

Stephan Scholtissek

# **Innovation Excellence**



Stephan Scholtissek

# Innovation Excellence

Creating Market Success in the Energy  
and Natural Resources Sector



This book was developed as part of the research programme at the Accenture Innovation Centre for Energy and Utilities. The centre is a research and innovation hub developed to bring innovation, thought leadership and insight to the topics of policy, consumers, sustainability, technology and industry transition within the context of the energy and utility industry landscape. For more information, visit [www.accenture.com/innovation-center](http://www.accenture.com/innovation-center).

E-Book: 978-3-86248-157-6

#### **Bibliographic information from the Deutsche Nationalbibliothek**

Die Deutsche Nationalbibliothek registers this publication in the Deutsche Nationalbibliografie. Detailed bibliographic information can be retrieved at <http://dnb.d-nb.de>

#### **British Library Cataloguing-in-Publication Data**

A CIP record for this book is available from the British Library.

#### **Library of Congress Cataloging-in-Publication Data**

A CIP record for this book is available from the Library of Congress.

First published in Germany in 2011 by mi-Wirtschaftsbuch, an imprint of FinanzBuch Verlag GmbH, Munich, Germany, as "Innovation Excellence: Creating Market Success in the Energy and Natural Resources Sector" by Stephan Scholtissek. All rights reserved.

Without limiting the rights under copyright reserved above, no part of this publication may be reproduced, stored in or introduced to a retrieval system, or transmitted, in any form or by any means (electronic, mechanical, photocopying, recording or otherwise), without the prior written permission of the publisher.

© 2011 by mi-Wirtschaftsbuch, Münchner Verlagsgruppe GmbH  
Nymphenburger Str. 86  
D-80636 München, Germany  
[www.mi-wirtschaftsbuch.de](http://www.mi-wirtschaftsbuch.de)

Edition Kogan Page 2011

Published and distributed in Great Britain, United States and India by Kogan Page Limited.

120 Pentonville Road  
London N1 9JN  
United Kingdom  
[www.koganpage.com](http://www.koganpage.com)

1518 Walnut Street, Suite 1100  
Philadelphia PA 19102  
USA

4737/23 Ansari Road  
Daryaganj  
New Delhi 110002  
India

Coverdesign by Jarzina Kommunikations-Design, Holzkirchen, Germany

Typeset by Julia Walch, Bad Soden

Illustrations page 17, 20, 28, 75 by iStockphoto.com; page 18, 109, 110 by Getty Images

Printed by Firmengruppe APPL, aprinta Druck, Wemding

Printed in Germany

# Contents

Foreword .....	7
Acknowledgements .....	11
Introduction .....	15
Types of Innovation .....	25
<b>1 BP: Aral Ultimate Diesel</b> .....	<b>33</b>
Eleven workstreams fuelling one idea: a new petrol	
<b>2 Schott</b> .....	<b>45</b>
A green recipe for an expanded market	
<b>3 Marathon</b> .....	<b>55</b>
A new safety solution	
<b>4 Evonik</b> .....	<b>63</b>
Merging the molecules of knowledge	
<b>5 Iberdrola</b> .....	<b>73</b>
Making the business case for the planet's future	
<b>6 Dow Corning: XIAMETER® Brand</b> .....	<b>83</b>
Making pricing fit for purpose	
<b>7 Siemens</b> .....	<b>95</b>
Two old methods, one new innovation	
<b>8 Perrier</b> .....	<b>103</b>
Turning water into a winner	
The Innovation Process .....	113
Innovations of the Future .....	133
Conclusion: Eight Actions for Innovation .....	143
Index .....	147
About the Author .....	151



# Foreword

Time and time again in my 20 years as a management consultant, corporate executives have asked me the same two questions: “How can we grow without snapping up rivals?” and “How can we secure lasting success when competition is getting fiercer by the day?” These questions have lost none of their urgency, but since the implosion of the dot-com bubble and the sharpest recession in generations triggered by the credit crisis, I am also regularly asked a third: “What can I do to shield my business against similar earth-shattering events in the future?”

My answer to all three questions is the word that is at the very heart of this book: innovation. The word is powerful, I’ve found. It usually triggers lively discussions. “So, you recommend hiring more scientists?” top-level managers tend to respond. Or, “OK, then, please set up an innovation project for us lasting, say, three months.” Or, in a clear indication that innovation is still widely seen as something purely for manufacturers, I also often hear, “Well, you know, we’re into services here. We don’t make products.”

All these responses are evidence of widespread misunderstandings around what innovation is, how it comes about and how it should be conducted. Contrary to popular belief, it is not made in laboratories – a scientist’s bright idea is always only as good as its commercial success. Innovation is not just for transitory use in a company. And of course it is certainly not something that can only be applied to physical products. You can bring about innovation by revamping what you market, your business model, your processes or even the organisation of your company. And in all these cases it does not just happen in dribs and drabs, here and there, only now and then. To become really effective, innovation must be deeply rooted in a business’ DNA.

As a young biochemical scientist I was able to witness how inventions conceived in my native Germany often failed to bring economic benefit to their originators. This was either because bureaucracy stood in the way, society and politics had been slow to mobilise enthusiasm, or the companies themselves simply failed to spot the potential commercial merits of their own brainchildren – and competitors ran away with them.

I left the academic ivory tower with a PhD under my belt to join the corporate world, where I soon noticed that even blue-chip companies find it difficult to build a system that turns excellent ideas swiftly into revenue. To this day corporate entities are frequently held back by compartmentalised thinking, rigid legacy cultures or awkward silo structures. It is therefore hardly surprising that many lack a stringent innovation process: a suite of defined frameworks combined with driving minds free enough to propel good ideas uninhibited to market.

Cross-pollination is key to this. Imagine the following: young graduates applying to your company are asked at the job interview what they would like to do – marketing, research and development, production or sales. “All of that together!” replies one. If your human resources officer looks up and says, “Hired!” your business has caught the innovation bug and you have probably discovered a true innovation talent. But if the response is, “Sorry, you have to pick one,” your business may have a way to go.

It was as a consultant that I was finally able to see innovation processes up close in real businesses. Over the years I have had the privilege of meeting numerous true innovators. They included shrewd owner-operators of family firms, visionary upstart entrepreneurs and clever minds embedded in huge corporate environments. Each of them had led a product or service to market success. Talking to and working closely with them allowed me to discover the views, rules, patterns, procedures and ultimate success factors that made up their approaches. This solidified into a clear set of stages and practical rules that could guide the building of a viable innovation process in any company.

All this know-how is packed into the compact book you hold in your hands. In it I analyse and structure the innovation process theoretically, then square it immediately with real examples of successful innovation in the energy and natural resources sector. This is not only an industry that has my natural attention as a trained biochemist, but one that, being extremely competitive globally, has come up with a series of truly remarkable innovations. It should make the book a particularly useful read for executives in the raw materials, energy, chemicals and utility industries as well as for industry association leaders and those who buy from or sell to these companies. However, the basic innovation principles described here are universal and can benefit your company no matter what sector you are in.







# Acknowledgements

Much like a good innovation process, this book has been a team effort. Its development has involved numerous people from around the world coming together to achieve a common goal. They contributed through interviews, assessments of the innovation process and reviews of the manuscript. I would like to express my appreciation to each of them.

In particular, I would like to thank the following for sharing their valuable time and insights: Ewald Beinhardt, Wolfgang Dörmer, Jackie Fionda, Philip New and Patrick Wendeler (Aral and BP); Don Sheets, Shelley Bausch (Dow Corning); Dr. Alfred Oberholz, Dr. Peter Nagler (Evonik Degussa); Ignacio Sánchez Galán (Iberdrola); Kevin Bogard, Dave Heshner, Don McCord and Cheryl Miller (Marathon); Emmanuel Manichon (Nestlé Waters); Professor Udo Ungeheuer, Dr. Hans-Joachim Konz, Dr. Lutz Klippe, Dr. Friedrich Siebers (Schott); Barbara Kux, Dr. Reinhold Achatz, Andreas Hauser, Dr. Jochen Koelzer and John Lombardo (Siemens).

I owe a special debt of gratitude to those of my Accenture colleagues – Dr. Matthias Feistel, Felix Hessel and Wolfgang Popp – who helped with the development and refinement of the innovation framework and success factors, which form the very core of this book.

The text would also not be what it is without the excellent advice and help I have received from my editorial team – Ulf Henning, Laura Kopec, Matthew McGuinness and Jens Schadendorf. Warmest thanks to all of them.

Other Accenture colleagues I would like to thank include Mark Davisson, Bettina Iglar, Ken Johnson, Colin Lowenberg, Valentín Miguel and Haralds Robeznieks.

I am also hugely grateful to my Munich-based publisher mi-Wirtschaftsbuch/FinanzBuch Verlag GmbH, in particular CEO Christian Jund and Editor

Michael Wurster for their extraordinary enthusiasm, professionalism and wonderfully quick and flexible handling of this project.

Finally, I would also like to thank Helen Kogan, head of Kogan Page, London, and her team, in particular Jon Finch, for their lively engagement and their industrious and adroit support in bringing this book to the global market.





# Introduction

## **Innovation – the hunt for a gem in a new age of competition**

---

Early economists asked a simple question: why is it that something as useful as water is available so cheaply whereas diamonds, with such limited practical use, are so expensive? The answer to this intriguing riddle was that water is widely available and diamonds are not. From this we derive a fundamental economic principle: it is the degree of scarcity that puts different price tags on different things.

The deeper dimensions of this idea are best left to academic lecture theatres. For the practical world of economic enterprises the principle sheds a useful light on vital business inputs such as labour, capital, land or ideas. Their scarcity, availability and affordability will change dramatically over the next twenty years when the balance of global economic power shifts further towards emerging countries, reflecting the trend towards globalisation.

Let's look at it like this: there is the old world that most of us are familiar with and the majority of enterprises still see themselves as being up against. Here, things like skilled workers, suitable factory sites, natural resources, access to funding, affordable energy or even the right customer groups are vital business ingredients and hard to come by. Our experience tells us that these ingredients are available to different degrees – and therefore today still command substantially different market prices – around the world. Hence, a software engineer in Bangalore is still paid a fraction of the wage his identically skilled colleague in Boston receives. And it is certainly still true today that getting hold of a hard-currency loan in Botswana is more difficult and expensive than it is in Berlin.

But this is the core point about the not too distant future: in the new world of global competition – the birth of which we are witnessing – the hunt for rare business factors, these diamonds of various quality, purity and value, will become much less important if not, at some point, insignificant. Labour, capital, knowledge and other inputs necessary to set up shop will adopt the quality of commodities and be available – almost like water – at more or less globally harmonised prices. That does not necessarily mean they will become more affordable, but their still widely differing market values will gravitate into a narrower band. When virtually everything is available to everyone at a similar price, businesses around the world will find themselves in pursuit of a last remaining precious gemstone – innovation. Unlike the other inputs, this factor, by definition, is always “rare” enough to command outstanding prices. A distinct product, an exclusive patent, a pioneering production process, distribution channel, supply-chain mechanism or brand promise – any of these could make the difference for a company. In the new age of hyper-competition, what will distinguish you in the eyes of customers, rivals and shareholders will simply be the quantity of successful innovations you can come up with. This all-important capacity will hinge on you having a viable innovation process in place and the consistency with which you can make it work for you.

You might think innovation is something relative. How can novelty be measured accurately? How good is a good idea or a clever invention? There is a surgically precise answer: a good invention is nothing unless it can prove itself to be a success in the market place. Numerous truly good ideas falter because of bad implementation on their way to market. And an equal number initially thought to be wonderful end as hopeless cases because, contrary to preliminary assumptions, they simply fail to strike a cord with customers. The Austrian-American economist Joseph A. Schumpeter put it in a nutshell back in 1911: “Innovation is the process of finding economic applications for inventions.” This means it is only when an invention has been marketed successfully that we can call it an innovation. The yardstick is simple: new ideas are successful on the market when increased sales and decreased costs push the invention across the threshold of profitability.

We can get a clear, practical sense of innovation’s power by looking to Germany. The country has only recently lost its status as the world’s biggest export nation to China. Of course China has won the game (for now) by playing according to different rules: most of its products are still less sophisticated and manufactured with much lower labour costs. Germany, by contrast, was able for many decades to produce globally sought after export goods even with some of the world’s highest labour costs. The feasibility of this approach came down to one thing: innovation. This factor alone kept and still keeps a large number of German products and services in the game worldwide and many of those are still way ahead of the competition.

Moreover, despite their success, German companies have hardly been the world’s most active takeover buccaneers, which leads to another interesting point about innovation: having the capacity and knowledge to turn good ideas swiftly into huge commercial successes on the market will also eventually be