPR strategy not only encourages companies to follow principles such as eco-design and minimization of hazardous materials, but also shifts the cost of waste collection away from municipalities. It also forces producers to better internalize the full costs of waste.

Turning a product into a service. Schindler, an elevator company, determined that rather than selling its high-quality elevators as a product, it would rent out a ‘vertical transportation system’ to its customers. The decision benefits everyone. The company keeps the asset on its books and remains responsible for all service and repairs. Schindler can also invest in providing the most up-to-date quality product they can and provide more tailored solutions to the needs of their customers, which helps them attain their profit objectives. Xerox’s leasing program recovers and reuses materials and components from copiers, including toner. Both Schindler and Xerox represent a new trend – companies that are exploring what is known as Product Service Systems (PSS), moving from selling a product to renting the service that the product provides. The idea of PSS is nothing new; laundrettes, movie theaters, and libraries are all based on the same principle. What is new is the way that increasing numbers and types of businesses are exploring these opportunities by re-examining the original assumptions behind an

existing product, material, or service decision. Instead of traditional product decisions based on resources available, and ability to sell, these companies are focusing on the original need the product fulfills and providing that service instead.

Byproduct synergies (also known as industrial ecology or industrial symbiosis) involve a range of organizations – such as companies, offices, and government – acting together as a single ecosystem, taking one company's byproducts and waste and selling or sharing them as primary inputs to another company. The idea behind byproduct synergies is to design and operate industrial systems as living systems.

- *Within a company.* BASF's Verbund is an integrated system within its manufacturing plants that allows byproducts and waste from one plant to serve as the raw materials in another plant. Calculations show that this saves the company about €500 million each year at the company's Ludwigshafen site alone.
- *Between two companies.* The Carlton United Brewery in Australia sells the extra yeast produced in its brewery to Kraft, which uses it to make Vegemite, a popular yeast-based spread.
- *On a small scale.* Green Zone in Sweden combines a Ford car service center, a Statoil fuel station, and a McDonald's, all of which are heated using a central heat pump and ground source technology. Surplus heat generated by the McDonald's grills as well as the heated coolant water from Statoil's refrigeration system is transported to the central heat pump, thus allowing the buildings to benefit from the energy surplus (www.greenzone.nu).
- *On a large scale.* In the Danish industrial town of Kalundborg, over 20 partners share waste and other materials including Asnacs (the largest coal-fired plant in Denmark), Statoil (an oil refinery), Novo Nordisk (a large biotechnology company), a plasterboard company, and the town of Kalundborg (www.symbiosis.dk).

There are also a growing number of initiatives internationally that enable one business to sell their waste, regardless of what that might be, to another business. Recycle Match, for example, allows sellers to post waste or recyclables, buyers can bid on the materials, and the materials go to the best bid (www.recyclematch.com/marketplace). Some companies have similar systems set up internally as well.

Ensuring quality. A number of corporations are looking at preventing waste from occurring in the first place, in part by ensuring quality and minimizing waste. Many quality-focused approaches originate from Japanese business mentality. *Hoshin Kanri* says that the success of the product or process development is directly linked to the ability of an organization to put into practice its strategic goals. *Kaizen* is ongoing, continuous improvement. It can be implemented in corporations by improving every aspect of a business process in a step-by-step approach, while gradually developing employee skills through training and increased involvement. *Poka-Yoke* is designed either to prevent an error from happening or to make an error obvious at a glance. This approach aggressively seeks to eliminate the possibility of errors and waste and to increase resource efficiency in the entire product lifecycle. *Lean manufacturing*, based on the methods pioneered in the Toyota production system, focuses on eliminating waste, enhancing quality, and delivering value to customers while achieving environmental performance goals at the lowest cost. Lean manufacturing derives specific strategies and actions from the idea that environmental waste does not add value to the customer, is a sign of inefficient production, and that it affects production flow, time, quality, and cost. Lean typically targets seven kinds of waste: overproduction, inventory, transportation, motion, defects, over-processing, and waiting.

Creating new products from old ones. Some companies are exploring how they can create new products using waste from old products. Terracycle collects non-recyclable packaging from a range of food and drink items and turns it into backpacks and other items sold in major department stores. Method cleaning company makes new

plastic bottles using waste plastic recovered from the ocean. Starbucks is doing research to see how they can transform food waste – in particular the 5000 tons of used coffee grounds produced each year – into a key ingredient used in making plastic, laundry detergent, and other everyday products. Worn Again works with large companies to turn their existing textile waste – through upcycling, downcycling, and reuse – into new products. For example, they created a range of bags and accessories for Virgin Atlantic using old airline seat covers.

Tapping into garbage dumps. There are several threads of thought that now involve how garbage that has already been disposed of in landfills can be mined for resources. Methane gas produced by decomposing garbage in dumps in New Jersey is captured and used as fuel to generate electricity. There are 21 landfills being used like this in the state, and 445 across the USA. Dumps are also being mined for materials. For example, in the USA about 680 000 tonnes of aluminum cans are thrown out every year, totaling about US\$1.83 billion worth of metal per year. The world throws away 18 million tonnes of electronic waste each year, and one tonne of scrap from discarded computers can contain more gold than can be produced from 16 tonnes of ore. So, why aren't more companies tapping into this? As mining garbage is costly and often hazardous, many are finding that the best use of their resources is to stop products from reaching landfill to begin with.⁴³

There is no lack of websites and resources on waste, for example at the national level (www.environment.nsw.gov.au/waste), regional level (www.europa.eu), and international level (www.uneptie.org/pc/hazardouswaste). The Plastic Disclosure Project is working to reduce the environmental impact of the world's rising use of plastics (www.plasticdisclosure.org). For information on recycling symbols, see www.thedailygreen.com/green-homes/latest/recycling-symbols-plastics-460321.

Challenges?

- ***Gathering information.*** The transparency of supplier information is not always available and accurate, especially when you are looking beyond just a company's suppliers to also look at the suppliers of those suppliers.
- ***Misalignment between companies and their suppliers.*** Often there is a lack of effective communication between companies and their suppliers. Suppliers do not have financial incentives, such as increased orders or preferential contracts, and are not given any support for putting in place sustainability systems. Also, each company has different requirements for its suppliers, making it complicated and expensive for suppliers to engage.
- ***Large number of standards.*** The increasing number of regulatory and industry codes with different requirements is generating confusion, and often results in multiple audits all with different recommendations.
- ***These efforts take time.*** Sometimes it is unrealistic to look at the whole supply chain. Changes are often easier to make incrementally, or one step at a time. Companies should adopt a process of continuous improvement.
- ***Ideas.*** The biggest challenge often lies in just learning how to tap into your creativity and to imagine the possibilities.

Trends and new ideas

- | | |
|------------------------------------|----------------------------------|
| – <i>Inspiration from nature</i> | – <i>Instant feedback</i> |
| – <i>Products that do more</i> | – <i>Exploring new materials</i> |
| – <i>Traceability</i> | – <i>Co-creation</i> |
| – <i>Manufacturing differently</i> | |

Inspiration from nature

Tapping into nature for inspiration is nothing new. What is gaining momentum is the use of nature as inspiration for new and better technologies, an idea made popular through the concept of biomimicry. Biomimicry ‘studies nature’s best ideas and then imitates these designs and processes to solve human problems.’ Nature is the source of ‘technologies’ that have been used by the natural world successfully and sustainably for the past 3.8 billion years. Increasingly, biologists, engineers, architects, and business leaders are coming together to learn how to tap into and use nature as inspiration for the development of new products or to completely redesign existing ones.

So how does it work? The Shinkansen bullet train in Japan, which travels at 200 miles per hour, used to make lots of noise as it emerged from tunnels. The chief engineer, an avid bird-watcher, tried modeling the front of the train after the Kingfisher bird’s long pointed beak, which enables the bird to dive from air into water with very little splash. The result was a train that was not only quieter but used 15% less energy, even when the train traveled 10% faster. One does not need to be a biologist to explore these opportunities as they surround all of us.

Some tips to get started in product design through biomimicry:

1. Don’t ask ‘What do I want to design?’ Instead, ask ‘What do I want my design to do?’ and ‘Why do I want my design to do that?’
2. Ask ‘Does nature do this function, and if so, how?’
3. Explore natural models by going outside and doing first-hand research.
4. Brainstorm multiple solutions.

Products that do more

We are starting to see the beginning of a new era, in which both companies and consumers are not just content with ‘doing

no harm,' but actually look for ways to 'do more good.' Already we see homes installed with solar panels 'selling' excess energy back into the power grid. What's next on the horizon? Perhaps, cars that not only generate enough energy to run themselves but also put extra energy into the electrical grid and engines that filter the air, releasing it cleaner than it came in. The next time you are waiting in line, keep an eye out for floors that use the footsteps of pedestrians to generate power, a great way to provide the energy needs of supermarkets and railway stations. The Spinnaker Tower in Portsmouth, UK, will be using this technology on the stairs that visitors go up to reach the 560ft high viewing platform. The next wave of global consumerism will focus more on selling products that make it easy for people to 'go green' and on allowing consumers to save money . . . or even make money by being green.

Traceability

Throughout this chapter, we have talked about how companies are looking at environmental and social issues across their supply chains. How they make their supply chain more sustainable is often communicated to the consumer through eco-labels (see Chapter 11). But eco-labels are merely a starting point for some companies and consumers. In the past, consumers got information about the positive and negative aspects of product lifecycles from consumer websites, but increasingly the producers themselves are providing that information via the 'backstory' as it is called. Icebreaker, an outdoor clothing company based in New Zealand, has tagged its garments made from merino wool with a code that customers can enter on the website to check out the product's history – known as a 'Baacode.' In Japan, grocery shoppers can use cell phones to scan RFID tags on food items to find out more details about the origins.

Manufacturing differently

Companies are exploring a range of ways to make their factories more sustainable, many of which are explored throughout this book. PepsiCo has come up with an interesting plan to reduce water consumption by aiming to using the water taken from the 350 000 potatoes it uses annually. Since potatoes are made up of 80% water, it is hoped that within the next few years all water used in UK factories will be from the potatoes, taking them off the water mains completely.

NGOs have been increasingly active in identifying and organizing campaigns against companies who are pursuing unsustainable activities in their manufacturing facilities. Greenpeace, for example, has had a series of campaigns including Detox and Dirty Laundry, which raise awareness and push for action against pollution coming from textile manufacturing plants in China. As a result, companies such as Nike, Puma, and Adidas are pledging to eliminate chemical discharges throughout their supply chain by 2020 and formed the Sustainable Apparel Coalition to collaborate in taking action.

Instant feedback

People are being asked on a day-to-day basis to make decisions about changes to their lifestyles in order to prevent something bad from happening in the future, a future their children will see, but they themselves may never see. Many sustainability messages focus on issues that are not tangible for the consumers, either because they are occurring far away, will not occur during this lifetime, or are difficult to observe on a daily basis. The solution is to focus on those things that do impact consumers, and communicate this to them. According to the UNEP/Wuppertal Institute Collaborating Centre on Sustainable Consumption and Production, 80% of data currently collected focuses on impacts from manufacturing; however, 80% of

the impacts themselves occur during end use. More and more we will see companies providing information to customers to enable them to use and dispose of the products sustainably. This includes monitors that show how much energy, gasoline, and water is being used in real time and how this translates to money saved and environmental impact.

Exploring new materials

Many eco-friendly raw material alternatives are being explored for use in everything from textiles to building materials, including algae, soya, bamboo, organic cotton, and hemp. For example, Patagonia makes fleece sweaters using recycled plastic bottles. Bioplastics which have similar properties to plastic but are made of natural sources such as corn, potatoes, tapioca, and sugar are already being used in cars and shampoo bottles. Car manufacturers are looking at making greener cars using bananas, pineapples, and dandelions. Dell ships its servers in mushroom-based packaging instead of foam. Researchers in Spain have even found a way to turn leftover cheese into food packaging. There is even an annual competition focused just on rethinking the brick to make it more sustainable (www.brickstainable.com). Nike has a Sustainable Materials Index which lists over 16 000 materials used in their products each year. Websites such as Ecolect (www.ecolect.net), Materia (www.materia.nl), and Material Connexion (www.materialconnexion.com) provide searchable databases and information on a variety of sustainable materials options.

Co-creation

Companies have been using crowdsourcing for years now as a way of involving their customers and the general public in their brands. Random Hacks of Kindness is a community of over 5500 innovators who work to make the world a better place by developing practical, open-source technology solutions to respond to some of

the most complex challenges facing humanity. They work on solving problems posted by companies such as Yahoo! and Nike (www.rhok.org). An Austrian manufacturer asked customers to come up with new flavors for its all-natural hemp milk drink. In the USA one politician started a 'Make your own law' contest, inviting the public to write legislation with the promise that the best would be introduced as a bill.

Now we are seeing a move toward co-creation, when individuals or groups come together to design a whole new product or service. The car industry has tried to innovate for the past 100 years, but for the most part cars look the same as they always have. Loco Motors has an online community of car lovers who collaborate and compete to design vehicles incorporating sustainability and efficiency, for regional communities. The winning designs are then produced and sold to those communities.

Want more?

Global Environmental Management Initiative (www.gemi.org/supplychain/) is one of many organizations with guidelines and resources on supply chain management.

The Green Grid has taken up the challenge of developing standards to measure data center efficiency, which includes both the facility and the IT equipment inside it. Members include Intel, Microsoft, Dell, IBM, and Google (www.thegreengrid.org). The Electronic Industry Citizenship Coalition is a group of companies working together to create a code of best practice for the world's major electronic brands and their suppliers (www.eicc.info).

Read: *Cradle to Cradle* by William McDonough and Michael Braugart (2002 and 2009) calls for a new industrial revolution; *Factor Four: Doubling Wealth – Halving Resource Use* by Ernst Ulrich Weizsacker, Amory Lovins, and L. Hunter Lovins (1997) explores a new form of resource productivity (www.wupperinst.org/FactorFour).

Lifecycle assessment

The lifecycle approach (LCA) looks at the environmental and social aspects and impacts of a product or a service across all stages of production and consumption, from design to disposal. For each part of the LCA, the company looks at the inputs, what is needed to make the product, for example, energy, materials, labor, and outputs, what comes out of the system, e.g., products, waste, emissions. Lifecycle thinking can be applied at several different levels; to the whole product, just one part of the system, or a particular decision for a material. Companies then choose to either make changes across the whole lifecycle, or just those with the biggest impact, or a combination that represents incremental improvements. For example, when P&G conducted a lifecycle assessment of its laundry detergents it found that 85% of greenhouse gas emissions were coming from customers heating the water to do the laundry. In response to this new information, it developed cold-water detergents that both saved customers money on energy bills and reduced their emissions. It was the first company to launch cold-water detergent in both the USA and Europe.

According to the UNEP/SETAC Lifecycle Initiative, a lifecycle approach promotes:

- ***Awareness that our selections are not isolated but are part of a larger system.*** For example, the decision to purchase office paper. It takes 24 trees to create 50 000 sheets of paper and 2.3 cubic meters of landfill space to dispose of it. Thus, the choice to procure recycled paper and paper products from sustainably managed forests and to reuse and recycle paper after use impacts multiple points in the system.
- ***Making choices for the longer term and considering all environmental and social issues associated with those.*** Thinking about the whole lifecycle of a product helps avoid making short-term decisions that can have a lasting negative influence, such as over-fishing or releasing pollutants into the air.

- ***Improving entire systems, not single parts of systems.*** Lifecycle thinking was initially designed to prevent decisions, for example, that fix one environmental problem but cause another unexpected or costly problem to arise. This approach helps prevent shifting problems from one lifecycle stage to another, from one region of the world to another, and from one environmental or social issue to another.
- ***Informed selections but not necessarily ‘right’ or ‘wrong’ ones.*** Lifecycle thinking helps put the decisions that are made about products and processes into context to look at the unintentional impacts of our actions, such as damaging nature or supporting unfair labor conditions. If we fully understood the impact of these actions, we might choose to act differently, in the best interests of people and planet.⁴⁴

For businesses, this approach also helps to understand products, processes, and services better and the impacts these can have on the environment, on society, and on the company at every step. Companies can make better decisions and find opportunities to improve products and processes and ultimately, their bottom line. For companies such as Johnson and Johnson, tracking of the lifecycle costs avoided as a result of sustainability projects has helped them to build a strong business case for environmental goals and programs.

Tips on conducting lifecycle assessment

- Understand what your goal is before starting. This includes why you are looking at your product’s lifecycle, and what kind of information you need to know in order to make the necessary decisions.
- Determine how much information you need. There are so many different elements of a product that you can gather information on that it can very quickly become overwhelming.
- Understand that the lifecycle will not give you all the answers. It should be used as one component of a decision-making process.

(continued)

The lifecycle assessment checklist

The following checklist provides a range of topics and issues to address in analyzing the lifecycle of a product:

Design. The lifecycle begins at the design table, where designers of products or services decide on what the product or service will be produced, the need it fulfills, and the resources needed to produce it.

- ❑ Follow the principles of eco-design to create simpler designs with fewer components that are easy to separate for repair and recycling, and are modular to permit easy repair, recycling, upgrades, or service; and create efficient production processes that aim for zero impact.
- ❑ Uphold labor standards and human rights throughout the lifecycle.
- ❑ Design products that minimize the use of chemicals, incorporate recycled and recyclable materials, use more durable materials and reduce waste and energy use during production and use.

Sourcing material. Once the materials have been selected, they need to be sourced (e.g., wood, minerals, water, etc.).

- ❑ Use materials with less environmental impact, for example timber from sustainable forests.
- ❑ Work with suppliers that use sustainable processes to extract raw materials.
- ❑ Source locally available materials and resources.
- ❑ Apply green chemistry to production processes, and minimize and phase out purchase, use, handling, and disposal of materials and substances that are hazardous or toxic.
- ❑ Work with suppliers to increase supply chain efficiency.
- ❑ Use byproducts or wastes from one process in another product or process.

Production and manufacturing. Raw materials are transformed into the product through a series of processes.

- ❑ Use eco-efficiency and clean production concepts in production processes.
- ❑ Reduce material variety and weight.
- ❑ Aim for sustainable technologies.
- ❑ Meet all applicable environmental regulations, safety and performance standards, and labor and human rights standards.

- ❑ Sell byproducts to others as primary inputs.

Packaging and transportation. Once created, a product is then packaged and transported to distribution centers and to the customer.

- ❑ Use minimal, robust, reusable, returnable, recyclable packaging.
- ❑ Look at innovative solutions such as labeling the product instead of packaging.
- ❑ Design products that are easier to transport and store.
- ❑ Use reusable or recyclable shipping containers, pallets, skids, or packaging.
- ❑ Use fleet management tools, techniques, and technologies to optimize distribution and shipping efficiency.

Use. How the product or service is actually used has quite an impact on the overall lifecycle of a product.

- ❑ Use fewer resources and cause less pollution and waste during use.
- ❑ Optimize functionality and service life by communicating multi-functional, modular features, part load operations, upgradeability, energy efficiency, simplicity, increased durability, reliability, reusability, easy maintenance.
- ❑ Educate users about how to best use and dispose of products.
- ❑ Look at other inputs needed for use (such as for cleaning or maintenance).
- ❑ Increase the service intensity and/or leasing options of your products.
- ❑ Encourage customer sharing, swapping.

Disposal and end of life. Finally, the end of the lifecycle is how the product is disposed of after use.

- ❑ Reduce environmental impact of disposal by allowing easy reuse, recycling, ease of disassembly, ability to remanufacture.
- ❑ Find innovative uses for waste.
- ❑ Label reusable and recyclable content.
- ❑ Educate consumers about how to dispose of products.
- ❑ Provide product refurbishment, remanufacturing, refilling, or other services.
- ❑ Offer exchange or take-back program for old or used products. Swedish jean company Nudie Jeans provides consumers with free repair kits to fix jeans. Kits include denim patches, needle, thread, thimble and even a booklet and online video to help with the repair.

Want more?

Several international networks exist to help users put this thinking into practice, including the UNEP Lifecycle Initiative (www.lifecycleinitiative.org) and the European Platform on LCA (ec.europa.eu). The US EPA's site has a good resource section (www.epa.gov).

There are some alternatives to LCA. See the Input/Output tool developed by CarnegieMellon (www.eiolca.net).

The lifecycle approach can also be used for decisions we make on a daily basis as consumers. Websites have examples of the lifecycle of consumer goods, such as 'Good Stuff: Behind the scene guide to things we buy' (www.worldwatch.org) and 'Behind the Label' (www.behindthelabel.org).

The standards for LCA are ISO 14040 and ISO 14020 (www.iso.org).

Information technology/information systems

Information technology and systems play a key role in allowing an organization and society to move forward with sustainability goals by facilitating the collection and analysis of information which can allow a business and its employees to make better, more sustainable decisions both at work and in their everyday life. Because IT and IS are so important to sustainability, these topics are also brought up throughout the different chapters of the book.

Green IT

Information technology (IT), which is often also called information and communication technology (ICT), describes the technology and equipment used to display, process, transmit, or store information. The IT industry is currently responsible for 3% of the global carbon footprint and IT applications have a very large potential to enhance performance across the economy and society (the remaining 97%). According to the Global E-Sustainability Initiative (GESI), IT-enabled solutions offer the potential to reduce GHG emissions by 16.5% and yield US\$1.9 trillion in savings.

Telstra in Australia, for example, estimated that the use of telecommunications could reduce the country's greenhouse gas emissions by 5% by 2015 using wireless and GPS to schedule personnel between jobs at remote sites to reduce distance traveled, enabling flexible working for knowledge workers to save office space, to have devices that turn off when they are not being used, and replacing business air travel with video conferencing. Some elements of green IT include looking at:

- **Reducing energy use.** Green IT is very much about making electronic equipment more efficient and sustainable, both in the production of the equipment, its use, and eventual disposal/recycling/reuse.
- **Choosing electronic products.** Companies are increasingly buying electronic equipment that is more sustainable. Several tools, such as the Electronic Product Environmental Assessment Tool (EPEAT) and eco-labels such as Energy star and Blue Angel, help make that choice easier.
- **Reducing toxicity.** Some IT equipment contains hazardous substances such as flame retardant, mercury, and cadmium. In the EU, the Restriction of Hazardous Substances initiative (RoHS) restricts the use of certain hazardous materials in electronic products. IT equipment also often includes the use of non-renewable resources such as lead, tin, or copper.
- **Increasing product longevity.** End of life accounts for a large part of the IT industry's ecological footprint. Creating equipment that is upgradeable, modular, and lasts longer is key.
- **Greening data centers.** A lot of work is being done around making data centers more efficient, in particular in terms of air management and cooling systems.
- **Dealing with e-waste.** Electronic waste is a big problem because it contains toxic material. Some e-waste can be sold because it contains substances that can be recoverable, such as gold and silver. Countries and regions, such as Europe, have regulations which ban e-waste from landfills.
- **Ethical issues.** A growing discussion revolves around exploring the ethical issues in new IT innovations, such as issues around the 3D printing of weapons, artificial intelligence, or privacy issues.

(continued)

Green IS

Information systems (IS) are any combination of information technology and people's activities that support operations, management, and decision-making. Green IS refers to the design and implementation of information systems that contribute to sustainable business practices. For example, IS can help an organization reduce transportation costs with fleet management systems and dynamic routing of vehicles to avoid traffic congestion and minimize energy consumption. Green IS is increasingly being developed to give us access to information on demand, to know where things are at any given moment – whether that be a package or a person – and to provide a single source of accurate data to help with decision-making. Uses also include:

- Creating smarter, more sustainable cities such as smart buildings, logistics, vehicles, grids, etc.
- Creating smarter supply chains by bringing together information from across the supply chain, including the ability to share information around logistics, management, tracking, monitoring but also resource reuse and recycling.
- Creating smarter organizations by bringing together information that already exists around sustainability across the system and gathering new information to raise awareness and provide information for better decision-making.
- Taking the data and putting it into perspective so people can collect, analyze, report, set strategies, set targets all from the same viewpoint.
- Putting the information into the right person's hands, whenever they need it and wherever they are.

UPS has a project called telematics, where its delivery trucks each have a black box that records data such as seatbelt usage, harsh braking, idling time, reversing, speed, and routes. The data is then mined to determine how the company could use its fleet better. UPS was able to cut idle time by 24 minutes per driver per day with an estimated fuel saving of US\$188 per driver per year. With 90 000 drivers, this has made a big impact not only on the bottom line but also in terms of reducing emissions and resource

consumption. Unilever, PepsiCo, Marks and Spencer, and other companies that make up the Cool Farm Institute – a group helping growers to reduce the carbon footprint of their produce and livestock – produced a free online tool for farmers to calculate and reduce their footprint. Another sustainable agriculture group made up of companies such as Wal-Mart, Kellogg, and Coca Cola created the Fieldprint Calculator, a free tool to help growers analyze how their farming practices impact natural resources.

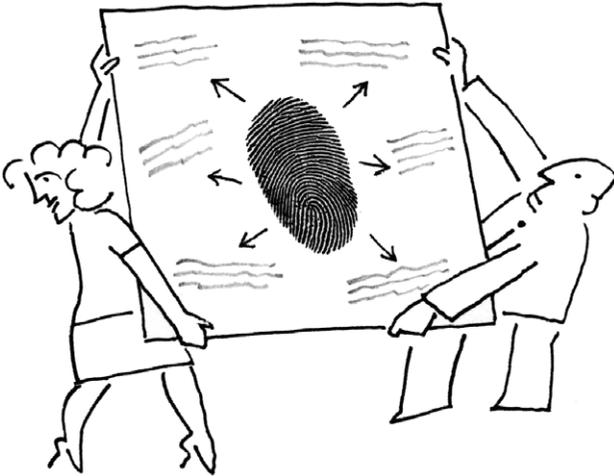
The increased availability of information through IT and IS is also helping consumers and individuals to make smarter decisions in their daily life. This can include monitors that give real-time information on energy use in the house, for example. In the USA and Canada, 'NEST' smart thermostats are being installed in homes which not only allow remote control from smart devices but also learn your heating/cooling patterns and save energy when the home is empty. SAP is looking at a project to see if they can break down an individual's ecological footprint within a particular company. Employees would receive a message stating what their footprint in the company this year was, and what percentage of fellow employees had the same footprint, to raise awareness and encourage action. The bike-sharing scheme Velib in Paris is successful because of its sophisticated information system. Each station has a computer terminal from which an individual can purchase a subscription, recharge an account, or determine available bicycles at nearby stations. RFID tags that connect each bike to the station enable the locking mechanism. Green IS increases the convenience of Velib, meaning more people use the service.

The challenge with IT and IS in an organization is that there is often limited organizational capacity to commission and manage these types of projects. In addition, organizations often have a 'business as usual' approach to IS and IT – meaning that they are reluctant to change because of the high costs of implementation or the perceived lack of return on investment. New technology and information systems often require individuals to learn how to use them, which can take a lot of time and effort. However, companies are increasingly realizing that they cannot move forward with their sustainability goals unless they have access to information, and IS is key in providing this.

Want more?

The Global e-Sustainability Initiative is a collaboration of major ICT companies (gesi.org). The Global Alliance for ICT and Development (GAID) and the EU Code of Conduct on Data Centres assist with measures to improve energy efficiency. Several organizations have carried out surveys on global ICT, including the Global ICT Sustainability Index and the OECD. National strategies include Denmark's Action Plan for Green IT, Korea's Comprehensive Program for Green ICT, and Japan's Green IT Initiative. Other resources include the Electronic Product Environmental Assessment Toolkit (www.epeat.net), PC Green Label (www.pc3r.jp), and TCO Certification (www.tcodevelopment.com). For more on this topic look at examples in every chapter of this book, as well as the Energy section in Chapter 16.

HR and Organizational Behavior



'CSR - HR = PR. If employees are not engaged, Corporate Social Responsibility becomes an exercise in public relations. The credibility of an organization will become damaged when it becomes evident that a company is not "walking the talk".'

CANADIAN BUSINESS FOR SOCIAL RESPONSIBILITY

At a recent sustainability conference, the keynote speaker addressing one of the challenges of sustainable development said, 'Money is not the issue, it's people!' The speaker had a point. Companies everywhere are putting in place sustainability programs but are not always seeing the benefits and impacts that they expect. This is because the success of a sustainability strategy depends on being able to integrate these issues into the company's culture and the way a business operates on a day-to-day basis. To do this you need to align the key systems and processes on which delivery of an organization's sustainability programs depend (e.g., managing change, developing competencies, supporting engagement, managing talent, encouraging diversity, recruitment). All managers within an organization play a role in embedding sustainability into the culture of that organization.

The Human Resources department generally has constant links with all groups within a company, and a finger on the pulse of the whole organization. The people in this department play a key role in promoting positive behavior, creating an engaging work force, and creating an environment where sustainability is embedded in every aspect of the employee's lifecycle, from recruitment to retirement. Not only should HR play a key role in the development of a sustainability strategy, it should also play an even more important role in implementing that strategy by embedding it into the way the organization works, making sure that what a company says they are doing is consistent with what they are actually doing.

Why is it important?

- **Highly strategic issue.** More than half of the Global Reporting Initiative indicators can be considered to be related to HR. There is a growing international consensus that human capital management will become the biggest strategic issue for business.

Poor human capital management is considered to be one of the biggest threats to the long-term success of global business.

- **Changing labor markets.** Taking sustainability issues seriously will help companies recruit and retain top talent. Graduates and potential employees at all levels are increasingly asking to work for companies with serious commitments to environmental, social, and ethical responsibility and know how to identify corporate ‘greenwashing’ rhetoric.
- **Saves money.** It is a myth that HR represents the ‘soft’ side of business. In fact, HR is a costly business if not taken seriously. Replacing an employee often costs two or three times his or her salary. Keeping employees happy and motivated reduces recruiting and attrition costs and reduces absenteeism.
- **Increased productivity.** Organizations with an internal commitment to sustainability experience happier employees. Not only do they get involved in meaningful activities, they bring employees together and teach them new skills. Studies show that 75% of employees who consider their employers to be sustainable exhibit high levels of commitment and that employees with high levels of commitment perform 20% better than their peers and are 87% less likely to leave the organization.⁴⁵
- **Reputation.** No matter how slick the web and media presentations, a company’s sustainability policy may be perceived merely as greenwashing if its employees are not informed and actively engaged in carrying out this policy through their relationships with customers and stakeholders.

The key concepts

Embedding sustainability thinking into a company’s organization involves integrating it into the underlying systems and processes that govern behavior within that organization.

- Systems and processes to embed sustainability thinking → *Creating a culture of sustainability*
- Sending consistent messages about sustainability across the company → *Communication*
- Attracting and hiring the right people to carry out that strategy → *Recruiting*
- Retaining those employees in the organization → *Employee engagement*
- Providing incentives and rewards that are in line with sustainability → *Motivation and rewards*
- Providing employees with the right tools → *Talent development and training*
- Advice for ensuring successful change programs → *Box: Managing change*

Creating a culture of sustainability

The story often goes like this: XYZ company decides to get involved in sustainability, puts together a sustainability strategy with goals, sends an internal memo around the organization saying they are now going to be more sustainable, but neither implements the strategy nor achieves the goals. What went wrong?

Putting in place systems and processes related to sustainability within an organization is not always enough. Few managers understand that in order to be successful and really reap the full benefits, they must be committed to mainstreaming sustainability into the values and belief systems already present in the organization. Organizational habits – the way in which people work and make decisions, on a day-to-day basis – must be understood and molded

to accept the necessary changes, move forward, and make sustainability goals possible. Sustainability isn't just something you do, it is a way of thinking that can be applied to everything you do; a sort of lens through which to see the world in a more environmentally, socially, and economically profitable way. If all employees see through this lens then the necessary changes are embraced and new opportunities emerge.

Of course, embedding sustainability into the culture of an organization is easier said than done. A company's culture is made up of the values, beliefs, underlying assumptions, attitudes, and behaviors shared by a group of people. It is a set of rules that govern how employees work together, some written but mostly unwritten. A culture is not just something you create, or that you can simply change. It is formed over time by the people, processes, and systems that a company follows, and is a result of taking action and being consistent. Every organization has its own unique culture, so not surprisingly some cultures will make it more challenging to embed sustainability thinking than others. Several elements contribute to an organization's culture:

- ***The founder.*** The basis of a company's culture is commonly formed by the founder of the company and the values that she or he based the company on. If the founder built the company upon values that are intricately linked to sustainability or that support sustainability, it will be easier to embed sustainability into the culture.
- ***The CEO.*** The individual at the top of the organization has a tremendous influence over how an organization operates. People take action based on her or his words and actions. A consistent message from the top will help to push change across the company. An inspired leader will play a key role in motivating and inspiring others to action.
- ***The employees.*** Many times the culture of a company is created not by those at the top but rather is created from the bottom up by the employees themselves.

- **Management.** A large part of culture is also driven by the managers of a company, what they pay attention to, how they react to situations, how they communicate with others, what they reward, and which issues they consistently support.
- **Mission, value statements.** Many organizations have a set of written rules such as mission statements or formal declarations that attempt to explain what the company stands for. It is not enough to just have these, they must really represent what the company is and where it wants to go and be part of the culture. Many companies make changes to these to reflect their focus on sustainability.
- **Codes of conduct.** Codes of conduct throughout the organization guide the behavior of people by telling them what behavior is and what is not acceptable in the workplace. These take the form of both written and unwritten codes (i.e., culturally or historically accepted ways of behaving). These should be understood and practiced by the organization.
- **What is rewarded.** How employees are judged, rewarded, and the criteria for promotion and firing tells a lot about what is expected of employees and how seriously sustainability is taken by the company.
- **How people interact.** How people interact within the organization. Do they work together, do they share information, or is there competition within? This isn't just about those in the company, but also the perceptions of potential employees, business partners, customers, etc. that can be even harder to change.
- **Material aspects.** These are tangible aspects of culture which are often the most important ways in which culture is manifested, reinforced, and communicated. This can include rites, and rituals. How the office space is organized and used can also say a lot about the culture of an organization.

Communication

Everyone agrees that communication is important. Nevertheless, many companies are not communicating their sustainability strategies

effectively to their employees in a way that allows them to become actively engaged and involved.

Different companies have chosen different ways of communicating their sustainability strategies to employees. Shell produced a biodiversity management primer brochure that brings together the information that employees need to know about the company's position in relation to biodiversity. It explains what biodiversity is, why it is important for the company, what the company's commitments are and, most importantly, what managers at Shell can and should do to manage their impacts and help conserve biodiversity. The CEO of carpet company Interface meets with senior management regularly to discuss sustainability issues. Those senior managers then go on to communicate the message to their staff. This continues until all members of staff have been informed. Approaches to communicating sustainability are both top-down and bottom-up.

Communication on sustainability should answer the following three questions:

1. ***Why is sustainability important to the company?*** Why are these issues important to the company? How do they affect the company? Why have leaders of the company chosen to act? Once an individual understands the why, most of the battle is already won.
2. ***What is the company doing about it?*** Information should be given relating to how the company is reacting to this risk or/and opportunity. Is there a new partnership, a new code of conduct, a new goal? If an issue is truly important to the company and there is a strong reason why, employees will see that message delivered consistently through the different levels and processes of the company.
3. ***What can employees do?*** Communication should not only be about raising awareness of the direction of a company and its sustainability strategy. A major part of communication needs to be aimed at how this affects the employee and what their role is.

For more information take a look at the work being done by the Institute for Sustainable Communication (www.sustainablecommunication.org), UNEP, and Futerra in this area (www.unep.fr), as well as on company websites. For more on communicating sustainability see Chapter 11.

Recruiting

Recruiting is a two-way process. A company's engagement in sustainability depends in large part on the kind of people it has working for it. The company needs to adjust recruiting processes to attract employees with the necessary skills. To be competitive in recruiting, companies can no longer ignore sustainability because graduates and new employees are asking for it and are often pre-assessing the social and environmental performance of companies before choosing an employer. Potential employees are increasingly looking to work for companies that have a good reputation, are ethical, provide a good work environment, and share the same beliefs as they do.

When looking at embedding sustainability into your recruitment processes, consider the following:

- **Recruiting strategy.** The first step of HR in supporting the company's sustainability strategy is to align its recruitment strategy with it. This means aligning recruitment processes (including job descriptions) to that sustainability strategy based on identifying the skills, experience, knowledge, and aptitudes of potential staff members. A clear strategy makes people want to work for you and ensures that you get very strong applicants who know why they want to work for you.
- **External communication.** Candidates for recruitment should be sent consistent messages about what the company represents through the company website, the recruiting website, and all other recruiting communications. Information on what the

company is doing in sustainability should be consistent across all communications and should be easily accessible.

- **The interviewer.** Interviewers should be armed with knowledge about the company's sustainability policies not just so they ask the right questions, but also so they can answer those that interviewees may ask them. If the individual giving the interview cannot answer simple questions made by the interviewee about the company's sustainability direction, then this can send the message that it is not everyone's business, and that the company isn't serious about it.
- **The employment package.** When putting together a package to recruit employees into the company, look at all the different elements of that package from pension funds (sustainable of course) to opportunities for employees to take paid or unpaid time off to do community service.
- **Job description.** An individual's job description sets out what they will be expected to do and what their roles and responsibilities are. Sustainability should be incorporated into this.
- **First messages.** Once you have the right people you need to set their expectation of how things work in the company. If it really is important these messages will be delivered consistently and from the start. Employees arrive at a company fresh and open to learn, so take the opportunity to inform them as soon as they enter the door. This involves not just training (explained further on) but also the way new employees are introduced to the company. Are office greening projects emphasized during the tour of the buildings and facilities? Are these issues introduced to new employees from day one?
- **Current employee recommendations.** Current and past employees can be very effective ambassadors, spreading the message about what a company stands for to the public, potential customers, and also to potential employees. According to a survey by KPMG, only 20% of workers who felt that their bosses lacked integrity would recommend the workplace to recruits. In comparison, 80% of the respondents who believed their

company managers had strong ethics would recommend their organization.

IEMA (www.iema.net) and Business in the Community (www.bitc.co.uk) have both separately developed competency maps displaying the core competencies required by people to integrate a sustainable development perspective into their work. The International Society of Sustainability Professionals (www.sustainabilityprofessionals.org) as well as Net Impact (www.netimpact.org) have both produced studies around the skills required for sustainability.

Employee engagement

Organizations are looking for employees who will give 100% to the organization, who will go above and beyond what is expected. Employees are looking to work for companies with a stimulating environment. Employee engagement is when both meet: when an employee is committed to the organization and pushes forward its missions and goals. Engaged workers are much more likely to be committed and productive. Studies done by PwC show that employees who are more committed to their employer perform 20% better than their peers and are 87% less likely to leave the organization.

However, engagement is an attitude that is nurtured over time. Some of the drivers of engagement include:

- A sense of feeling valued and involved, with the potential to make a positive difference to the company.
- Freedom to voice ideas that managers not only listen to but respond to.
- Opportunities to develop on the job.
- A sense that the leaders of the organization care about the well-being of employees and the planet.

- A feeling by employees that they are well informed about what is happening in their organization.
- The belief that managers and the CEO are walking the talk.

Companies that engage employees on issues of sustainability find the benefits diffuse throughout the organizational hierarchy. Involved employees are a source of knowledge and provide feedback to management about ways to move forward. Employees want to understand the contribution that they can make. There are countless ways to engage employees in your sustainability efforts in a way that benefits the employees, the company as a whole, and often the environment and the community:

- ***In defining the strategy.*** IBM's Big Green Innovations program includes environmentally focused initiatives, looking at advancing water management, alternative energy, and carbon management. The idea came out of the IBM innovation jam in 2006, which involved 150 000 employees blogging for two to three days, and resulted in 30 000–40 000 new ideas. These were narrowed down to 10, which the company decided to adopt, of which Big Green Innovations was one.
- ***In identifying problems.*** Employees can be useful sensors in identifying problems before they occur. One company has a program in place that involves all of its employees in identifying health, safety, and environmental risks. Every employee is required to report at least one potential environmental hazard into the system each year.
- ***In coming up with solutions.*** Employees are often best placed to identify ways that their jobs could be done better. In order to take advantage of this, many companies have systems in place so that when employees are asked for their ideas and suggestions they can be processed, assessed, acted on, and feedback given. The 3M Corporation has been doing this since 1975, when they set up their 3P program (Pollution Prevention Pays), which relies on the voluntary participation of employees to identify

ways to reduce pollution across operations. Innovative ideas are recognized with 3P Awards. Projects must meet three criteria:

- Eliminate or reduce a pollutant.
- Benefit the environment through reduced energy use or more efficient use of manufacturing materials and resources.
- Save money – through avoidance or deferral of pollution control equipment costs, reduced operating and materials expenses, or increased sales of an existing or new product.
- ***In the local community.*** Employees are increasingly asking for opportunities to get involved in the communities in which their businesses are working and are looking to work for companies that provide those opportunities. Employees who are active in community projects through their company are more likely to feel a stronger sense of belonging to the company, increasing employee morale, motivation, and commitment. Intel Corporation is an example of a company that embraces the volunteerism philosophy. Among its many programs, its Intel Involved Program enables employees to volunteer thousands of hours in the communities where they work.
- ***By giving them time to explore these issues.*** Bill Gates, in his speech at the Davos Summit in 2008, called on corporations to ‘dedicate a percentage of their top innovators’ time to issues that could help people left out of the global economy. This kind of contribution is even more powerful than giving cash or offering employees time off to volunteer.’ Companies such as 3M and Google dedicate 15%–20% of employees’ work time to projects of their choosing.
- ***By encouraging healthier lifestyles.*** Wal-Mart’s Personal Sustainability Project (PSP) is a voluntary project that helps the company’s employees integrate sustainability into their own lives by making small changes to everyday habits. PSP Captains are trained in each office to educate other employees about the program. Employees then choose a goal to improve their own health and wellness or the health of the planet over the next four to

seven weeks to monitor progress. Unilever's Personal Vitality campaign launched in 2005 is focused on promoting the wellbeing of employees in terms of fitness of body, heart, mind, and spirit.

Many companies have employee engagement strategies. Check their websites for more information.

Motivation and rewards

Once an overall strategy and direction for the company is decided upon and goals and targets have been set, the next step is to rally the full organization around reaching those goals. Sustainability targets will not be reached simply by telling people that they exist. To be truly effective, incentives need to be put in place to ensure that sustainability targets and goals are met. Rewards should focus on promoting and reinforcing the desired behaviors; they should be promoted within the organization and easily understood by all. Here are some pointers:

- ***Be clear on the objective.*** Decide what kind of behavior you want to promote and reinforce and clearly align incentive programs to reward that behavior. Objectives need to be inspiring and not be seen as merely an extra burden for employees.
- ***Identify and eliminate de-motivating factors that undermine the achievement of sustainability goals.*** Give individuals who are in a position to make sustainability changes, but do not have sufficient authority or financial and human resources necessary to achieve the sustainability goals, the tools to be able to make changes.
- ***Performance appraisal.*** Employees are often given individual and team targets on which they are appraised at the end of the year. If measurable long-term sustainability goals and targets are important to the organization they should be incorporated into

these appraisals and it should be clear that employees will be judged on their success. An employee who is compensated for maximizing short-term accounting earnings is less likely to be committed to long-term projects.

- **Promotion and bonus eligibility.** With sustainability tied into job descriptions and performance appraisals, bonuses and promotions can therefore be tied to reaching set sustainability goals. SC Johnson has a company Greenlist that provides environmental ratings for all ingredients used in its products. Annual Greenlist goals are tied to the bonuses of people at officer and management level. Further bonuses are set within the relevant R&D groups and linked to annual merit increases.

Understanding what motivates people is key to providing an incentive structure that will motivate a company's employees to achieve its sustainability goals. Employees are not just motivated by financial reward, they are often equally or more motivated by a wide range of factors – everything from feeling a sense of achievement, advancement, and belonging to something else (e.g., challenge, contribution to society, sense of ownership and involvement in a project, financial rewards, intellectual interest, job security, pride in organization, recognition and respect, responsibility, and a sense of wellbeing of the work environment).

Talent development and training

In order to be successful, a company's sustainability strategy must be understood and practiced throughout the organization and not just by a few managers or specialists. Employees need to be given the tools to be able to implement sustainability in their jobs. Therefore, sustainability should be part of the initial training from day one until the day the employee leaves the company. This can be done by using training to raise the general awareness about sustainability in the company and what its priorities are, the strategy, how it affects employees, and what their role is in implementing it. Training can

also be about specific parts of sustainability that are relevant to different job functions. These topics should also be embedded into already existing training that is required for specific jobs.

There are several delivery methods for training. In-class training courses can be used to raise the general awareness about these issues as well as provide specific tools and knowledge. One way is to identify key personnel and ‘train the trainers’ who will help spread the message. PwC did this by sending its top 400 employees to a sustainability executive leadership program. Another way is to use web-based training, often simple online modules that are compulsory for employees to complete and which allow managers to track their progress online in order to ensure that their employees are fulfilling these requirements.

Some elements of sustainability are not easy to learn through web modules or in-class lectures, but need to be experienced in order for the employees to learn both the knowledge and skills required. These include certain skills that are critical for all aspects of the company, including exploring and implementing new ideas, questioning the standard ‘business as usual’ practices, multidisciplinary thinking, creativity and innovation, leadership and networking to name but a few.

- **Basic skills.** Marks and Spencer, a British retailer, has been providing free literacy and numeracy classes to workers in their supply chain in Morocco. The factories have rearranged their work schedules to allow the employees to take the 3-hour classes on the premises. This literacy training program has involved more than 1000 supply chain workers in Morocco, increasing productivity by 15% as workers read instructions themselves and need less supervision.
- **Secondments.** A growing number of companies send some of their employees to international organizations and NGOs for a short duration. The individuals learn a set of skills and leadership capabilities and the organization benefits from their application when the employee returns. For example, consulting firms sending employees to work in international organizations.

- **Job rotation.** Some companies aim to integrate sustainability principles into everything they do. After a stint in a sustainability position an employee goes on to a new department where he or she can share the experience and knowledge with a new team in a new work context.
- **Placements.** Top employees at Accenture have the opportunity to work on non-profit consulting projects in developing countries with the Accenture Development Partnership. It started off as an activity to recruit and train staff but today has grown to be part of the strategic direction of the company to provide a new range of services to customers in developing markets.
- **Community engagement.** The prime objective of community involvement has always been and will continue to be to benefit charities and communities. However, increasingly volunteer programs are proving to be not just good for the communities, but also good for the companies involved. Volunteer opportunities can develop certain skills for employees including communication, teamwork, managerial, professional, and technical skills to name a few.

Often companies will raise the awareness of employees and then wait for miracles to happen. Most employees – and in particular managers – have a series of big folders sitting on their office shelves from past training sessions that they rarely look at again. Post-training follow-up is just as important as the training to support newly trained employees who are motivated to apply their ideas and skills about sustainability to their work. There is no point sending them off to training if there is no way for them to incorporate this new knowledge into their regular jobs.

A growing number of NGOs, consulting firms, and businesses offer sustainable business courses at different levels and for different durations. Several universities now offer short and longer programs around sustainability and business.

Challenges?

- ***Raising the importance of HR in general.*** Most do not fully understand the crucial role of HR in an organization, let alone the role that HR plays in sustainability. HR is often seen simply as a support function rather than a strategic piece of the puzzle. The fact that titles usually seen around the executive table are CEO, CFO, CIO, COO but typically no CHRO, serves as a reminder that HR is not seen in the same way as other support functions.
- ***Bringing it all together.*** Many companies will have different employee engagement activities happening throughout the organization but not one overarching strategy to bring them all together in a strong, clear, consistent message.
- ***Building capacity.*** Employees in HR themselves are often not equipped with the skills and tools to play a part in contributing and implementing sustainability strategies. There is a need to build their knowledge as key players in influencing others in the organization. Leaders must make sure that the organization is ready for the changes and that this isn't seen as adding work to people's jobs.
- ***Joint role of management and HR.*** HR's role is to implement management decisions, and without top management working with HR none of the corporate goals and targets can succeed. Neither can do it without the other but often there is little communication between the two.
- ***Cost versus asset.*** Employee and related programs are often seen as a cost to be controlled rather than an important asset in an organization. Community engagement programs, training, and personnel development are seen as costs without looking at the benefits to the overall profitability of the organization.
- ***Measuring effectiveness as well as efficiency.*** HR can play a vital role in measuring the impact that its programs have on the state of implementation of the company's sustainability strategy. Often the correlation is difficult to see.

- **Benefits are often intangible.** A key challenge is that many of the benefits of sustainability practices at an employee level are often difficult to measure. For this reason they are often ignored.
- **Training is key.** A survey by Accenture and the UN Global Compact found that 1 in 4 CEOs felt that the lack of skills and knowledge about sustainability with their senior and middle managers was one of the main challenges in being able to put together and implement a sustainability strategy.

Trends and new ideas

- | | |
|---|------------------------------------|
| - <i>Linking pay and sustainability</i> | - <i>Creating great workplaces</i> |
| - <i>Diversity</i> | - <i>Changing the way we talk</i> |
| - <i>Skills for sustainability</i> | - <i>Rise of the CSO</i> |

Linking pay and sustainability

Increasingly, companies are factoring achievement of sustainability goals into their employee salary and bonus programs. For example, at Novozymes the company pays 25% of the annual bonus based on short-term financial measures, 25% on long-term financial measures, 25% on short-term sustainability measures, and 25% on long-term sustainability measures. Companies like Alcoa link 20% of variable compensation plans to sustainability. A growing number of companies also link employee bonus structures to sustainability, including linking sustainability performance targets to bonuses. For example, GSK set a target for energy consumption and mandated a 5% reduction in one year and linked that to bonuses. At the end of the year they ended up reducing energy use by 11%.

One of the tools being explored as a means of mainstreaming sustainability issues into appraisal systems is the sustainability balanced scorecard. The balanced scorecard is already being used by

many companies and is a performance measurement framework that adds non-financial performance measures to traditional financial metrics to give managers and executives a more 'balanced' view of organizational performance. A sustainability balanced scorecard, as the name suggests, incorporates the sustainability measures and targets of an organization into performance metrics. These new expanded versions are being used to integrate sustainability into operations. For example, McDonald's uses a scorecard that links performance indicators to relevant environmental guidelines for suppliers. The scorecard is intended as a tool for suppliers to measure and report upon performance related to a particular guideline. HSBC uses scorecards to measure sustainability development on an individual basis and gives incentives based on this.

For more on this topic see Ceres 'The road to 2020,' the 'UNPRI's' 'Integrating ESG Issues into Executive Pay,' and WBCSD's 'People Matter Reward.'

Diversity

In the past, companies sought to increase diversity for many reasons, but increasingly there are clearer business reasons for implementing a diversity plan. As companies expand geographically, they will encounter greater diversity of their customer base. Having employees from a variety of socio-economic, ethnic, linguistic, and religious backgrounds will give companies an edge in predicting and understanding consumer preferences, and allow them to communicate more effectively with their customers. Diversity of educational and skill backgrounds also brings different ways of viewing and solving problems to an organization. Look at the innovative work being done through the biomimicry movement (see Chapter 12), where biologists are sitting at the table with businesses to find profitable

business solutions inspired by nature. Investors say that the strength of some companies is their cultural diversity. Schlumberger, a leading service company in the Oil and Gas sector operating in over 80 countries, employs over 118 000 employees from more than 100 countries. Investors consider one of its major competitive advantages to be the diversity of its international workforce.

In 1989 B&Q, a UK hardware store, opened a store entirely staffed by workers over the age of 50 as an attempt to tackle the problem of high average annual staff turnover. There were 7000 applications for 55 jobs. The store was a success; staff turnover was reduced by about 80%, absenteeism was 33% lower, profitability was 18% higher, stock leakage was cut by more than half, while productivity and costs remained the same compared to similar stores. Today, 25% of its 35 000 workforce are aged 50 or over (in 2006 the oldest employee was 92 and 20% of employees were under the age of 24). This policy is based on the belief that its customers, stores, and offices benefit from new ideas and expertise from a mix of both younger and older employees. SAP, a large software company based in Germany, has a partnership with Danish social business Specialisterne where the company plans to employ hundreds of people with autism as software specialists. It has been shown that people with autism have special competencies that can be used in this labor market. Adecco, a multinational temporary work agency operating has programmes which assist, support and train disadvantaged people for labor integration. This includes disabled people, single mothers, people aged over 45, Olympic and Paralympic athletes, and long time unemployed.

DiversityInc's Top 50 Companies for Diversity ranks companies based on diversity. (www.diversityinc.com) Sodexo, one of the leaders in this ranking, has 25% of executive bonuses linked directly to diversity objectives.

Skills for sustainability

As seen earlier in this chapter, a number of organizations are trying to map out the skills required not just by a sustainability

professional or individuals looking to work in the field of sustainability, but by all individuals working in the business sector to ensure that sustainability becomes mainstream in their organizations. These include but are not limited to:

- **Influencing.** The ability to influence change, influence leadership, and others who can make sustainability happen within an organization.
- **Communication.** The ability to communicate at all levels of the organization with various stakeholder groups, in particular government and not for profits. The ability to communicate information to different groups in the way most relevant to those groups.
- **Knowledge.** Be knowledgeable about the issues, of the business and industry, of stakeholder groups, of how to get things done within the organization, and who to work with.
- **A range of soft and hard skills.** The ability to network, build consensus, project manage, exhibit leadership skills, and solve problems.
- **Global awareness.** The ability to see what is happening outside the company, outside the industry, outside the country in this field.
- **Inspiration.** The ability to inspire and motivate those around you, to think outside the box, to be positive but realistic.

Creating great workplaces

Creating a work environment where employees can succeed goes beyond upholding basic labor standards. It is about creating an environment where innovation is both encouraged and expected. It is about creating a work environment that people want to be in.

Good places to work tend to receive more qualified job applications, have lower levels of turnover, higher levels of customer satisfaction, greater creativity and innovation, and benefit from higher productivity and profitability. According to the Great Place to Work Institute, the quality of a great workplace is measured by three interconnected relationships; the relationship between employees

and management, between employees and their jobs/company, and the relationship between employees and other employees. Some things that can make a great place to work include:

- **Work environment.** Noise, lighting, color, safety, and food.
- **Flexibility.** Job sharing, sabbaticals, telecommuting, flexible working hours.
- **Work–family benefits.** Domestic partner benefits, adoption assistance, eldercare services, childcare services.
- **Work–life balance.** Gym memberships, professional training or educational support, medical checkups, language courses, resting rooms, washers and dryers.
- **Profit sharing.** Companies are finding more ways to share their profits with employees through programs such as stock options and deferred profit sharing.
- **Unusual.** Scuba diving certification, relaxation rooms, dance classes – you name it, some company is trying it.

Many organizations around the world release lists of the best places to work yearly, including Fortune 100 Best Companies to Work For (money.cnn.com/magazines/fortune/best-companies), ‘World’s Most Admired Companies’ (money.cnn.com/magazines/fortune/most-admired), and the Great Places to Work Institute (www.greatplacetowork.com). See Chapter 16 for more on creating a better, greener work environment.

Changing the way we talk

If you want to change the way your organization approaches sustainability, it may be as simple as changing the way that you talk and the language that you use. Changing the kind of language you use to refer to sustainability can raise awareness about the issues and get people excited about it. For example:

- Moving away from blaming and complaining to taking responsibility and doing something.
- Moving away from vague, dull terminology to words that are clear and that inspire.
- Moving away from making people feel guilty to inspiring people to get involved.
- Moving away from wishes and hopes to making strong commitments to action.
- Moving away from ignoring to getting informed.
- Moving away from seeing all the reasons why not to looking at all the reasons it could be.
- Moving away from seeing it as a problem, a risk, or a cost to seeing it as an opportunity.
- Moving away from it being someone else's responsibility to taking responsibility.
- Moving away from you the individual to us the team, the organization, the community, the country, the planet.
- Moving away from being told or telling people what to do to working together to determine what needs to be done.
- Moving away from one-time events to continuous progress.
- Moving away from boring to fun.
- Moving away from saving the planet to language that speaks more to individuals and business.⁴⁶

Rise of the CSO

In 2004, DuPont named its first Chief Sustainability Officer. Since then several other companies have followed. Although there is no standardized guidelines as to what the scope and authority of the role is (usually splitting their time evenly between core business and operations, internal engagement, external engagement, and developing strategy), each year more and more companies of all sizes are creating a space for this position. Their backgrounds are always different but they all have a deep knowledge of their company and

industry and have been part of their companies for many years. Not all are given the role of CSO. Many are made director, VP, SVP, even chief green officer but all report to or close to the CEO.

Companies are also putting in place a range of new Chief Officer spots, such as Chief Innovation Officer, Chief People Officer, Chief Learning Officer, Chief Knowledge Officer, all of which often have something to do with sustainability. However, as the trend is on the rise so are those who say that the position isn't necessary at all but instead should be everyone in the executive core's responsibility. Many CEOs themselves have been quoted as saying that it is in fact their responsibility to be CEO and CSO. Others, such as GE and Unilever, have decentralized sustainability across the management team and appoint leaders to run specific initiatives.

For more information on CSO take a look at CSO Backstory (www.weinrebgroup.com), Accenture's 'The Chief Executive Officer's Perspective' (www.accenture.com), 'Portrait of the Sustainability Executive' (www.pwc.com), BSR and UN Global Compact's work on board adoption and oversight of corporate sustainability (www.bsr.org).

Want more?

The World Business Council for Sustainable Development has published an introductory guide on Human Resources and Sustainable Development (www.wbcasd.org).

Associations such as the Chartered Institute of Personnel Development (www.cipd.co.uk) and the Society for Human Resource Management (www.shrm.org) are increasingly doing research and work in this area.

Read: *Leading Change Towards Sustainability* by Bob Doppelt (2003), a change management guide for business, government, and civil society. *Organizational Change for Corporate Sustainability* by Dexter Dunphy (2003). *Get them on your Side* by Samuel Bacharach (2005) looks at how to overcome resistance in the workforce. *CSR for HR* by Elaine Cohen further looks at the role of HR in sustainability.

Managing change

Sustainability, no matter what you are trying to do, all comes down to change: changing the way something works, the way that people think, the way that people act, behaviors, assumptions, etc. However, some 50%–70% of all major programs of change fail to meet their objectives, including many change programs relating to sustainability. So, understanding and taking change seriously is key to sustainability.

There are many reasons why initiatives fail, but ultimately change programs often do because they fail to engage the very people they are trying to change – including the underlying thought patterns, outlooks, and behaviors of employees. Whether change is a major one (e.g., a merger) or a minor one (e.g., a recycling program) here are some tips:

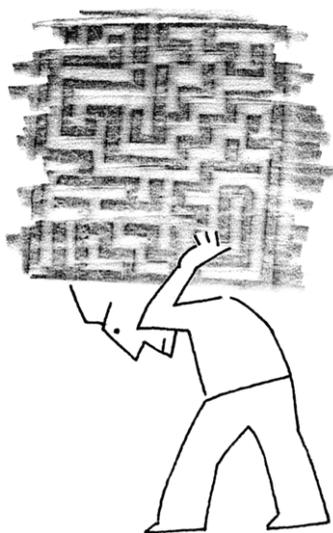
- **Get to the root cause of the problem.** Be clear what you are trying to change and why. Change the right things for the right reasons. Focus on the causes not the symptoms.
- **Create a vision.** Know where you want to go. Set audacious targets that inspire debate and that unite people. Be flexible.
- **Gather information.** Take time to observe how people do their jobs every day. Ask people how they think things should change. Understand what makes people tick and why people might resist change.

(continued)

- **Get support.** Unless the change process is coming from and supported by upper management it will go nowhere. Identify those who support and those who do not support the change. Build a coalition of people who will help bring about the change. Understand the nature and culture of the organization, the relationship networks. Understand who the key people in your organization are that can influence the desired outcome.
- **Create ownership.** Involve people in creating the vision and the plan. If they feel they are part of the change they are more likely to implement the change.
- **Identify change champions.** Identify and train key people who are aware, motivated, and seeking to take action to act as champions and be a point of communication and motivation in the group.
- **Empower people.** Survey after survey show that people are interested in these issues but there is a gap between interest and action. This is in part because of information overload. Make the change relevant to people and their job. Give them the knowledge, tools, and opportunities.
- **Take different approaches.** Recognize that behavior change does not take place in the same way for all people and that different people may be at different points along the change curve (awareness, motivation, action).
- **Recognize people's emotional response to change.** Ignorance (not knowing), shock (the first response), denial (pretending it isn't important or true), anger (blaming yourself or others), depression (feeling as if nothing I do can make a difference), resignation (letting go of old ways), exploration (exploring benefits of change), integration (taking ownership of the change).
- **Lead by example.** Ensure that senior managers are leading by example. Employees will have a hard time changing their behavior if they do not see those above them doing so.
- **Manage expectations.** Don't get employees too excited about sustainability and then not deliver – focus on keeping energy levels up, but not so high that they will tire people.
- **Choose your fights wisely.** You will not be able to change everything, or everyone.

- **Communication.** Focus your messages. Be clear and consistent. Use stories and best practice. Be honest.
- **Create a sense of urgency.** Change does not necessarily fail because of resistance, rather because of inertia within the organization. Creating a sense of urgency can provide that push for an organization to really get on top of things.
- **Be patient.** Often there is a delayed response to changes in an organization.
- **Celebrate wins and learn from failures.** Failure allows you a chance to understand where you went wrong and to learn from your mistakes. Celebrate wins to keep momentum and positive energy levels up.
- **Institutionalize new approaches.** Change should become a part of the way people operate.
- **Just get started.** Don't worry about all the details before getting started, just get started. Having pilot projects can be a good way to learn lessons and test out approaches.
- **Keep it light.** People find change hard enough as it is so make it as easy as possible for them. Don't use guilt or make people feel like it is going to increase their workload.

We tend to remember 10% of what we read, 20% of what we hear, 30% of what we see, 50% of what we read, hear, and see, 70% of what we say, 90% of what we both say and do.



‘The fact is, the prevailing approaches to CSR are so fragmented and so disconnected from business and strategy as to obscure many of the greatest opportunities for companies to benefit society. If, instead, corporations were to analyze their prospects for social responsibility using the same frameworks that guide their core business choices, they would discover that CSR can be much more than a cost, a constraint, or a charitable deed – it can be a source of opportunity, innovation, and competitive advantage.’

MICHAEL PORTER

Until recently, the management of social and environmental issues was largely driven by external factors and the response by business mostly tactical and communications driven. Today these issues have ascended to the corporate agenda as issues that are increasingly 'real.' With this increased awareness and acceptance is coming a slow, but necessary shift to mainstream these issues into the overall strategy of a company.

If sustainability is a puzzle, strategy is the centerpiece which keeps everything together. Incorporating sustainability into strategy not only shows that a company is taking these issues seriously, more importantly it ensures a real organized effort rather than small, unconnected activities. It inspires employees and mobilizes the whole company and its supply chain toward common goals that benefit both the company and society at large. The goal: that sustainability is so integrated it becomes hard to distinguish from the day-to-day business of the company.

Why is it important?

- ***To take full advantage of opportunities.*** Partial or bolt-on approaches don't work. Although individual projects across the organization can have limited success, an organization will not truly see the benefits of sustainability unless it is integrated into a company's strategy at all levels.
- ***To mobilize the whole company.*** A strong, clear, and inspiring sustainability strategy can guide the actions of employees and get them motivated and excited. A company can better understand its business and maximize the indirect benefits which a coordinated approach to sustainability can bring.
- ***Stakeholders are asking for it.*** Shareholders, regulators, customers, employees, and business partners are increasingly expecting companies to explore these issues and can tell the difference between a company that takes these issues seriously and one that does not.

- ***Risk is changing.*** Business is being confronted with an increasing variety and number of risks. A business's ability to achieve its objectives depends on being able to recognize and deal with these. Recognize that not all risk is downside, and that some risks also present opportunities.
- ***No longer just for 'high-risk' companies.*** Sustainability has moved beyond being an issue just for companies in sectors like oil and gas, who have an obvious impact on the environment and society. Today, companies in virtually all industries are affected by sustainability issues.
- ***Differentiation.*** In today's business reality you can't just do what everyone else is doing, you need to be different, unique. In addition, companies can shape their industries. There is a lot of room for companies to become leaders locally, nationally, regionally, and internationally in these issues.

The key concepts

Embedding sustainability into a company's strategy involves developing an understanding for what the issues are, how they will affect the business, and its ability to continue to do business in the future.

- Understand the wider business context you are working in → ***The wider business environment***
- Understand how sustainability affects your industry → ***Understanding where you stand***
- Understanding the sources and magnitude of risks → ***Understanding risks***
- Exploring a wide range of sustainability strategic options → ***Sustainability strategies***
- Setting the direction for the company → ***Goals and targets***

- Working and learning from others → *Working with others*
- Companies active in influencing wider change → *Influencing change*
- Getting things right the first time → *Box: Why do initiatives fail?*
- Identifying and involving stakeholders in strategic decisions → *Box: Stakeholder engagement*

The wider business environment

An organization needs to understand the broader environment in which it operates and how this environment can and will affect their operations. Several tools already used by managers are being expanded to include relevant sustainability issues. These tools are being used not just to see the big picture, but also to explore what the future may bring and how this may affect the way they do business. Based on this information, an organization can decide whether they are interested in just keeping up with the change, or playing a key role in shaping their industry.

ESTEMPLE: PEST (political, economic, social, and technological trends) is one such tool. It is a process technique that outlines how forces in the larger business environment will change over time. This process has been expanded further to include other trends:⁴⁷

- **Economic.** Health and direction of the economy (or economies) in which the firm competes. Variables include GDP levels, inflation, interest rates, money supply, unemployment, and disposable income.
- **Social.** This can include demographic variables such as population size, age structure, geographic distribution, ethnic mix,

income distribution as well as tastes, fashions, attitudes, and values.

- **Technological.** This can include understanding current technologies (e.g., products, processes, materials), as well as emerging or undeveloped technologies.
- **Ecological.** This can include concerns for sustainability of the physical environment, greenhouse gases, waste disposal, environmental policies, and energy consumption.
- **Media.** The increasingly important influence of media on business, politics, and society – as an opinion former and shaper – and its power to affect outcomes.
- **Political.** This can include government stability, alignment at the international level, taxation and fiscal policy, foreign trade regulation, social welfare policies.
- **Legal.** This can include employment law, health and safety, and product safety.
- **Ethical.** This includes the rising number of codes affecting the ways a business should operate, which increasingly have a financial impact on the company's performance.

Sources of information for ESTEMPLE include the Economist Intelligence Unit (www.eiu.com), World Bank (www.worldbank.org), and Business Environment Risk Intelligence (www.beri.com). International Futures is an integrated global modeling system which presents demographic, economic, energy, agricultural, socio-political, and environmental subsystems for 183 countries (ifs.du.edu). Gapminder provides time series of development statistics for all countries (www.gapminder.org). World Values Survey is a worldwide network of social scientists studying changing values and their impact on social and political life (www.worldvaluessurvey.org).

Understanding where you stand

A range of widely used management tools can be applied to help guide your thinking on sustainability, whether it be for a whole company or for a particular activity. Because these are familiar tools in business, they can be a good starting point for a conversation about sustainability. 'Five forces' is a tool widely taught in MBA courses, used to analyze the competitive forces that shape an industry and that can influence business profitability. The five elements it considers are:

- ***How hard is it for new companies to enter this industry?*** The threat of new entrants is usually based on the entry barriers for that market, or in other words, when it is too time-consuming or expensive to enter easily. This can include, for example, patents for green technology. While usually new entrants to a market are considered a threat, sometimes this can turn out to be a good thing. For example, when Clorox entered the green cleaning product market with its green cleaning brand Green Works, rather than taking away market share from other smaller brands such as Seventh Generation, it actually played a role in growing the overall market.
- ***Threat of substitute products or services.*** As with competitors, today new innovative products and services are not just affecting their own sectors, but can also have a huge impact across sectors. New forms of service delivery are bringing in greater profits while also enabling companies to build customer loyalty and long-term competitive advantage. Many consumers, as introduced in Chapter 11, are looking to switch to more sustainable options once they become available.
- ***Rivalry among established firms.*** Who are the existing competitors in the industry and what is the level of competition? In the past new innovations and companies usually only affected specific sectors; however, today innovations in sustainability are impacting across sectors regardless of the size or location of the

company. Many companies are choosing to work together to further sustainability issues, for example through initiatives such as labeling schemes.

- ***The power of buyers.*** Who is buying the industry's products and how easy is it to negotiate with them? Many organizations that have made a commitment to sustainability are now also looking at the products and services they are buying. One example is The Warehouse, New Zealand's largest mixed retailer, who in 1999 declared a national corporate goal of zero waste. In order to reach this goal, the companies it buys from – its suppliers – were given radical packaging reduction targets.
- ***The power of suppliers.*** Who supplies the industry's inputs and how hard is it to negotiate with them? This includes raw materials, labor, and expertise. For example, some suppliers of green products and services charge a premium for the products, not just because of high costs associated with them, but also because there is a higher demand for these products with not a lot of suppliers offering them.

SWOT is another strategic planning tool used to evaluate a company's or project's strengths and weaknesses in relation to the external opportunities and threats. It is also used once objectives have been identified to help in pursuing those objectives. For example, a traditional SWOT analysis conducted on labor issues within the supply chain of a company could look like this:

- ***Strengths.*** These are attributes of the organization that help in achieving the objective. For example, the company has partnerships with some NGOs who specialize in this area. Some of their suppliers have sustainability related certifications.
- ***Weaknesses.*** These are attributes of the organization that are harmful to achieving the objective. For example, the labor practices of some of the company's suppliers are not known and could be bad.
- ***Opportunities.*** These are external conditions that are helpful to achieving the objective. The company could have access to

new customers if all of their suppliers meet minimum or high labor standards. Suppliers themselves will also benefit as higher labor standards can create a more stable and productive workforce.

- **Threats.** These are external conditions that are harmful to achieving the objective. Poor labor standards could become known by the media or stakeholders and have a serious effect on reputation and ability to keep customers.

Different organizations have been looking at how to better incorporate sustainability into the traditional SWOT analysis, for example the World Resources Institute's work around a sustainability SWOT (or sSWOT). The elements of this include:

- **Environmental challenges.** Look at which environmental challenges impact your business/project and connect these with other big trends that are shaping future markets. For example, links between climate change and future commodity costs.
- **Threats.** Where are environmental challenges creating broad threats to future business value, both directly and indirectly? For example, how may higher costs or supply chain disruptions threaten a company's own costs or its suppliers, customers, or markets?
- **Opportunities.** Where is there a growing gap where you can create new solutions for environmental challenges? Look at those threats where current and best practices are not sufficient to meet the scale and pace of the problem. For example, a company that manages fleets of corporate cars might see an opportunity in the lack of affordable low-carbon vehicles or financial incentives for sustainable transportation.
- **Strengths.** In what unexpected ways can you apply your strengths to environmental challenges? Start with your competitive advantage but also broader strengths such as corporate culture. Include conventional strengths or new and creative ways of leveraging existing competencies. For example, GE and DuPont have remained on top because of their ability to adapt and apply

core strengths and are now positioning themselves to provide solutions to environmental challenges.

- **Weaknesses.** Look at your vulnerabilities, obstacles, risks, or blind spots and potential partners who could help in bridging some of these gaps. For example, a water utility and electric power utility may want to partner to manage water resources more effectively amid changing climate conditions and ensure an adequate supply for the community.
- **Act.** Prioritize and act on your findings. What can you do in the near term, mid-term, and long term? What should you invest in today so that you can lead markets tomorrow?

Understanding risks

According to the WBCSD, ‘The challenge for the corporate sector is to understand how different sources and magnitude of risk are likely to affect them (positively or negatively) over the long term. In order to gain that understanding, companies need to take a genuinely holistic approach that includes a consideration of sustainability as well as commercial, political, and societal risks.’

A business’s ability to achieve its objectives depends on it being able to recognize and deal with risks. Not managing these risks properly can have a major impact on business reputation and also on financial, social, or environmental performance, as many so-called non-financial risks can rapidly become material. Business is being confronted with an increasing variety and number of risks relating to sustainability. Global population increases are leading to increased demand, and scarcity of resources like clean water. With increased interconnectedness related to growing population densities comes greater levels of international trade and significantly improved information sharing across the globe. Increased globalization of markets has led to increased complexity in the way businesses operate. A threat may build slowly from a number of small events, but one of those events can be the catalyst that sets off an

uncontrollable reaction. A relatively minor incident in one country can have a bigger impact elsewhere.

The WBCSD identified a list of mega-risks, part of the ever-increasing variety of risks that companies are confronted with, that present unprecedented challenges as well as potential opportunities to companies and governments alike. These include:

- **Energy and climate.** The environmental impacts of rising energy production and consumption are introducing uncertainties to industries, such as oil and gas, reinsurance and agriculture.
- **Demography.** As the population continues to grow, population dynamics are at the root of almost every trend shaping tomorrow's business climate.
- **Intangibles.** The value of corporations is increasingly made up not of tangible assets such as property and land, but of intangible assets such as reputation, brand, trust, and credibility – up to 75%.
- **Globalization.** Globalization is creating increasing interdependence, making it all the easier for dangerous viruses, pollutants, and technical failures to spread. The legal framework in which companies do business remains local, even though the world has 'gone global.'
- **Political risk and terrorism.** Political risk is by no means a new threat, but changing political realities have amplified its magnitude and thereby its capability to disrupt critical systems.
- **Ecological risk.** The world economy depends on a base of natural resources that is showing signs of severe degradation. Without improved environmental performance, future business operations will be exposed to additional risks such as rising prices for water, materials, and waste disposal.
- **Litigation risk.** There has been an exponential increase in society's willingness to get involved in litigation, primarily driven from the USA.
- **Infrastructure and security.** Health services, transport, energy, food and water supplies, information and telecommunications

are examples of sectors with vital systems that can be severely damaged by a single catastrophic event or chain of events.

- ***Pandemic and health risks.*** Despite a century of rapid progress in improving human health, many people still do not have access to basic healthcare or hygiene to protect them from infectious agents in the environment, and many new and serious risks continue to grow.
- ***Innovation and technology.*** New technologies offer substantial benefits, but are seldom risk-free. In some cases the risks are not always obvious at the time of introducing a new technology, for example freons and the ozone hole.

For business, these mega risks translate into:

- ***Market risks.*** For example, regulatory bans, reduced market demand for products, degradation of product quality by environmental factors, customer boycotts.
- ***Balance-sheet risks.*** For example, remediation liabilities, insurance underwriting losses, impairment of real property values, damage assessments, and toxic torts.
- ***Operating risks.*** For example, costs of cleaning up spills and accidents, risks to workers, safety from handling hazardous materials, rise in prices of material and energy.
- ***Capital cost risks.*** For example, product redesign to meet new industry standards or regulations, costly input substitutions to meet new industry standards or regulations.
- ***Sustainability risks.*** For example, competitive disadvantage from energy or material inefficiencies, impact of mandatory take-back rules, future taxes and regulatory restrictions.
- ***Legal risks.*** For example, companies being held responsible for actions that were legal at the time but later determined to be harmful.
- ***Liability risks.*** For example, penalties and fines, higher insurance premiums, product liability costs, site remediation costs.
- ***Reputation risks.*** For example, attacks on your image, bad-mouthing of your product, and boycotts.

For many, sustainability begins as an exercise in identifying and managing risks to the business. Risk is often defined as those things that stop or limit a company from achieving its objectives. However, this is only half the story. As the WBCSD puts it, ‘the traditional approach to risk has been fragmented, largely reactive and focused on the short term. Because risk is multi-dimensional, managers tend to associate it with loss, rather than weighing up the downsides against the upsides.’ It is crucial for companies to understand the risks posed by sustainability issues and decisions facing an organization, where they are coming from, and how to mitigate them. It is also important that companies go beyond just identifying risks to also exploring the opportunity presented by taking risks, for example in terms of new products and services.

Running the Risk, Risk and Sustainable Development: A business perspective, World Business Council for Sustainable Development (www.wbcsd.org). A Guide to Risk Assessment and Risk Management for Environmental Protection (www.defra.gov.uk). Environmental Risk Assessment – Approaches, Experiences and Information Sources (www.eea.europa.eu). CSFI and PwC ‘Banking Banana Skins’ reports on the top 30 risks financial institutions face (www.pwc.com).

Sustainability strategies

Companies have taken a wide range of different approaches when it comes to their sustainability strategies. Some companies take a whole-company approach while others approach it separately. Some examples include:

- ***Sustainability at the heart of how a company does business.***
For some companies, sustainability is an integral part of how the

company chooses to do business and is at the core of their business model from the start. Ben and Jerry's ice cream company is focused on making business decisions based on their values, as well as the power of their business to change the world for the better. They have been making all-natural ice cream since 1978 and are focused on what they call 'Values-Led Sourcing,' supporting suppliers who are also trying to make the world a better place with, for example, fair trade chocolate, cage-free eggs, and strawberries from leading-edge sustainable agricultural practices.

- ***Companies who have reinvented themselves through sustainability.*** Other companies such as Interface, a carpet manufacturer, did not start out being focused on sustainability. The founder became committed to industrial ecology after reading Paul Hawken's *The Ecology of Commerce* in 1994. Their vision today: To be the first company that, by its deeds, shows the entire industrial world what sustainability is in all its dimensions – people, process, product, place, and profits – by 2020, and in doing so to become restorative through the power of influence. They aim to do this through a whole-company approach, integrating sustainability into everything they do. Based on their experiences over the past 14 years in this area, the company now provides a peer-to-peer advisory service for business.
- ***Staying ahead of the pack.*** While some companies start with a focus on values and doing the right thing, others quickly identify the incredible range of business opportunities sustainability can present. The CEO of GE recognized this and launched 'ecomagination' in 2005, a business initiative to help meet customers' demand for more energy-efficient products and to drive reliable growth for GE. 'While we had investigated other corporate socio-environmental programs, we knew they didn't make cultural sense for GE. Metrics and accountability are major reasons why GE continues to flourish after 130 years, and the building blocks for the initiative could be no different . . . Simply

put: ecomagination had to make money for our investors.' In 2011 ecomagination reached US\$105 billion in revenue. Ecomagination products have increased by 34 new products, bringing its total number to 142, and the revenues from these products have continued to grow at twice the rate of total company revenues.

- ***Companies testing out the success of sustainability brands.*** These are companies that do not necessarily have a sustainability strategy, but are experimenting with sustainability through acquisitions or new product lines. This is often done to try new things out before committing the whole organization, and to learn lessons that could be applied to the organization as a whole. Clorox, a company known for its cleaning products, moved into the area of sustainability with the acquisition of natural personal care company Burt's Bees. Burt's Bees, a leader in the field of business and sustainability, chose Clorox because they found a partner with a shared vision who allowed them to continue to work independently. For Clorox, Burt's Bees provides a business model for them to learn from.
- ***Companies adopting different shades of sustainability.*** Many leaders in this area have not changed what they do; they are now using sustainability as a tool to do it better. Sustainability becomes an extension of what the company already does. Companies such as IKEA and Marks and Spencer haven't necessarily changed their products, but they have changed how those products are sourced, the ingredients, their packaging, etc.
- ***Companies expanding their focus.*** Some companies are adopting sustainability practices by expanding the range of products and services they provide as a response to increasing and changing consumer demands. Several traditional oil and gas companies such as BP and Shell have expanded the focus of their operations to include new forms of renewable energy such as wind, solar, and biofuels.

There are a growing number of companies around the world that have a sustainability story to tell. Pick the companies you buy from and look at their websites and annual reports to see what they are doing.

Goals and targets

Companies that are taking sustainability seriously are setting goals and objectives to guide their actions. Having a clear set of goals focuses the organization in a common direction. More importantly perhaps, having clear and inspiring goals will motivate employees. Goals should:

- **Be clear.** Goals should be clearly understood. Have objectives framed so that all members of the team know whether or not they have been achieved. There should not be so many that they are difficult to follow.
- **Be credible.** Goals should be realistic and believable. They should be put in place for the short, medium, and long term and you should show the steps needed to reach those goals. In addition, don't have too many. Be absolutely certain that your organization can and will live up to the standards you set.
- **Be consistent.** Goals should be visibly supported by management and be incorporated into the way employees are rewarded. They should be used in making business decisions and should not contradict with goals that teams already have.
- **Be challenging.** Have elevating objectives that are personally challenging, inspiring, and important. Sometimes more progressive goals are easier to reach than smaller ones. Clothing manufacturer Patagonia is working to meet its goal of recycling 100% of its products through its 'Common Threads' garment recycling

program, where customers can return used clothing which is then turned into new products.

- ***Be communicated.*** Systems should be in place to collect, compile, and report on these goals. Progress toward goals should be reported on frequently, internally and, where relevant, externally.
- ***Be celebrated.*** Build enthusiasm for goals and celebrate reaching those goals.
- ***Be continuously evolving.*** Goals should be reevaluated on a regular basis. P&G provides information on their sustainability goals yearly, along with the progress that has been made. In early 2009 they announced significantly increased targets for 2012 reflecting the company's continued commitment and progress in sustainability.
- ***Be catchy.*** Package your goals in a story that is easy to remember and which inspires employees and stakeholders. Herman Miller's 'Perfect Vision' initiative is a strategy to achieve a wide range of corporate sustainability targets including zero waste to landfills, zero hazardous waste generation, and a carbon-neutral operational footprint by the year 2020.

Companies aren't just creating goals, in many cases they are choosing to make these public and once they go public there is no turning back. The Clinton Global Initiative, for example, is an initiative focused on turning ideas into action. Through its 'Commitments to Action' initiative, members translate practical goals into meaningful and measurable results aimed at addressing global challenges.

The Clinton Global Initiative (www.clintonglobalinitiative.org). Who is going carbon neutral report (www.bsr.org). See Chapter 6 for more on indicators. To see different companies' goals, look at their sustainability reports or annual reports and websites.

Working with others

In the area of sustainability, no company is expected to figure it all out alone. Businesses are coming together in networks at the local, national, and international level to share best practices and lessons learnt, to create minimum standards, and to push the agenda forward.

In fact, a lot of the progress being made is because of the increase in strong and meaningful collaborations. They play a key role in bringing like-minded companies together, providing a space for them to share lessons learnt and raise awareness of the case for sustainable business. These networks also provide a range of tools and advice on how to put sustainability into practice in their businesses, give organizations access to different sets of expertise, competencies, and perspectives of partner organizations, and allow them to share/reduce the amount of risk and costs sometimes associated with moving forward. There is also evidence that companies that derive profits from their sustainability efforts are far more likely to be taking a collaborative approach.

But they go beyond this, collaborations also provide a space for the business sector and often other partners such as NGOs and governments to create visions of what the future of business may look like and help to organize and drive more systemic change. The National Business Initiative, a group of leading companies in South Africa, for example, has influenced government policy in areas ranging from education and housing to skill development, tertiary education, and energy efficiency.

This book presents a wide range of different coalitions which generally fit into the following areas:

- ***Companies that work with each other.*** This can be several companies collaborating on one issue or project (e.g., Refrigerants Naturally) or on several issues (e.g., company network Business for Social Responsibility). It can also be two companies, even competitors, working together – such as Ford and Toyota (see Trends in this chapter for more).

- ***Companies collaborating with NGOs or government.*** NGOs have credibility among stakeholders and a distinct set of competencies and strengths. This can be a company working with an NGO (e.g., Nudie Jeans working with the Fair Wear Foundation) or several (e.g., WWF's sustainable business network).
- ***Single-industry collaborations.*** This is when companies, NGOs, and governments come together around a very specific industry (e.g., Sustainable Apparel Coalition) or issue (e.g., Roundtable on Sustainable Palm Oil).
- ***Multi-industry collaborations.*** Companies, NGOs, and governments are increasingly coming together across industries to work on several issues in this space (e.g., UN Global Compact) or one specific issue (e.g., FSC).

With so many options, how can an organization choose which groups to work with? Here are some things to look at:

- ***What themes or issues do they cover?*** Networks will either pick a few issues and focus exclusively on those or, in some cases, operate at a much broader level and explore the issues that are important to their members. The Rainforest Alliance works to conserve biodiversity and ensure sustainable livelihoods by transforming land-use practices, business practices, and consumer behavior.
- ***Who coordinates them?*** Networks can be coordinated by any number of groups, including governments, NGOs, the UN, or businesses themselves. Most organizations are already part of a professional or local network of some sort, many of which have started to work on sustainability and provide resources for their members (e.g., national and international professional accounting bodies such as the IFAC and ACCA).
- ***Where do they operate?*** There are networks operating at local, national, regional, and international levels. Some groups operate at a national or local level but are themselves part of a larger, sometimes international network. The WBCSD is a global

network of companies committed to improving the long-term sustainability of their own operations. The network brings together over 200 international companies from more than 35 countries and 20 major industrial sectors with a shared commitment to sustainable development. The Council also benefits from a global network of more than 55 national and regional business councils and partners.

- ***Who are they aimed at?*** Is the network aimed at organizations working in a particular sector or is it aimed at businesses at a broader level? Is it mainly for large companies or for small ones or both? Who are the other members? Is this a group of organizations you are interested in working with? ICLEI – Local Governments for Sustainability is a network for local governments around the world working on sustainability issues. Cities and towns of all sizes from over 84 countries are members.
- ***How do they work in practice?*** Being part of a network takes time and resources from a company, therefore the decision to join should be taken seriously. Different networks will require different commitments from members; signing on to a code of conduct and upholding certain minimum standards – some have mandatory sustainability reporting requirements. The Sustainable Business Network in New Zealand has a membership fee structure based on the turnover of the company so that small companies pay less in membership fees.
- ***What are the benefits for joining?*** Joining a coalition means that you will be an active participant, so think about whether it makes sense for you. Does the network have influence? Will it help you stay ahead of the game? Does it focus on issues that are material to your business and your stakeholders? For example, the Sustainable Apparel Coalition is an industry-wide alliance of apparel and footwear brands, retailers, and suppliers working to develop an index that measures the environmental performance of apparel products. As one member of the Sustainable Apparel Coalition stated, ‘we need a common language before we can be competitive.’

IKEA recognizes that by cooperating with companies, trade unions, and organizations, they are able to learn, share experiences, and accomplish more than they could have done by working on their own. Cotton is one of the most important raw materials for the company; however, conventional cotton growing and processing consumes large amounts of water and chemicals. In order to help guide their strategy, they have chosen to work with different networks:

- Work with WWF focuses on better management practices in India and Pakistan, environmental practices that enable farmers to reduce environmental impact, improve e-efficiency, maintain crop yields, and increase their gross margins.
- Work with the Better Cotton Initiative aims to promote measurable improvements in the key environmental and social impacts of cotton cultivation worldwide to make it more sustainable.
- Work with UNICEF aims to prevent young girls from working on cotton seed farms in southern India and instead make sure these children gain access to quality education.

IKEA also provides, as do many other companies, a list of the organizations they work with in their annual reports.

The Partnership Initiative has several resources, including a Communication Manual for partnership practitioners and a Partnering Toolbook (thepartneringinitiative.org). The UN Global Compact website has a whole section on partnerships (www.unglobalcompact.org/Issues/partnerships), including a Partnership Assessment Tool. See the Guide to Successful Corporate-NGO Partnerships by GEMI and the Environmental Defense Fund (www.gemi.org) for many examples of best practice.

Influencing change

One of the most important roles that a company can have in society is influencing and driving change at the highest level. Much of the emphasis when it comes to sustainability has been focused on a company's own direct impacts, things like tonnes of emissions or amount of raw materials used. However, increasingly there is a much wider recognition of the influence companies have and could have on other parts of the business environment, the way they and their peers will do business in the future. Although traditionally companies have pushed for less regulation, there are a growing number that are pushing for tougher regulation. Companies are recognizing that if they invest the time and resources in becoming more sustainable and being beyond compliant, then they can benefit from this and also stay ahead of their competition when the standards are raised. There are countless ways that companies can influence larger changes:

- ***Create an even playing field.*** According to personal care company Burt's Bees in the USA, '78% of people think that natural personal care products are regulated – 97% of people think they should be . . . the fact is, they're not.' The company pushed for a clearer definition of what 'natural' is, and is not, in the US market. The result was the Natural Standard for Personal Care Products launched on May 1, 2008, which required products labeled or branded as 'natural' to be made of at least 95% all-natural ingredients and to contain only those synthetic ingredients allowed under the standard. Prior to this, companies could label a product as 'natural' when they had as little as 1% natural ingredients. This helps Burt's Bees as over half of their products are 100% natural and they are working on the rest.
- ***Companies influencing other companies.*** Companies are not only using their influence to bring about change at a policy level, but also in other companies. In 2007 the Aspen Ski Company removed Kimberly-Clark products from all its facilities. It even

renamed one of its ski runs, which for over 40 years had been called 'Kleenex Corner.' According to Matthew Hamilton, the manager of Community and Environmental Responsibility at the resort, 'We will not consider using any Kimberly-Clark products until the company has committed to not source from endangered forests, dramatically increase its use of recycled fibre, and source from certified sustainable logging operations.' As a result, they have been able to enter into an environmental dialogue with a company 160 times their size.

- ***Companies influencing decisions made by government by lobbying.*** The Mary Kay cosmetic company, which has always focused on giving women the chance to succeed, took their founder's passion one step further to try and stem violence against women. The company actively lobbied the US government to reauthorize the Violence Against Women Act, and the saleswomen from the company spoke to legislators about the importance of renewing it. In 2006 they succeeded, as the act was reauthorized into law. Levi relies on Guatemala for materials, so when the US government in 2001 was looking at whether Guatemala should continue to enjoy duty-free exporting to the USA, they found that they did not have adequately enforced labor laws. So instead of lobbying the US government, Levi went to Guatemala to lobby the Guatemalan government to strengthen labor laws. More recently, 70 large companies such as BT, IKEA, Google, and Unilever signed a joint declaration urging the European Union to set tougher climate change goals.

Views on lobbying relating to government are mixed. Some say companies need to take an active role in pushing sustainability, while others argue that because of their power, they can push for changes that may not be in the best interests of society as a whole. But it can also work the other way around. Because there is a relative lack of transparency about a company's lobbying efforts, it is very difficult to know what they are actually lobbying for. Some countries require companies to disclose certain information about

lobbying; however, this rarely includes the positions they are lobbying about, but rather just the amount of money being put into lobbying, and these regulations are often poorly regulated. Corporate lobbying is sometimes not aligned with sustainability policies, and in some cases can even be against those policies and positions. Although some companies do the lobbying themselves, others are taking part in lobbying through other means, such as by funding other groups who do the lobbying for them (in some cases NGOs) or by being members of groups who are lobbying on different issues.

However, there are increasing initiatives happening on the voluntary front to increase transparency around lobbying. The Global Reporting Initiative has two reporting indicators on lobbying that reporting organizations are asked to report on: public policy positions and participation in public policy development and lobbying; and total value of financial and in-kind contributions to political parties, politicians, and related institutions by country. GlaxoSmithKline, for example, in their annual report lists all the trade associations they are part of, what other groups they are working with, and what their positions are.

'Influencing Power: Reviewing the conduct and content of corporate lobbying' by SustainAbility and the WWF reviews how 100 of the world's largest companies report on their lobbying practices in order to assess corporate transparency (www.sustainability.com). The Worst EU Lobbying Awards are organized by several EU NGOs with the aim of discouraging controversial lobbying practices by exposing them to the public (www.worstlobby.eu). The Alliance for Lobbying Transparency and Ethics Regulations in the EU is a group of 160 civil society groups concerned with the increasing influence exerted by corporate lobbyists (www.alter-eu.org). The OECD Principles for Transparency and Integrity in Lobbying (www.oecd.org) and the Center for Responsive Politics (www.opensecrets.org) are other interesting sites on this topic.

Challenges?

- ***Bringing it all together.*** Many companies work on lots of initiatives independently across the company, but will increasingly need to bring these together into a more coordinated effort in order to maximize the benefits.
- ***Taking it beyond the specialists.*** Sustainability is not just the job of people with the word in their job title. A sustainability strategy is not much use if employees themselves who want to get engaged have no role to play in it.
- ***Having a clear message.*** More often than not, employees seem unaware of the strategic directions and priorities that their company has put in place. The goal is not only to communicate the strategy clearly, but also to get people involved and excited about carrying it out.
- ***Understanding the risks.*** Pursuing sustainability strategies can also bring with it certain risks. If sustainability isn't taken seriously within the organization it can be viewed as greenwashing. It can also raise unrealistic expectations by stakeholders.
- ***No one size fits all.*** Many organizations are looking for a standard that specifically outlines what a green company looks like in the same way that the LEED certification outlines what a green building looks like. Companies need to determine the strategy that works best for them, as no one strategy will work for all.
- ***Silo thinking.*** For some businesses the challenge is not to focus too much on one issue without putting in the time to properly explore other issues, which could potentially be more material to the business.
- ***Boundaries of responsibility.*** Where do one organization's responsibilities end and another's begin? How can we consider an organization's individual responsibility when it is participating in a socio-economic system which only rewards certain sorts of behavior?

Trends and new ideas

- | | |
|---|--|
| <ul style="list-style-type: none">- <i>Reinventing the business model</i>- <i>Zero and 100%</i>- <i>Getting your customers involved</i> | <ul style="list-style-type: none">- <i>Instant information</i>- <i>Strategic philanthropy</i>- <i>Transformation of partners</i> |
|---|--|

Zero and 100%

It is one thing to aim to reduce energy use by 20%. Even 50% seems impressive. But when companies make goals to reduce energy use or waste by 100% one stops to listen. And this is exactly what many organizations are doing. We are also increasingly seeing zero and 100% as targets when it comes to products being made with 100% natural ingredients, 100% organic, zero chemicals, zero emissions, etc. Some have been at this level for years, such as Xerox who set up a waste-free factory in the mid-1990s. Coca Cola has set a goal to recycle or reuse all of the plastic bottles they use in the US market so that zero bottles go to landfills. Over 30 companies have committed to carbon-neutral status, including HSBC, Nike, and Interface. IKEA is looking to be 100% fully powered by renewable energy. It does make one wonder why it hasn't all been done before, and makes you realize what is possible.

Getting your customers involved

Companies are increasingly turning to their customers and the general public to help them come up with new designs, new products, and even new strategies. These kinds of initiatives are not just strengthening companies but providing an alternative to traditional marketing, increasing transparency in the company,

and even providing a new vehicle for recruiting. My Starbucks Idea is an online platform where the public can propose ideas on how to make the company and its products better. P&G created Connect + Develop with the goal of having at least 50% of its new products derived from ideas generated by non-employee experts. Unilever has realized that there are a lot of challenges in sustainability that they do not yet have the answers for to enable them to move forward. To help, they have created an online platform which engages civil society, companies, and business to come up with creative solutions to help the company hit their sustainability goals. Innocentive is an online platform that aims to get the public involved in finding solutions collectively for global challenges.

Instant information

The dashboard in a car gives the driver accurate, up-to-date information that the driver needs to make decisions and to know what the car is doing. This is most noticeable in the new generation of hybrid cars, which provide feedback to the driver on how efficiently they are driving. Many managers are frustrated by the lack of this sort of information, which would enable them to make wise decisions on a day-to-day basis. By taking advantage of the power of modern information technology, various organizations, such as IISD, have developed what they call Dashboards of Sustainability, which illustrate in real time the complex relationships among different issues by combining evaluation of social, economic, and environmental performance within countries or regions. Other dashboards can be posted in a common area where building users can see and track their ability to reduce energy consumption, such as water and electricity. Dashboard projects have been implemented in several college dormitories, where students hold contests to see which dorm can cut energy consumption the most.

The IISD Dashboard of Sustainability, which illustrates the complex relationships among the different issues (www.iisd.org). The Environmental Sustainability Index, which aims to shift environmental decision-making to firmer analytic foundations using environmental indicators and statistics (www.yale.edu/esi/). For a whole range of different dashboards, including one on the MDGs, visit the European Joint Research Centre (<http://esl.jrc.ec.europa.eu/envind/dashbrds.htm>).

Strategic philanthropy

Philanthropy, when companies donate resources – whether that be money, time, or goods – to charitable causes, is changing. Companies are increasingly applying rigorous procedures and are looking to finance genuine solutions with clear impact targets, and also ensure that every dollar spent is spent furthering community and business objectives. They are looking to donate resources to causes that are in line with their own material issues and many are trying to reach very concrete goals, such as building knowledge about potential new markets and informing areas of innovation through their giving. Companies such as Cisco (through its Network Academies) have learned how to create foundation strategies that complement both community needs for high-tech training and company interests in supporting the creation of a highly technically skilled and more valuable workforce.

Transformation of partners

As companies are looking to explore more of the sustainability tools and options covered throughout this book, they are looking for NGOs and partnerships with other organizations that will help them. Therefore, NGOs can play a role not just in influencing business to change, but also in being part of that change. According to

Gib Bulloch from Accenture, ‘international NGOs will have to go through a fairly transformative change process if they are to operate effectively with, influence and engage the private sector in a new breed of development coalitions. And it’s imperative that they fulfill this important role. We believe the required transformation is already underway, but the impact and nature of the change varies quite significantly across different organizations.’⁴⁸ Furthermore, as business relies increasingly on partnerships with NGOs to do work on the ground, there will be a need to ensure the transparency and accountability of the NGOs themselves to ensure that companies are actually doing what they say they are doing and that the NGOs are too.

Want more?

Business for Social Responsibility works with its global network of more than 250 member companies to develop sustainable business strategies and solutions through consulting, research, and cross-sector collaboration (www.bsr.org).

Read: There are many books on sustainability and strategy. A few include *Green to Gold* by Daniel C. Esty and Andrew S. Winston (2006) and *Getting Green Done* by Auden Schendler (2009). Also take a look at Michael Porter and Mark R. Kramer’s article ‘Strategy and Society: The link between competitive advantage and corporate social responsibility.’

Why do initiatives fail?

1. **Organizations don’t clearly understand what sustainability means.** They interpret it as being philanthropy, giving money to community groups and generally giving money rather than saving or making it.

2. ***They don't set clear priorities.*** It is one thing to have a mission statement saying you are sustainable, but unless you have clear priorities and goals, and ways to reach these, you aren't really moving forward. Make sure these are realistic.
3. ***Information overload.*** Some organizations try to do everything at once and get overwhelmed by the amount of work required and all the roadblocks and challenges they encounter. Take things at a pace your organization can handle.
4. ***Doing it alone.*** Great things are almost never done alone. You can still be competitive and share information with your peers to help you all move forward.
5. ***No leadership.*** If senior management, the CEO, or managers in general are not supporting the initiative actively, they will never have the pull they could.
6. ***Making assumptions.*** Don't create a more expensive green product and assume that someone will buy it just because it is better for society. Use sound business judgment.
7. ***Incentives.*** You could have a fantastic vision, plans in place, targets, and a great management structure, but unless employee and company incentives match up with what you are trying to do you will encounter problems.
8. ***Burnout.*** Employees care and want to get involved in supporting a company's sustainability strategies; however, a company needs to allow involvement without burning employees out by overwhelming them with too much work. Channel employee enthusiasm with clear project goals and assign roles and responsibilities.
9. ***Auditing.*** Nothing in business is a one-off thing. Sustainability is not just a box you can check once you put up a website and send out a press release. Be clear on where you stand when you start and continuously check to see how you are doing and what you could do better.
10. ***Lack of resources.*** Make sure sustainability projects have resources attached to them, whether that be people, time, or money. Without these, they won't be able to explore their full potential.

(continued)

Stakeholder engagement

'The old, adversarial model of business–NGO relations is being eroded; companies that learn to build constructive cross-sector partnerships gain competitive advantage in new markets, as well as make an active contribution to development. For their part, many development actors recognize that partnering with the private sector can bring benefits, such as innovative technology, scale, and a sustainable model to finance their efforts.'

WBCSD

The environment in which organizations operate is becoming increasingly complex due to everything from regulatory and voluntary requirements, environmental and social issues, to the increased expectations of stakeholders for transparency and accountability. Organizations are finding that engaging with stakeholders is providing them with opportunities to better understand the challenges they face, to understand and mitigate the risks, and also to explore new opportunities including innovations to products, processes, and strategy. Engaging with stakeholders is nothing new, but the level of engagement is becoming more sophisticated, as diverse groups continue to learn how to leverage and maximize the outcomes of these relationships. Although in the past engagement started in response to a negative issue, companies are increasingly being proactive in this area.

Stakeholders are those groups who impact and/or are impacted by the company and its activities. This can include but is not limited to:

- employees and their families;
- customers;
- shareholders/investors;
- communities;
- indigenous peoples;
- suppliers/business partners;
- academic NGOs/international organizations;
- environmental NGOs;
- government/regulators;

- trade unions;
- media;
- advocacy groups.

Why is stakeholder engagement important?

- ***Better informed decision-making.*** Stakeholder engagement gives an organization a clearer picture of external and internal threats and opportunities. Management can get better information and therefore can make better decisions.
- ***Spot problems before they occur.*** Engagement can help organizations spot trends and issues that may impact their activities as well as possible solutions. It also allows them to assess and manage risks by identifying problems before they occur. The mining industry uses stakeholder engagement tools to engage communities and their representatives prior to breaking ground.
- ***Legal and voluntary obligations.*** At a basic level, organizations are required to engage stakeholders in their activities and disclose information through different legal requirements (e.g., US Sarbanes–Oxley Act, Japanese law of promotion of environmentally conscious business activations), as well as voluntary obligations (e.g., GRI, the Global Compact, SA8000, and the Equator Principles).
- ***Increased transparency and credibility.*** Companies such as Nike have multi-stakeholder review committees which work with them on the development of their CSR report. As a result of stakeholder dialogue and subsequent feedback, Nike has been disclosing an unprecedented amount of information about its operations.
- ***Access to resources.*** Companies benefit from a wealth of experience, expertise, and resource sharing by engaging stakeholders. Resources can be technical, human, knowledge, physical, and financial, and can include better access to information and networks, greater reach, improved operational efficiency, more appropriate and effective products and services, etc.
- ***Identify opportunities.*** Engagement allows organizations to better understand their customers and their needs in order to develop new products, processes, and services, as well as enter

(continued)

new markets. Working with different partners allows a company to see issues through a different lens and come up with creative and innovative solutions. FedEx partnered with the Alliance for Environmental Innovation to reduce the environmental impact of their vehicle fleet, hoping that the new hybrid electric vehicles will replace the company's 30 000 fleet, leading to significant reductions in environmental emissions.

- ***Making an impact.*** According to the IBLF, 'working separately different sectors have developed activities in isolation – sometimes competing with each other and/or duplicating efforts and wasting valuable resources.' Because partners have similar goals, the idea is that they can accomplish more by working together.
- ***Provide a 'License to Operate.'*** When company performance departs from stakeholder expectations, outrage results which can put in jeopardy not only a company's social license to operate but also potentially its regulatory license. High levels of outrage are disastrous for corporate/industry reputation.
- ***Free prior informed consent.*** The consent of groups impacted by a company's operations must be given freely, without coercion, manipulation, or undue influence of pressure. These groups or individuals should be provided with all relevant information in relation to the proposed activity before the activity starts and they must agree to the activity. Increasingly, regulations require companies to get this.

How to engage with stakeholders

Determine who the stakeholders are and what issues are significant to them. Engagement goes beyond identifying those groups that could have an adverse effect on a company's activities to actively engaging with those that could also be helpful. Engagement may focus on one group of stakeholders or several and may involve a different group of stakeholders depending on the issue or project. Stakeholders can be determined:

- ***By responsibility.*** People for whom you have legal, financial, or operational responsibility.

- **By influence.** People who are able to influence the ability of your organization to meet its goals and influence others.
- **By proximity.** People that your organization interacts with most.
- **By dependency.** People who are dependent on your organization such as employees, their families, and customers.
- **By representation.** People such as heads of local communities, trade union representatives, councilors, etc.⁴⁹

The more information you gather about who your stakeholders are and what issues are significant to them, the better able you will be to engage effectively.

A company must also consider a stakeholder's capacity for and willingness to engage:

- **Power and reach of the representative.** Not all NGOs are the same. There is a huge variety of global and local NGOs: broad versus narrow scope, some work alone and others work as part of networks, some are campaign-focused while others are more collaborative.
- **Knowledge of the issue.** Be clear about the representative's knowledge of the issue, they may know as much, more, or much less than you do. Different stakeholders will use different vocabulary to express ideas of sustainability. Spend the time to make sure that everyone is on the same page before discussions begin.
- **Experience working with business.** While business may have little or a lot of experience working with different stakeholders, the stakeholders themselves will also have different levels of experience. Some, such as the World Wildlife Federation and the World Conservation Union, have specific divisions that focus on working with business. Others, in particular small-scale NGOs, may not have experience and may not have sufficient capacity to engage. This does not mean that engagement should not be attempted, but capacity issues should be accounted for.
- **Strengths and Weaknesses.** Consider the strengths and weaknesses of your own organization as well to engage with stakeholders.

What level of engagement? Low levels are adequate for solving or addressing minor challenges, but engaging more deeply has

(continued)

the potential to enable more sustained changes and transformation. At earlier levels of engagement, you are able to engage more stakeholders while higher levels (e.g., partnership) require more resources. The level of engagement will depend on your strategic engagement objectives and may be different for different stakeholders.

- **Ignore or monitor.** An organization chooses not to engage or communicate with stakeholders and hears their concerns through letters, protests, and websites.
- **Communicate.** An organization puts together messages targeted to particular stakeholder groups such as brochures, reports and websites, speeches, conferences, and so on, and gets involved in transactional relationships, for example, grant making.
- **Consult.** An organization collects information from stakeholder groups directly through surveys, focus groups, workplace assessments, one-to-one meetings, etc.
- **Dialogue.** An organization works with the stakeholder to gather information and advice but goes a step further by exploring different perspectives, needs, and alternatives.
- **Collaborate.** An organization gets involved in two-way dialogues such as advisory panels, forums, participatory decision-making processes, joint projects, voluntary two-party or multi-stakeholder initiatives, driven by both the company and the stakeholder (e.g., global stakeholders on Dow Chemical's Sustainability External Advisory Council have been meeting since 1992).
- **Partnerships.** Both organizations share the risks and benefits of engagement. They look for synergies between competencies and resources; these can be between companies, companies and NGOs, joint ventures, alliances (e.g., Lafarge worked with CARE to develop its health policy in Africa).

How to engage? A company seeking to engage with stakeholders should consider:

1. **Why does it want to engage?** Engagement should not be an add-on or one-off activity. A company needs to strategically think about why they want to engage.
2. **What should it be engaged in?** Engagement can be focused on a particular issue, a process, a product, or a decision. It could

be related to new policy, where to build a new site, or help in entering a new market. Sometimes there is no specific subject for engagement and the engagement is focused on developing a dialogue between groups. Be clear about how this is going to benefit the business and what changes you are willing to make based on the engagement process.

3. ***What are the strategic engagement objectives?*** Think strategically about what you want to get out of the engagement. This can be anything from developing a new approach or managing risks to just gathering more information. Agree on the rules of engagement. The most important indicator of success is clearly tying the stakeholder engagement to a strong business need. This means that there is a clear link to core strategy, resources to support the engagement, and genuine business interest in the outcome.
4. ***Spend time getting to know each other.*** The success of engagement is often based on the degree of respect in the relationship that has been built over time. Spend time building the relationship, understanding the strengths and weaknesses of both organizations. Minimize uncertainty by agreeing on clear goals and policies and providing the information to act on them.
5. ***Build internal capacity.*** Assess your organization's internal capacity for engagement and understanding of the issue. Engagement is part art and part science, and different skill sets are needed, as well as new forms of leadership.
6. ***Embed it into the organization.*** Engagement should be managed like a business function; it should have a clear strategy, objectives, timetable, budget, and allocation of responsibilities. Engagement should be part of performance evaluations for leadership. It should also focus on strengthening the company's ability to respond to the issues and opportunities brought up by the engagement process.
7. ***How can success be measured?*** Ensure that goals and milestones are established and that mechanisms exist for monitoring performance and tracking achievements. Continually revise engagement performance and make needed adjustments. Ensure that there are mechanisms in place to take the learnings and put them into improving your business. Share learning and follow up.

(continued)

8. Establish grievance mechanisms. Stakeholders – in particular individuals, workers, and communities whose human rights are negatively impacted by a corporate operation – increasingly have access to grievance mechanisms through a growing range of organizations such as the International Council on Mining and Metals for mining-related grievances and the Compliance/Advisor Ombudsman of the World Bank Group for projects funded by the International Finance Corporation.

Tips

- **Manage expectations.** Some stakeholders want to open a dialogue while others will expect specific operational changes or adherence to certain performance standards. Be clear about what your and their expectations are.
- **Understand the potential obstacles to participation.** Consider the specific cultural circumstances of the engagement such as language, customs regarding social interaction, and gender issues, scale at which the representative operates – global or local, understand that stakeholders often have limited financial means and staffing capabilities.
- **Be transparent.** Provide the stakeholders with enough information so that they can contribute to the process. Be open and honest during the process. Have clearly defined lines of communication.
- **Get in early.** Relationship building takes time. Stakeholder dialogue should not be hurried: start early, invest in planning and preparation, and allow people time to learn from and with each other. Allow for sufficient resources to support the engagement.
- **Don't wait until there is a problem to engage.** Often, interacting with stakeholders is viewed as low priority but when a conflict or crisis does arise the absence of an established relationship can challenge communications. Stakeholders are less likely to give a company they don't know the benefit of the doubt, and making contact with stakeholders in a reactive mode can create lasting negative perceptions as well as questions over whether a company is being genuine.
- **You don't have to be perfect.** Stakeholder dialogue can often be messy, disjointed, and even chaotic at times. Remember to be transparent, open to new ideas, empathetic, listen and reflect. Focus on quality, not quantity. Take it seriously.

- ***Understand what the risks are.*** What are the risks associated with engaging? What about with not engaging or with engaging poorly?
- ***Be patient.*** Partnerships take time.

‘The vehemence of a stakeholder group does not necessarily signify the importance of an issue – either to the company or to the world.’

MICHAEL PORTER

Want more?

- The AA1000 Stakeholder Engagement Standard is a generally applicable framework for improving the quality of design, implementation, assessment, communication, and assurance of stakeholder engagement (www.accountability.org). The UN Office for Partnerships (www.un.org/partnerships). The London Benchmarking Group has an input/output model for measuring community engagement (www.lbg-online.net).
- Several organizations have publications on *stakeholder engagement*, including: IFC’s Stakeholder Engagement: A good practice handbook for companies doing business in emerging markets (www.ifc.org). Stakeholder dialogue from the WBSCD (www.wbcsd.org), ‘The 21st Century NGO’ by SustainAbility, and ‘Practices and Principles for Successful Stakeholder Engagement’ (www.sustainability.com). From Words to Action: The Stakeholder Engagement Manual volume 1 and 2, UNEP (www.unep.fr).
- For resources on *community engagement*, see: Participation works! 21 Techniques of Community Participation for the 21st Century, New Economics Foundation (www.neweconomics.org); Participation, Learning and Action series, IIED (www.iied.org); World Bank on Participation and Civic Engagement (www.worldbank.org).

‘The reason why we have two ears and only one mouth is that we may listen the more and talk the less.’

ZENO OF CITIUM

PART 3

TOOLS

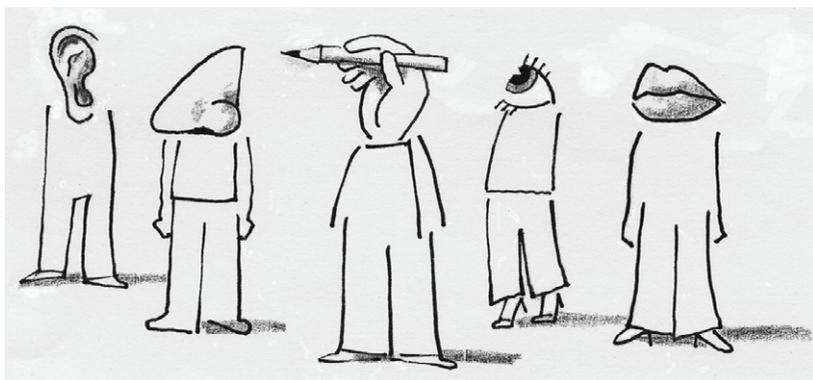


Tools for monitoring, managing, and improving performance

Tools for greening offices and buildings

15

Tools for Monitoring, Managing, and Improving Performance



'There are no shortcuts to any place worth going.'

BEVERLY SILLS, OPERA SINGER

Many tools have been developed to assist businesses, both big and small, in managing, monitoring, and improving their sustainability performance at all stages of the decision-making process. A large number of these tools are brought up in the various sections of this book, but some are used by all. These include (but are not limited to):

- Gather sustainability information to assist in decision-making → *Assessments*
- Benchmark and monitor how an organization is doing → *Audits*
- Create a system to manage your environmental performance → *Environmental and social management systems*
- Use sustainability standards as a tool to guide your efforts → *Standards*

Assessments

An environmental or social assessment is a means of gathering information to ensure that environmental and social implications of decisions are taken into account before those decisions are made. Assessments are usually taken before moving forward with a proposal or an individual project. An assessment is an important tool to:

- Identify the significant social and environmental impacts of a project.
- Incorporate environmental factors into decision-making.
- Identify the potential benefits and disadvantages of the project.
- Identify critical problems which require further studies and/or monitoring.
- Minimize or avoid adverse environmental and social effects before they occur.
- Examine and select from possible alternatives.

There are many different kinds of assessments, including:

- **Lifecycle assessment**, which looks at understanding the full lifecycle of a product. ISO 14040 describes the principles and framework for lifecycle assessment and ISO 14044 sets out the requirements and guidelines (www.iso.org).
- **Technology assessment**, which is carried out in order to determine which technology to use. It looks at the proposed technology, any alternatives, the requirements of the technology, and the pressures the technology places on the environment.
- **Opportunity assessment**, which looks at recognizing potential opportunities that could lead to gain (e.g., reduction of energy and resource consumption and therefore cost of production).
- **Risk assessments**, which explore the likelihood of an event occurring and the resulting severity of loss if that event occurred. Where there is a high risk involved in a project, the risk assessment will define how to mitigate or prevent it through proper controls to make the risk acceptable.
- **Environmental and social impact assessments** (EIA, SIA), were introduced because of concerns regarding the effects that major development projects were having on society and the environment. The benefits were quickly recognized and it has now become established as an internationally recognized decision-making tool.

Assessments should be conducted as early as possible in the planning and proposal stages. Many of the major decisions about the location of a project, the scale, layout, or design, for example, are made at the very beginning and many of these can have a significant impact on the environment and society. Identifying these issues right from the start can allow an organization to prevent many problems before they occur. The commonly accepted steps include:

1. **Screening.** To decide whether or not a proposal needs an EIA and if it does at what level of detail.
2. **Scoping.** To identify the key issues and impacts that are likely to require further investigation.

3. **Impact analysis.** To identify and predict the likely environmental and social effects of the proposal and evaluate their significance.
4. **Mitigation and impact management.** To develop measures to avoid, reduce, or compensate for impacts, making good any environmental damage.
5. **Reporting.** To describe the results to decision-makers and other interested parties.
6. **Implementation and monitoring.** To put in place the plans agreed upon and continue to monitor them through audits.

When doing assessments keep in mind:

- Many assessments fail because inadequate attention is given to identifying the effects that are most likely to be significant.
- Stakeholder involvement in the early stages will not only help throughout the assessment process but also in gaining acceptance during the implementation phase after the assessment is completed.

Example: Conducting an environmental or social risk assessment

Identifying risks. Identify which risks a company is facing and where they are coming from. Risk can be explored from the following angles:

- *Sector- and company-specific risks.* Start by considering the most obvious risks that are relevant to the organization. Look at the issues that organizations more advanced in sustainability are exploring.
- *Operational opportunities and risks.* Look at how the organization impacts on stakeholder groups and broader society through its operations. Look at risks and opportunities throughout the full lifecycle of the product.
- *Stakeholder-related opportunities and risks.* Consider who your stakeholders are, and what their risks are; look at the boundaries of responsibility the organization has for products and services.

Assessing and prioritizing risks. For each risk identified, consider what might happen, how it might happen, and how large the consequences will be. When an organization is faced with a number of potential sustainability-related risks, a matrix can be created to help prioritize the risks and establish their relative importance; the potential impact of the risks (high or low) and the likelihood of that impact (high or low).

Managing risks. Once identified and prioritized, companies need to proactively seek to reduce and manage these risks. Many risks cannot be eliminated but they can be minimized. Managing risks involves asking what can be done to manage any significant adverse occurrence, and who should be involved.

- See if you can tolerate the risk and work with it, through improved environmental management techniques.
- Work to reduce the risk through new technology, procedures, investments, and stakeholder engagement.
- Eliminate the risk, for example, banning a particular chemical.
- Transfer the risk when it is felt that the business has no control over it (i.e., through insurance companies).

Risk analysis should not be overly complex, so don't ignore it because of inadequate understanding. Remember that many risks and opportunities are inter-related. Recognize the need to engage with stakeholders, and to share information and responsibility for any risk. Your performance and the performance of your customers and suppliers are intrinsically linked and sharing risks is therefore beneficial.

There are many resources on environmental impact assessments, including UNEP EIA (www.unep.fr), the EU website on EIA (ec.europa.eu/environment/eia), and the International Association of Impact Assessment (www.iaia.org). The Environmental Impact Assessment Open Educational Resource has learning modules and resources on the topic (eia.unu.edu). The WBCSD also has some guidelines on environmental and social impact assessment

(www.wbcsd.com). The Convention on Environmental Impact Assessment in a Transboundary Context (www.unece.org/env/eia) sets out obligations for parties to assess the environmental impact at the early stages of planning and notify and consult each other on major projects under consideration that are likely to have a significant adverse environmental impact across borders.

Audits

A business may have internal requirements, policies, standards, procedures or even external rules, regulations, or third-party requirements that they are required to follow. An audit is a check of how well they are doing at meeting these internal or external requirements. Audits are used as a tool to help a business measure and improve the performance of a project, a site, a particular product, or service. An audit can be a useful tool to:

- Monitor the sustainability practices of suppliers and contractors.
- Monitor the level of compliance with relevant regulatory and internal or group/corporate policy requirements.
- Monitor the amount of resources used or generated, such as water, energy, waste, and pollutants.
- Identify improvement opportunities.
- Establish a performance baseline.

The following steps show one approach to setting up an audit:

1. **Determine who will conduct the audit.** Will it be performed internally, or by a third-party auditor, for example, one that belongs to a commercial auditing firm?
2. **Determine the scope.** Will it be at a small level, such as an audit of recycling practices or waste at one location? Will it be of a

particular product or service (design, performance, disposal), or of a process (manufacturing, management, design, procurement)? Will it be done by geographic location or organizational unit (company, division)?

3. **Determine what you are auditing.** An organization can audit just about anything. It might sound obvious, but make sure it is clear what is being audited.
4. **Select objectives.** Whether the audit is to check for compliance, management assurance, stakeholder assurance, or to provide information for decision-making, make sure the objectives are set and clear to all involved.
5. **Choose indicators.** Put in place indicators against which performance will be measured. This often includes legislative or regulatory and compliance requirements.
6. **Conduct the audit.** Conduct a quick self-audit in order to understand where you stand, in particular if a third party is conducting the audit; this typically involves interviews with managers and personnel, detailed site inspections, etc.
7. **Develop and implement an Action Plan.** This should address shortcomings identified by the audit, by outlining specific actions required to meet the audit objectives, with appropriate budget allocation, program implementation, and monitoring.
8. **Report.** Write in non-technical language so that the information and questions are accessible to all, and the messages are clear and useful for those who need to use the information.
9. **Focus on continuous improvement.** Conduct the audits on a regular basis, and review and update the audit questions as progress is made in order to keep them focused and relevant.

Audits usually focus on compliance; however, compliance does not necessarily indicate operational effectiveness. Audits should go beyond reporting on compliance to covering effectiveness and providing managers with strategic information about how they compare to current best practice. They also need to look at behavior and so-called ‘soft’ issues, such as motivation, culture, and teamwork in

order to assess behaviors that provide evidence of how such factors affect the performance of a product.

'Environmental Audit, a simple guide' produced by the Environmental Protection Department of the Government of Hong Kong (www.epd.gov.hk/epd/english/how_help/tools_ea/audit_1.html).

Example: Waste audit

Audits can also be used to identify, for example, how much waste is being generated and how to manage it.

1. Identify all points at which waste is generated.
2. Identify the origin of each type of waste.
3. Measure the quantity of each type of waste and its environmental impact.
4. Establish a method for the continued monitoring of waste levels.
5. Identify the current costs of dealing with waste.
6. Look at opportunities to reduce, recycle, or reuse the waste.
7. Set waste minimization targets.
8. Communicate the results to the company and get people involved in achieving the targets.

Environmental and social management systems

Organizations are adopting programs to help manage their environmental impacts on a day-to-day basis. An environmental management system (EMS) is a set of policies and procedures that defines how a company evaluates, manages, and tracks its overall environmental impacts. It is a voluntary management standard that helps managers to identify and prioritize their key environmental

impacts. It also provides a framework for setting clear objectives and targets for managing those impacts.

An EMS is important as a tool to ensure a company is compliant with regulatory and company requirements and knows the impacts it has on society. It helps focus an organization on priorities for actions and serves as a framework for putting ideas into practice. All EMS standards follow the same cycle:

- **Plan.** Understand where the company currently stands (typically through an audit or assessment) in terms of legislative and regulatory requirements, existing environmental management practices, etc. This involves getting top management and employee support, setting objectives and targets, prioritizing actions, and creating an action plan.
- **Do.** Ensure that there are established roles and responsibilities that are clearly communicated; and that members of staff are aware and trained to carry out responsibilities. Make sure they have the support they need to carry out their roles.
- **Check.** Formulate a measurement system, establish and define benchmarks, perform regular audits. Check to ensure that what you planned to do actually happened.
- **Act.** An EMS is most effective when used to review progress toward the targets and objectives set by a company to protect the environment. The procedures set in place to meet these objectives should be constantly examined to see if they can be improved or if more effective systems can be introduced.

The key elements of an EMS include:

- **Creating a policy.** An environmental policy is a declaration of the organization's overall aims and principles. It includes compliance with environmental, legal, and other requirements. The policy should recognize the impacts the organization has on the environment. It should be supported by senior management and the CEO. Such a policy should be reviewed regularly (for many this is annually).

- ***Identifying and evaluating your environmental impacts.*** Evaluate the impacts of your activities, products, and services. This allows the EMS to be focused on those environmental issues that are most significant so that resources and time are concentrated on these. Significance is often determined by considering the size, nature, frequency, likelihood, and duration of the environmental impact, the importance to stakeholders, and the sensitivity of the receiving environment.
- ***Operational control, targets, and objectives.*** This information can then be used to identify control measures and to set objectives and targets for environmental improvements. An environmental program is put in place to turn objectives and targets into practical actions. People are assigned the responsibility for completing the tasks.
- ***Monitoring, evaluation, and review.*** The EMS process is documented and procedures are established to ensure that everyone knows how the system operates and what is required. Progress is tracked through regular monitoring and audits. Effective communication internally is vital to keep people up to date. An EMS is a cyclical process of identifying, improving, and checking. Reviews are done periodically by management to ensure that the EMS is achieving the desired outcomes and that policies are being implemented.

This is a voluntary activity; however, increasingly companies are choosing to get certification for their EMS systems. These types of standards are becoming increasingly important, as many multinationals are requiring suppliers to have the standard. A company can seek official accreditation for its EMS under one of several schemes at the national level (i.e., BSI in the UK), regional level (EMAS in Europe), or international level (ISO 14001). Others have developed their own specific national or international standards. Currently, China leads the world in the number of ISO 14001 certified companies; followed by Japan, Spain, and Italy.

There is plenty of guidance on how to put in place EMS. EMAS Toolkit for Small Organizations provides step-by-step guidance and tools for implementing an environmental management system (according to ISO 14001) (www.epa.gov). Several self-assessment checklists are available, for example from the Global Environmental Management Initiative (GEMI) (www.gemi.org). Another interesting resource is the Environmental Management Tools for SMEs, a handbook produced by the European Environment Agency and Environmental Management Systems Toolkit for Small Organizations produced by the EU and INEM (www.eea.europa.eu).

Standards

Many international standards and networks started as attempts to help guide organizations on how to improve the consistency of their products (such as ISO 9001), reduce their impact on the environment (ISO 14001), or generally improve their environmental and social management. These programs are voluntary and involve a range of activities, from a simple commitment to investigate sustainability issues to the adherence to strict protocols for environmental and social standards.

‘Corporate responsibility standards, norms, principles and guidelines aim to provide generally accepted reference points for improving aspects of social and environmental performance. Although mostly voluntary, some are emerging as de facto industry standards that provide the desired legitimacy, consistency and comparability required by business and its stakeholders.’

ISO 14001 is a series of voluntary, auditable standards designed to provide customers with a reasonable assurance that the performance claims of a company are accurate. ISO reviews all of its standards at least every 5 years in order to decide whether the standard should be confirmed, revised, or withdrawn (www.iso.org). Individual standards include:

- Environmental management systems: 14001, 14002, 14004.
- Environmental auditing: 14010, 14011, 14012.
- Evaluation of environmental performance: 14031.
- Environmental labeling: 14020, 14021, 14022, 14023, 14024, 14025.
- Lifecycle assessment: 14040, 14041, 14042, 14043.
- Greenhouse gas accounting and verification: 14064.
- Social responsibility: 26000.
- Event sustainability management systems 20121:2012.

The **ISO 19011:2002** standard was introduced with the aim of applying a common and consistent approach to the auditing of both the ISO 9001 quality and ISO 14001 environmental management systems standards. The benefits of integrated management systems are now widely recognized, where a combined approach is helpful in minimizing the resource demands of operating a certificated management system.

Standards are also being developed by NGOs at an international level. Two examples include:

- **AA1000**. Developed by AccountAbility, AA1000 is a set of standards based on principles for social and ethical accounting, auditing, and reporting (www.accountability.org.uk/aa1000).

AA1000 Purpose and Principles

AA1000 Framework for Integration

AA1000 Assurance Standard

AA1000 Stakeholder Engagement Standard

- **SAS8000**. Social Accountability International is a non-profit human rights organization dedicated to the ethical treatment of

workers around the world. SAI's social standard, called SA8000, is an auditable certification standard based on international workplace norms of International Labour Organization conventions, the Universal Declaration of Human Rights, and the UN Convention on the Rights of the Child. In order to qualify, a company must follow standards relating to child labor, forced labor, health and safety, freedom of association and right to collective bargaining, discrimination, discipline, working hours, compensation, and management systems (www.sa-intl.org).

Industry- and issue-specific standards can be found within the different chapters and in the resources by industry section at the end of this book. ISEAL Code of Good Practice for Setting Social and Environmental Standards (www.isealliance.org), ISO standardization documentation (www.iso.org). See WBCSD Accountability Codes (www.wbcd.org). There are also several national-level standards, such as SD21000 in France, AS8003 in Australia, and SI0000 in Israel.

16

Tools for Greening Offices and Buildings



'Start where you are. Use what you have. Do what you can.'

ARTHUR ASHE, TENNIS PLAYER

One of the most important ways to introduce sustainable practices into a company, and where most organizations start, is by ‘greening’ the office, whether that be a small room, or a whole building. This can include changing the way that you buy products and services (procurement), the way that you build your operational headquarters, or simply the way that you use and operate the office space on a daily basis. Several offices, proud of their efforts in this area, offer tours of their facilities to educate employees, business partners, and customers about their initiatives. There are many benefits to office greening programs:

- ***Engaging employees.*** Many initiatives to green the office show results fast, giving employees successes to build on and motivation for their work.
- ***Raising awareness.*** Putting in place office greening programs is an opportunity to educate employees about the impact sustainability can have on an operation and to show them how effortless sustainability actions can be.
- ***Reduced costs.*** By increasing efficiency and minimizing waste, organizations are finding many opportunities to reduce costs in energy, water, maintenance, and materials.
- ***Increased employee retention and productivity.*** Studies have shown that green building features can increase worker productivity and overall health and reduce absenteeism. Research has found it increased productivity by 3% to 16%.⁵¹
- ***Enhanced corporate reputation.*** Sustainability building and procurement shows a commitment by a company to the environment, society, and its workers.
- ***Tax and regulatory incentives.*** There are an increasing number of incentives for building green or for redeveloping brown-field properties, for example.

Steps for setting up office greening programs

The following steps can be used when designing and implementing any office greening program:

1. ***Find out where you stand now.*** Audit your organization to see what you are currently using, where you are getting it from, and how much you are paying for it. This is useful in gathering information and establishing a baseline. Then, monitor how much energy, waste, recycling, and water you use and how much it is costing you so you can keep track of improvements.
2. ***Think about the business case.*** Understand the different direct and indirect benefits that can occur through office greening projects within your company.
3. ***Get everyone involved.*** No office greening program can be a success without employees getting involved. Office greening is all about employees changing the way they work in the office. Seek employee suggestions on where more could be done and tell people what you are doing or want to do.
4. ***Set goals and targets and develop a plan to achieve these and publish or share them with your team.*** Set goals and targets of what you would like to achieve. If in doubt, run a pilot project to see how it works.
5. ***Monitor and review your plan.*** Regularly look at your plan to take into account new products, technologies, or opportunities that may arise. Quantifying savings and benefits will also come in handy when looking at expanding office greening programs.
6. ***Communicate your successes and progress.*** Keep the whole organization informed and continue to renew their enthusiasm and involvement in the program. Let your employees know what is changing and how they can get involved.

There are countless books and online resources on greening offices. National environmental protection agencies often have information on office greening, such as the US EPA (www.epa.gov). The Sustainable Office Toolkit has resources on how to set up an office greening program (www.gasustainability.org). Harvard Green Office is also worth a look (green.harvard.edu/green-office/energy).

Buildings

Whether your company is building a whole new building, doing major renovations, or even minor changes, green buildings have moved from being the exception to becoming the norm. An extra incentive is that the price premium for green buildings is shrinking. Furthermore, even if there is an additional upfront cost, green buildings are typically less expensive to operate and maintain, provide work environments that boost productivity, decrease the environmental impacts of construction and operations, reduce worker health and safety liabilities, and improve corporate image. All of these have potentially high financial and reputational benefits associated with them, especially if you consider that a 1% increase in productivity can easily result in savings that exceed the entire energy bill for many companies. For example, the ING Bank headquarters, which uses one-tenth the energy of its predecessor, has also lowered absenteeism by 15%.

Design

- ❑ Select your site carefully (e.g., avoid contributing to sprawl, focus on redevelopment of sites).
- ❑ Work with the surrounding environment (e.g., the sun and wind direction).

- ❑ Incorporate health and safety concerns, including indoor air quality.
- ❑ Optimize energy and water efficiency.
- ❑ Redesign the interior work spaces including furniture selection.
- ❑ Design spaces that use daylight.
- ❑ Insulate properly.
- ❑ Integrate solar hot water heating into the design to minimize hot water heating bills.
- ❑ Think about the building's end of life.

Materials

- ❑ Minimize the use of materials in the construction of the building.
- ❑ Where possible, use recycled, certified, and locally produced materials and eliminate waste by reclaiming construction materials.
- ❑ Choose building products that are sustainable, for example paints, certified wood products, etc.

Gardens

- ❑ Landscape using local species that need little maintenance and water.
- ❑ Use compost and other organic techniques in maintaining gardens (International Federation of Organic Agricultural Movements, www.ifoam.org).
- ❑ Put in a green roof, which can significantly reduce indoor temperatures. This can either be by using materials that absorb less heat or by putting plants and grass on the roof (www.greenroofs.com).

There are several different standards in place for green building. The Leadership in Energy and Environmental Design (LEED) Green Building Rating System is a benchmark for the design, construction, and operation of high-performance green

buildings (www.usgbc.org/leed). The Hannover Principles aim to provide a platform upon which designers can consider how to adapt their work toward sustainable ends (www.mcdonough.com/principles.pdf). Also look at Greener Buildings (www.greenerbuildings.com) and UNEP's Sustainable Building and Construction Initiative (www.unep.org/sbci/). For examples of green buildings, check out the Editt Tower in Singapore, BedZed in the UK, the Reichstag in Germany, and the Bank of America Tower in the USA.

Energy

Energy bills are an easily reduced cost for most businesses, yet many ignore this opportunity for an easy win. An assessment of 'electric productivity' in the USA indicated that improvements in energy efficiency could not only cut consumption by 30%, but also eliminate the need for more than 60% of coal-fired generation.⁵²

- ❑ Start by checking that your building performance, operations, and systems are operating optimally.
- ❑ Install energy-efficient light bulbs, which can use up to 80% less energy than regular incandescent ones.
- ❑ Use dimmers, automatic timers, and motion detection sensors to ensure optimal lighting throughout the building.
- ❑ Consider retrofitting your office lighting – a well-designed lighting system using more energy-efficient lights can result not only in a reduction in your energy bill, but also in productivity gains.
- ❑ Regulate heating and air conditioning to be more energy efficient. If the air conditioning has ever left you feeling cold in summer, then it's wasting energy. Simply increase its setting by a few degrees to save significant amounts of energy.

- ❑ Change your electricity supplier to one that sells energy from renewable sources.
- ❑ Look at generating your own power by installing, for example, solar panels. Increasingly, governments are offering subsidies or other incentives to encourage this.
- ❑ Buy energy-efficient appliances; look for labels for recognized programs that provide a guarantee about lower energy use, such as the EU Energy Label.
- ❑ Turn down your heating, don't heat empty spaces, and look at alternative heating systems such as solar heating. Put in place proper insulation and double-glazed windows.
- ❑ Turn off appliances rather than putting them on standby. Up to 8% of domestic electricity is consumed by appliances such as TVs, DVDs, stereos, and computers left on standby.
- ❑ Where available, use smart meters which allow customers to see energy use in real time.

Different countries have ratings to help consumers identify energy-efficient products, such as Blue Angel in Germany (www.blauer-engel.de), Nordic Swan in the Nordic countries (www.nordic.ecolabel.org), and Australia's Energy Rating (www.energyrating.gov.au). The Green Power Market Development seeks to define the business case for the corporate purchase of green energy products (www.thegreenpowergroup.org).

Water

Water is not only vital for society but to business as well. Less than 3% of all water on Earth is fresh water, and many countries are facing shortages of fresh water. All organizations, directly or indirectly,

need and use water for their operations. Water has many hidden costs, including treatment, pumping, maintenance of pipe work, effluent treatment, and discharge. Using water wisely can not only save you money, but a strategic approach to water management can also enhance the reputation of your company.

- ❑ Reduce water consumption to save money and reduce the environmental impact of your operation.
- ❑ Install water-efficient fixtures, low-flow appliances, and devices to minimize wasting water.
- ❑ Check your systems for leaks and repair dripping taps.
- ❑ Collect rain water from the roof of your building to water the garden instead of using tap water.
- ❑ Reuse water in manufacturing and rinsing procedures, reuse waste water.
- ❑ Don't dump pollutants into the drains – dispose of them appropriately.
- ❑ Use biodegradable detergents.
- ❑ Water plants in the evening to avoid wasting water through evaporation.

The UN Global Compact CEO water mandate is an initiative designed to assist companies in the development, implementation, and disclosure of water sustainability policies and practices (www.unglobalcompact.org). GEMI Water Sustainability Tool (gemi.org/water), the Water Footprint Network (www.waterfootprint.org), and Water Use it Wisely's list of 100 ways to conserve water in a business (www.wateruseitwisely.com) are also helpful resources. 2005–2015 is the UN Decade for Water for Life (www.un.org/waterforlifedecade; www.wateryear2003.org).

Waste and recycling

Gone are the days when your responsibility for the waste generated by a business ends when the waste contractor removes it from site. Today, a business must ensure they are disposing of waste in a responsible and legal manner. Companies are finding that they can save money and reduce liabilities by reducing the amount of waste they generate in the first place. They are finding that they sometimes pay twice for products, for example paying to buy the product, and then paying to dispose of the product.

Reduce the amount of materials bought and used

- ❑ Buy durable products, rather than disposable ones. Examine in-house repair schedules, maintenance agreements, and extended warranties as ways to extend product life.
- ❑ Stop multiple subscriptions of magazines, for example, when one copy can be shared.
- ❑ Coordinate product purchases and plan ahead to buy products in bulk to save time, money, and transportation and packaging costs.
- ❑ Purchase products with less packaging.
- ❑ SC Johnson removed waste baskets from offices and placed them down the hall to reinforce the act of throwing items in the garbage.

Reuse

- ❑ Purchase products in reusable, refillable, or returnable containers.
- ❑ Set up a reuse system, or use an existing system, that makes unwanted items from one department available to other departments, sometimes called Freecycle.
- ❑ Borrow items needed from friends or at work from other departments, for example through networks such as yerdle (www.yerdle.com).

Recycle

- ❑ Donate used materials to schools, NGOs, or other businesses that could use them. Some charities collect used materials and make money from recycling them.
- ❑ Set up recycling bins next to waste baskets and inform employees what is recyclable.
- ❑ Look at options to compost.

Recycle Now has lots of information on how different items are recycled (www.recyclenow.com). A growing number of sites, such as Recycle Match (www.recyclematch.com/marketplace), provide opportunities for businesses and individuals to buy, sell, and give away waste and recyclables.

Paper

Offices use, and inevitably waste, a lot of paper in their regular operations. In fact, around 70% of office waste is paper. This ends up costing the company money and puts unnecessary pressure on forests. Consider that the energy used in the manufacture of five sheets of paper is equivalent to the energy needed to run an 80 watt light bulb for one hour. Given that the USA alone uses about 4 million tonnes of copy paper annually, that's a lot of energy which goes into the manufacturing of paper!

- ❑ Use both sides of the paper where possible to minimize paper usage. Set photocopiers to print both sides as standard.
- ❑ Use print preview before you print so that you can see what you are about to print and whether it can be fitted onto fewer pages.
- ❑ Increase the margins and font size to fit more on fewer pages.
- ❑ Minimize the amount of ink you use by setting the printer on draft.

- ❑ Reuse paper printed on one side for drafts, fax cover sheets, or notepads.
- ❑ Buy paper that is post-consumer recycled content, unbleached and uncolored, and from certified sustainable sources such as FSC.
- ❑ Post information on bulletin boards or use e-mail rather than distributing paper memos.
- ❑ Buy erasable boards as an alternative to paper flip charts.
- ❑ Have reports easily available on a website so they can be viewed on screen.
- ❑ Don't send out catalogues and brochures to people who don't want them.

Century Gothic is the least ink-intensive font. The WWF has produced a Guide to Buying Eco Friendly Paper, a global database of eco-rated paper products as well as a Paper Company Environmental Index (www.panda.org). The Paper Calculator measures the environmental impacts of your paper usage (c.environmentalpaper.org). Xerox is developing erasable paper, where the words disappear over 16–24 hours.

Electronics

Modern offices are full of electronic equipment – it would be hard to imagine one without any. However, the electronics we rely on each day waste a lot of energy and generate a lot of waste – both e-waste at the end of their life and waste as a result of using them (e.g., printer cartridges). Many electronic products use between 1 and 20 watts just on standby, and are often in this mode for much of the day. According to the Energy Cost Saving Council, the average building owner can cut energy costs by up to 60% by replacing outdated, inefficient electrical equipment. Greenpeace has estimated that demand for new technology creates 4000 tonnes of e-waste per hour.

- ❑ Choose electronic equipment which minimizes the use of hazardous substances.
- ❑ Purchase computers that are easy to upgrade to maximize their usable life.
- ❑ Recycle computers properly by bringing them back to the manufacturer or retailer (where facilities exist) or donate them. Many manufacturers – such as IBM, Apple, Dell, and HP – have systems in place to recover these.
- ❑ Turn off computers when not in use, including monitors. Monitors account for around 50% of a computer’s energy use.
- ❑ Choose green data centers.
- ❑ Look at refilling inkjet cartridges instead of throwing them away for new ones. Recycle them after use.
- ❑ Buy solar-powered calculators and other devices to eliminate the need for batteries.
- ❑ Use rechargeable batteries.
- ❑ Rent, lease, or contract for services, instead of buying infrequently used equipment.

The Global e-Sustainability Initiative works to further sustainability in the ICT sector (www.gesi.org). Also look at the Electronic Industry Code of Conduct (www.eicc.info). The Greenpeace Guide to Greener Electronics is a scorecard that highlights electronic products and companies (www.greenpeace.org). EPEAT is an online tool that helps select and compare environmentally safe electronic products (www.epeat.net). The European Union’s WEEE Directive allows customers to return their used equipment to manufacturers free of charge and also requires the substitution of various heavy metals and chemicals in new electronic equipment (Europa.eu). For the latest news, visit Greener Computing (www.greenercomputing.com) and the Massachusetts Green High Performance Computing Center (www.mghpcc.org).

All those other little things

Sustainable procurement of supplies and services is the primary way to introduce green concepts in offices and facilities. According to UNEP, the best procurement processes address the following:

- Maximum value for money (price, quality, availability, functionality).
- Environmental aspects of goods over their entire lifecycle.
- Social aspects (issues such as poverty eradication, labor conditions, human rights).

Below are some tips that can help

- ❑ Use cleaning products that are biodegradable and environmentally friendly. Hire cleaning service companies that use environmentally friendly products.
- ❑ Buy recycled, reusable, recyclable, biodegradable, energy-efficient, water-conserving, non-toxic, locally available products (paper, glass, etc.).
- ❑ Buy reusable cafeteria dishware. Reusable dishes are often cost-effective over the long term compared with disposables.
- ❑ Buy organic, fair trade, free range, local products for the kitchen such as coffee, tea, sugar, etc.
- ❑ Don't use bottled water; where possible drink tap water instead.

UNEP Sustainable Procurement Program (www.unep.fr/scp/procurement), Forum for the Future's Sustainable Public Procurement (www.forumforthefuture.org), the Chartered Institute of Purchasing & Supply (www.cips.org), and BSR's Center for Sustainable Procurement (www.bsr.org). To see the growing range of options available for sustainable office products, look at suppliers such as the Green Office (www.thegreenoffice.com).

Commuting to work

As cities around the world grow larger and traffic congestion gets worse, the daily commute can take hours out of each day for many employees. Have you ever noticed how many cars during the morning rush hour have just one person in them? Promote the use of car pooling, public transportation, or other more sustainable forms of travel as much as possible. Consider commuting by motorbike or scooter – they cost less to purchase and run, take up less space, and are easier to park. GlaxoSmithKline in the UK has a bike scheme where employees who bike to work get a voucher which can be used at bike stores. A bike mechanic paid by the company comes in every two weeks to repair bikes. There are facilities for cyclists to change, shower, and iron their clothes. Each cyclist costs the company approximately £400 per year, while a car space costs over £2000. Registered cyclists now make up more than 10% of the site's employees. The company has also hosted one-day conferences designed to illustrate how cycling can fit into various types of travel planning.

By public transport

- Prepare a public transport information pack with prices and times of routes to work.
- Make a policy to use public transport for business purposes where practical.
- Arrange a taxi for staff using the bus for times when they may work late.
- Provide salary advances to pay for season tickets or provide them for free.
- Where possible, explore alternatives to traveling by plane – such as trains and buses – especially for flights of less than 2 hours.
- Explore telecommuting options for employees to work from home.

By bike

- ❑ Give a free cycle helmet . . . or bike to your employees.
- ❑ Put up a cycling notice board for routes, bike repairers, and organizations.
- ❑ Provide incentive schemes such as salary advances to buy bikes on installment.
- ❑ Buy an office bike and link up with a local bike store for regular maintenance.
- ❑ Install shower and changing facilities for employees who choose to walk, run, or bike to work.
- ❑ Provide a secure place at work to store bikes.
- ❑ Use cycle couriers for delivering small items within the town or city.
- ❑ Provide a roadside assistance program for bikes that have mechanical failure (e.g., see the Royal Automobile Club of Tasmania's Bike Assist program).
- ❑ Promote the health benefits of cycling to work.
- ❑ Provide bicycle commuter benefits including, in some countries, taking advantage of tax-free reimbursements for bicycle expenses.

By foot

- ❑ Promote the benefits of walking to work for those who travel short distances by car.
- ❑ Organize a walking club at work as well as activities to keep employees active during the lunch hour.

By car

- ❑ Promote good driving techniques. Simple techniques can reduce fuel consumption by as much as 25%.
- ❑ Ensure regular maintenance to maintain fuel efficiency and vehicle longevity.
- ❑ If you buy new, buy small, fuel-efficient models.
- ❑ Consider car pooling or joining a local car club.

- ❑ Consider off-peak commuting to help reduce traffic congestion and save time traveling.
- ❑ If you need to use a taxi look at green options, for example London's Go Green Car has a fleet of hybrid cars.
- ❑ If you are moving from one office to another look for moving companies that provide reusable plastic containers as opposed to cardboard boxes.

Some countries have car-pooling websites, such as New Zealand (www.jayride.co.nz), Australia (www.carpoolworld.com), and the USA (zimride.com). Commuter Choice is an initiative in the USA that encourages employers to offer a range of commuting options to their employees (www.commuterchoice.com). The UK has a tax-free scheme to provide a cost-effective way to purchase bikes to ride to work (www.cyclescheme.co.uk). There are a growing number of car-sharing services, such as Zipcar (www.zipcar.com), RelayRides (relayrides.com), and Whipcar (whipcar.com) as well as bike-sharing programs, including in Montreal (www.thehubway.com), Rio (Bikerio), and Paris (en.Velib.paris.fr).

Organizing green events and meetings

Most organizations host events, meetings, seminars, annual general meetings, and other conferences on a regular basis. Regardless of whether these are big or small events, they all consume resources, cost money, and produce waste. Planning green events is about incorporating sustainability elements into traditional meeting planning. Hosting a green event can help conserve energy and reduce waste, which saves money and provides an opportunity to raise awareness of issues. One event organizer replaced bottled

water with reusable containers and bulk water dispensers, saving US\$15 000 with this simple step. The IUCN, an international conservation NGO, produced a guide to help the 8000 delegates at its 2008 congress make environmentally smart decisions at different stages of their trip to, and stay in, Barcelona. It was part of the IUCN's effort to practice what it preached at the event on sustainability and conservation. For those who didn't want to print the whole manual, they could just print out the one-page summary included at the back.

- ❑ **Meeting or no meeting.** Explore alternatives to meeting in person, such as teleconferencing, videoconferencing, and webinars.
- ❑ **Make your meeting meaningful.** It seems obvious, but make sure your meeting is as useful as possible for the participants to justify them attending.
- ❑ **Make your intentions clear.** Set priorities and make sure all involved in the organization are aware and included.
- ❑ **Look at visible and non-visible.** Look at visible issues (recycled program material) and non-visible ones (energy and waste management plans).
- ❑ **Facilities.** Choose a location that is easily accessible (e.g., direct flights, public transportation, etc.). Check for locations that have their own environmental and social priorities and run/operate green buildings.
- ❑ **Food and beverages.** Serve food that is sourced locally, fair trade, organic. Also think about how the food and drinks are served, for example by using mugs instead of disposable cups and bottles.
- ❑ **Accommodation.** Support hotels that are part of green accreditation programs, such as GreenKey and the GreenTourism label in the UK, or that have their own environmental policies.
- ❑ **Transportation.** Inform participants of public transportation and walking routes. Organize shuttles instead of taxis (these can provide good networking opportunities for participants).
- ❑ **Procurement.** Choose suppliers with sustainability policies and products. Look at options such as renting rather than purchasing.

- ❑ **Get people involved.** Seek sponsors to help provide sustainable products. Consider getting the community involved. Tell attendees what your sustainability plans are during the conference and tell them what they can do to get involved (e.g., recycle, give back name tags, turn off lights).
- ❑ **During the event.** Limit the distribution of paper during events by having USB ports for people to download handouts or use e-mail. Provide a reusable registration package. Look for ‘sustainable’ promotional products (or have none). Conduct registration and confirmation online. Measure your progress (i.e., how much paper is used, waste generated).
- ❑ **Post-meeting.** Publish proceedings online and report on lessons learned. Have an on-site drop-off for attendees returning material that can be reused for other events or donated to local community groups and schools.
- ❑ **Sustainable tourism.** If participants are coming from abroad, give advice on sustainable tourism options in the area. Provide opportunities during the event to introduce participants to local food, culture, music, etc.

For more on green meetings check out US EPA’s ‘A Guide to Planning and Conducting Environmentally Aware Meetings’ (www.epa.gov/oppt/greenmeetings) and Environment Canada’s ‘Green Meeting Guide’ (www.ec.gc.ca). There are also a growing number of certification schemes for green events, both internally organized such as at Yale University (sustainability.yale.edu/green-event-certification) or externally assured such as by the Council for Responsible Sport (www.councilforresponsiblesport.org).

Putting together a green team

Employees are often very interested in sustainability issues and want to become engaged in moving their company forward in

this area. The response to this has been the creation of ‘green teams.’

Other than getting employees engaged, green teams can provide an important avenue for companies to identify opportunities on how to become more sustainable and implement these ideas. They can also prove a driving force in pushing the company’s overall sustainability objectives forward.

- ❑ ***Put together your team.*** Green teams can be either formal groups or informal groups. Start by networking and speaking to other employees to see who might be interested in joining.
- ❑ ***Survey members of staff.*** Talk to employees to find out what issues they are most interested in to determine the focus of the team. You can also organize brainstorming sessions to gather a wide range of ideas to start with.
- ❑ ***Get support.*** Actively recruit employees into the team who have the power to make real changes happen. For example, if you want to work on greening the building make sure you have someone from facilities on the team.
- ❑ ***Focus on action.*** Green teams often take a double role of raising awareness and putting in place real goals and programs. Look at ways to create value for the company by reducing costs and creating new business opportunities.
- ❑ ***Get executive support.*** Make sure you have the right people on your side, for example management, so that decisions can be made quickly.
- ❑ ***Set specific goals*** for a certain time period so everyone is working collaboratively on a few priorities.
- ❑ ***Communicate with the group.*** There are many tools out there to help communicate with the rest of the team and other employees, including newsletters, e-mail lists, wikis, posting blogs, or starting an online group (e.g., through Google, Ning, or Yahoo!).
- ❑ ***Organize lunchtime meetings.*** Organize meetings (with lunch included) focused on raising awareness or coordinating action. Invite guest speakers. Keep these meetings light and fun but relevant to people’s jobs.

-
- ❑ ***Have fun with it.*** Green teams at eBay started a ‘funky mug’ contest, where employees brought mugs from home to replace disposable cups in the office.
 - ❑ ***Share best practice and challenges.*** Put in place mechanisms for employees to share success stories in implementing sustainability and get help with challenges they are facing. This is especially interesting in large companies that operate in several offices or across several countries.
 - ❑ ***Present case studies.*** Present examples from across the company and your industry of projects that have worked which could be done in your office.
 - ❑ ***Keep track of your successes.*** Keep track of how you do and celebrate your successes with the rest of the office.
 - ❑ ***Keep it relevant.*** If people aren’t attending meetings, or it is the same people showing up over and over again, change the focus of the meetings to make sure they are more relevant and interesting to others in the office.
 - ❑ ***Recognize those involved.*** It is important to recognize those individuals who are putting in the most effort. Have senior staff recognize them or have HR make the green office program part of the job description. Green office programs can be a great professional leadership opportunity for staff.
 - ❑ ***Provide more strategic guidance as well.*** Green teams are not just about putting in place recycling bins. Increasingly they are involved in the sustainability strategy of the company.
 - ❑ ***Create programs for the whole office to get engaged in.*** Deloitte’s ‘Greening the Dot’ initiative involved offices choosing from among 37 different greening projects. A ‘Greening Toolkit’ that included implementation instructions and communication tools was given to each office. The result was that over 29 000 employees got engaged in implementing over a thousand greening projects across nearly a hundred offices in just the first six months.

Performance contracting

One of the main reasons organizations give for not getting involved in sustainability programs is cost. At the same time, increasing evidence clearly shows that many programs may cost more in the short run, but will actually save money in the long run. So, in response to these cost concerns, many innovative pricing strategies are being developed to help pay for business sustainable activities. One such strategy is performance contracting. According to the International Institute for Sustainable Development, 'Performance contracting is a means of raising money for investments in energy efficiency that is based on future savings. It enables money that will be saved as a result of the introduction of a new energy-efficient technology to be used to offset the cost of financing, installing and operating that technology.' This means reduced risk to the lending organization as the contractor takes on the risk of not achieving savings. There are several ways to structure a performance contract:

- **First out or guaranteed savings.** All the contractor's costs are repaid annually out of the savings as they accrue. The length of the contract (typically 4–8 years) is usually determined to ensure that all costs are paid out by the end of the contract period.
- **Shared savings.** The business and the contractor agree to share the savings over the contract period. The actual cost of the measures is not included in the contract, and the business has no obligation to pay off those costs. Shared savings contract terms are usually longer – up to 10 years.
- **Chauffage.** A performance contractor effectively takes over the operation of a customer's utility or production facilities, makes upgrades to them, and often pays the customer's utility bills. In return, the customer pays the contractor a regular fee equal to the utility bills before the project, or some other negotiated fee.

Other innovative financing strategies include green building tax credits and leasing services instead of purchasing equipment. Some programs are being developed that base repayment on 'green' savings, such as the Green Loan Initiative of the City of Toronto and the Billion Dollar Green Challenge (greenbillion.org). The builders repay the loan through funds that would otherwise be spent on heating, cooling, and electricity.

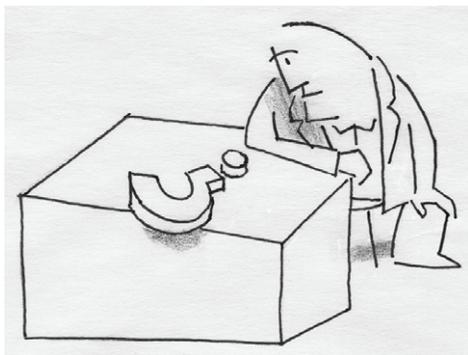
PART 4

WRAPPING IT ALL UP

What can I do?



What will the future bring?



'Never doubt that a small band of caring and committed people can change the world. Indeed it is the only thing that ever has.'

MARGARET MEAD

This book has introduced sustainability and a wide range of tools being used to implement it in organizations around the world. It has presented various tips and ideas on how employees and businesses can get more active and engaged in sustainability, and how sustainability can be explored to positively influence a business in terms of both reducing costs and potentially increasing revenue, while also having a positive impact on the environment, and society as a whole.

However, individuals are not only playing a role in bringing sustainability forward through their jobs. People create both the supply and the demand for products and services, create the innovations and push for change. Individuals make decisions on a daily basis as employees, as consumers, and as citizens that have a direct impact on sustainability. Many believe that one person cannot make a difference, yet all of the things that people do on a daily basis collectively add up to make a difference. If employees start exploring these ideas in their jobs, if consumers start asking companies to provide them with sustainable choices, and if citizens actively engage in strengthening their communities, that is when things will really start happening.

As an employee – leading by example

As seen throughout this book, employees interested in sustainability have several choices when it comes to career paths and getting engaged in such issues, including working:

- ***In any company.*** The main way for employees to get involved is by driving social and environmental change from within any company and at any level. Regardless of whether your company is fully engaged in the sustainability debate, these are tools that can be used to strengthen the business.
- ***In a ‘green’ job.*** With increased greening among all industries is coming a wave of new careers, most of which are an

environmental or social twist on old professions. Engineers are doing research on renewable energies, people in finance are getting involved in trading carbon credits or microfinance within mainstream institutions, while architects are designing green buildings. In fact most, if not all, of the topics introduced in this book have careers attached to them.

- ***In a 'green' company or other organization.*** A company does not need to advertise 'green' jobs in order to attract diverse talent. Increasingly, as companies embed sustainability into their operations, sustainability is becoming part of a growing number of jobs, in particular if you choose companies that are active in this area and even though it might not be advertised as a sustainability-related job.
- ***As an entrepreneur.*** Whatever kind of business you decide to start, whether it has a social or environmental mission or not, there are many ways you can run your business that support the principles of sustainability from responsible sourcing, to greening your products, offices, and services.

Regardless of the job, you can:

- ***Make suggestions.*** Identify areas where you think improvements could be made to make your job, your products lines more sustainable.
- ***Have a job review session.*** Spend time with your team and your boss to evaluate how sustainability could be incorporated into your current job description.
- ***Get rid of unsustainable rules.*** Keep a look out for rules in your organization that limit you and others from exploring and putting in place more sustainable options.
- ***Get involved in activities organized by your company.*** Many companies have events organized to get employees involved in sustainability, either within the company or in the community. Get involved in these activities. If there are none that interest you, organize one.

Take a look at the introduction for ways to sell these tools to your team. Also take a look at different professional networks aimed at managers, for example Net Impact (www.netimpact.org) and the Institute for Environmental Management and Assessment in the UK (www.iema.net). Green Drinks is a social networking group with opportunities to meet other individuals interested in sustainability in over 40 countries and 463 cities (www.greendrinks.org). Many sites advertise 'green' jobs, including MonsterTRAK GreenCareers, Greenbiz (jobs.greenbiz.com), BSR (www.bsr.org/resources/jobs), and DevNetJobs (www.devnetjobs.org).

How to turn any job into a green job

1. **Look at your company's position on sustainability.** Does your company have a sustainability strategy? Does it produce a sustainability report? If it does, take a look at it and see how this relates to your work. If it doesn't have a strategy, again, why not work to create one?
2. **Get involved in office greening programs.** Get involved in activities that are already happening in your office, such as recycling and employee engagement programs. If these don't exist, start them. Green teams are increasingly involved in more than just putting recycling bins in offices. Many are involved in creating and carrying out company sustainability strategies as well.
3. **Create a coalition.** Speak to people in the company to connect with others who are interested or are already working in sustainability. Talk to people outside the company to learn about how they are working on sustainability within their own companies.
4. **Take a look at your job.** Explore ways to incorporate sustainability into what is already in your job description and the goals of your team. Are there places you could cut waste? Engage your suppliers? Change the way something is designed? You know your job best, so you are ideally placed to see how and where changes can be made.

5. **Stay informed.** Look at professional or other organizations to which you already belong to see what they are doing in this area. Sign up for daily updates to keep informed. Take a course or attend an event, a conference, or speaker series to learn more.
6. **Volunteer your time or expertise.** Volunteer your time and expertise on sustainability initiatives happening in the company and outside in the community.
7. **Give feedback.** The people who do the jobs are in the best place to provide insights on how to do things better. If you see something that could be done better, in a more sustainable and efficient way, in the workplace speak up about it.
8. **Support others in their activities.** Be supportive of the work that your employees or colleagues are doing in this area. Give employees and members of your team time to explore sustainability in the workplace or in the community.
9. **Share your experiences.** Write articles, speak at events and to others to share your experience in working on sustainability issues in the workplace, the challenges you have faced, and how you overcame these. Speak up on the areas you think need more work.
10. **Be positive, but constructively critical.** Rather than saying something won't work, look at contributing to the discussion and working through ideas to see if and how they could work.

As a consumer – putting your money where your mouth is

The most important sector of them all, and the one that everyone is a part of, is the rapidly growing consumer sector. There are 7 billion of us on the planet, each making decisions on a daily basis that affect businesses and society. As a consumer, you can look at:

- **What you buy.** Companies provide products because they believe there will be, or there is, a demand for them. As a consumer, choosing to support the products that you believe are good sends a strong message to companies. Where you choose

to buy those products from – such as retail stores that support the same sustainability values as you do – is also important.

- **What you choose not to buy.** Just as important as what you buy is what you choose not to buy. Choosing not to buy brands that have unsustainable practices and letting them know will send a clear message to those companies that they need to change in order to gain loyal customers.
- **By giving feedback.** If you want to know what the companies you buy from are doing in this area, or want them to provide more information or safer products, contact them and give them feedback. Companies such as Dell have created social networks where customers can provide direct feedback through two-way channels (<http://www.dellideastorm.com>). The goal is for you, the customer, to tell Dell what new products or services you'd like to see them develop.

Several sites give information about how sustainable different products are, including <http://environment.nationalgeographic.com> and www.goodguide.com. Several companies have created guides so that consumers can understand what is in their products, including P&G (www.scienceinthebox.com) and Clorox (www.thecloroxcompany.com), as well as several examples in Chapter 11. Consumers International (www.consumersinternational.org) and UNEP Sustainable Consumption Branch (www.unep.org) have a range of guides on the topic. Also take a look at movements such as Carrotmob, which support businesses who want to become more sustainable (carrotmob.org).

Read: There are countless excellent books on the topic, often with country-specific information, such as *Ecobolic* by Adria Vasil (Canada). Also, *The Consumer's Guide to Effective Environmental Choices* by Michael Brower and Warren Leon.

PLEASE think before you buy: A simple guide to making choices as a consumer

When faced with a choice of products, think about:

- P: Packaging** → Look at the packaging. Is it over-packaged? Is it under-packaged? Can I reuse the packaging? Is it recyclable?
- L: Location** → Look at where the product is from. Is it produced locally or far away? Look at the store you are buying it from. Are you buying from a small independent store, a cooperative, a large store? What do you know about the sustainability policies of that store?
- E: Essential** → Do you really need the item? Can you live without it?
- A: Alternative** → Are there alternatives that are more sustainable? Can you buy the product in bulk or in refillable containers?
- S: Story** → What is the story of the product? What company produced it? What information is on the label about that company and what do these labels tell you about the product? What are the ingredients?
- E: End of Life** → Is the product durable? Is it disposable? Is it easy to recycle? Can I bring it back to the manufacturer? Can I donate it to charity when I am done or pass it on to someone else to use?

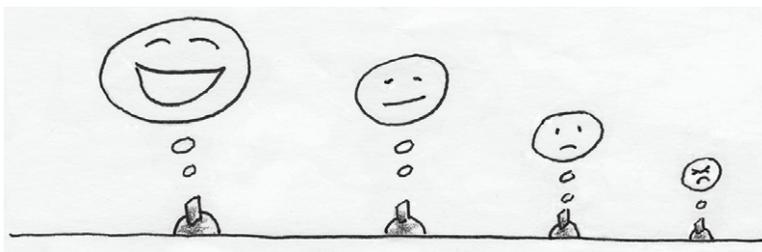
As a citizen – be active in your community

All individuals, apart from being consumers and employees, are also citizens and members of a community. As part of their community they can have a significant influence on sustainable and unsustainable practices in this realm as well.

- **Lifestyle choice.** How one chooses to live one's life has a significant impact. Whether you choose to participate in community activities, bike to work, or have a second car all has an impact.
- **Increasing efficiency.** Many of the same tools and frameworks used to apply sustainability to the business can be applied at home. This includes reducing water and energy usage, recycling, and disposing of waste appropriately.

- ***Get engaged in discussions.*** Attend public consultations and meetings designed to collect citizens' views on how to make the community stronger.
- ***Support your local community.*** Communities have a range of projects that you can engage in, whether this is a festival looking for volunteers, choosing to buy from local businesses, or taking part in recycling programs to help minimize waste.
- ***Be an active shareholder.*** Companies need to listen to shareholder concerns. Look at where your money is invested (including through pension funds) and get engaged.
- ***Start a project.*** See something in the community you would like to change or that is missing? Start an initiative yourself. Chances are there are plenty of others in the community who agree with you and are willing to get engaged.
- ***Participate.*** Many individuals around the world have a choice in who runs their countries and their communities, but do not make their choice heard. Rather than complaining about how ineffective something is – whether it is government, regulations, infrastructure, or education – voice your opinion either through voting or supporting the causes you believe in.

The UN Decade of Education for Sustainable Development 2005–2015 is dedicated to raising awareness about sustainable development (www.unesco.org/education/desd). Also look at the sustainability section of your local government website or to see more about what local governments are doing around the world, take a look at ICLEI – Local Governments for Sustainability (www.iclei.org), a network of hundreds of cities from around the world committed to sustainability.



'This is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning.'

SIR WINSTON CHURCHILL

This book has aimed to introduce you as employees, as consumers, as citizens, as students, as managers to what is happening in the area of sustainability with the hope that some of these things will be relevant to your business and will inspire action. The encouraging news is that this book isn't full of nice-to-have ideas; sustainability is increasingly being embedding into businesses of all sizes, in all industries, and in all parts of the world. Businesses are seeing that this isn't about throwing money away or even doing the right thing, it is about good business and this is why sustainability is increasingly part of mainstream thinking.

No one knows exactly what the future will bring. Here is one take.

Sustainability becomes the norm. This book explores sustainability as the balancing of social, environmental, and economic issues in a way that is beneficial to both business and society. However, for others, sustainable means the financial sustainability of a company, the ability of a company to continue to operate over the long term. The two words will increasingly connect until one day soon, they will mean the same thing. There will be no sustainable tourism, it will just be tourism . . . no sustainable office furniture, it will just be furniture. The minimum standard will be products and services that are sustainable and best practice could be something altogether different, products that give back, that do more.

From perceived benefit to actual. It will increasingly be easier to know how a company is actually doing as opposed to how it is perceived to be doing. In the same way that you can easily understand how a company is doing financially by looking at the numbers, soon there will be ways to know clearly how a company is doing in terms of sustainability. Sustainability information will be stronger and it will be incorporated with financial information.

Direct to indirect. Some companies are just starting to get involved in sustainability. Their activities usually involve either doing the bare minimum, or many small, separate activities that are unrelated and happen in relative isolation. Tomorrow will see these small activities coming together into larger, stronger, and more integrated strategies

that cover the whole organization and all their activities. Companies will look beyond the direct impacts they have on the environment and society – for example, through their energy use and the waste they create – to indirect impacts such as the footprint of not just their suppliers but also the suppliers of those suppliers. This will lead to moving away from quick fixes on parts of the system, to a greater appreciation of how to strengthen the system as a whole.

Increased transparency. Today a company that is working in sustainability can prove it through different certification programs and eco-labels, while companies that are not sustainable (and even in some cases those that are doing harm and are not compliant) have no information on their labels to inform consumers of this. In the future this may be the other way around. The norm will be sustainability, and all companies who do not uphold these basic, sustainable standards will need to provide information as to why and how on their labels. Labels will clearly show the amount of waste a product generates throughout the process and inefficiencies both in production and use.

The elephants will start dancing. There are certain major players in the world, groups that because of their sheer size have power and can have an important influence in pushing the sustainability agenda forward. Although slow to change, once these groups start it brings with it a momentum that changes everything. Look out for big companies making and implementing ground-breaking commitments to sustainability and asking more and more from their suppliers, their employees, and their customers. Look out to see how emerging market countries get engaged in these issues. Look toward the world of the SMEs, who have power in numbers and who, once they get engaged as well, can have a crucial collective impact. Look at the poor who, through the emerging world of micro everything, are starting to not only be served, but play a significant role.

Creating enabling environments. Many sustainability activities that businesses are encouraged to take part in are not possible unless they are working in an environment that allows this.

If the city they work in does not recycle, if it does not have bike lanes or proper public transportation, if it does not have rules and regulations to create level playing fields, if it does not have alternative energy options, a company and its employees may struggle to put parts of their sustainability strategy into place. Look for cities to become smarter in terms of how they generate, distribute, and use water and energy. Look out for cities that focus on people, on communities.

Embedding sustainability into education. How do you ensure change occurs relatively quickly? By educating the new generation of professionals. If you want accountants, analysts, architects, politicians, and managers to change the way they work, then incorporate sustainability into the way that they learn their profession. This means embedding it into mainstream teaching programs to reach the whole profession, not just those with a particular interest in it. Look for schools to embed sustainability in the way they teach at all levels, from primary school to high school, in professional training programs and specializations.

Anything goes. Look out for completely new ways of doing business. Look out for sustainability innovations to come out regardless of whether times are good or times are bad. Ultimately, the future will be whatever we make it.

Twenty-one wise words of advice

1. ***Sometimes it works, sometimes it doesn't.*** Pilot and execute as a way to move your ideas from theory to action. Have freedom to make mistakes, and learn from them. Be willing to take those chances. As Thomas Edison once said, 'I haven't failed, I've had 10 000 ideas that didn't work.'
2. ***Be patient.*** It didn't take a week to develop wind farms or solar panels. Things take time and effort. Companies can be slow to change, but when they do they bring lots of weight.

3. **Keep an open mind.** Question assumptions, ask yourself why you do things the way you do and if you couldn't do things differently.
4. **Answers often lie within.** Organizations are made up of an incredible amount of ideas and wealth that they regularly fail to tap into: their employees and their customers.
5. **Don't just do it like everyone else.** Not all green initiatives are created equal, don't make promises that you can't (or won't) deliver on. Be different.
6. **Keep it relevant.** Make sure it makes sense. Products need to solve a consumer problem and work. Get involved because it is something you value, not because it is the thing to do.
7. **There are no shortcuts.** There are many tools that have been created to help in your efforts, but none will provide assurance against failure or success. Use them as guidance and part of a larger strategy.
8. **There is no black or white.** Perhaps polluting maximizes shareholder value by saving money, but the public response does not. Your actions have unintended consequences, both negative and positive.
9. **Work together.** There is an increasingly wide range of experience within organizations in different industries and different countries. Customers want to be more involved. Work with others.
10. **Be active, not defensive.** Sustainability strategies developed in a defensive manner lead people to miss opportunities.
11. **It is all about balance.** You don't have to do everything, but what you do decide to do should be done well.
12. **Everything is connected.** Just because you don't see it, it doesn't mean that it isn't there. Decisions you make have an effect far away. Don't see the world in silos, everything is connected.
13. **Focus on the problem, not the symptoms.** It is not about putting a filter on polluted water before it is released, it is about looking at why the water is polluted in the first place.
14. **It doesn't need to be perfect.** Be honest and open about your efforts and what you are trying to do. Be flexible.
15. **Do something different.** Get out of your comfort zone. Read something different to find inspiration, see what

(Continued)

others in completely different industries and fields are doing in sustainability.

16. ***Don't just complain; do something.*** Complaining about something is fine, if it is constructive and helping to move things forward. Get involved.
17. ***Unlikely events are common.*** The fact is that unlikely events happen more often than one thinks. No one can predict the future.
18. ***Not everything that looks green is green.*** Just because something looks green, and sounds green, it doesn't mean that it is green. Sustainability is not a PR exercise; it is a way of operating.
19. ***Do it right the first time.*** Rather than doing it wrong over and over again.
20. ***It doesn't really matter how it starts, or why it starts.*** What matters is how it continues.
21. ***Enjoy it!***

Additional Resources: Who, What, Where, and How

The following section provides additional information and a range of resources to enable you to further understand sustainability.

Who: Different groups involved in sustainability look at some other actors involved in sustainability including NGOs and international organizations.

What: Sustainability issues provides a very brief overview of some of the main sustainability issues along with the links to the organizations doing work on those areas.

Where: Sustainability around the world provides a few links, organized by region and to direct you to more information about sustainability in particular countries.

How: Keeping up to date provides a range of news feeds to stay up to date on sustainability issues.

Who: Different groups involved in sustainability

Although much of the information and resources in this book are aimed at the business sector, they are by far not the only ones that are active in this area. The business sector is increasingly working with, and building on, the initiatives already being undertaken by governments, international organizations, NGOs, and other networks.

All these groups can use the tools in this book in their own operations, and need to tweak them to fit their own unique situation in

the same way that individual businesses need to. There is no longer such a big difference between the different groups; NGOs are being encouraged to incorporate business principles such as efficiency in order to be more financially sustainable, while companies are learning advocacy and different ways of seeing the world from NGOs.

There is also increasingly a blurring between the different actors. Universities and NGOs are providing consulting services; consulting firms are becoming think tanks and providing not-for-profit services. There is also an increase in NGOs providing consulting services, such as the WWF. Finally, the different groups are increasingly working together on projects. This in part means that more kinds of information and resources at different levels are available.

The following information is meant to introduce the reader to sustainability as it relates to these other actors and provide some links to organizations that are working on sustainability.

Educational institutions. Universities are getting involved in the sustainability debate in several ways. First, through their facilities in energy, water, and waste management plans for new and existing buildings. Second, through their curriculum and teaching, both in existing programs and new specialty programs. Third, through the development of new technologies and ideas. The Principles for Responsible Management Education are endorsed by a growing number of universities around the world (www.unprme.org). The Tallories Declaration is a 10-point action plan for incorporating sustainability into teaching and research (www.ulsf.org/programs_talloires.html). The Aspen Institute Center for Business Education (www.aspenbce.org) has several programs, including an online database of case studies and syllabi (www.caseplace.org). Another resource is the World Resource Institute's BELL program (www.wri.org/project/bell), which is also focused on business education. Most schools now have one or several student groups working in this area, some part of larger international networks such as Net Impact (www.netimpact.org), Oikos (www.oikos-international.org),

and AIESEC (www.aiesec.org). Schools from pre-school all the way up to continuing education are starting to provide training in these areas. The United Nations Decade for Education for Sustainable Development runs from 2005–2015 (www.unesco.org).

Government. Governments play a crucial role in sustainability. These large organizations are the world's biggest employers, land-owners, energy users, and a huge purchaser of goods and services. Governments also play a crucial role in developing and implementing international agreements, national policies, laws, regulations, and incentives. They also put in place infrastructure and services (transport, recycling, etc.) that enable people to have more sustainable lifestyles and business practices. They provide guidance for business and consumers, monitoring how things are going, and providing enforcement where necessary. Finally, they play a key role in protecting the commons, society, and the natural environment in their country. ICLEI is an international association of local, national, and regional governments that have made a commitment to sustainable development (www.iclei.org). Some cities to take a look at include Curitiba in Brazil, Vancouver in Canada (www.vancouver.ca), and Malmo in Sweden (www.malmo.se), which are focused on sustainability. At the national level sustainability information is often found within the parts of the government responsible for the environment or for business, for example. Many governments also have departments which provide development advice and funds to certain other countries based on national interest and priorities, including in many cases work on private-sector development and promoting responsible business practices. Examples include the Canadian International Development Agency (www.acdi-cida.gc.ca), the UK Department for International Development (www.dfid.gov.uk), and the US Agency for International Development (www.usaid.gov). At the regional level governments also work together through organizations such as the OECD, which brings together the governments of 30 countries committed to democracy and the market economy (www.oecd.org) and the European Union (europa.eu/).

International organizations. Many of these were established just after World War II to promote international cooperation and stability. They are funded by member governments but are largely independent and most have budgets of several hundred million dollars. They tend to be bureaucratic relative to the private sector because of the consensus required to move forward, but they provide an important platform for these issues at an international level. A good example is the UN (www.un.org), which is made up of 30 affiliated organizations (www.unsystem.org) that work on everything including food and agriculture (www.fao.org), AIDS (www.unaids.org), the environment (www.unep.org), and even telecommunications (www.itu.int). Another group includes the international financial organizations, including the World Bank (www.worldbank.org), the International Monetary Fund (www.imf.org), the African Development Bank (www.afdb.org), and the Asian Development Bank (www.adb.org). There is a lot of guidance for businesses on how to work with these international organizations, in particular with the UN, on the different websites. There are also links to many UN–business partnerships throughout this book. (The WBCSD website has a list of information on different development actors at www.wbcd.org/web/devguide.htm.)

NGOs. It is estimated that NGOs represent over US\$1 trillion in assets and employ over 19 million people, making them the world's eighth largest economy. These several million organizations around the world vary considerably in terms of size, issue, funding, scope, and affiliate but also by professionalism and how willing they are to work with business (as opposed to against it). Increasingly, some large NGOs have business divisions working in partnership with the business sector. NGOs receive funding from governments, grants, business, and private donations. International NGOs shape and drive the CR and sustainability agendas. Their role is likely to grow in importance, and many of them are now working with business. As NGOs build major brands and move into the mainstream, they face

growing calls for greater transparency and many, such as CERES and IISD, are now reporting using GRI guidelines. Some examples of major NGOs also working with business include the WWF (www.wwf.org), Greenpeace (www.greenpeace.org), the World Conservation Union (also known as IUCN, www.iucn.org), and Conservation International (www.conservation.org). An interesting document on the subject is 'The Twenty-first Century NGO: In the market for change' (www.sustainability.com/). For lists of NGOs by country, visit www.csrwire.com/directory, www.developmentgateway.org.

Think-tanks. These organizations focus on research. Some examples include the World Resource Institute (www.wri.org), the Aspen Institute (www.aspeninstitute.org), and the International Institute for Sustainable Development (www.iisd.org). Many other organizations are also involved in think-tank-related activities, including a number of consulting firms – for example, SustainAbility (www.sustainability.com) and the Rocky Mountain Institute (www.rmi.org). Also look at the Earth Institute (www.earth.columbia.edu).

What: Sustainability issues

The following pages introduce a range of sustainability issues. This is by no means a complete list of the issues involved. Many other issues are introduced in the chapters throughout this book.

Agriculture and fish. Keeping pace with population growth and alleviating poverty over the next decades will require greater food production with less environmental impact. Problems include soil erosion, reduced rates of yield gains, less fertile land, contamination of water, desertification, pesticides, etc. Agriculture uses over 70% of water resources. There are many international organizations working on sustainable agriculture, including the Food

and Agriculture Organization (www.fao.org) and the European Conservation Agriculture Federation (www.ecaf.org). The Codex Alimentarius has information about food standards (www.codexalimentarius.net). The Sustainable Agriculture Initiative aims to foster more sustainable practices among farmers (www.saipatform.org). Organic farming follows certain techniques, including no synthetic chemical use, recycling of organic substances, crop rotation, and biological control of pests and diseases. There are increasingly labels to educate consumers about the farming techniques used in different products, including organic farming (www.fao.org/organic). The Soil Association is one of many organizations working on certifying organic food and farming (www.soilassociation.org). The Marine Stewardship Council (MSC), based on the Food and Agriculture Organization's Code of Conduct for Responsible Fisheries, seeks to harness consumer purchasing power to generate change and promote environmentally responsible stewardship of the world's fisheries (www.msc.org).

Biodiversity. Biodiversity, according to the Convention on Biodiversity, refers to 'the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part. This includes diversity within species, between species and of ecosystems.' This also includes goods such as clean air, fresh water, food, medicines, and shelter and also provides services and functions such as pollination, air, water and land purification, climate regulation, drought and flood control, habitats, etc. Threats to biodiversity include loss of forests, wetlands, mangroves, and invasive species to name but a few. There are many international conventions on biodiversity which are relevant and affect business, including the Convention on Wetlands (www.ramsar.org), Convention for the Protection of the Natural Heritage (www.unesco.org), Convention to Regulate International Trade in Endangered Species of Wild Flora and Fauna (www.cites.org), and UN Convention on Biological Diversity (www.biodiv.org).

Biodiversity hotspots is a program by Conservation International which focuses on the richest and most threatened reserves of plant and animal life on earth (www.biodiversityhotspots.org). The IFC produced a Guide to Biodiversity for the Private Sector, available at ifc.org. The WRI has also produced a Business and Ecosystems Issue Brief, which explores six challenges relating to ecosystems and their implications for business (www.wri.org).

Climate change. Of all the issues that affect our environment and society today, climate change is the one that has benefited from unprecedented interest and an increasing business response. The United Nations Convention on Climate Change entered into force on March 21, 1994. It is important as it instigated discussions on what could be done to reduce global warming. Above national measures, the treaty offers different market-based mechanisms to achieve these targets. One of the largest outcomes of the Kyoto Treaty is the development of carbon markets. The carbon emissions unit provides an economic tool to measure the climate change control activities of governments, institutions, and individuals. Carbon emissions trading makes up the largest emissions trading mechanism in the world. The business sector is responding to the climate change challenge by actively trying to understand the impacts environmental issues have across business, and implementing strategies to address them. In addition to these internal efforts, businesses have also stepped up to advocate and drive governmental policy development. Businesses contribute to the solution in many ways. They create new business models, innovative technologies, and implement different ways of operating. Business managers can take a proactive approach to addressing climate change by understanding the potential impacts on business operations and by looking for opportunities to cut emissions across the supply chain. There are many resources now on climate change and business. A few examples include the Pew Centre on Global Climate Change, which has a series of Climate Change 101 reports outlining what climate

change is and what is being done about it (www.pewclimate.org). Greenhouse Gas Protocol is the most widely used international accounting tool for government and business to understand, quantify, and manage greenhouse gas emissions (www.ghgprotocol.org). Also look at the UN Framework Convention on Climate Change and the Kyoto Protocol (www.unfccc.int), and the Intergovernmental Panel on Climate Change (www.ipcc.ch). A key resource is the Carbon Disclosure Project (www.cdproject.net).

Cultural heritage. Cultural heritage refers to tangible forms such as property and sites, however, it also includes intangible forms of culture such as cultural knowledge, innovation, and community practices. Companies should protect cultural and natural heritage from the adverse impacts of project activities and support its preservation. This applies to cultural heritage regardless of whether or not it has been legally protected or previously disturbed. See the Convention Concerning the Protection of the World Cultural and Natural Heritage 1972 and UNESCO World Heritage (whc.unesco.org.)

Energy. Energy use is rising worldwide. Fossil fuels dominate the world's energy supply, yet the resulting greenhouse gas emissions are causing climate change. Currently, about 2 billion people live off the electrical generation grid – representing huge markets for other energy systems such as wind, solar, natural gas, etc. The impacts of energy production and consumption are introducing risks to industries. In response to this, proactive businesses are conducting inventories of their operations to reduce energy intensity, use, and emissions. International organizations such as the World Energy Council (www.worldenergy.org) and the International Energy Agency (www.iea.org) have resources and programs in this area. Some international initiatives include WBCSD's Electricity Utilities Sector Project (www.wbcsd.org), Global Network on Energy for Sustainable Development (www.gnesd.org), and International Renewable Energy Alliance

(www.ren-alliance.org). For coal, see the World Coal Institute (www.worldcoal.org). Also, the International Petroleum Industry Environmental Conservation Association (www.ipieca.org); the Global Gas Flaring Reduction Initiative (www.worldbank.org/ggfr).

Forest. Forests cover 30% of the world's land area and support a wide variety of critical natural processes, including carbon absorption, biodiversity, and air filtering, in addition to providing us with raw materials for various goods and services. Issues include the sustainable sourcing of products, the sustainable management of forests, and social aspects relating to local communities and indigenous peoples whose lives are intertwined with the forest. In terms of ratings and certification schemes, the Forest Stewardship Council (FSC) is an international label that allows customers worldwide to recognize products that promote the responsible management of the world's forests (www.fsc.org). The WWF–World Bank Global Forest Alliance has published a tool for assessing the comprehensiveness of forest certification systems (www.worldwildlife.org). See also the Environmental Paper Assessment Tool (epat.org) and the WWF Paper Scorecard and Tissue Scoring (panda.org). There are also many international initiatives in this area, including the FAO Sustainable Forests (fao.org) and the UN Forum on Forests (un.org/esa/forests). The WBCSD has information on the Forest Products Industry Sector (wbcsd.org), while UNEP has resources on cleaner production in pulp and paper mills (www.unep.org). The World Resource Institute has information on the Sustainable Procurement of Wood and Paper-Based Products (sustainableforestprods.org; credibleforestcertification.org).

The FSC criteria:

- Prohibit conversion of forests or any other natural habitat.
- Respect of international workers' rights.
- Prohibition of use of hazardous chemicals.
- Respect of human rights with particular attention to indigenous peoples.

- No corruption – follow all applicable laws.
- Identification and appropriate management of areas that need special protection (e.g., cultural or sacred sites, habitat of endangered animals or plants).

Mining. The mining industry has come under pressure to improve its social and environmental performance, and transparency. Issues include the process of extraction, impact on the environment and communities, as well as labor issues. The ICMM is a CEO-led organization representing many of the world's leading mining and metals companies, committed to the responsible production of the minerals and metals society needs (www.icmm.org). The Extractive Industries Transparency Initiative aims to strengthen governance by improving transparency and accountability in the extractives sector (www.eitransparency.org). There are also certain certification systems coming into effect, such as the Kimberley Process, which impose extensive requirements to enable suppliers to certify shipments of rough diamonds as 'conflict free' (www.kimberleyprocess.com). Good Practice is a joint initiative between several international organizations which provides access to a library of good practice guidelines, standards, and case studies (www.goodpracticemining.com).

Textiles. The types of materials used to make textiles and fabric, how they're sourced, as well as how and where they're made all have an impact on many parts of society. Organizations such as the Ethical Trading Initiative (www.ethicaltrade.org), the Clean Clothes Campaign (www.cleanclothes.org), and the Business Social Compliance Initiative (www.bsci-eu.com) are dedicated to proper working conditions in factories and suppliers. There is also increasing interest in the kinds of materials used, as well as how they are grown, harvested, and processed. Cotton, for example, although it seems like the most natural of materials, uses large amounts of chemical fertilizers and water. The processes used to turn these raw materials into products also then need greening, for example textile

wet processing and leather tanning (www.uneptie.org). Work is also being done to explore natural dyes made from plants (www.pioneerthinking.com/naturaldyes.html).

Tourism. The tourism sector has over 300 different sustainable tourism standards. In an attempt to provide a unified standard, over 30 organizations from the industry came together in 2008 to create the Partnership for Global Sustainability Tourism Criteria which works to foster increased understanding of sustainable tourism practices and the adoption of universal sustainable tourism principles (sustainabletourismcriteria.org). There are several international initiatives, such as UNEP's Sustainable Tourism Programme (www.uneptie.fr), the World Tourism Organization (www.unwto.org), and the World Travel and Tourism Council (www.wttc.org). For more information see the links section at the Centre for Sustainable Destinations (www.nationalgeographic.com/travel/sustainable). The Tour Operators Initiative works to develop, operate, and market tourism in a sustainable manner (www.toinitiative.org). Destinations are also going sustainable; for example, Costa Rica is building a reputation of being an eco-destination.

Where: Sustainability around the world

Sustainability is happening all over the world, but the ways in which it is being approached and the kinds of issues that are important are vastly different. It is also an area that is changing, fast. For this reason, this section aims to give you links to a few organizations in different countries where you can start your research if you are interested in finding out what is happening in your country, or another country. Many of the organizations and NGOs presented in this book also have offices in countries around the world with more information (e.g., WWF, IUCN, Ashoka, and different consulting firms). Here are some links just to get you started.

Africa

African Institute of Corporate Citizenship (www.aiccafrica.com), Green Business Africa (www.greenbusinessafrica.com), NEPAD Business Foundation (www.nepadbusinessfoundation.org). **Algeria:** Association pour la Promotion de l'Effacité et la Qualité des Entreprises (www.apeque.org). **Ethiopia:** Cleaner Production Centre (www.ecpc.org.et). **Kenya:** National Cleaner Production Centre (www.cpkkenya.org). **Morocco:** Cleaner Production Centre (www.cmpp.ma). **Mozambique:** Forum Empresarial para o Meio Ambiente (www.undp.org.mz). **Namibia:** Global Compact Network Namibia (www.globalcompactnamibia.org). **South Africa:** National Business Initiative (www.nbi.org.za), National Cleaner Production Centre (www.ncpc.co.za). **Tunisia:** Cleaner Production Centre (www.citet.nat.tn). **Uganda:** Cleaner Production Centre (www.ucpc.co.ug). **Zimbabwe:** Business Council for Sustainable Development Zimbabwe (www.bcsdz.co.zw), SIRDC Cleaner Production Center (www.sirdc.ac.zw).

Asia

Asia is Green (www.asiaisgreen.com). **China:** The Business Environment Council Hong Kong (www.bed.org.hk), China Business Council for Sustainable Development (www.cbcsd.org.cn), Ministry of Environmental Protection (www.zhb.gov.cn), Clean Development Mechanisms in China (cdm.ccchina.gov.cn), Cleaner Production Centre (www.cncpn.org.cn), China CSR (www.chinacsr.com), Responsible Supply Chain Association (www.csc9000.org.cn). **India:** www.terieurpe.org/docs/csr_state.pdf, Confederation of Indian Industry (www.sustainabledevelopment.in), TERI-BCSD (www.bcsd.ter.res.in), Cleaner Production Centre (www.npcindia.org). **Japan:** Japan Business Federation (www.keidanren.or.jp). **Kazakhstan:** Kazakhstan Business Council for Sustainable Development (www.kap.kz). **Korea:** Business Council for Sustainable Development Korea (www.kbcsd.or.kr), National Cleaner Production Center

(www.kitech.re.kr). **Malaysia:** Business Council for Sustainable Development (www.bcsdm.com.my). **Mongolia:** Business Council for Sustainable Development (www.mongolchamber.mn). **Pakistan:** Pakistan Council of Renewable Energy Technologies (www.pcret.gov.pk/). **Philippines:** Philippine Business for the Environment (www.pbe.org.ph). **Taiwan:** Business Council for Sustainable Development Taiwan (www.bcsd.org.tw). **Thailand:** Business Council for Sustainable Development Thailand (www.tei.or.th/tbcsd). **Turkey:** Business Council for Sustainable Development Turkey (www.tbcsd.org). **Uzbekistan:** National Cleaner Production Centre (www.ncpc.uz). **Vietnam:** National Cleaner Production Center (www.vncpc.org).

Europe

European Commission (www.europa.eu), European Environment Agency (www.eea.europa.eu), CSR Europe (www.csreurope.org). **Austria:** Centre for Corporate Citizenship (www.ccc-austria.at), respectACT Austrian Business Council for Sustainable Development (www.respect.at). **Croatia:** Business Council for Sustainable Development Croatia (www.hrpsor.hr). **Czech Republic:** Cleaner Production Centre (www.cenia.cz). **Denmark:** Danish Council for Sustainable Business (www.rbenet.dk), Danish Institute for Human Rights (www.humanrightsbusiness.org). **France:** Entreprises pour L'Environnement (EpE) (www.epe-asso.org). **Germany:** Econsense is the Forum for Sustainable Development of German Business. Econsense provides information on the sustainable business practices of 23 German businesses (www.econsense.de). **Hungary:** Business Council for Sustainable Development Hungary (www.bcsdh.hu), National Cleaner Production Centre (hcpc.uni-corvinus.hu). **Norway:** Confederation of Norwegian Enterprise (www.nho.no/csr), Global Compact Network Nordic Countries (www.gcnordic.net). **Poland:** BI-NGO (www.bi-ngo.pl), Ecolabel EKO (www.pcbc.gov.pl), eFTE (www.efte.org), www.fob.org.pl. **Portugal:** Business Council for Sustainable Development Portugal (www.bcsdportugal.org). **Romania:** Centre for Sustainable

Development (www.turismdurabil.ro). **Russia:** Vernadsky Foundation (www.vernadsky.ru), National Environmental Management and Cleaner Production Center (www.ncpc.gubkin.ru; www.nwicpc.ru). **Serbia:** Cleaner Production Centre (www.cpc-serbia.org/csr.html). **Slovak Republic:** Cleaner Production Centre (www.spc.sk). **Spain:** Fundacion Entorno (www.fundacionentorno.org), Fundacio Forum Ambiental (www.forumambiental.org). **Sweden:** Stockholm Environment Institute (www.sei.se). **UK:** Business Council for Sustainable Development UK (www.bcsd-uk.co.uk).

Middle East

Egypt: Association of Enterprises for Environmental Conservation (www.aeec.com.eg). **Israel:** Maala-Business for Social Responsibility, founded in 1998, is a non-profit membership organization for business (www.maala.com.il). **Lebanon:** Cleaner Production Centre (www.lebanese-cpc.net). **United Arab Emirates:** Emirates Environmental Group (www.eeg-uae.org).

North America

United States: US Government and Sustainable Development (www.usda.gov/sustainable), US Business Council for Sustainable Development (www.usbcd.org), Newsweek Green Rankings (www.newsweek.com/green). **Canada:** Environment Canada Economics and Sustainability (www.ec.gc.ca), Network for Business Sustainability (www.nbs.net), Business Council for Sustainability (www.conferenceboard.ca).

South America

Argentina: www.ceads.org.ar. **Bolivia:** www.cedesbolivia.org. **Brazil:** CIVES (www.cives.org.br), FBDS (www.fbds.org.br), Akatu Institute (www.akatu.net). CEBDS is the Brazilian Business Council

for Sustainable Development (www.cebds.org.br). Ethos is an NGO which works with companies to manage their operations in a socially responsible manner (www.ethos.org.br). Brazilian Institute of Corporate Governance (www.ibgc.org.br). **Chile:** Accion RSE (www.accionrse.cl). **Costa Rica:** AED (www.aedcr.com). **Columbia:** www.cecodes.org.co. **Cuba:** Cleaner Production Centre (www.redpml.cu). **Dominican Republic:** medioambienterd.org/category/industria/. **Ecuador:** www.cemdes.org. **El Salvador:** www.cedes.org.sv, Centro Nacional de Produccion mas Limpia (www.cnpml.org.sv). **Guatemala:** www.centrase.org, National Cleaner Production Centre (www.cgpl.org.gt). **Honduras:** www.cehdes.org. **Nicaragua:** www.unirse.org, Centro de Produccion Mas Limpia (www.cpminic.org.ni). **Mexico:** New Ventures Mexico (www.nvm.org.mx), Mexican Cleaner Production Center/IPN (www.cmpl.com.mx), Ecobanca (www.ecobanca.org). CONIECO (www.conieco.com.mx) is a league of environmentally concerned businesses. Certification: www.cemefi.org – the main CRS certifying entity; www.pactomundialmexico.org.mx – the Global Compact in Mexico (www.bioagricoop.tripod.com.mx www.ceres-cert.com). **Panama:** IntegraRSE (www.integrarse.org.pa). **Paraguay:** Red de Empresa para el Desarrollo Sostenible (www.redes.org.py). **Peru:** Peru2021 (www.peru2021.org). **Uruguay:** DERES (www.deres.org.uy). **Venezuela:** CEVEDES Business Council for Sustainable Development small island development network (www.sidsnet.org).

Oceania

Australia: Business Council of Australia (www.bca.com.au), Department of the Environment, Water, Heritage and the Arts (www.environment.gov.au). **New Zealand:** New Zealand Business Council for Sustainable Development (www.nzcsd.org.nz), Sustainable Business Network (www.sustainable.org.nz), Zero Waste New Zealand Trust (www.zerowaste.co.nz), Ministry for the Environment (www.mfe.govt.nz).

Want more? state of the world reports

Around the same time that companies are busy putting together their annual reports, the different NGOs and international organizations around the world are producing their annual state of the world reports. There are a growing number of these covering every possible topic imaginable. Here is a selection of popular examples:

- The *Living Planet Index* published by the WWF is a periodic update on the state of the world's ecosystems (www.panda.org).
- Worldwatch Institute's *State of the World Report* provides yearly information on issues that are important (www.worldwatch.org).
- The UN produces a wide range of yearly reports covering every topic imaginable in this area. The *UN Commission on Sustainable Development* releases a report every few years with the latest trends in sustainable development (sustainabledevelopment.un.org). UNEP Global Outlook (www.unep.org/geo) and UNDP Human Development Report (hdr.undp.org) both provide data on the state of the world. Other specialized agencies provide annual reports on a range of topics, including the state of the world's children (www.unicef.org), agriculture (www.fao.org), forests and desertification, to name but a few.
- The *World Resource Institute* produced Tomorrow's Markets: Global trends and their implication for business, which provides interesting background on the issues (www.wri.org), and Earth Trends (www.earthtrends.wri.org) as well as Environmental Stories to Watch, released every year.
- The *Encyclopedia of Earth* is an online reference about the Earth, its natural environments, and their interaction with society (www.eoearth.org).

How: Keeping up to date

Getting up-to-date information from the web

There are many different online news networks on sustainability issues. Each has its own flavor, so take a look at all of

them and find your favorite. All these have RSS, regular e-mail newsletters, and cover business and non-business issues. The boom of social networking sites online has also included many networks dedicated to social and environmental issues. Some – such as Facebook, MySpace, LinkedIn, Responsible World Citizen and Ning – allow you to connect with other people with the same interests as you or in some cases, create your own social network.

- **Grist** ‘believe that news about green issues and sustainability living doesn’t have to be predictable, demoralizing or dull.’ They serve up the latest green news and trends as they say, with extra butter and salt (www.grist.org).
- **Treehugger** is dedicated to driving sustainability mainstream with green news, solutions, and product information (www.treehugger.com).
- **WorldChanging** is a solutions-based online magazine that brings together the tools, models, and ideas for building a better future (www.worldchanging.com).
- **CSRWire** is a newswire for corporate social responsibility (www.csrwire.com).
- **Green Biz** is an online news and information resource on how to align environmental responsibility with business success (www.greenbiz.com).
- **PlanetArk** provides environmental world news courtesy of the Reuters news agency (www.planetark.com).
- **The Dictionary of Sustainable Management** is an open dictionary for business leaders and students of sustainability and business-related terms (www.sustainabilitydictionary.com).
- **Wikia Green** is a resource being built online with information on everything green (green.wikia.com).
- **Springwise and Trendwatching** are networks of spotters around the world looking for smart new business ideas (www.springwise.com, www.trendwatching.com).

- **Just means** is a distributor of CSR-related news (www.justmeans.com).
- **Google's green trends** allows you to compare the world's interest in your favorite topics. Enter up to five topics and see how often they've been searched on Google over time (www.google.com/trends).
- **Ecorazzi** provides the latest in green celebrity gossip (www.ecorazzi.com).

For up-to-date statistics and data

- **GlobeScan** has several global annual surveys, including the Corporate Social Responsibility Monitor, Survey of Sustainability Experts, and Climate Change Monitor (www.globescan.com/csr_overview.htm).
- **The Cambridge Sustainability Research Digest** is a monthly briefing on a selection of the latest global research on leadership for sustainability (www.cpi.cam.ac.uk).
- **Worldometers** provides world statistics updated in real time (www.worldometers.info).
- **The Little Green Data Book** has a succinct collection of information from the World Development Indicators report. Past yearly editions are available free online (www.worldbank.org).
- **International Futures** is a computer simulation of global systems for classroom and research purposes that can be used to understand demographics, economics, food, energy, the environment, and international politics (www.ifsmode.org).
- **GapMinder** is a non-profit venture promoting sustainable global development through the increased use and understanding of statistics (www.gapminder.org).
- **Show World** is a website where maps change their size. Instead of land mass, the size of each country will represent the data that you choose – social, environmental, etc. (show.mappingworlds.com).

Reading list

Below is a list of books to read to get a better understanding of the general issues and to be inspired. There are also reading lists at the end of every chapter in the book.

- *Silent Spring* by Rachel Carson (1962) looks at the detrimental effects of pesticides on the environment. The book is often credited with helping launch the environmental movement.
- *The Ecology of Commerce* by Paul Hawken (1994) outlines the environmentally destructive aspects of many current business practices, but offers a vision of business adopting new practices to promote environmental restoration.
- *Guns, Germs and Steel: The Fates of Human Societies* by Diamond Jared (1997) argues that geographical and environmental factors shaped the modern world.
- *Cannibals with Forks* introduced the concept of the triple bottom line (1998) and *The Chrysalis Economic: How Citizen CEOs and Corporations can Fuse Values and Value Creation* (2001), both by John Elkington.
- *Natural Capitalism* by Paul Hawken and Amory & Hunter Lovins (2000) explores the lucrative opportunities for business in an era of approaching environmental limits (available to download free of charge at www.natcap.org).
- *The Sustainability Advantage* (2002) and *The Next Sustainability Wave* (2005) by Bob Willard explore the business case for sustainability.
- *The Skeptical Environmentalist* by Bjorn Lomborg (2001) challenges widely held beliefs that the global environment is progressively getting worse using statistical information from internationally recognized research institutes.
- *The World Without Us* by Alan Weisman (2007) looks at how our planet would respond without the relentless pressures of human presence.

You decide

- Some US hotels are reinventing the mini bar, well at least in certain luxury hotels. One green mini bar features coconut water, fermented tea, organic chocolate, and water buffalo milk yoghurt. Another offers pure Tasmanian rain water, allegedly the purest in the world, coming all the way from Australia.
- Luxury items cost more to purchase, but are made from the highest-quality materials, often by hand. They are kept for generations and generations and do not get thrown out.
- A company has an advertising campaign about how they reduced their CO₂ emissions by 10% this year. What they don't mention is that this was required by law.
- An electric can opener is labeled as being made of recycled material, recyclable, and energy-efficient. But can something that many consider to be fundamentally unnecessary (what is wrong with a hand-held model?) really be called sustainable?
- A company says their product is carbon-neutral, but this is because the company paid money to a charity rather than doing any work to reduce their carbon. Can they really say they are carbon-neutral, and use that as the basis of their advertising campaign?
- How do you choose between society and the environment? A company may be actively advertising that their product is fair trade and against animal testing, but is it good for your health? For the environment? Is it full of chemicals?

Endnotes

1. www.greenbiz.com/podcast/2008/04/14/business-engine-creating-environmental-stewards.
2. On GE's website (www.ge.com/files/usa/company/news/global_environmental_challenges.pdf), in a speech to the George Washington School of Business in 2005.
3. Jose Gergio Gabrielli de Azevedo, 'The Greening of Petrobras,' *Harvard Business Review*, March 2009, pp. 43–47.
4. Grow, B., Hamm, S., and Lee, L. (2005) 'The Debate Over Doing Good,' *Business Week*, August 15, 2005, p. 76.
5. Bob Willard, *The Next Sustainability Wave*, Greenleaf Publishing, p. 21.
6. Michael E. Porter and Mark R. Kramer, 'Strategy and Society: The Link between Competitive Advantage and Corporate Social Responsibility,' *Harvard Business Review*, December 2006.
7. www.accountancyage.com/accountancyage/features/2193566/accountinf-sustainability.
8. www.cdproject.net/cdp5-new-york-launch-bill-clinton-video.asp.
9. 'Industry as a partner for sustainable development,' Accounting, Association of Chartered Certified Accountants (ACCA) and the United Nations Environment Program, 2002, available online free of charge, quote taken from p. 7.
10. 'An Introduction to Environmental Accounting as a Business Management Tool: Key Concepts and Terms,' US EPA.
11. Molly Finn, Gary M. Rahl, and William Rowe Jr. (Booz Allen Hamilton), 'Unrecognized Assets,' *strategy5business* (www.strategy-business.com/press/enearticle/ene113006), p. 15.
12. 'Payments for Ecosystem Services: Market Profiles,' ecosystemmarketplace.com.
13. 'A rising tide,' *The Economist*, September 20, 2008, quote from Dan Flavey.
14. Herman Daly, 'On a road to disaster,' *New Scientist*, October 18, 2008, p. 47.
15. Adapted from Accenture's Multi Polar World (www.accenture.com).
16. Adapted from 'Redefining the Future of Growth: The New Sustainability Champions,' World Economic Forum 2011.

17. 'A special report on globalization,' *The Economist*, September 20, 2008.
18. Jason Scorse, 'What Environmentalists Need to Know About Economics,' pp. 33ff.
19. www.wbcds.org/plugins/DocSearch/details.asp?typeDocDet&Object IdMzI5MDM.
20. 'How Much is an Ecosystem Worth? Assessing the Economic Value of Conservation,' World Bank, IUCN and The Nature Conservancy, International Bank for Reconstruction and Development/World Bank, 2004.
21. Marlies Wierenga, 'A Brief Introduction to Environmental Economics,' ELAW, August 2003, p. 2.
22. List adapted from <http://corporateecoforum.com/valuingnaturalcapital/offline/download.pdf>.
23. *EntreNews*, EFMD's Entrepreneurship Innovation and Small Business Network Special Issue 1/2006, www.efmd.org/attachments/tmpl_1_art_050222usmw_att_060627bxsd.pdf.
24. www.unssc.org Human Rights and Business Learning Tool.
25. Saul W. Gellerman, published in 'Why "Good" Managers Make Bad Ethical Choices,' *Harvard Business Review*, July–August 1986.
26. www.ethics.org/resources/decision-making-process.asp.
27. 'Business Against Corruption: A framework for action,' Transparency International, the Global Compact, and IBLF.
28. www.unglobalcompact.org/docs/news_events/8.1/clean_business_is_good_business.pdf.
29. Joseph L. Badaracco Jr and Allen P. Webb, 'Business Ethics, A view from the trenches,' *California Management Review*, Vol. 37, No. 2, Winter 1995, p. 2.
30. 'Banking on Sustainability,' March 2007, International Finance Corporation, <http://www1.ifc.org>.
31. www.ft.com/cms/s/0/0dbb3a24-e406-11dd-8274-0000779fd2ac.html?nclick_check=1.
32. 'The Prudent Investor,' from Generation IM Foundation, p. 6.
33. www.cfapubs.org/doi/pdf/10.2469/ccb.v2008.n2.1.
34. 'Scientists of the Subprime: Can biologists avert another banking crisis?' by Ehsan Masood, for guardian.co.uk, February 17, 2011.
35. <http://www.ft.com/intl/cms/s/0/293fc3c4-1196-11de-87b1-0000779fd2ac.html#axzz2Mb0fm2DQ>.
36. Anthony Kleantous and Jules Peck, 'Let Them Eat Cake,' WWF 2004. www.wwf.org.uk/filelibrary/pdf/let_them_eat_cake_abridged.pdf.
37. www.greenmarketing.com/index.php/articles/complete/power-of-green/. Quote by Jacquelyn Ottman.
38. biggreenpurse.com.

39. Ken Peattie, 'Rethinking Marketing: Shifting to a greener paradigm' in *Greener Marketing* by Martin Charter, Greenleaf Publishing, p. 62.
40. www.nytimes.com/2009/01/31/science/earth/31compete.html?_r51.
41. Envirowise, 'Cleaner Product Design: An introduction to cleaner design,' p. 6. Other three stats from Envirowise, 'GG296 Cleaner Product Design: A practical approach,' both first published in September 2001, p. 8.
42. Based on the '12 Principles of Green Chemistry' from Paul T. Anastas and John C. Warner, *Green Chemistry: Theory and Practice*. New York: Oxford University Press, 1998 and www.epa.gov/gcc/pubs/principles.html [accessed October 20, 2008].
43. Ed Douglas, 'There's gold in them there landfills,' *New Scientist*, October 1, 2008. www.newscientist.com/article/mg20026761.500-theres-gold-in-them-there-landfills.html.
44. www.unep.fr/shared/publications/pdf/DTIx0585xPA-WhyLife-cycleEN.pdf.
45. Beth Holmes, 'Good to be green,' *HourGlass*, HR Issue 11, September 2008, PwC, p. 27.
46. *Seven Languages for Transformation: How the way we talk can change the way we work* by Robert Kegan and Lisa Laskow Lahey, 2001.
47. Duncan Angwin, Stephen Cummings, and Chris Smith, *The Strategy Pathfinders*, Blackwell Publishing, 2007, p. 7.
48. 'Development Collaborations: None of Our Business? Non-Governmental Organization Transformation and the Evolution of Cross Sectoral Partnerships in the 21st century' by Gib Bulloch, Accenture, 2008.
49. [www.uneptie.org/outreach/home/SE_%20Handbook\(sm\).pdf](http://www.uneptie.org/outreach/home/SE_%20Handbook(sm).pdf) P1: Mapping your stakeholders, p. 22, volume 2.
50. *The Future of Corporate Responsibility Codes, Standards and Frameworks*, by Ernst Ligteringen and Simon Zadek; definition taken from p. 1.
51. Business for Social Responsibility. Green Building Design Issue Brief, www.bsr.org.
52. ert.rmi.org/files/documents/CGU.RMI.pdf.

Index

- 3M Corporation 132
 - 3P program 305–6
- 5th Pillar 177
- 7th Generation 225

- AA 1000 374
- AA1000AS 73, 74
- abatement technologies 265–6
- ABSA Group 72
- Accenture 181, 229, 310, 312, 350
 - Development Partnership 310
 - Multipolar Business World 103
- Access to Medicine Index 200
- ACCION International 213
- AccountAbility 62, 64, 373, 374
- Accountants Changing the World 80
- accounting 52, 55–84
 - importance of 56–7
 - traditional 75
- Accounting for Sustainability 77, 80, 83, 84
- accuracy of information 82
- Action Plan 369
- Activity Based Costing 59, 61
- Acumen Fund 128, 137
- Adecco 314
- Adventera Games 134
- advertising 143–4, 248, 250–4
- Age Concern 243–4
- Agenda 21 19
- AICPA 80
- AIM-PROGRESS 270
- air transport 273–4
- Alaskan halibut fishing industry 95
- Alcoa 312
- Allegrini 231
- Alliance for Environmental Innovation 354

- altruism 127
- Amanco 142
- Amazon 234
- American Express 242–3
- angel investors 137
- Anglo American 63–4, 68
- anti-corruption 21
- Apple 388
 - iPod 243
- aquifers 10
- Ark Collective 244
- As You Sow 196
- Ashoka 123, 128
- Ashoka Changemakers 105
- Asian Sustainability Rating 200
- Asnacs 277
- Aspen Institute 207
- Aspen Ski Company 343–4
- assessment tools 364–8
- assets
 - vs costs 75–6
 - unrecognized 78
- Association of Chartered Certified Accountants (ACCA) 56, 80, 340
- Full Cost Accounting: An Agenda for Action 61
- Sustainability Reporting Awards 84
- Associations for the Preservation of Peasant Farming (AMAP) 150
- assurance 58, 72–4, 83
- audits 351, 368–70
- awards, company sustainability 39–40
- awareness 75, 378

- B&Q 314
- Baacode 282
- Babson Center for Entrepreneurship 124

- balance-sheet risks 333
 balanced scorecard 101, 312–13
 Bali, Indonesia, rice farming 91
 Banco Palmas 105
 banking 209–11, 213
 Banking on Social Change 105
 BankTrack 203
 barcodes 249
 Bard College Endowment 197
 Base of the Pyramid (BOP) 118, 121
 baseline for sustainability 44
 BASF 168, 262
 Verbund 277
 BBC 3
 bees 3
 Ben and Jerry's 143, 144
 Values-Led Sourcing 335
 Benefit Corporations 194
 Benefit Transfer Method 115
 benefits, indirect 35
 benefits of sustainability 24, 28, 29
 Best Buy 232
 best practices 44, 83–4
 Better Cotton Initiative 342
 Beyond GDP 98
 BHP Billiton 79
 bicycles 391
 Big Wild project, The 243
 Bill and Melinda Gates Foundation 136
 Billion Dollar Green Challenge 397
 biodiversity 301
 biomimicry 281, 313–14
 bio-piracy 91
 bioplastics 284
 Bishop, Steve 223
 Blue Angel 236, 291
 Blumenthal, Heston 256
 BMV Sustainability Index, Mexico 102
 board of directors 171
 independence 166
 responsibilities of 166
 Body Shop 143, 269
 Against Animal testing campaign 240
 bonus eligibility 308
 boundaries of responsibility 346
 BP 336
 brand 185
 brand testing 336
 Brazil Nuevo Mercado 199
 Brazil: Social Stock Exchange 141
 Bremen 272
 bribery 21, 156, 157, 169–70
 Bribr 177
 Broad Group 101
 Brundtland, Gro Harlem 14
 Brundtland Report (*Our Common Future*) 14
 BT 344
 budget 45
 Buffett, Warren 25, 153
 buildings, green 380–2
 Bulloch, Gib 350
 Bunham, Jamie 295
 Burberry Foundation 136
 burnout 351
 Burt's Bees 336, 343
 Business Alliance for Local Living Economies 144
 Business and Development Network 145
 business case for sustainability 44
 business environment 326–7
Business Ethics magazine 39
 Business for Social Responsibility 339
 Business in Society Gateway 179
 Business in the Community 217
 business opportunities 57
 business partner engagement 45
 business plan competitions 137
 business system alignment 47
 Buy Back program 232
 boycotts 249
 buyers 329
 byproduct synergies 277
 CALPERS (California Public Employees Retirement System) 206
 Calvert Investment Management 195, 196–7
 Calvert Social Index 197
 Canadian Business for Social responsibility 295
 Canadian Parks and Wilderness Society 243
 Canon 269

- cap-and-trade 95
- capacity building 311
- Capgemini 206
- capital cost risks 333
- capital investment 27
- car travel 391–2
- carbon credits 403
- carbon disclosure 269
- Carbon Disclosure Project 56, 77–8, 190
 - Leadership Index 200
- carbon footprint 65
- CARE 356
- Carlton United Brewery 277
- Carrotmob 249
- cars and trucks 271–2
 - see also under manufacturers*
- Casa Quick 231
- cash flow 186
- cause-related marketing 220, 242–4
- CEMEX 27, 100, 129
- Center for the Advancement of the Steady State Economy 106
- Center of Bhutan Studies 98
- Centre for Environmental Law 110
- Centre for International Sustainable Development Law 110
- Centre for Media and Democracy 173
- Centre for Social and Environmental Accounting Research 80
- Ceres 84, 197, 211–12
- certification systems 43, 96
- CGAP 212, 215
- change
 - influencing 343
 - managing 319–21
- charges 57, 94
 - see also costs*
- charities 214, 242
 - contributions to 169
- Chartered Financial Analyst Institute (CFA) 185, 211
- Chartered Institute of Management Accountants 80, 208
- Chief Executive Officer (CEO) 29, 318
 - commitment 45
 - culture of 299
 - ethics and 180–1
 - Chief Finance Officer (CFO) 208, 211
 - Chief Sustainability Officer (CSO) 317–18
 - Child and Family Wellness 141
 - child labor 160, 258, 375
 - Churchill, Sir Winston 412
 - Cisco 349
 - Citi 267
 - Citigroup 120, 214
 - citizens 407–8
 - clarity of information 82
 - Clean Sky initiative 273
 - clean technology (cleantech) 134, 266
 - cleaner production 264–5
 - Clif Bar 134
 - climate change 57, 108, 209, 332
 - Climate Principles 212
 - Climate Wise 209
 - Clinton, Bill 56
 - Clinton Global Initiative 338
 - Clorox 72, 249, 254, 336
 - Green Works 328
 - co-creation 284–5
 - coalitions 339–42
 - Coase Theorem 93
 - Coca Cola 140, 293, 347
 - codes of conduct 300
 - CoFoundersLab 128
 - Colgate 197
 - collective bargaining 160
 - Collecchio Declaration 211
 - commons 90–2
 - communication 4, 300–1, 315
 - external 47, 302–3
 - internal 47
 - on sustainability 301–2
 - virtual 248
 - community engagement 310, 311, 407–8
 - community investment 188
 - commuting to work 390–2
 - companies, sustainable
 - evaluation of 37–9
 - identification of 39–40
 - competition 328–9
 - Compliance Advisor Ombudsman (CAO) 202

- compliance, minimal 34
 complicity 158
 Conference Board, The 179
 'conflicted consumer' 223
 Conservation Finance Alliance 96
 Conservation International 230
 consumer protection 158
 Consumer Reports WebWatch 173
 consumers 75, 220–4, 405–7
 Consumers Union Guide to
 Environmental Labels 239
 consumption
 responsible 15
 sustainable 88–9
 Contingent Choice Method 115
 Contingent Valuation Method 115
 contractors 268–71
 Convention on International Trade in
 Endangered Species of Flora and
 Fauna 19
 Convention on the Law of the Sea 19
 Converse shoes 243
 Cool Farm Institute 293
 Co-op 230
 Co-operative Asset Management 187
 Co-operative Bank 210
 COOP Italia 142
 cooperatives 148–9
 core competencies 121
 corporate citizenship 18
 corporate compensation 166
 corporate governance 52, 154, 165–6
 importance of 154–5
 key concepts 155–6
 Corporate Register 72, 74, 84
 corporate social responsibility 15, 18, 295
 Corporate Sustainability Reporting
 Coalition 72
 CorpWatch Greenwash awards 252
 corruption 156, 167–8
 Corruption Perceptions Index 168
 cost accounting 58–9
 cost-benefit analysis 108, 114
 cost payback analysis 204
 cost reduction 24–5, 35, 257
 costs 49, 50, 58–61, 75, 378
 vs asset 311
 of business and society's decisions 87
 classification of 58
 contingent or liability 60
 direct 246
 financial 155
 of green products 246
 of greenhouse gas 108
 hidden and overhead 60
 of inaction 107
 indirect 228, 246
 intangible 61
 of natural disasters 107
 operating 60, 228
 social and environmental 58, 60, 61
 of sustainability 35
 of water 92
 true 58–9
 CPA Australia 80, 144
 CR Magazines 100 Best Corporate
 Citizens 39, 200
 Creative Commons 90
 Creative Gallery on Sustainability
 Communications 253
 Credit Suisse 120, 211
 Crocs 197
 cross-disciplinary collaboration 205
 crowdsourcing 138, 176–7, 284
 CSEAR 79
 cultural diversity 15
 culture 16
 culture of sustainability 298–300
 customer education 231, 245
 customer engagement 46, 260
 customer involvement 347–8
 customer needs 26
 customer satisfaction 258

 Dahlgvig, Anders 26
 Daimler 64
 Daly, Herman 85, 97
 damage cost avoided method 114
 Danone 65, 130, 140, 233
 Darwin, Charles 33
 Dashboards of Sustainability
 348–9
 data, comparability fo 76
 data centers, greening 291
 David and Lucile Packard Foundation
 136

- Davos Summit (2008) 306
decision-making 57
definition of sustainable development
14–15
deforestation 107
Dell 120, 131, 284, 388, 406
Deloitte 66
‘Greening the Dot’ initiative 396
Deloitte and Touche 80
demand 57
demography 332
Denmark 277
deposit-refund systems 94–5
‘design for’ products 258
Deutsche Bank 120, 166, 214
Development Outcome Tracking
System 68
DHL 272
differentiation, business 26
direct impact 228
direct market methods 114–15
direct use value 113
disclosure 77–8, 165
discount rates 108–9
discrimination 156, 160
DiversityInc 314
diversity 313–14
Divine Chocolate company 150
Donaldson, William 194
Donau-Tufting 262
Dow Chemical Company 113, 262–3,
272, 356
Dow Jones Global Index 39
Dow Jones Index 27
Dow Jones Sustainability Index
155, 199
Drayton, Bill 123
Dreamworks 131–2
drivers for sustainability 37, 44
DuPont 272, 275, 317
DuPont Thailand 120–1

Earth Charter 17
eBay 396
Echoing Green 138
Eco Mark 236
eco-chic products 247
eco-cleaners 227
eco-design (design for the
environment) 18, 224, 258,
259–61, 276
eco-efficiency 264–5
eco-embedding 247
eco-iconic 247
eco-labels 43, 96, 220, 223, 234–5,
236–9, 245, 258, 282, 291, 411
Eco-Oatent Commons 92
eco-ugly products 246–7
Ecoimagination 187
Ecolect 284
Ecolex 110
Ecological Economics 97
ecological footprint 17–18, 88–9, 113,
291, 293
ecological risk 332
ecomagination 335–6
Ecomagination Challenge 138
economic development 15
economic instruments 57
economics 52
definition 86
importance of 86–7
key concepts 87–8
economies of scale 246
Ecopreneurist 135
Ecosystem Service Valuation 114
ecosystem services 87, 112–14
Ecover 140, 225
Edelman Trust Barometer 174
EDF 120
Edison, Thomas 412
education 15, 412
customer 231, 245
Efficient Entrepreneur 144–5
Electronic Product Environmental
Assessment Tool (EPEAT) 291
electronics
in office greening programs
387–8
waste 291
Elgin Air Force Base, Florida 78
Ellen MacArthur Foundation 106
emerging markets 99–103
emissions 57, 61
employee 402–4
culture of 299

- employee (*continued*)
 engagement 304–7, 378
 quality 26
 recommendations 303–4
 retention 378
 employment *see* labor
 employment package 303
 empowerment 320
 endangered species, illegal trade
 in 109
 energy
 conservation 15
 consumption 34
 efficiency 15
 in office greening programs 382–3
 production 281–2
 risk 332
 usage 57
 use reduction 347–8
 Energy Cost Saving Council 387
 Energy Star 269, 291
 engagement 45
 entrepreneurship 52, 123–51
 environmental and social impact
 assessments (EIA, SIA) 365, 366–7
 environmental and social management
 systems (EMS) 370–2
 Environmental and Sustainability
 Management Accounting
 Network 80
 environmental benefits 113
 Environmental Choice 236
 environmental declarations 237
 Environmental Economics –
 Economists on Environmental and
 Natural Resources 110
 Environmental Input-Output Model 114
 environmental principles 21
 environmental protection 15
 Environmental Sustainability Index 349
 environmental valuation 111–22
 environmental, social, and governance
 (ESG) factors
 evaluation 184
 integration of 189–92
 equal opportunity 156
 equality 160
 Equator Principles 27, 201, 202, 203, 353
 Equity Bank (Kenya) 101
 Ernst & Young 80
 Excellence in Integrated
 Reporting 72
 Eroski 231
 Eskom 72
 ESTEMPLE 326–7
 Esty, Daniel C. 29
 Ethical Trading Initiative 159
 ethics 52, 153–81
 IT 291
 Ethics Resource Centre 163
 Etsy 138
 European Commission 109
 European Eco-label catalogue 239
 European Union 89
 Energy Label 383
 Flower 236
 Packaging Directive 233
 ‘take back’ laws 257
 WEEE initiative (‘take back’ laws) 25
 Eurosif 206
 events, green 392–4
 extended producer responsibility
 (EPR) 276
 externalities 61, 92–3, 148
 ExternE 93
 extortion 21
 Facebook 144
 facilitation payments 169
 factories, sustainable 283
 failure
 of initiatives 350–1
 to price 204
 Fair Labor Association 162
 fair trade 26, 176, 219, 222, 236
 Fair Trade Labelling Organization
 (FLO) 176
 Fair Wear Foundation 340
 faith-based institutions 196
 Federation of Agricultural
 Producers 22
 FedEx 272, 354
 feedback 283–4
 fiduciary responsibilities 193–5

- Fieldprint Calculator 293
finance 52, 183–216
Finance Lab 212
financial accounting 58
financial capital 17
financial statements 58
 sustainability in 68–9
Finca 214
fines 60
fisheries 90–1, 95
Five Capital Model 16–17
Five Forces tool 328
Footprint Chronicles, Patagonia 174
forced labor 161, 258, 375
Ford Foundation 136
Ford Motor Company 64, 269, 339
Forest Stewardship Council 271
forests 11
Fortescue 142
Forum for the Future 130
Foundation for the Economics of
 Sustainability 106
Foundation of Social Return on
 Investment 67
foundations 136, 196
founders 299
frameworks, sustainability 44
France 194
 refrigerator recycling 135
free riders 103, 204
free speech 172
Freecycle 385
freedom of association 161
Freedom of Press Index 172
Freshfields Law Firm 193
Friedman, Milton 24
Friends of the Earth 79
FS Insight 188–9, 212
FSC 340
FSC labels 96
FTSE4Good 27, 155
FTSEGood Index 199
Full Frontal Scrutiny 173
FundRazr 138

Gandhi, Mahatma 19
Gap 26, 243

garbage dumps 279
Garmin 197
Gates, Bill 306
GDP 11, 88, 97–8, 99
gender equality 15
General Electric 23, 73, 120, 135,
 137–8, 207, 266, 335
GenerationIM 188
Genuine Progress Indicator/Index of
 Sustainable Economic Welfare
 (GPI) 97
Gerstner, Lou 30
gifts 169
GlaxoSmithKline 345, 390
Global 100 Most Sustainable
 Corporations in the World 39, 200
Global Business Coalition Against HIV/
 AIDS 120
Global Compact 63, 167, 353
Global Corruption Barometer 168
Global Eco-Labeling Network 239
Global Eco-Labeling Programme 238
Global Entrepreneurship Monitor
 (GEM) 145
Global Environment Fund 136
Global Environmental Management
 Initiative 285
Global Environmental Outlook 107
Global Exchange for Social
 Investment 141
Global Fund 243
Global ideas bank 135
Global Impact Investing Network 189
Global Industry Alliance 272
Global Reporting Initiative (GRI) 25,
 39, 63, 64, 65, 81–2, 144, 172, 296,
 345, 353
 Readers' Choice Award 84
Global Social Venture Competition 68,
 128, 137
Global Sustainable Investment Alliance
 188
global warming 242, 273
globalization 4, 332
Glue Network 243
Gmonkey 135
Godin, Seth 255

- Goldman Sachs: Sustain 185
 Good Guide 200
 Google 131, 137, 306, 344, 395
 Gorbachev, Mikhail 17
 governance 15, 195
 government grants 137
 Grameen Bank 130
 Great Place to Work Institute 315
 Green CAPEX 65
 green chemistry 258, 261–3
 green claims 237
 green consumers 220
 Green Economy Initiative 106
 green fatigue 244–5
 Green grid 285
 green IS 292–4
 green IT 290–1
 green jobs 106
 Green Loan Initiative of the City of
 Toronto 397
 green loans 210
 green mortgages 210
 Green Net National Product
 (GNNP) 97
 green products 221, 222
 green teams 394–6
 GreenBiz 172
 GreenEarth Cleaning 135
 Greener Buildings 382
 greenhouse gas emissions 78, 108,
 218, 286
 Greenpeace 252, 283, 387
 Supermarket Seafood Sustainability
 Scorecard 200
 greenwashing 36, 250–2, 297, 346
 Greenwashing Index 252
 grievance mechanisms 358
 gross national happiness (GNH) 98
 groupthink 163
 Grupo Balbo 102
 GSK 312
 guarantees, product 246
 Guayaki 129
 guerrilla marketing 143
 Guide to Corporate Human Rights
 Impact Assessment Tools 159
 guidelines, sustainability 42–3
 Habitat 19
 Hamilton, Matthew 344
 Hancock, Martin 184
 Hannover Principles 382
 Happy Planet Index 99
 Hart, Stuart L. 120
 Hawken, Paul 97, 335
 hazardous substances 291
 health risks 333
 HealthStore Foundation 141
 Hedonic Pricing Method 115
 Heller, Michael: *Gridlock Economy, The*
 91–2
 Hershey 79
 Hewlett-Packard Co. *see* HP
 high-net-worth individuals (HNWI) 206
 HIV/AIDS 243
 Honest Tea 248
 honesty 174, 253
 Honey Care 141
 Hoodia cactus plant 91
Hosbin Kanri 278
 hospitality 169
 housing 108
 HP 142, 196, 260, 388
 Supplier Environmental Performance
 Review Questionnaire 269
 HSB Housing Cooperative, Sweden 150
 HSBC 79, 200, 214, 313, 347
 Hugo, Victor 13
 human capital 16
 Human Development Index (HDI) 98
 human resources 52, 295–321
 human rights 15, 20, 155, 156, 179

 IAS Plus 69
 IBLF 354
 IBM 30, 120, 145, 388
 Big Green Innovations
 program 305
 ICAEW 80
 ICC Rules of Conduct to Combat
 Extortion and Bribery 170
 Icebreaker 282
 ICICI 214
 ICLEI 341
 ideo 223

- IFAC 340
 - Sustainability Framework 69
- IISD 348–9
- IKEA 26, 207, 231, 270–1, 336, 342, 344, 347
- illy 248
- Immelt, Jeff 23
- improvement, continuous 36
- ingredients 343, 347
- incentives 174, 175, 300, 307–8, 351
 - market-based 93–6
- inclusivity 74
- indexes 198–201, 155
- IndieGoGo 138
- Indigenous People's International
 - Centre for Policy Research and Education 179
- indigenous peoples 10, 21
- indirect impact 228
- indirect use value 113
- Indocert 236
- industrial ecology 277
- industrial symbiosis 277
- infectious disease epidemiology 205
- information 222–3, 348
 - disclosure 166
 - gathering 280
 - overload 351
 - sustainability 56–7
 - tracking 76
- information technology/information systems 290
- informed consent 354
- infrastructure 332–3
- ING Bank 380
- Innocent 243–4, 253
- Innocentive 348
- Inside Climate New 172
- Institute for Human Rights and Business 159
- Institute for Social Entrepreneurs 128
- Institute of Business Ethics 179
- insurance sector 209
- intangibles 69, 185, 332
- integrated reporting 70–2
- integrated thinking 77
- integration of sustainability 36
- Intel Corporation 194, 306
 - Involved Program 306
- Interbrand 143
- interest-rate ceilings 214
- Interface 301, 335, 347
- Interface RAISE 335
- Interfaceflor 275
- Interfaith Center on Corporate Responsibility 196
- internal cooperation 45
- International Accounting Standards Boards (IASB) 69
- International Air Transportation Association 273
- International Anti-corruption Day 168
- International Auditing and Assurance Standards Board (IAASB) 74
- International Business Leaders Forum 181
- International Chamber of Commerce (ICC) 22, 48, 178, 180
 - Business Charter for Sustainable Development 48
- International Confederation of Free Trade Unions 21
- International Council for Local Environmental Initiatives 22
- International Council for Scientific Union 22
- International Council on Mining and Metals 358
- International Court of Justice 110
- International Covenant on Civil and Political Rights 156
- International Covenant on Economic, Social and Cultural Rights 156
- International Environmental Law 18
- International Federation of Accountants 80
- International Finance Corporation (IFC) 68, 145, 184, 202–3, 215, 358
 - Development Outcome Tracking System 68
 - Performance Standards on Social and Environmental Sustainability 159
- International Institute for Sustainable Development 14, 397

- International Integrated Reporting Committee (IIRC) 70, 72
- International Integrated Reporting Council 64, 72, 77
- International Labour Organization 156, 159, 160, 161, 162, 375
- Convention on Indigenous Peoples 179
- International Organisation of Employers 162
- International Organization of Standardization (ISO) 373–4
- ISO 9001 374
- ISO 14001 269, 373, 374
- ISO 14020 236, 254
- ISO 14021 237
- ISO 14025 237
- ISO 14031 66
- ISO 14040 365
- ISO 14044 365
- ISO 19011: 2002 374
- ISO 26000 155
- International Society for Ecological Economics 110
- International Trade Union Confederation 162
- International Youth Caucus 21
- Internet 11
- interviewers 303
- intuition led marketing 143
- Investor Environmental Health Network 197
- Investors Circle 138
- IPO 137
- ISAE 3000 and 3410, 73
- Itau Unibacno 211
- IUCN 96, 309, 393
- Jain irrigation 101
- Janzi social index 200
- Japan 278
- RFID tags in 282
- Shinkansen bullet train 281
- job description 303
- job rotation 310
- Johannesburg Stock Exchange 72
- Johnson & Johnson 262, 287
- Just Means 172
- kaizen* 278
- Kalahari San bushmen 91
- Kauffman Foundation 145
- Kellogg 293
- key performance indicators (KPIs) 58, 64–6, 190
- Khazana 210
- Kickstarter 138
- Kiehls 235
- Kimberly-Clark 343–4
- kites 267
- Kiva 215
- KLD Research and Analytics 39
- Know What You Own 197
- Kohl 230
- Korea Stock Exchange SRI Index 102
- KPMG 72, 80, 84, 177, 303
- Reporting Surveys 69
- Kraft 277
- Kuapa Kokoo cooperative, Ghana 150
- Kyoto Protocol on Climate Change 19
- labor 15, 159–62
- costs 257
- promotion 160
- security of 161
- standards 20
- unions 196
- Lafarge 356
- land 10
- landfill 275, 279, 286
- language 10, 316–17
- Leadership in Energy and Environmental Design (LEED)
- certification 346
- Green Building Rating System 381
- lean manufacturing 278
- Leclarc 240
- legal risks 155, 333
- legislation 257
- compliance with 25
- Levi 344
- liabilities 57, 69
- liability risks 333

- Liba 135
lifecycle assessment 113, 259, 286–90, 365
LinkedIn 132
literacy 11, 309
litigation risk 332
lobbying, governments 344–5
local authorities 22
Local Exchange Trading Systems 105
local grants 137
Loco Motors 285
LOHAS (Lifestyles of Health and Sustainability) 224
London Benchmarking Group 68
London principles 27, 211
London Stock Exchange 78
London: Go Green Car scheme 392
long-term value 207
loyalty 219
- M-Pesa 101
MacArthur Foundation 136
Made for Good 244
management accounting 58
management commitment 45
management culture 300
Management Lab 175
manufactured capital 17
maritime shipping 272
market-based incentives 93–6
market friction instruments (MBIs) 96
market price method 114
market risks 33
marketing 52, 217–54
 responsible 252–4
Marks & Spencer 26, 235, 240, 293, 309, 336
Marrakech Process 89
Mary Kay cosmetic company 344
MAS 26
Masisa 101
Materia 284
material choices 57
Material Connexion 284
materiality 58, 61–4, 74, 82–3
materiality matrix 63
Mattel 234
McDonald's 197, 231, 269, 277, 313
Mead, Margaret 401
measurement
 of objectives 57
 of social impact 67–8
Media Sustainability Index 172
media, ethics and 156, 171–2
Mees, Adine 295
meetings, green 392–4
mega-risks 332–3
Mercer 189
mergers and acquisitions 185
methane gas production 279
Method cleaning company 279
metrics, choice of 65–6
microcredit movement 127
microfinance 212–16, 403
Microfinance Gateway 215
microleasing 141
Microsoft 120, 234, 262
Migros 234
Millennium Development Goals 20, 117, 122
Millennium Ecosystem Assessment (MEA) 113
Millennium Project 20
Miller, Herman 338
 'Perfect Vision' initiative 338
mission statements 300
mobiles 11
Mondragon 149, 150
moral hazard 104
Mosaic 138
motivation 307–8
Motorola 243
Mountain Equipment Co-op (MEC) 149, 174, 226, 243
Multilateral Investment Guarantee Agency 202–3
My Starbucks Idea 348
MyC4 215
- national sovereignty 157–8
National Wetlands Coalition 174
Natura 25, 101
natural capital 16
natural disasters, cost of 107

- Natural Step framework 17, 44
 Natural Value Initiative 212
 Nature Conservancy, The 113
 nature, inspiration from 281–2
 Nedbank 210, 211
 neoclassical economic model 105
 NEST smart thermostats
 NetRegs 110
 Network for Sustainable Financial
 Markets 212
 networks 46, 340–1
 New Britain Palm Oil 102
 New Economic Foundation 106
 Happy Planet Index 97
 New Orleans, house building in 103–4
 New Resource Bank 210
 New Ventures 145
 New York City Retirement System 196
 New Zealand
 Business Council for Sustainable
 Development 275
 fisheries quota system 90
 Sustainable Business Network 341
 Nike 26, 73, 268, 284, 285, 347, 353
 Ning 395
 non-governmental organizations
 (NGOs) 16, 19, 22, 44, 79, 144,
 219, 283, 349–50
 coalitions with 340
 non-use value 113
 Nordic Swan 236
 Novo Nordisk 71, 270, 277
 Novozymes 312
 Nudie Jeans 162, 289, 340
 numeracy 309

 O2 234
 occupational safety and health 161
 Office Depot 231
 office greening programs 65, 303,
 377–97, 404
 buildings 380–2
 commuting to work 390–2
 electronics 387–8
 energy 382–3
 green events and meetings 392–4
 paper 386–7
 teams, green 394–6
 waste and recycling 385–6
 water 383–4
 Office of the High Commissioner for
 Human Rights (OHCHR) 156
 offsets 95
 Ohlsson, Mikael 207
 On The Commons 91
 One Percent for the Planet 243
 One World 172
 operating risks 333
 operations 52
 operations management 256
 opportunity assessment 395
 opposition to sustainability adoption
 48–50
 option value 113
 Organic Falafel 135
 organic products 26
 Organization for Economic
 Co-operation and Development
 (OECD) 18, 107, 155, 165
 Anti-bribery Convention 170
 Costs of Inaction Project 107
 Guidelines for Multinational
 Enterprises 48, 159, 170
 Principles of Corporate Governance
 165
 organizational habits 298–9
 Our Goods 105

 packaging 220, 232–5
 edible 256
 Palmas currency 105
 Pamecas 150
 pandemics 333
 paper in office greening programs
 386–7
 partners, transformation of 349–50
 Patagonia 144, 194, 284
 Common Threads garment recycling
 337–8
 patent 91
 Patrimonio Hoy program 27
 Pave 138
 pay, linking with sustainability
 312–13

- Peat, Sir Michael 55
pensions 196, 206
people 220–4
PepsiCo 231, 268, 269, 283, 293
perceived value 227–8
performance appraisal 307–8
performance contracting 397
permits 57
permits, tradable 90, 95
PEST 326–7
pesticides 3
Petrobras 25–6
pharmaceutical sector 62
philanthropy 349
Philips 72
 Green Logo 237
pilot projects 47
Pinterest 144
place, in marketing mix 229–32
placements, employee 310
plan, sustainability, development of
 42–8
PledgeMusic 138
point of entry to sustainability 44
Poka-Yoke 278
policy-related statements or
 commitments 62
political contributions 169
political risk 332
polluter-pays principle 18
pollution 104, 107, 246, 267
pollution prevention technologies 266
Polman, Paul 191
population, global 10, 88
poppups 248
Porter, Michael 41, 323
PotashCorp 72
poverty 106, 347
 reduction 15, 117, 119, 120
Pralhad, C.K. 120
precautionary principle 18, 158, 193
Preventive Expenditure Method 114
price 222, 226–9
 green products 245
 see also costs
price-based instruments 94
price-to-earning ratio 186
Principles for Responsible Investment
 190
Principles for Sustainable Insurance
 209
prioritization of objectives 46
private label initiatives 237, 238
Procter & Gamble 121, 135, 269, 286,
 338, 348
 ‘Design manufacturing waste out’
 program 25
product differentiation 96
product evangelists 223–4
product innovations 34
product longevity 291
product mix 57
product pricing 57
product recalls 258
Product Service Systems (PSS) 276
productivity 297, 378
Productivity Approach 114
products 219, 224–6, 328
profit sharing 316
profitability 185
project finance 201–3
projects 57
promotion 308
proximity principle 18
proxy voting 187
public transport 390
Publish What You Pay 168
Puma 79, 114
PwC 39, 69, 80, 304, 309
 Integrated Reporting Award 72, 84
quality 258
 ensuring 278
 of relationships 154
quantity-based instruments 95–6
Quick response (QR) code 249
Quirky 138
quota management 95

Rainforest Alliance 236
Random Hacks of Kindness 284
ratings 198–201
raw materials 284
RBC 206

- REACH (Registration, Evaluation, Authorization and Restriction of Chemical Substances) 262
- recruitment 302–4
- Recycle Match 278
- recycling 25, 34, 231–2, 247, 259, 275
in office greening programs 385–6, 388
- RED campaign 243
- Redefining Progress 98
- REDF 68
- reforestation 129
- Refrigerants Naturally 231, 339
- Regional Quality of Development Index 98
- regulations 43, 87, 109–10, 257
- regulatory incentives 378
- REI 16,I 231
- rejection of sustainability 34
- reliability of information 82
- remediation technologies 265
- renewable energies 266–7
- replacement cost method 114
- reporting 369
bad 257–8
content 81–2
different forms of 78–9
integrated 58
shadow 79
sustainability 36, 58, 81–4
- reputation 25–6, 155, 185, 258, 297, 333, 378
- resources
access to 353
lack of 351
preservation of 25
- responsibility 257
boundaries of 346
- Responsible Care Initiative 236
- responsiveness 74
- Restriction of Hazardous Substances initiative (RoHS) 291
- retailing 229–32, 248
- Return on Investment (ROI) 67
- Reusable Packaging Association 235
- rewards *see* incentives
- RFID tags 293
- rice farming 91
- Riders for Health 127
- rights of workers 157
- Rio+20 21, 72
- risk assessment 365, 366–7
- risk management 35, 57
- risks, understanding 331–4
- Robins, Nick 183
- Rock the Vote campaign 240
- Rockefeller Foundation 136
- RocketHub 138
- Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade 262
- Roundtable on Sustainable Palm Oil 340
- Royal Automobile Club of Tasmania:
Bike Assist program 391
- Royal Commission on Environmental Pollution 273
- Ryan Air 79
- S-Group cooperative 149
- S&P ESG Index in Egypt 102
- S&P ESG Pan Arab Index 102
- SA8000 353, 374–5
- SAB Ltd 116
- SABMiller 100
- Sacramento Municipal Utility District 247
- Safaricom 101
- SAFECHEM 262
- safety 63–4
- Salow, Robert 109
- SAM 39
- Sammaan 127
- sanitation 10
- Sanyo 135
- SAP 64, 293, 314
- Sarbanes–Oxley Act (US) 353
- SASB 80
- SASIX projects 141
- Sasol 72
- SC Johnson 143, 263, 272, 308, 385
Greenlist 308
- scale of sustainability 45
- Schindler 276
- Schlumberger 314

- Scholar Cooperative 149
 Schwab Foundation 126, 128
 Scorse, Jason 109
 Scott, John C. 268
 Scott, Lee 27
 secondments 309
 security of persons 156–7
 security risk 332–3
 Seikatsu Club Consumers ' Cooperative
 Union 104, 150
 Sekem 101
 Seventh Generation 194, 253
 shadow reporting 79
 shareholders 165, 204
 engagement 195–7
 proposal 195
 resolutions 187
 treatment 166
 Shell 73, 79, 132, 301, 336
 ShoreBank Pacific 210
 Shree Cement 101
 Sicredi Pioneira RS 150
 Siemens 164
 siloed thinking 204, 346
 skills for sustainability 314–15
 Skillshare 105
 Skoll Foundation 126, 127, 128
 Skoll Social Edge 68
 'skunk works' 132
 SkySails towing kite system 272–3
 small and medium-sized enterprises
 (SMEs) 124, 411
 SMART objectives 46
 SME Toolkit 145
 Smuckers Jam Company 195
 Soap Dispensary (Vancouver) 129
 Social Accountability International 374–5
 social and environmental proposals 195
 social capital 16
 Social Enterprise UK 128
 social equity 15
 social impact measurement 58, 67–8
 Social Innovation Conversations 145
 social marketing 220, 239–42
 social media 144
 Social Return on Investment (SROI)
 67–8
 social value creation 67
 socially responsible investors 195
 Socio-Economic Assessment
 Toolbox 68
 Sodexo 314
 solar panels 282
 South Africa
 Council for Scientific and Industrial
 Research 91
 Integrated Reporting Committee of
 South Africa 70–1, 72
 National Business Initiative 339
 Social Investment Exchange 141
 Tripartite Safety Initiative 64
 Southwest Airlines 72
 special interest groups 196
 Specialisterne 314
 sphere of influence 158
 Spier Vineyard 370
 Spinnaker Tower, Portsmouth 282
 SROI Network 68
 SROI Primer 68
 SSE Social Responsibility Index, China 102
 stakeholders 165, 324
 engagement 45–6, 187, 352–9
 expectations 27
 inclusiveness 82
 materiality and 62–3
 in sustainability 21–2
 Standard & Poor's 84
 Standard Chartered 211
 standards 43, 57, 87, 280, 373–5
 *see also under International
 Organization of Standardization
 (ISO)*
 Starbucks 120, 230, 248, 279
 Startuplab 128
 Statoil 277
 Stern Report (2006) 107, 109
 Stigson, Bjorn 122
 Stockholm Convention on Persistent
 Organic Pollutants 262
 strategic approach 35–6
 strategic planning 57
 strategy 52, 323–60
 Strong, Maurice 17
 structure of sustainability strategy 46

- subsidies 94
- substitute cost method 114
- Suez 120
- SunEdison 230
- suppliers 268–71, 329
- Sustainability 29
- SustainAbility 84
- Sustainability Consortium 235
- sustainability risks 333
- sustainability sales pitch 30–1
- Sustainability South Africa 72
- sustainability strategies 334–7
- sustainability SWOT (sSWOT) 330–1
- Sustainability Yearbook 39
- Sustainable Apparel Coalition 340, 341
- Sustainable Consortium 200
- sustainable development, definition 14–15
- sustainable investment (socially responsible investment) 186–8
- Sustainable Packaging Coalition 233, 235
- Sustainable Shipping Initiative 273
- Sustainable Stock Exchanges Initiative 201
- sustainable technologies 258, 265–7
- sustainable value added 114
- Suzion 102
- Sweden, Green Zone 277
- SWOT analysis 329–30
- System of Environmental-Economic Accounting, The 84
- Szaky, Tom 227

- talent development 308–10
- Tata 99
- taxes 57, 60, 94, 378
 - product 257
 - sustainability 229
- Taza Chocolate 133
- teams, green 394–6
- technology assessment 365
- technology risks 333
- TEEB 113
- telematics 292
- Telstra 291
- TerraChoice 250
- TerraCycle 226–7, 278

- terrorism 332
- Tesco 62, 79, 230
- Tetley 99
- third-party claims 236
- Threatened Voices 177
- TIAA-CREF 206
- Timberland 79, 237, 248
 - EcoMetrics label 234–5
- Time Banks 105
- timeliness of information 82
- Tomorrow's Value Rating, 200
- TOMS shoes 244
- tools, sustainability 42, 44, 47
- tourism, sustainable 394
- toxic waste 109
- Toyota 278, 339
 - Prius 247, 260
- traceability 282–3
- tradable permits 90, 95
- trade unions 22
- Traditional Knowledge Digital Library 91
- tragedy of the commons 112
- training, employee 308–10, 312
- transparency 27–8, 165, 174, 219, 353, 411
- Transparency International 167, 169
- Transparent Democracy 197
- transportation 11, 271–4, 412
- Travel Cost Method 115
- Trillium Asset Management 195
- Triodos Bank 210
- Triple Bottom Line 44
- triple bottom line reporting 114
- TriSelect 142
- trust 219
- TruthMarket 177
- Truworths International 72
- Twitter 144

- UKOS 134
- Umpaqua Bank 210
- uncertainty 103
- UNESCO World Heritage List 10
- UNGC CEO study 181
- UNICEF 121, 342
- Unilever 116, 120, 231, 293, 344, 348
 - Person Vitality campaign 307
 - Marketing Principles 253

- Shakti program 133
- Sustainability Living Plan 191
- United Nations 10, 14
 - Business and Human Rights
 - Guiding Principles 202
 - Capital Development Fund 215
 - Conference on Environment and Development (Earth Summit) (Rio) 19
 - Conference on Trade and Development (UNCTAD) 66
 - Convention Against Corruption 155, 168
 - Convention on the Rights of the Child 375
 - Declaration on the Rights of Indigenous Peoples 179
 - Global Compact 20, 120, 155, 158, 159, 190, 312, 340
 - of Turkey 171
 - Working Group 162
 - Guiding Principles on Business and Human Rights 159
 - Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting 80
 - Millennium Summit 20
 - Norms for Business 156
 - Stockholm Conference on the Human Environment (1972) 19
 - Universal Declaration of Human Rights 156, 159, 375
- United Nations Environment Program (UNEP) 19, 29, 84, 106, 107, 193, 229, 265
- Finance Initiative 159, 184, 185, 190, 209, 211
- Sustainable Building and Construction Initiative 382
- Sustainable Procurement Program 389
- SETAC Lifecycle Initiative 286
- Wuppertal Institute Collaborating Centre on Sustainable Consumption and Production 283
- Unltd 138
- UNPRI 93, 109
- Unreasonable Institute 128
- UPS 272, 292
- US Environmental Protection Agency (EPA) 61, 109–10
- US International Grantmaking Project 138
- Utopias 240
- value 67
- value statements 300
- Vancity 72
- Vanlaxmi Women's Tree Growing Cooperative 149
- Velib scheme 293
- venture capital 136–7
- Verdantix 208
- Verite Fair Hiring Toolkit 162
- Victoria's Secret 26
- Vina Capital 100
- Violence Against Women Act (US) 344
- Virgin Atlantic 279
- Vodafone 64, 72, 267
- voluntary mechanisms 43
- Voluntary Principles on Security and Human Rights 159
- Vox 110
- wages 161
- Wales, Prince of 80
- Wal-Mart 27, 229–30, 269, 272, 293
 - Personal Sustainability Project (PSP) 306
- Warby Parker 244
- Warehouse, The 329
- waste dumping, illegal 258
- waste management 15, 259, 274–9
 - in office greening programs 385–6
- water 10, 57, 91
 - drinking 10
 - fresh 10
 - in office greening programs 383–4
 - salt 10
- Watthan Artisans Cooperative 149

- WBCSD 22, 29, 66, 68, 96, 111–12, 117, 122, 264, 309, 331, 332, 334, 340–1, 352
- Welch, Jack 207
- Wellbeing Index (WBI) 98
- WhipCar 135
- whistleblowing 177–8
- Whole Foods Market 133
- Wikileaks 178
- Willard, Bob 29, 30
- wind power 149
- Winston, Andrew S. 29
- women
as consumers 223
executives 11
- Women's Environment and Development Organization 21
- work environment, creating 315–16
- work-family benefits 316
- work-life balance 316
- working conditions 159–62
- working time 161
- World Bank 112, 167, 178, 202–3, 358
Business Environment Snapshots 145
Environmental Economics and Indicators 110
Poverty Reduction Strategy Papers 122
- World Commission on Environment and Development (Brundtland Commission) 14, 17
- World Conference on Human Rights 19
- World Conservation Union 355
- World Day Against Child Labour 160
- World Economic and Social Survey 110
- World Economic Forum 39, 89, 103, 180, 186, 206
- World Resource Institute 117, 122, 330
- World Summit for Social Development 19
- World Summit on Sustainable Development (Johannesburg) 19–20
- World Trade Organization 19
- World Wealth Report 206
- World Wildlife Federation (WWF) 29, 96, 218, 340, 342, 355
Green Game Changers Bank 130
Living Planet Index Report 89
- WorldChanging 3
- Worn Again 279
- Xerox 266–7, 275, 276, 347
- Yahoo! 285, 395
- yerdle 385
- YES Bank 211
- young people as consumers 224
- Zidisha 215