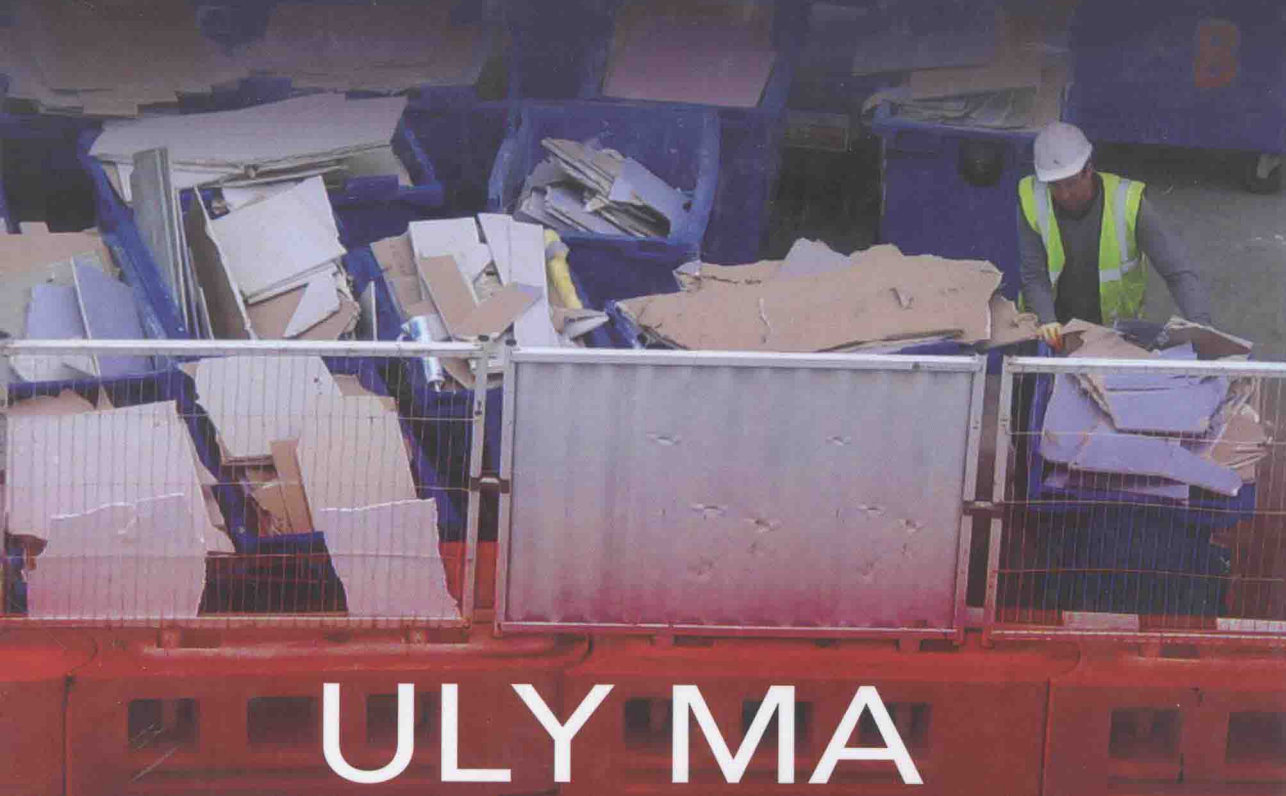


NO WASTE

Managing Sustainability
in Construction



ULYMA

No Waste

Managing Sustainability in
Construction

ULY MA



GOWER

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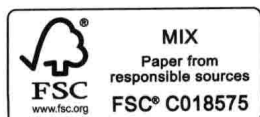
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No Waste

Preface

Construction is about building things that stay put. Sustainability is about changing to evolve.

Construction has been around since way, way back. While sustainability is the latest corporate fashion. Mixing the two sounds ambitious, the irresistible force meeting the unmovable object. The encounter is both exciting and painful as well as providing opportunities and threats.

This book is about how to manage this encounter. It is about sustainability in construction as a management activity. It is not a technical guide for the sustainability specialist nor is it about legislation, regulations, official guidance, construction technologies, building materials or any of the environmental/green technologies. I decided against any technical coverage because by the time you read this, any new wonder technology I described is likely to be obsolete and if you wanted to know about construction technologies, just read the trade press every week. The emphasis of this book is about managed sustainability just like any other business activities and to manage it effectively and efficiently.

The other reason I decided to focus on managing sustainability is that our industry has already shown that we can build to various sustainable requirements, such as BREEAM, LEED or Code for Sustainable Homes.¹ The fact that we are mostly doing the actual building activities in a not too sustainable way is what needs to be addressed.

For the manager, this book helps put you into the right frame to 'do sustainability'; for the sustainability specialist, this book provides a platform to engage the entire workforce towards a more sustainable way of working. This book is therefore aimed at addressing the needs of the 'rest of us'.

¹ Various specifications for sustainable buildings for UK commercial, USA and UK domestic markets respectively.

A further clarification: I am not a 'sustainable developmentalist' or a 'sustainable developer', or even a 'sustainability' ². Instead, I am a 'continuous improver': I believe we all have the capacity to improve on our achievements. This book represents my personal outlook on sustainability in construction. It gives a snapshot of construction and sustainability in the UK as the industry moves from the good times through a recession to a sluggish recovery. It also has a bundle of tools to help you enhance your own and your company's effectiveness. But most of all, it is an introduction to those who wanted to get everyone at work to 'do sustainability'.

Getting everyone to do sustainability means the book has to be practical and easy to use. So I did not write it as an academic tome or a text book. My aim is that you will find the ideas and tools in this book interesting and useful so you will use them tomorrow at work. Work in construction is anything from design to analysis to building to keeping client, partners, suppliers, neighbours, law makers, do-gooders and everybody else content.

This is not a simple or straightforward subject. Had I known this when I first met and discussed the book project with Jonathan Norman, my publisher at Gower Publishing, I might never have shown up at that meeting! The subject is huge, it has enormous depth as well as breadth, and that is only considering the things I come into contact with in construction. It has more topics and interesting stories than I can cover in several lifetimes. A friend told me that he knows of over 70 trades in the industry, and that does not include trades and professions outside the construction site.

So the book is limited to what I can cover realistically while still making a living as a management consultant. It also has a London focus, for this is where I live and do most of my work.

As I was preparing to write this book in December 2006, I met with Kristina Smith, then editor of *Construction Manager*, a UK construction trade journal. She challenged me on whether there is really an interest in sustainability in construction. She also told me a reader wrote to her claiming that sustainability is basically 'emotional claptrap'. That got me thinking, is it claptrap? If that is what some people are thinking, then there is a need for information to help them decide and make sustainability happen.

² None of these are real words, I do not know what is the one-word noun for the person who does sustainability or sustainable development, and so far, neither does the *Oxford English Dictionary*!

About the Book

This book is made up of two main components: the book itself and an accompanying CD.

The book itself has two themes: talking about sustainability and doing sustainability. The talking part contains some background on sustainability in construction. I will explore sustainability and its drivers, how the need for money can spoil everything, whether to go forwards or backwards. Although bricks and mortar are not covered in this book, people are, the social aspects of sustainability in construction are investigated as are the skills debate and communications. Marketing sustainability and the ability to laugh at ourselves are examined alongside making sustainability happen by being pragmatic and professional.

Following a definition of sustainability comes the definition of anti-sustainability. By focusing on how to get rid of the negatives, I hope to show you that sustainability can be achieved by everyone easily, cheaply and in a way that engages the entire construction team.

Having said that this book has two themes: talking and doing. I also introduce an in-between theme, a combination of both talking and doing: this is the government policies and agenda. Much of it is talk, of course, but the policies also compel action, so there is some doing too. I choose three elements from the last few years as my examples: the Codes for Sustainable Homes; the Site Waste Management Plans; and the Strategy for Sustainable Construction.

After the talking is done, we get to the doing. This part of the book covers gaining a corporate consensus on what should be done, through assessing current activities to improving existing processes and transforming the company. These chapters are packed with various tools, from a scorecard

for social sustainability to tools that help you assess issues that are critical to sustainability.

The book is closed with a discussion on the Rethinking Construction Report by Sir John Egan and how this could look if it is reissued now.

The accompanying CD is not designed to be a coaster for your mug of tea or coffee. It is intended to be used in conjunction with the book. It contains all the graphics from the book in full colour and sorted by chapter. Every tool mentioned in the book is described together with usage guidance, worksheets and templates where appropriate. Since it is likely that you will need to convince some people to change their minds about making sustainability happen, I have included additional graphics from various topics in the book for you to use in your presentations. There are also a number of generic icons which are suitable for all kinds of computer graphics applications.

All of this is wrapped up in a web interface, which should open readily in your browser.

A Word About the References

I know many books need footnotes and endnotes to show that the author actually read something and did not make up the entire contents. I provide some notes and comments here and there to entertain and inform. However, some of these references are websites and the links (if provided) are good until the webmasters decide to move the particular page.

A Book Called *No Waste*

The name of the book is *No Waste*. Those of you who worked with me may remember a project of mine called NoWaste. This book is not about my project, although it is described in an appendix. I called this book *No Waste* because that is the message I want to pass on.

Acknowledgements

Just like any construction project, getting there requires people working together and supporting each other. This book is in your hands only because of lots of people giving me encouragements, support, criticism (constructive or otherwise), ideas, knowledge and food. The support has been generous and automatic, no sooner than I mentioned I am writing a book than the answer comes: how can we help?

I want to thank especially my publisher, Jonathan Norman and Mike Brooks, my editor at Gower Publishing. If you guys weren't there, neither would this book.

Some of my industry colleagues have moved on to new endeavours since they spoke to me, I have recorded their affiliation (alphabetically) at the time of our discussions.

Thank you to Peter Head, Andrés Luque and Jeff Teerlinck from Arup; John Ruffle of Allenbuild; and Colin Read from Balfour Beatty Workplace. Big thanks to Andrew Kinsey for organising a workshop at Bovis Lend Lease for me as well as championing the NoWaste project at the large construction project in Stratford among many other bits of help. Thanks to Nick Clarke, Paul Edwards, Carmen Garbe, Sam Hall, Val Lowman, Kirstin McIntosh, Steve Wheeler and many others from Bovis Lend Lease.

And thank you to Katherine Adams, Mindy Hadi, Gilli Hobbs, John Musset and other at BRE. A special thanks to Claudine Blamey at British Land who let me bother her many times. Many thanks to Phil Clarke of *Building Magazine*/UBM and to colleagues at Canary Wharf Contractors: Bianca Stendtke and Seon Waterman. I have learnt lots from Carbon Trust's David Vincent and from Carillion's Nick Drake, Stuart Mee and Louise Perry. Charles Rich of Charles Rich Consultancy provided me with unique insights on construction, of which

I am very grateful for. Thanks to Susan Steensma from CIRIA; Jon de Souza and Zoe Le Grand Constructing Excellence who readily cheered me on. I do appreciate your support!

My hard nosed colleagues, Chris Massie, Gerry McCarry and Mark Townley at Clipfine Construction Support Services showed me how different contractors tackle sustainability in their own unique ways. Anne Hall and Guy Hazlehurst explained to me their efforts in laying down a lot of ground work on sustainability at ConstructionSkills; thanks also to Pat Bowen, Alistair Colin and Hayley Merry at the Future Skills team at CSkills for their encouragements; and thanks to Costain's Amy Baldry, Darren Dobson, Peter Fisher and Phil May for sharing their thoughts and ideas.

David Hughes and Clive Young at DTI/BERR/BIS were always patient and supportive whenever I turned to them for advice. This brings me to the patience of my colleagues. My obtuse questions and lack of awareness only brought a more detailed response, especially from busy people like Murray Coleman of Bovis Lend Lease; Glen Irwin of Foreman Roberts; George Stowell of George Stowell Architects Urban Design; and Peter Rogers of Stanhope. I am very grateful for both your time and your ideas.

Thank you also all the colleagues who shared their insights with me: John Hutton of Edmund Nuttall (now Royal BAM Group); Mike Malina of Energy Solution Associates; Roy Casey of Foreman Roberts; Rob Harrison from Fosters + Partners; Steve Downing of Henley Management College; David Hopwood and Katerina Maluenda of Kew Design/Build who showed me how an SME design bureau managed sustainability issues; David Farebrother and Alex Herd-Smith of Land Securities; Stuart Crane, Jim, Gaffney and Stephen Thomson of Laing O'Rourke; Ali Mafi of Lean Thinking; colleagues Trudy Harpham and Colston Sanger from London South Bank University; Samantha Heath of LSX; Phil Henry of Polypipe; Deltcho Vitchev at RFI who gave me the global big picture about project investment; fellow Lean practitioners Richard O'Conner of 6ix; Stuart Jessop of Shepherd Construction; Greg Chant-Hall and Simon Weller from Skanska; Andrew Mellor of PRP; Sheppard Robson's Andrew Bowles and Alan Shingler; Michael Kohn of Slider Studio; Warren Vaughan at McCarthy & Stone; Neil Johnson from Taylor Woodrow Building; Stuart Green of University of Reading; Wilfried Wang from University of Texas; and Thiru Moolan and Rhian Williams of Wandsworth Council.

A colleague asked me whether this book will be a hard book and that got me thinking. In a *Fortune* magazine article³ on 'excellence', it was reported that 'research now shows that the lack of natural talent is irrelevant to great success. The secret ... is ... painful and demanding practice and hard work.'

I am not into pain and I do not believe in putting other people in pain either. Furthermore, I always believe that there is no need to do anything the hard way if there is an easier way available. (Easy is also likely to be more energy and resource efficient.) If sustainability is made too painful, people will not adopt it willingly, if it is too difficult, people will not understand it and if it is too demanding, people will avoid it. I wrote this book to show that sustainability need not be painful, demanding or particularly difficult. You need to be dedicated, committed (and have a bit of budget) to make it work, but that is true about more or less everything at work and besides, you know that anyway.

3 *Fortune Europe* edition, 6 November 2006.

A special group of long-time colleagues provided ideas, content and opportunities to debate various topics. Thanks to: Sij Dhanju of the Highways Agency; Lynn Williams of Lunes Training; Anastasia Marinopoulou of Progress Through; Julia Thrul of VGL; Peter Willmott of Willmott Solutions; Isabelle Beaumont from Workplace Futures; and Andrew Pears of Kotuku who not only shared his ideas with me, but also fed me sandwiches from the Cafe Van!

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