Boldness in Business

Facing the future

Seven success stories are honoured in this year's awards

FT FINANCIAL TIMES
ArcelorMittal

© Thoburns.com 2012
Steel.
Art.
Sport.
A bold combination.
Teaming up with Anish Kapoor and Cecil Balmond to create an iconic landmark for London 2012 was a bold move. But a resoundingly successful one. The ArcelorMittal Orbit perfectly encapsulates the company's values: sustainability, quality and leadership. A tribute for 2012 and for the future.
ArcelorMittal
official steel supporter of the
2012 Olympic and Paralympic Games

Challenging the status quo

PHOTO: CHARLIE BIBBY

Now in their fourth year, the FT Boldness in Business Awards, jointly sponsored by ArcelorMittal and the Financial Times, have become the pre-eminent forum for recognising entrepreneurial risk-taking and innovation on a global scale.

This past year has seen a vigorous debate about so-called responsible capitalism. The discussion has taken place on the streets of New York as well as on the steps of St Paul's cathedral in London. The debate reflects a delayed reaction to the global financial crisis and its impact on the real economy, but it is also an expression of popular frustration. There is a widely held view, whether mistaken or not, that political leaders have not been bold enough in reforming business practices and the regulatory system for banking and financial services.

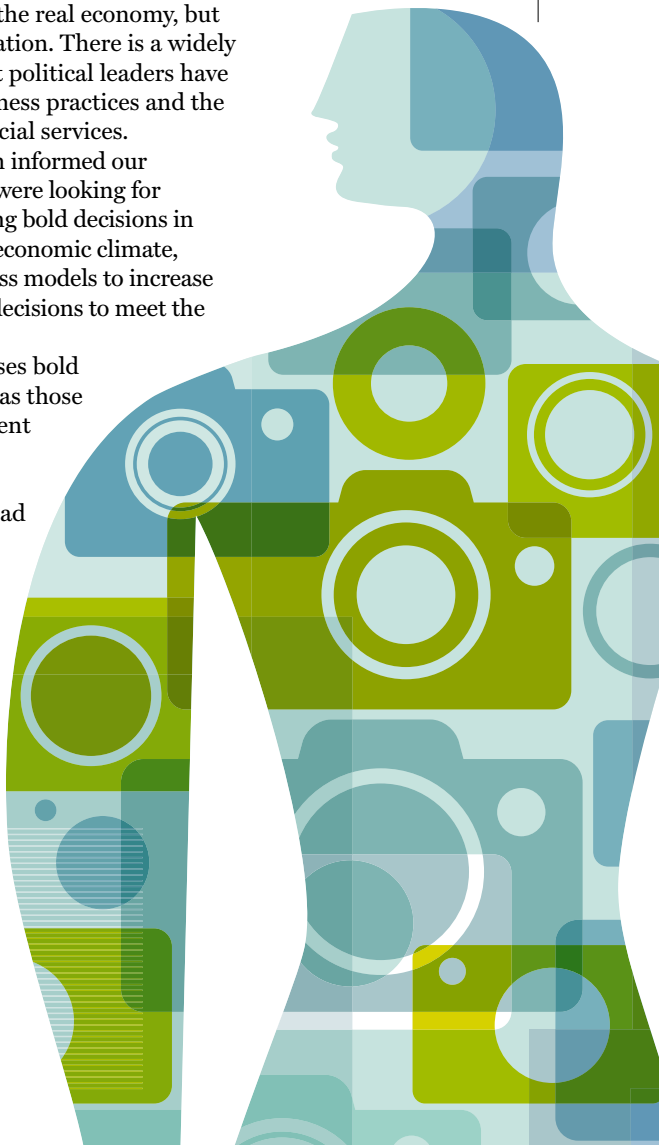
Inevitably, the debate about capitalism informed our selection of candidates and winners. We were looking for outstanding examples of companies taking bold decisions in an exceedingly challenging political and economic climate, not just in terms of adapting their business models to increase shareholder value but also taking tough decisions to meet the demands of other stakeholders.

In short, we were looking for businesses bold enough to challenge the status quo, just as those in the Tea Party and the Occupy movement are challenging the status quo in their respective countries and regions.

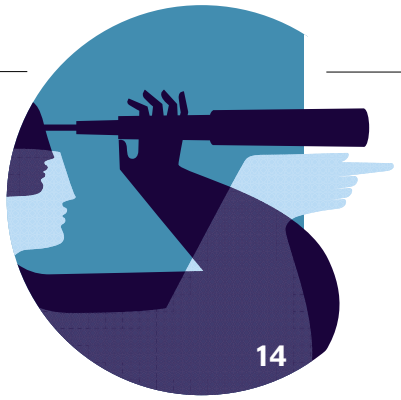
In selecting our shortlist we have spread our net far and wide, from the advanced industrialised west to the faster-growing emerging markets of Asia and Latin America. The winners – rigorously sifted and selected – emerged from a extremely strong field.

I would like to thank the panel of judges for their contributions. Their accumulated expertise has again proved indispensable. And I would particularly like to thank Lakshmi Mittal, co-chairman of the judges, for his support for this important set of awards.

Lionel Barber, *FT Editor*



BOLDNESS IN BUSINESS
CONTENTS



6 INTRODUCTION
The winners have been rewarded for taking risks

8 JUDGES
The panel brought huge reserves of experience from industry and academia to bear on the selection process

10 PERSON OF THE YEAR
Michael Woodford took up the fight and became the world's most high-profile corporate whistleblower

14 DRIVERS OF CHANGE
Amazon's business model changed our retail habits – and the company's ambitions do not end there

18 CORPORATE RESPONSIBILITY
By embracing sustainability, Unilever aims to improve the wellbeing of more than 1bn people

24 WINNERS
What the judges said

26 ENVIRONMENT
Helveta software is helping to halt the logging of some of the world's most endangered forests, with the help of the indigenous people who live there

32 ENTREPRENEUR
Hyflux's innovative technology has helped it to grow from humble origins in Singapore into one of the world's leading water treatment companies

38 EMERGING MARKETS
Early adoption of technology is the secret of success for Samsung, the South Korean electronics giant

42 NEWCOMER
Muddy Waters' research is now required reading for investors in Chinese companies listed in North America

46 SHORTLIST
The 2011 nominees

PHOTO: ED ROBINSON/ONEREDEYE; GETTY; NEW YORK TIMES/REDUX/EYEVINE; REUTERS

38

42

10

26

Special reports editor
Michael Skapinker
Editor
Hugo Greenhalgh
Commissioning editor
Robert Orr
Production editor
Jearelle Wolhuter
Art director Sheila Jack
Visual consultant
Ed Robinson
Researchers
Daniel Hadlow, Alanna Petroff, Snigdha Jain, Emily Kent-Smith
Illustrations Paul Wearing
Graphics Russ Birkett
Special projects director
Diana Whittington
Director of operations
Louise Sharp
Senior project manager
Rebekah Dent
Global events executive
Michael Lundby
List researcher Naomi Hu
Global marketing director
Tania Marshall
Global digital and strategic advertising sales director
Jon Slade
Head of solutions
Patrick Collins
Head of campaign delivery
Rachel Harris
Advertising production
Daniel Lesar

CONTRIBUTORS

JAMIL ANDERLINI is the FT's Beijing bureau chief
JOHN AUTHERS is an FT columnist
LIZ BOLSHAW is a freelance journalist
ROSE JACOBS is an FT companies reporter
BARNEY JOPSON is the FT's US retail correspondent
LOUISE LUCAS is the FT's consumer industries editor
CHRISTIAN OLIVER is the FT's correspondent in Seoul
JONATHAN SOBLE is the FT's Tokyo correspondent

Good judgment

The winners have been rewarded for taking some unexpected risks, writes **John Authers**

The Boldness in Business awards celebrate success in capitalism. While boldness has both positive and pejorative connotations, they attempt to single out companies and individuals who have been so bold as to make a difference.

But after 2011, celebrating capitalism is difficult. It was a year when the western capitalist model rightly came in for its toughest scrutiny and criticism in generations.

What exactly went wrong? Most importantly, economic growth deviated from its hoped-for path in the aftermath of the 2008 financial implosion that was triggered by the collapse of Lehman Brothers, the investment bank. The nascent global recovery wavered. Critically, there was also a sense that basic justice was lacking in the system.

A certain level of inequality is the natural price of giving some an incentive to take risks and innovate. But with capitalism no longer producing a rising tide, can the current extreme inequality (and extreme profit margins for companies) be justified?

Last year, many decided that it could not. This manifested in the rise of the Occupy movement, which has made its presence felt in London, New York and elsewhere.

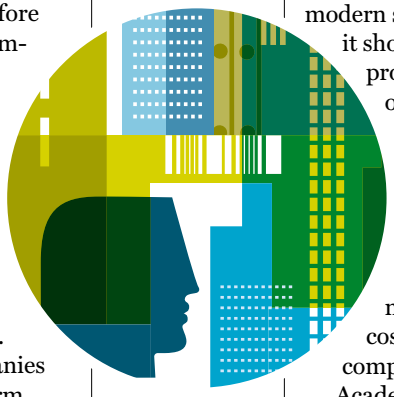
There has long been an intensely ideological debate over whether governments should police markets. Libertarians and socialists, for reasons of deep-seated principle, have fixed positions. But this debate can also play out on a much more practical level. Can markets and capitalism be trusted to generate their own internal controls, so that government interference is not needed?

Today, many can reasonably answer "no".

> Decisions are driven by the notion that there is 'safety in numbers'

Capitalism is supposed to have its own checks and balances. Crudely put, it balances fear against greed. Investors' greedy urges to make profits are checked by their fear of losing it all.

Because of such fears, the classic theory goes, investors do their "due diligence" before making an investment. Companies that are unsound or dishonest do not get finance; entrepreneurs with a track record and a good idea are showered with it. Boards of directors anxiously monitor executives to ensure they are not taking shortcuts, or getting away with fraud. The stewards of big companies keep an eye on the long term. Rather than going for the immediate gratifying fix, they organise communications with investors and remuneration of employees to ensure that the company remains a going concern.



The financial crisis revealed that these checks and balances were not working. That lesson was reinforced by the renewed lapse of 2011.

Despite many tracts arguing to the contrary, I doubt that an increase in greed caused this. Greed is a constant of human nature. Rather, the problem is that fear was artificially suppressed. The financial crisis should have put the fear back into the heart of everyone in the capitalist system. But that has not happened.

Why? I would argue that it comes down to the way in which markets have evolved. Instead of leaving judgments to individual discretion, decisions are driven by the notion that there is "safety in numbers". And the system is riddled with "moral hazard".

Markets now take many decisions that, two generations ago, were taken by banks' lending officers. Money market funds, high-yield bonds, commercial paper and mortgage-backed bonds have all stripped functions away from individuals.

How can they do this? With a big enough sample, there is safety in numbers; armed with modern statistical techniques, it should be fairly clear what proportion of a portfolio of high-yield bonds, or emerging market stocks, or subprime mortgages, will go bad. If they adjust for that risk, traders can carry on as before. There is no need for due diligence, or costly research into what companies are actually doing.

Academic models and increasing computer power have also given investors confidence that they can identify and quantify risk. That in turn fosters the belief that they can control it. Meanwhile, investment

instruments that passively track indices have grown ever more popular. These are good tools for many investors, but they have the effect of further weakening control over managers. Such funds will hold a given stock no matter what. They will not do the messy work of voting down boards that are doing a bad job, and they will continue to shower capital on companies that are wasting it.

Beyond "safety in numbers", there is "moral hazard" – the notion that we are more likely to take a risk if we know that we have protection if things go wrong.

With the world financial system so nearly collapsing after Lehman, it was evident that no other big financial institution would be allowed to fail. And so the biggest banks grew more confident. As governments cosseted them with easy money, the financial services industry grew more aggressive in resisting regulations designed to prevent a repeat of 2008.

As the eurozone crisis deepened last year, it became apparent both that large European banks were vulnerable if eurozone sovereign bonds defaulted and that they would not be allowed to fail. Traders bet on governments and central banks to give way.

This year began with a deepening debate over bankers' pay and company profits. Plainly capitalism's checks and balances are not working smoothly. What to do instead?

The ideal, which takes different forms, would be to move away from a quantitative and mathematical approach and return to investing. Rather than "rationality", or a belief in markets that are "efficient", some economists now call for a return to "reason". Investors and managers must start using their own judgment.

In turn, capitalism must show that there are rewards for those who use their judgment. And so several of 2011's award winners were honoured for doing what should be normal practice.

In the current context, this constituted true boldness.

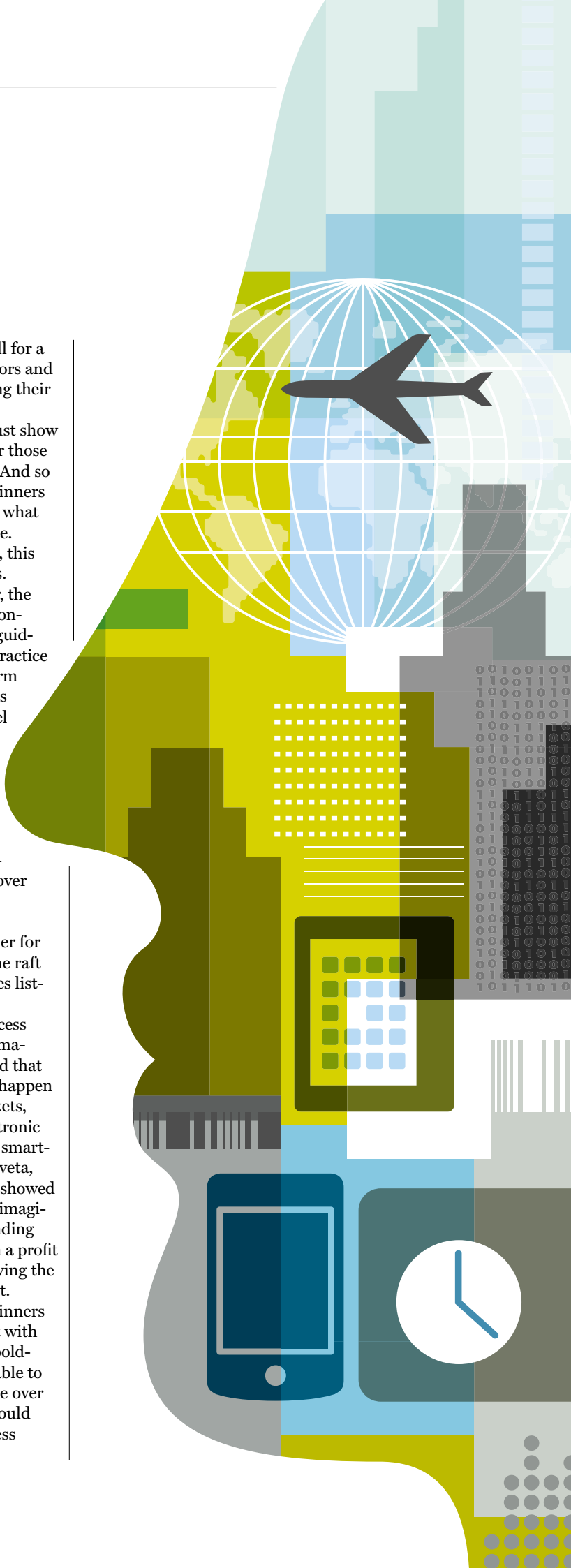
In the case of Unilever, the company abandoned spoon-feeding the market with guidance about its results, a practice that encouraged short-term thinking both by investors and by managers. Michael Woodford, our person of the year, took a huge personal risk to blow the whistle on apparent serious accounting fraud at Olympus, within months of realising a lifetime ambition by taking over as its president.

And Muddy Waters is honoured as the newcomer for doing due diligence on the raft of new Chinese companies listing in North America.

The better-known success stories of 2011, such as Amazon and Samsung, showed that impressive advances can happen in truly competitive markets, such as electronic readers and smartphones. Helveta, meanwhile, showed spectacular imagination in finding ways to turn a profit from improving the environment.

> With judgment and a certain boldness, capitalism may be able to right itself

All the winners suggest that with judgment and a certain boldness, capitalism may be able to right itself. But the debate over whether governments should attempt to help the process will continue. ■



Meet the panel

The judges brought huge reserves of experience from industry and academia to bear on the selection process

Lionel Barber

Lionel Barber has been editor of the Financial Times since November 2005. In his 26 years with the newspaper, he has been US managing editor, news editor, Brussels bureau chief, Washington correspondent and editor of the FT's European edition. Barber has interviewed many of the world's leading business figures and politicians, including Barack Obama, the US president, and Premier Wen Jiabao of China.

Lakshmi Mittal

Lakshmi Mittal is chairman and chief executive of ArcelorMittal, the world's largest steelmaker. He founded Mittal Steel in 1976 and built it through a series of high-profile acquisitions, culminating in the takeover of Arcelor in 2006. Mittal sits on the boards of Goldman Sachs and EADS and on the advisory board of the Kellogg School of Management. He is a member of the Indian Prime Minister's Global Advisory Council and the World Economic Forum's International Business Council.

BOLDNESS IN BUSINESS
JUDGES

John Authers

John Authers is the FT's senior investment columnist. In a 21-year career with the newspaper, he has been editor of the Lex column, US banking correspondent, US markets editor, investment editor and Mexico City bureau chief. He was named senior financial journalist of the year in 2009 by the Wincott Foundation, the premier award in UK financial journalism. His latest book is *The Fearful Rise of Markets*.

Leo Johnson

Leo Johnson is a partner in PwC's sustainability and climate change team. He is co-founder of Sustainable Finance, which is now part of PwC. He is a business fellow of the Smith School of Enterprise and the Environment at the University of Oxford and hosted the BBC World show *Down to Business*. He is a trustee of the Green Alliance and technical adviser to the FT Sustainable Banking Awards.

Anne Méaux

Anne Méaux is founder and president of Image Sept, a Paris-based public affairs and media relations consultancy that advised Mittal Steel on the 2006 takeover of Arcelor. Méaux made her name in political public relations as communications adviser to Valéry Giscard d'Estaing, the former French president. She was awarded the Chevalier de la Légion d'Honneur in 2007.

Dipak Jain

Dipak Jain is the dean of Insead, the international business school. Before joining Insead, he was dean of Northwestern University's Kellogg School of Management. He sits on the board of directors of Deere & Company and Reliance Industries, and in 2003 was appointed a foreign affairs adviser to the prime minister of Thailand. He has also served as a consultant to companies including Microsoft, Novartis, American Express, Sony, Nissan, Motorola, Eli Lilly, Phillips and Hyatt International.

Luke Johnson

Luke Johnson is a serial entrepreneur who came to prominence in the 1990s with the acquisition and flotation of Pizza Express. He is chairman of Risk Capital Partners, the private equity firm he founded in 2001, and plays a leading role in all the company's investments, including Giraffe restaurants and Patisserie Valerie. He recently stood down as chairman of Channel 4 television. He writes a weekly column for the Financial Times on entrepreneurship and is chairman of the Royal Society of the Arts.

Terry Smith

Veteran stockbroker Terry Smith started his broking career at W Greenwell & Co. At BZW he famously penned a "sell" note on Barclays Bank, his employer's parent company. He became head of research at UBS Phillips & Drew, but was dismissed, following the publication of his book *Accounting for Growth*. At Collins Stewart he led a management buyout of the company in 2000. He is now chief executive of Tullett Prebon, the inter-dealer broker. He is also the founder of Fundsmith, the fund manager.

PERSON OF THE YEAR
MICHAEL WOODFORD

Unlikely hero

A little-known Englishman took up the fight and became the world's most high-profile corporate whistleblower. By **Jonathan Soble**

Last spring the Japanese highway authority received an unusual letter from Michael Woodford, a 50-year-old Briton who had recently arrived in Japan to take up a new job as president of Olympus, the manufacturer of digital cameras, endoscopes and other optical equipment.

Woodford, who is tall, broadly built and has thinning brown hair, has long been an advocate of road safety, a cause to which he was drawn as a teenager, when he witnessed a motorcycle crash that killed a boy. Olympus colleagues were used to his frequent interventions against street hazards.

"He once sent me a video he took of traffic lights at the Champs-Elysées in Paris, which he said were too hard to see," recalls Koji Miyata, a retired executive who knows him well.

Woodford badgered Parisian officials until they installed newer, more visible lights. "He is relentless when he thinks something is wrong," Miyata says. "For him, there are no shades of grey."

Although Woodford got his way with the Japanese highway authorities – they agreed to add stop signs to a rest station parking lot that he believed was dangerous – his transformation of the nation's roadways stalled in October, when Olympus fired him after just six and a half months as president.

He had been the first non-Japanese to fill the role since the company was founded in 1919. Its board, which approved the sacking unanimously, suggested that promoting a foreigner had been a mistake.

> "[Woodford] is relentless when he thinks something is wrong"

Woodford had embarrassed senior executives by issuing instructions directly to lower-ranking employees, violating Olympus's cherished chain of command. Tsuyoshi Kikukawa, the chairman, called him "high-handed", and speculated later that he "disliked Japan".

As many people now know, Woodford told a different story – one that would turn

him into perhaps the highest-ranking corporate whistleblower in history.

In his first interview after he left the company, with the Financial Times, he claimed that millions of dollars of Olympus's money had "disappeared" in a series of acquisitions before he became president. The apparent fraud had come to his attention several months after he took over, he said, when a Japanese magazine published a story questioning the deals.

Woodford had been working for Olympus in Europe when the deals were approved, by a board led by Kikukawa.

What really got him fired, he believed, were his attempts to solicit more information from the chairman and other fellow executives.

"They told me to catch a bus to the airport," he recounted to the FT during that first interview, in the back corner of a Tokyo café about two hours after his dismissal.

The end had been a shock but not a surprise, and he had prepared for it meticulously: there was a thick, neatly organised binder full of internal documents to back up his story. His main worry now was that criminal gangs might somehow be involved, and he was eager to get home to his wife and two children in the UK.

"I felt very uncomfortable, because the amount of monies paid to parties completely unknown was so huge," he said afterwards.

The sums involved in the Olympus scandal would ultimately expand to about ¥130bn ($1.6bn). After initially denying ➤

PERSON OF THE YEAR
MICHAEL WOODFORD

wrongdoing, the company admitted that it had been stashing loss-making securities investments in the Cayman Islands and other financial hidey-holes since the early 1990s.

The acquisitions, for which Olympus overpaid intentionally, had been part of a complex scheme to square its accounts. Law enforcement agencies and regulators launched investigations, and last month seven people were arrested in connection with the fraud, including Kikukawa, two other disgraced Olympus executives and several outside financial advisers suspected of helping executives hide lossmaking investments.

Olympus's share price, which fell by more than 80 per cent in the weeks immediately after Woodford's sacking, remains at about half its pre-scandal level, and Japanese politicians – worried that other companies' reputations could be tarnished – are reviewing the country's rules on corporate governance and auditing.

"If they did not know what he was like, then they really were stupid," says Albert Reddihough, one of Woodford's first bosses, of the decision by Olympus to bring the Englishman to Japan. Reddihough is the founder of KeyMed,

From factory trainee to whistleblower

1976 Left school in Liverpool, England aged 16 for a trainee job at a factory that made car and aircraft parts. The factory closed two years later

1981 Hired as salesman by KeyMed, a medical devices group that later became a subsidiary of Olympus

1991 Takes over as KeyMed managing director, aged 30

2002 Awarded an MBE for contribution to road safety – a pet project

2005 Becomes executive managing director of Olympus in Europe. Promoted to board of Olympus five years later

2011 Appointed president of Olympus and moves to Tokyo. Within six months he becomes its first non-Japanese chief executive. Begins investigation of the company finances

Lost in translation: Michael Woodford is one of only a few foreigners who have managed a large company in Japan

a UK medical devices company that began as a distributor of Olympus endoscopes and was later acquired by the Japanese group. He has known Woodford since he hired him as a junior salesman, at the age of 21. The job saved Woodford from an unpromising start: he had left school in Liverpool at 16 for a trainee job at a local factory that made car and aircraft parts. The plant closed two years later. When he applied to join KeyMed, he was selling tonic water for Schweppes.

Reddihough recalls him as quick to learn and sure of his opinions.

"He would not agree with you just because of who you were. You had to work hard to convince him," Reddihough says. Woodford became a top salesman, and when Reddihough retired a decade later, he recommended Woodford as his successor, at the age of just 30.

"At first Olympus said no, that he was too young," Reddihough recalls. Undaunted, Woodford travelled to Tokyo to present a business plan that he hoped would change executives' minds.

It worked: Olympus allowed him to take over, and eventually he went on to run the company's entire European business, where he made the region the biggest contributor to group profits.

In Japan, few foreigners have run a large company, and those who have – Carlos Ghosn at Nissan, the carmaker, for instance, or Sir Howard Stringer at Sony, the electronics group, – have mostly been brought in to do unpopular things, such as restructure underperforming businesses or break relations with longtime suppliers.

> He sometimes feels like he has taken on Japan's whole establishment

Woodford believes he was brought to Japan to impose the sort of rigorous streamlining that had boosted earnings in Europe on Olympus as a whole. The company had been losing money, particularly in the highly competitive digital camera market. Kikukawa and other senior board members may have believed they could keep Woodford focused on day-to-day operations and away from the books.

Woodford does not speak Japanese, and his foreignness may have made him seem pliable. "I started to feel like a puppet," Woodford says of his growing realisation that he was not part of the inner circle. When he asked questions about the accounts, Kikukawa told him it was a "domestic matter", and other executives stalled or ignored him. "They were slapping me. They wanted me to know my place."

In the eyes of the world, Woodford has come out of the Olympus affair the winner. But he sees his victory as at best only half accomplished.

In January, he announced that he would give up a campaign to win reinstatement at the head of an all-new board, after failing to win support from Olympus's Japanese institutional shareholders and bankers.

Instead, he is suing the company and preparing to write a book. He says he sometimes feels as though he was taking on Japan's whole business establishment, rather than rotten executives at a single camera maker.

"I am not superman. I cannot change opinion in Japan in such a profound way," he says. "That has to come from within." ■

2012

October 2011

Dismissed after confronting fellow executives. Goes public with allegations of wrongdoing

November 2011 After weeks of pressure, Olympus admits reporting false financial accounts. Woodford returns to Japan to meet police, prosecutors and financial regulators

February 2012

Several former Olympus executives, including ex-chairman Tsuyoshi Kikukawa (above), and outside financial advisers, arrested over role in affair

PHOTOS: EYEVINE; REUTERS; DREAMSTIME

The way we shop now

Amazon's business model changed our retail habits – and the company's ambitions do not end there, writes **Barney Jopson**

AMAZON

One morning last September in New York, Jeff Bezos swept his forefinger across a 7.5-inch screen as fast as he could, slicing through flying mangos, melons and apples to the sound of splatting. The founder and chief executive of Amazon was showing off the $199 Kindle Fire – a colour touchscreen device he wants to use to storm the world of tablet computing. Fruit Ninja, the video game, was his way of introducing it.

It was perhaps no coincidence that Bezos chose to destroy digital fruit – the Fire was a direct challenge to another Apple, the technology giant founded by Steve Jobs. It was also the latest expression of Amazon's uninhibited ambition.

"You can see how fast the dual core processor is," he told the audience of journalists, bloggers and gadget hounds. "You can also see that my Fruit Ninja skills are lacking. I also have to admit I find this a little uncomfortably therapeutic."

It is more than 17 years since Bezos opened an online bookstore in Seattle on the US's northwest coast that would go on to revolutionise retail.

The ride has been neither smooth nor predictable: Amazon lost money from the start, and when the internet bubble burst it came close to joining the pile of tech wrecks. But Bezos pulled the company back from the brink and it turned its first net profit – $5.1m on sales of $1.1bn – in the fourth quarter of 2001.

Since then, the company has launched new services, acquired other businesses, shaken up industries and diversified at a frenetic pace – one that would probably be judged impossible, illogical or insane in the offline world.

Its market capitalisation has increased from $6bn 10 years ago to roughly $82bn today. Bezos – who possesses unswerving self-confidence, a barking laugh and a goofy streak – owns a stake of just over 19 per cent.

Not only does Amazon now sell children's nappies, dog food and cocktail dresses, its all-purpose commercial empire spans book publishing, the Internet Movie Database (IMDb), the packing and shipping services of Fulfilment by Amazon, and the rentable cloud computing infrastructure of Amazon Web Services.

In online retail, Amazon has changed the way we shop – and to a large degree the way we live. The essence of its model is still low prices, low profit margins and high volumes. But it has also introduced a Marketplace where other retailers can sell their goods from its site; product recommendations based on what other shoppers buy; and the Prime loyalty programme, which entices customers to pay $79 a year for "free" shipping.

Amazon has changed the way we shop – and to a large degree, the way we live

Amazon's bricks-and-mortar critics complain that its price advantage in the US comes mainly from a loophole that enables it to avoid sales tax in many states. The company counters that it does collect sales tax outside the US and there is no evidence of that hampering its sales growth.

Amazon has achieved the prosaic but difficult goal of creating a quick, reliable shopping experience, according to Scot Wingo, co-founder and chief executive of ChannelAdvisor, a software group that counts the company as a client.

"The Amazon buyer experience is so good compared to everything else," he says.

In 2007, Amazon branched out again to launch its first ereader, the Kindle, gamely creating an in-house challenge to the world of physical book retailing from which it had emerged.

Last year in New York, when Bezos recalled Amazon's effort "to reinvent something that has been around for five centuries", he conveniently overlooked the efforts of those who had tried to digitise the book before him. But the Kindle did more than any other device to make ereaders a mass-market product.

The entry into tablet computing took the ereader one step further. True to its secretive nature, Amazon has not disclosed how many Kindle Fires it has sold, but analysts estimate that from the November 15 launch to the end of the year it moved between 4m and 6m.

For the fourth quarter of 2011 – 10 years on from its first profit – it reported net earnings of $177m on sales of $17.4bn.

The Fire's challenge to the iPad sparked inevitable talk of a clash of the tech titans. The death of the Apple founder ➤

DRIVERS OF CHANGE
AMAZON

just a week after the Fire was unveiled, and five weeks before it began to ship, meant such a personal battle never came to pass.

Amazon has replicated Apple's system by creating a device that plugs into a content "ecosystem" of digital books, music, video and magazines on its servers. But while the Fire is a challenge to the iPad, it is not an attempt to best it. The Fire is not filled with new technologies, but is rather a stripped-down piece of hardware.

Product reviewers liked its compact size (smaller than the 9.5-inch iPad), the connection to Amazon media content and the decision to hide its Android operating system.

But it has been criticised for a clunky user interface; relatively limited battery life and memory; the lack of a volume button, camera and microphone; and the difficulty of accessing non-Amazon content.

Overall, it is undoubtedly less capable than the iPad. But the point is the $199 price tag – $300 less than the cheapest iPad. Amazon's innovation was creating a new low-end niche in the tablet market.

"One of the only things they innovated on was price, which was crucial," says Andrew Eisner, director of content at Retrevo, an online marketplace for consumer electronics.

"We did surveys that found price was one of the most important things that prevented people from buying the iPad."

In that sense, the Kindle Fire is classic Amazon. Apple is premium and pure, but Amazon is proletarian and prolific. It is about the humdrum-but-vital business of low prices, speed and reliability, whether it is delivering a packet of nappies in a cardboard box or a Hollywood blockbuster over a wifi network.

> Apple is premium and pure, but Amazon is proletarian and prolific

Amazon needs to persuade consumers to uproot their digital lives – many of them already planted in Apple's world – and shift them into its ecosystem. That is a big ask. Apple sold more than 15m iPads in the fourth quarter of 2011. Adding to the competition, Barnes & Noble, the book retailer, unveiled its own Nook-branded tablet in November.

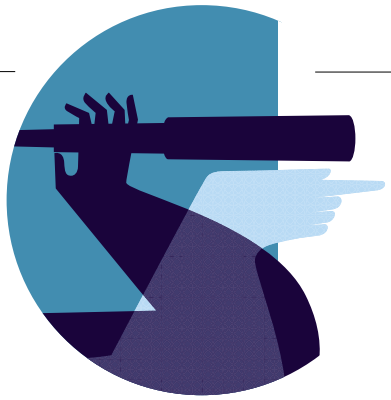
The Fire has come at the cost of reduced profit margins. Amazon spent a lot on develop-

PHOTOS: GETTY; REDUX/EYEVINE; BLOOMBERG

Alan Mulally

President and chief executive, Ford Motor Corporation

"Boldness in business means establishing a compelling vision, developing a comprehensive plan and relentlessly implementing it, week after week, year after year. This is necessary to make progress against even the most severe economic headwinds."



Pile 'em high: one of Amazon's giant distribution centres (left); Jeff Bezos, its founder and chief executive (below)

ment and analysts reckon it may be selling the device at or close to a loss.

That helps explain why an operating profit margin that was already thin at 5.5 per cent in the first quarter of 2010, fell to just 0.7 per cent in the third quarter of 2011, before ticking back up to 1.5 per cent in the fourth quarter. Amazon has even warned that it could report an operating loss.

For some investors, that stirred uncomfortable memories of the growth-over-profits mentality of the original dotcom boom. Even some of its more evangelical supporters wobbled when Amazon reported slowing sales growth in the fourth quarter of 2011, although a 35 per cent year-on-year gain is hardly pedestrian.

For all his zeal in the assault on corporations as varied as Apple, Google and Walmart, Bezos, Amazon's ruthless chief, shows little interest in courting investors. Yet even without that, the company is valued at roughly 76 times its forecast earnings for the next 12 months, a multiple befitting an internet superstar.

On its careers site, Amazon tells job hunters: "We have revolutionised the online shopping experience, cloud computing and the book... join us and see what's next!"

Ultimately its future will depend on whether it can keep clicking with customers. ■

Shop till others drop

Amazon takes fight to bricks-and-mortar retailers

One man's innovation is another man's bare-faced cheek. Last year, Amazon sparked outrage by effectively paying its customers to gather intelligence on its rivals.

Its wheeze was to offer an extra 5 per cent discount (up to $5) to customers who used its Price Scan app for smartphones to record the price of a product in a local store and who then bought it from Amazon instead.

Olympia Snowe, a Republican senator, said Amazon was "incentivising consumers to spy on local shops" and called the move "a bridge too far".

Amazon's Walmart-like obsession with low prices has already helped it to take over Walmart's role as the price benchmark for many products.

The 5 per cent discount was available for one day only – December 10 – and was limited to certain goods. But the exclusion of books did not soothe book retailers, which were the first victims of Amazon's rise.

"It is the latest in a series of steps to expand your market at the expense of cities and towns nationwide," wrote Oren Teicher, chief executive of the American Booksellers Association, in an open letter to Jeff Bezos, Amazon's founder and chief executive.

Bricks-and-mortar retailers are not beyond reproach. Amazon's price app press release was headlined "Is that deal really a deal?", an allusion to the non-stop blizzard of discounts offered by many stores, which often seem designed to baffle shoppers rather than help them.

Once the furore it had set off was raging, Amazon, as it usually does, stayed quiet. **–BJ**

Changing lives

By embracing sustainability, Unilever aims to improve the wellbeing of more than a billion people, writes **Louise Lucas**

UNILEVER

Sustainability, Unilever likes to suggest, is embedded deep in its DNA. And the company knows a thing or two about being in it for the long haul.

From its paternalistic beginnings in Victorian Britain, the Anglo-Dutch conglomerate, which sells a range of household products such as Dove shampoo, Flora margarine and Magnum ice creams, is pursuing a bold bid to double turnover while halving its environmental footprint.

"Growth at any cost is not viable," wrote Paul Polman, Unilever's chief executive, when he unveiled the company's sustainable living plan in November 2010. "We want to be a sustainable business in every sense of the word."

Unilever's plan covers everything from farmers' livelihoods to preserving water and improving children's health. It includes people such as Harold Bokaba, one of the company's Aids champions in South Africa and a "doler-out of condoms to truck drivers" in his work to stem the spread of HIV/Aids.

But what really makes environmental consultants take notice is the way Unilever measures its footprint: right through the product life cycle. Rather than simply switching off lights and PCs at head office or recycling water in factories, the company aims to make consumers more eco savvy. This means enabling and persuading its customers in India, for example, to wash clothes with a single bucket of water, and those in the US to take shorter showers.

Unilever's calculations, based on 1,600 representative products, pinpoint use by consumers as the biggest culprit in the creation of its greenhouse gas emissions. These show that raw materials account for 26 per cent, manufacturing and transport together a modest 5 per cent, consumer use 68 per cent and disposal 1 per cent.

"That level of analysis and granularity upfront, combined with the overall ambition, is what is different [about Unilever's goals]," says Rodolphe d'Arjuzon, global head of research at Verdantix, an analyst firm that advises companies on environmental and energy strategies. "They are concocting a plan that really does leverage their core strengths of marketing and communications muscle."

It is muscle Unilever is willing to flex. In the US last year, a campaign by Suave shampoo in Walmart stores encouraged shoppers to "turn off the tap". Families who shaved two minutes off their showers could save 21,000 litres of water and $150 a year, the ads proclaimed.

> "There is no conflict between sustainable consumption and growth"

Polman makes no apology for putting sustainability at the heart of the company. "Without it, we have no business," he says. As proof that investors are on board, he points to the share price, which hit a record high late last year.

Launching the plan in 2010, he insisted there was "no conflict between sustainable consumption and business growth... quite the opposite, in fact. There is a compelling case for sustainable growth – retailers and consumers demand it and it saves us money."

That plan set three broad goals: to help improve the health and wellbeing of more than a billion people; to halve the environmental footprint across the total value chain; and to source all agricultural raw materials sustainably.

The company's target is to halve greenhouse gases, water and waste by 2020. Since much of the emissions occur after the bottle of shampoo or mayonnaise has left the shop, Unilever aims to give 400m consumers products and knowledge that will enable them to do just that.

On the manufacturing front, carbon dioxide emissions will be returned to 2008 levels by 2020, despite increased volumes. Use of renewable energy will be doubled to 40 per cent of the total and new factories will have half the impact of current ones.

"Certainly there's no lack of ambition," says d'Arjuzon. "Linking [these aims] to the overall strategy is an extremely bold move." It is a rare one too, he says, citing BASF, the German chemical group, and Puma, the sportswear manufacturer, as unusual examples of companies that have pushed the envelope by linking sustainability to the financial bottom line.

Unilever has set itself a big challenge. It estimates its products are used by 2bn people around the world every day. This figure includes 125bn washes a year using its Persil, Omo and Surf detergents, among others. ➤

CORPORATE RESPONSIBILITY
UNILEVER

Polman says changes on this scale cannot be achieved in isolation. He advocates partnerships between the public and private sectors, and bringing civic society on board. Indeed, food manufacturers and agricultural groups report a broadening co-operation with non-governmental organisations as they work together to educate and organise farmers, and provide welfare services.

Underlining these links, Polman has taken up various seats: he recently co-chaired the World Economic Forum's "New Vision for Agriculture" initiative; he is pushing the agenda for food security through the B20, the business arm of the G20; and he is the vice-chairman of the World Business Council for Sustainable Development.

With eight years to go, Unilever has chalked up a number of milestones. For example, all Lipton Yellow Label and PG Tips teabags in western Europe were from Rainforest Alliance-certified farms by 2010, which provide good working conditions, Unilever says, for 175,000 workers.

But extending sustainability to all agricultural products by 2020, Verdantix writes in a report on the company, is "particularly challenging, as the firm has been active in this field for over a decade and had achieved just 10 per cent at the end of 2010".

The company aims to source 30 per cent of materials sustainably by the end of this year and 50 per cent by the end of 2015 – "but we know it's going to be difficult and we don't have all the answers yet", Unilever says.

The company might argue that it has been in the game of improving the welfare of workers, the poor and oppressed for the best part of a century.

Today's water-efficient detergents and nutrient-fortified foods are not so different from the soap flakes and vitamin-boosted margarine produced in the 1930s.

> Unilever aims to source 30 per cent of materials sustainably by the end of 2012

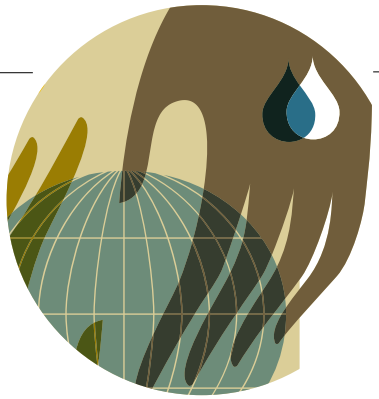
The push to reduce diarrhoeal and respiratory disease through better hygiene – persuading 1bn consumers across Asia, Africa and Latin America to wash their hands regularly – was underway more than 100 years ago in the slums of England. (Sunlight soap was intended "to make cleanliness commonplace".)

Sir Howard Stringer

Chairman and chief executive, Sony Corporation

"Boldness in business requires a specific vision of where you want to lead, and then taking steady, even sometimes symbolic, steps to bring you closer to that destination. Be patient, expect setbacks, but do not waver – focus on the task at hand, and never give up."

PHOTO: CHARLIE BIBBY



"Some 63 per cent of households live on less than $1,000 a month. We see that as dreadful"

Growth factor: Paul Polman (left) believes sustainability makes good business sense; Marmite is one of Unilever's best-known food brands (below)

While the focus on farmers is, as Unilever says, a means of managing a key business risk (security of supply), it mirrors attempts to improve the welfare of workers in Victorian England, who were provided with dining halls, schools and hospitals.

The moves are enlightened self-interest, yet Polman is casting the net wider. He wants Unilever, and business in general, to play a role in the big battles faced by governments around the world: a culture of entitlement, social cohesion and inequality.

"Social cohesion is one of the biggest problems," he says. "Some 63 per cent of households live on less than $1,000 a month. We see that as dreadful. Doing the right thing for the long term and having more equitable growth means some of us have to tighten our belts a bit more." ■

Pick of the crop

Bollywood-style education boosts farmer's yields

Unilever, like its competitors, is devoting an increasing amount of time and energy to farmers: the men and women who control the first link in the food chain.

The company aims to strengthen support to 500,000 smallholder farmers by 2020. They are spread across the globe and grow everything from sugar to palm oil to cocoa. Many of Unilever's peers, including Nestlé, the Swiss food group, do likewise.

Providing farmers with education, better-yielding seeds, fertilisers and other inputs is not about altruism, as the manufacturers readily admit (adding, indeed, that this in itself makes the projects more sustainable).

Benefits to Unilever and its cohorts include security of supply, locked-in prices and less volatility in terms of commodities and foreign exchange.

Its work with gherkin farmers in southern India illustrates how the partnerships pay off for both sides.

The farmers are smallholders, many tending just a quarter of an acre. The yields and quality of the gherkins, used in Unilever's Amora dressings, declined in the late 1990s, prompting the company to put together a "swat team" of academics and agronomists.

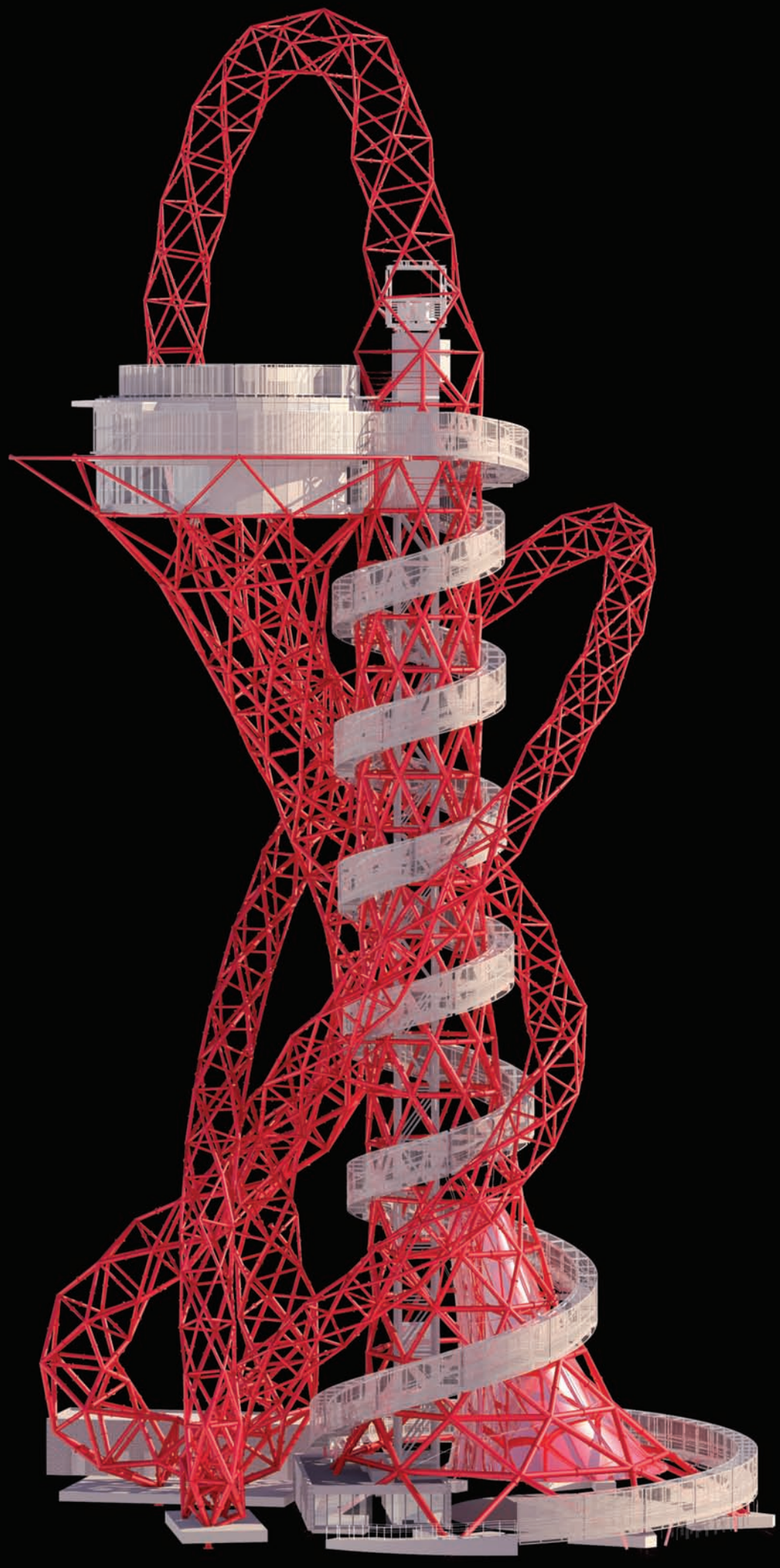
The farmers, Unilever and its suppliers worked together to create a programme to manage pests while cutting the use of pesticides, and promote sustainable agriculture techniques.

Much of this was basic husbandry: planting more resistant varieties of gherkins and spraying pesticides only when there is a high risk of infestation. Improved irrigation and delaying the growing season to avoid the monsoon has also helped to reduce fungal infections.

Unilever ensured the messages would not be lost on illiterate farmers by turning them into Bollywood-style films to supplement illustrated guidebooks written in local languages.

Now Paul Polman, chief executive of Unilever, is turning his attention to women farmers. By doing so he reckons productivity can be improved by a further 15-19 per cent. **–LL**

© Thoburns.com 2012



official steel supporter of the
2012 Olympic and Paralympic Games

Steel.
Art.
Sport.

A bold combination.

Teaming up with Anish Kapoor and Cecil Balmond to create an iconic landmark for London 2012 was a bold move. But a resoundingly successful one. The ArcelorMittal Orbit perfectly encapsulates the company's values: sustainability, quality and leadership. A tribute for 2012 and for the future.

ArcelorMittal

BOLDNESS IN BUSINESS
WINNERS

What the judges said

DRIVERS OF CHANGE
Amazon

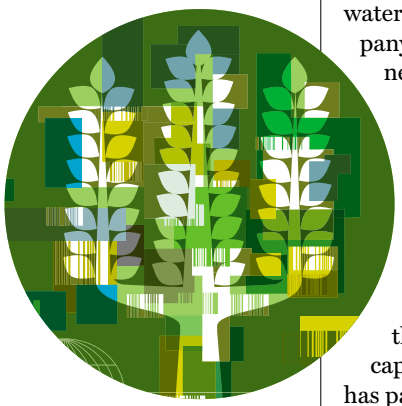
Already a dominant force in the ebook market, the company shook up the tablet market with the launch of the Kindle Fire – a $199 rival to Apple's iPad. It was a bold move, and the next step in the drive to transform Amazon from a retail company into a technology conglomerate that can challenge the likes of Apple and Google. Jeff Bezos's skill was to anticipate the demands of Kindle users to stream and download all things digital, from songs and books to films and games, from Amazon's cloud. **Anne Méaux**

PERSON OF THE YEAR
Michael Woodford

If there was one person who captured the spirit of boldness in business in 2011, it was Michael Woodford. His selection was a matter of serious discussion among the judges. There were concerns that it might be misconstrued as an incitement to whistleblowers and a broader insurrection against business. But these concerns were allayed once the logic of the choice became clear. Woodford took a considerable risk in exposing wrongdoing. As chief executive, he was arguably acting against his self-interest, since his job was obviously in jeopardy. Yet he did the right thing. He campaigned for proper accounting and persuaded the Japanese authorities to act. He was a study of boldness in action. By choosing him, the judges followed suit. **Lionel Barber**

CORPORATE RESPONSIBILITY
Unilever

Unilever set big goals for 2020, including halving the environmental footprint of its products. But the company's aim is broader even than that: to demonstrate the viability of a different business model, one that chief executive Paul Polman calls "sustainable and equitable capitalism". This means not only growing in the face of pressing social, economic and environmental challenges, but delivering solutions for them. **John Authers**



ENVIRONMENT

Helveta

If a sixth of global CO_2 emissions come from deforestation and 1.6bn people depend on forests for their livelihoods, then halting deforestation is a critical development challenge. And yet it has proven a tough nut to crack. You can win on the demand side, by getting consumers and companies to demand sustainable wood, but how do you ensure that the wood from forests across equatorial Africa and south-east Asia is harvested sustainably? Helveta's business model is simple: technology that maps timber supply chains from forest to furniture outlet, giving traceability, chain of custody control, and guarantees of legal compliance. **Leo Johnson**

ENTREPRENEUR

Hyflux

If there is one quality that characterises the story of Singapore-based water treatment company Hyflux, it is boldness: from founder Olivia Lum's move to focus on the water sector way back in 1989, to her decision to quit her well-paid job as a chemist with GlaxoSmithKline to set up the company with just two employees and less than $20,000 in start-up capital. It is a boldness that has paid off. Hyflux, which is publicly traded, now has annual revenues of $450m and is one of the world's leading desalination companies. Its water membrane technology has formed part of emergency relief operations for disasters from Haiti to Qinghai. What was it that drew the judges to Hyflux? From a chief executive who grew up as one of five orphans without access to running water, it was the commitment, born of first hand experience, to build a business with the potential to address the challenge of providing clean water. **Leo Johnson**

EMERGING MARKETS

Samsung

Samsung's ability to stay in the game with the mighty Apple, and even have a chance of beating the US group, should be seen for what it is: astonishing. Critics argue that the South Korean company is not innovative enough, but Samsung's ability to respond so quickly shows that it is transcending this view, and its leaden corporate structure, to its great credit. The fact that this award goes to Samsung recognises that emerging market companies are now big enough to conquer the world. As for South Korea, its success story was probably the greatest of the 20th century – from war-wrecked peasant economy to world-leading manufacturer in one generation. **John Authers**

NEWCOMER

Muddy Waters

Muddy Waters performed a service by exposing the lack of proper due diligence in respect of the flotation of a number of Chinese companies listed in North America. One of the most important functions of markets is the allocation of capital to those businesses that will produce the best returns on capital by offering the best goods and services. Any distortion in this makes us all poorer. The only way to ensure this is to have independent analysis. **Terry Smith**

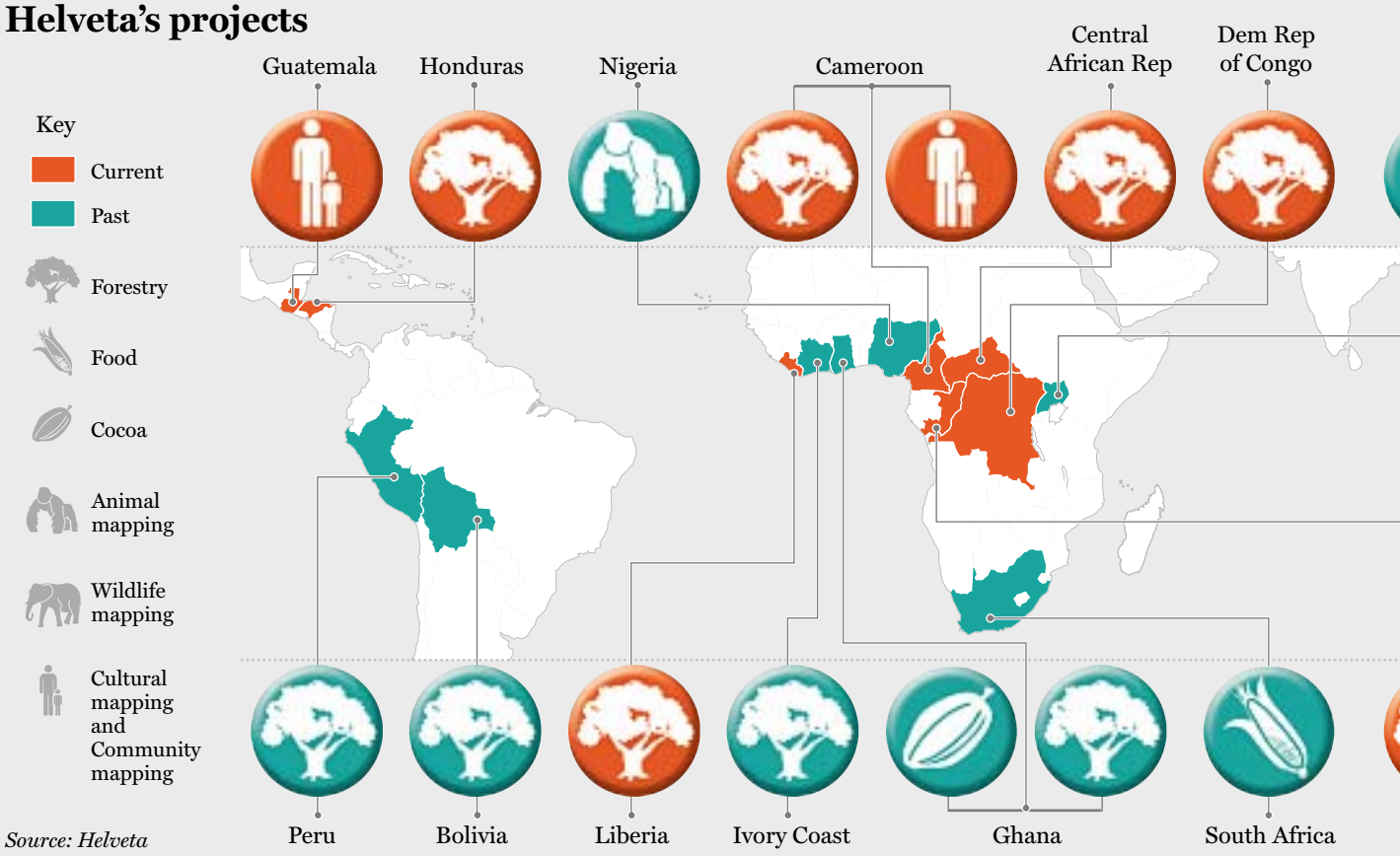
ENVIRONMENT
HELVETA

Chipping away at deforestation

Helveta software is helping to halt the logging of some of the world's most endangered forests, with the help of the indigenous people who live there, writes **Rose Jacobs**

Green software goes global

Helveta's projects



Source: Helveta

Ed Lascelles vividly remembers the first time he came across Helveta, a small Oxfordshire-based software company.

As a venture capitalist, Lascelles sees two or three business plans every day. But Helveta's stood out, thanks to some unusual details included in one pilot project. The company recruited pygmies in the Congo basin to use what they thought were "boxes of magic" to scan trees.

"We thought, this is unusual, this is interesting," says Lascelles.

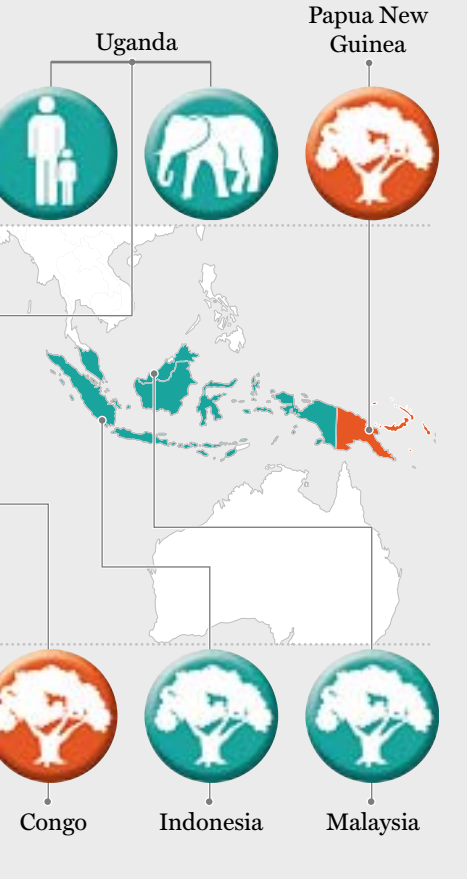
The boxes of magic were, in fact, Motorola handsets, and the Baka pygmies were using them to scan barcodes affixed to trees. They then tapped picture icons to record whether a certain tree was sacred, or bore fruit on which the tribe depended.

Helveta's client, the Cameroonian government, was trying to ascertain which trees played important roles in the lives of the nomadic tribes, and which could be felled for timber. "Forestry groups will say, 'no one lives here'," says Simon Bates, head of implementation at Helveta, which was founded in 2004. "The icon-based system shows

Andy Atkins,
Executive director,
Friends of the Earth

"Companies demonstrating leadership recognise the difference between the superficial and the transformational. As the world strives to live within its environmental limits, this will present opportunities for those prepared to change their business models."

PHOTO: ENTERTAINMENT PRESS



Forest map: as well as tracking trees, Helveta software has been used in food, animal and community projects (left)

'this is a sacred tree; I fish in this river; I drink this water'. It shows 'this is my home'."

The appeal was clear from a sustainability perspective. But to Lascelles and his team at Albion Ventures it demonstrated that Helveta was capable of deploying its software in difficult environments among people who were far from tech savvy. Both these attributes were key to what they considered, in 2006, an exciting area for growth.

"You could see that illegal logging was clearly an issue that was only going to become higher profile and there would be increasing amounts of legislation and market reaction to impose some level of control on the trade in illegal timber," Lascelles says. "And if you looked through the range of technologies and the different ways people were thinking about it, it just seemed that to use some sort of tracking of the asset was going to be the answer."

Helveta's technology can follow timber from stump to shop

As well as simply mapping forests, Helveta's technology can follow timber from stump to shop. Trees are given identification numbers – scannable from a barcode – that remain associated with any wood derived from those trees as they are felled, cut, sent through the sawmill and eventually used domestically or shipped abroad.

The appeal is multifold: manufacturers that can prove provenance can potentially demand a premium price; governments can make sure the appropriate taxes are paid; and stakeholders ranging from regulators to environmental watchdogs to consumers can be assured that raw materials are being extracted responsibly.

Lascelles was right about the issue getting more attention. In 2008, US legislators extended the Lacey Act, a 100-year-old ban on the transportation of illegally captured wildlife across state lines, to include plants and products derived from plants, such as timber. This meant importers would need to show they had taken "due care" to ensure that they were not buying or selling illegal timber.

Meanwhile, and of more immediate interest to Helveta, the European Union has been moving forward with its own, more prescriptive, programme to fight illegal logging. It involves licensing timber-producing nations that can prove the legality of the wood they export. From March 2013, EU-based companies will only be able to source wood from countries with Forest Law Enforcement, Governance and Trade (Flegt) licences.

That has made this a crunch year: Helveta is developing or has launched pilot tracking programmes in eight African countries "all gunning for 2013", according to David Kennan, head of sales.

Karim Peer, chief executive, expects the group will see maiden profits in 2012. "This is absolutely a transition year for us," he says. "And our sales assumptions going forward assume only that our existing customers move from pilot to national extension."

Of course, even that is fraught with risk. Rachael Nutter, investment manager at the Carbon Trust, the UK government-backed environmental adviser that bought into Helveta in 2009, cautions: "Rolling out software in a big blue-chip corporation can be quite challenging. You then try it for a whole industry in a difficult ➤

HELVETA

physical environment, where there are vested interests involved, where you haven't necessarily got brilliant education levels or brilliant communications, and just moving these projects along can be very difficult."

Moreover, cash flows can come under pressure. Grants for the Flegt process make up a big chunk of Helveta's revenues, which hit £2.1m in 2010, according to its most recent financial statements, a 60 per cent rise from the previous year. Given that source, there is little risk in not being paid at all, but prompt payment might be more problematic.

"Also, to a certain extent, you are making a market," says Nutter. "We are often backing companies that are new propositions for a customer, and it does take time for them to get that. It always takes longer to get the revenues than you think."

> "[Helveta] is not replacing a product... it is at the forefront of what is possible"

Missed targets was one reason for a management change last year, when Peer replaced Patrick Newton, the company's founder, at the helm.

But Lascelles argues that the slower-than-expected move towards profits was out of management's control in some ways: once it became clear that both the EU and the US would be tackling illegal logging through regulation, many contracts stalled as people waited to see what controls would be required by law.

Peer, who was chief operating officer and then chief executive at Financial Objects, a technology group, has been focusing on "software discipline" at Helveta by hiring developers who can deliver robust

and scaleable products. He is also investing in the sales team.

It is a position that underscores his plans for growth. While many employees will devote this year to the scramble to prepare timber-producing clients for March 2013, others are looking at new markets.

The group has made inroads into Latin America – "We thought we were going to sign contracts with the government in Peru and then in one year they sacked their government twice," recalls Lascelles – and would like to go further. It sees enormous potential in tracking natural resources other than timber – from coffee and cocoa, to rare minerals and biofuels.

That is when Helveta's investors might start looking for an exit, particularly once at least one nationwide roll-out of the Flegt process has been completed. Most expect a secondary buy-out or trade sale, either to a bigger, more generalist software developer or supply-chain manager, or to a consultancy with a sustainability practice that would like to provide software solutions.

Peer says he doubts a stock market listing makes sense, given the relatively small size of the company.

No one is in any rush. Lascelles argues the group is sitting comfortably, given high barriers to entry in the timber-tracking market. It is, after all, not easy to persuade pygmies, let alone a range of government departments, companies and regulators, to trust you.

And Nutter points out that Helveta's proposition is, in many ways, unique.

"They are not replacing an incumbent product in an established market," she says. "They are at the forefront of what is possible." ■

PHOTO: ALAMY

Stacking up: Helveta sees potential in tracking natural resources other than timber (left); the Cross River gorilla (right)

Gorilla capitalism in action

Baka pygmies and endangered primates also benefit

Helveta's core business may be developing software to aid supply-chain management, but its team has also helped improve communication between the sexes.

Simon Bates, who has worked with Helveta since 2005, remembers an early project mapping people's use of the forest in the Congo basin. A Baka pygmy chief insisted his people ate only big fish. But that assertion was belied by Helveta software when the women of the tribe used mobile handsets to show that they survived on sprats when the men were away.

> "With a purely commercial hat on, these things do not make sense. But I think it is the right thing to do"

Nor were the chief's claims about his own habits quite accurate when measured against the data he and his men entered during hunting and fishing expeditions: "Men will always over-egg how far they go and how much they hunt," says Bates.

As the company grows, will social projects such as recording pygmies' domestic habits, monitoring farmers' encroachment on national forests and following the trail of the endangered Cross River gorilla fall away?

Karim Peer, the chief executive, says no. "If I put on my purely commercial hat, these things do not make sense. But really, honestly, I think it is the right thing to do." He would eventually like to have a division within the larger company devoted to this sort of work.

Nor does he think social projects are without commercial merit, even if they do not always yield the margins he is aiming for elsewhere in the group. "It helps cement our position as a company that cares," he says. "And when countries are looking for new software, that scores us extra points." **–RJ**

ENTREPRENEUR
HYFLUX

Highwater mark

Hyflux's innovative technology has helped it to grow from humble origins in Singapore into one of the world's leading water treatment companies, writes **Liz Bolshaw**

ENTREPRENEUR
HYFLUX

Twenty years ago, Olivia Lum bet everything she owned – her small house, her even smaller car – on a simple hunch.

"I always believed in alternative sources of water," she says. "When I first started this business, I believed that natural water would soon run dry. Natural rivers were polluted [and] I could see water shortages would become more apparent in many industrialised countries because of competing and growing demands."

Today, Lum sits at the helm of one of the world's leading water treatment companies, which has pioneered the use of advanced membrane technology in treating waste water and seawater to make it potable. Her company, Hyflux, employs more than 2,000 people and its treatment facilities are found in more than 400 locations across the globe.

Water runs in Lum's veins, and her understanding of its importance is deeply personal. She grew up in an illegally built, tin-roof house with neither sanitation nor running water. One of

Personal investment: her deprived childhood inspired Olivia Lum to build a successful business

PHOTOS: ED ROBINSON/ONEREDEYE; DANIEL LYNCH

Stefano Pessina

Executive chairman, Alliance Boots

"Leadership is about developing a business with vision, passion and integrity. Entrepreneurship is the creativity to break established patterns. And to excel, it is also vital to grow in partnership with all stakeholders, especially teams and customers."

five orphans taken in by the woman they called "grandmother" in Kampar, an area of Malaysia that bore the scars of a huge tin-mining boom in the early part of the 20th century, Lum's early life was extremely difficult.

"Without money it was very painful," she recalls. "Our neighbours quarrelled because of money. I knew early on that I should not let money manage me, and, at the start, it was a big motivator for me."

With a mix of talent and determination she managed to remain at school, dodging a destiny as a child labourer in the local peanut factories or rubber plantations. Selling fruit to fellow students, Lum was able to buy her schoolbooks and contribute to the family's finances. Against the odds, she won a place at the National University of Singapore, where she studied chemistry.

Her first job as a chemist in the waste-water treatment industry opened her eyes to the potential of the market.

"I have no money, no technology to sell, and no customers, but I feel that it is a 'sunrise' business and I can do something for the environment," the young Lum told her sceptical boss at GlaxoSmithKline, the pharmaceuticals group, in 1989 when she announced she was leaving to set up what would become Hyflux.

While the company started out as a trading business, Lum knew that she would not realise her ambitions by selling other people's technology. She decided to put whatever money the company made into membrane manufacturing.

"Having our own proprietary membrane systems allows us to deliver the most efficient water treatment design," she says. "Otherwise we might not ➤

ENTREPRENEUR
HYFLUX

have the flexibility and control over the processes. We have to be able to customise our technology to any situation. In water treatment you have a lot of varying parameters. It is as diverse as food: different colours, different tastes to consider."

"I never give up or find it easy to say 'no'. If something doesn't work, I simply try again"

Innovation has continued at Hyflux. The company's ultra-filtration membrane, Kristal, has helped to revolutionise the desalination process. "Before me, nobody used a pre-treatment membrane for a seawater treatment plant. Everyone was using conventional chemical and filtration treatments. Nobody had ever thought of using membranes as a pre-treatment for other membranes. They thought I was mad," she says.

Now this method of pre-treatment has been proven to be the most efficient, but, as Lum says, "we were the first". The advantage of the system, apart from energy efficiency and green credentials, is "less downtime". Older pre-treatments were less effective and the plants were always shutting down. Without effective pre-treatment, the membranes used in desalination would require constant cleaning. "Using ultra-filtration, you can run the plant continuously without stopping," Lum says.

Hyflux is using this technology in its most ambitious project to date: the world's largest desalination plant to use membrane technology, in Algeria. "I have just come back from there and I was quite impressed by my own work," says Lum. "It was amazing – a sea of membranes."

Even during the company's earliest years, Lum was keen to develop a footprint beyond her adopted Singaporean home market. "I always wanted to be in the big league," she says. At the time, however, her country of choice – China – was far from the booming economic powerhouse it is today.

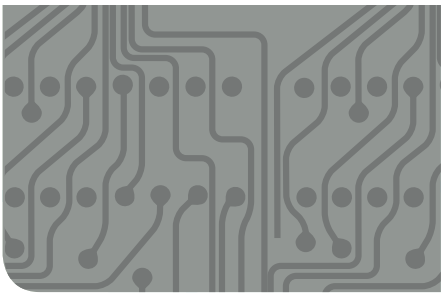
"I entered China in 1994, when it was still a closed-door country. My friends and business associates were not encouraging and it was very difficult," she says. "But what I saw in China was the readiness to open. I thought if I could get there in time, I could catch the wave."

The move proved crucial in helping Hyflux ride out the Asian financial crisis in the late 1990s.

"We had a lot of successes in China. China was not affected by this financial crisis," she says.

That said, it was not an easy market to break. "For three years there were zero deals. We almost bankrupted the company," she recalls. But today 20 per cent of Hyflux's business is in China.

In these early years, Lum's entrepreneurial skills were tested constantly. "Being a small company you have to make bold decisions almost every single day," she says. Yet Lum was not afraid to stand her ground – even when conventional wisdom was against her. "I always go against people's objections. When I make a decision my staff, investors and board of directors will often not agree with it," she says.



"Competition is not something we are frightened of," Lum adds. "In fact, competition

makes me more alert. I like the idea of being able to win over competitors. This is something that gets me very excited."

Today, more than 90 per cent of Hyflux's revenues come from government-sponsored plants. This means that political and economic turbulence beyond the company's control have a direct effect on its performance. The past year has been a difficult one, due to the upheaval from the Arab spring, the crisis in the eurozone and the cooling of the Chinese economy. "The financial crisis has increased the funding costs for Hyflux and this affects our margins... it also means some governments may postpone the launch of a large-scale project," Lum admits.

"We have to manage our portfolio so that we are not over-dependent on any one country or region," she explains.

She also tries to be "asset-light", which usually means divesting assets on completion of a project. "We would rather be the technology provider and share the ownership of the asset with others. For example, we have divested 50 per cent of our China portfolio in a joint venture with Mitsui [the Japanese trading house]."

Lum's core belief in her product and its relevance in the world is just as strong as when she gambled all her worldly goods on the fledgling Hyflux two decades ago.

"I never give up or find it easy to say 'no'," she says. "If something doesn't work, I simply try again. In that way, I am a typical entrepreneur." ■

PHOTO: BLOOMBERG

Water, water everywhere

State contracts propelled Hyflux into the big league

Olivia Lum admits it is difficult to pinpoint any one particular moment that was pivotal to her company's success. Yet two events, which happened in quick succession in 2001, stand out above the rest.

That year, Hyflux was awarded the maiden municipal contract to supply and install processing equipment for high-grade water reclamation in Singapore.

"Winning the water plant gave us profile," Lum says. "Nobody knew us before that. In the first 10 years of Hyflux we had done just small projects. But after winning the water plant we put a toe into the limelight. Although small, we had a unique advantage: we were the only local company to have experience in membrane technology."

Not long after this, a tender was put out for the first seawater desalination plant in Singapore. "We did not know whether we could bid. At the time, our market capitalisation was only about $100m and the seawater desalination plant size was $200m. Immediately, my board and my staff were quite sceptical about our bidding for such a large project," recalls Lum.

The bid process entailed "spending a large amount of money" and focusing company resources over an 18-month tender period. "To risk putting in so many resources to prepare for such a tender is something nobody really wanted to do," Lum remembers. That is, nobody except for Hyflux's founder and chief executive.

"If ever I wanted to be in the big league, this was an important opportunity. I knew that if I didn't bid for it, the opportunity would pass us by," she says.

At the time "it was unthinkable for a small company like ours to bid for such a large project," says Lum. "[But] this is our home ground, [so I knew] execution would be much easier."

In the history of any entrepreneurial success, there is a always a moment when you are required to punch above your weight. Bidding for a project that would require resources double the size of the company's whole market capitalisation was Hyflux's pivotal moment.

"Winning the desalination plant was a big leap for us. It put us on the map," says Lum. **–LB**

Fast follower leads the way

Early adoption of technology is the secret of the South Korean electronics giant's success, writes **Christian Oliver**

In 1963, Kang Jin-ku, a South Korean broadcasting engineer, visited RCA and Ampex, two US electronics powerhouses, on a business trip to acquire technology that was unavailable in his then-poor homeland.

As Kang admits in his autobiography, everything was too expensive for a poor Korean. The plant of Ampex, the Californian manufacturer, exported twice as much by value as the whole of South Korea put together, which at the time just shipped scrap, wigs and dried fish. The situation seemed hopeless.

But by the late 1970s, Kang was a president at Samsung. He recounts the visit of a senior RCA executive to the company's television factory. The executive was distraught that Samsung was now producing TVs in the same way as his company, calling it a "tragedy". By 1986, RCA was gone.

Kang relates the story with pride but not glee. His predominant feeling is anxiety that Samsung could follow the same route as RCA, and vows that he will remain vigilant regarding the next emerging power or technological trend.

Kang's story is that of Samsung Electronics in a nutshell. By being the ultimate "fast follower", the company has devoured competitors and helped lift a nation out of poverty.

Still, despite becoming the world's biggest technology company by sales, it thrives on a culture of impending doom. Lee Kun-hee, its chairman, is adamant that Samsung could disappear in an instant if it misjudges the next big trend.

The fast-follower model is built on core manufacturing strengths – not luck – but attracts ill will from companies that protest technology should be about "blue sky" innovation. When Apple, the US technology group, launched the iPhone in 2007, speculation was rife that Steve Jobs had set the bar too high for Samsung, which was caught flat-footed by the advent of smartphones.

However, by last spring, Apple's chief executive was fuming that the "copycats" had done it again. Samsung and Apple are now neck-and-neck in smartphone sales. The US group has initiated a worldwide tit-for-tat legal fight over Samsung's Galaxy phones, which it calls an iPhone rip-off, but the courtroom battles appear to be doing little to temper Samsung's relentless rise.

EMERGING MARKETS
SAMSUNG ELECTRONICS

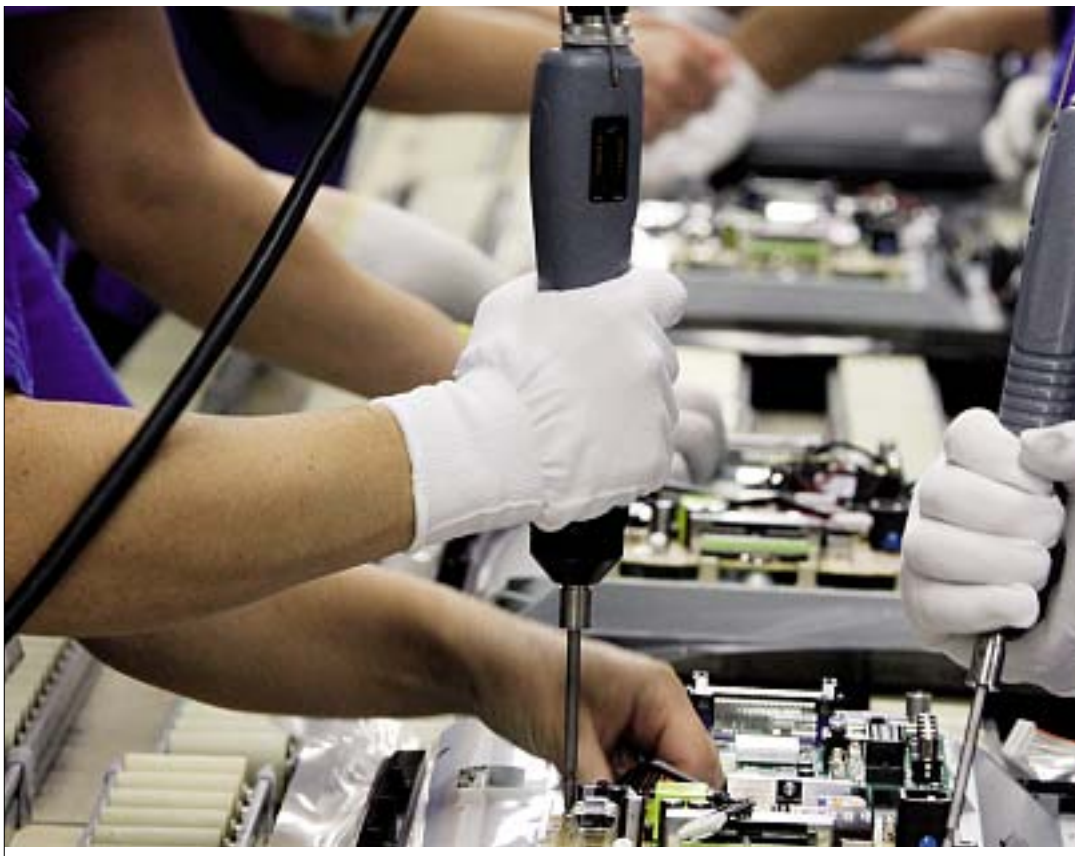
The success of Samsung's smartphones has cemented the company's towering supremacy (in profit terms) over struggling Japanese companies that once regarded the Korean company as a shabby cousin. Last year, Samsung is estimated to have posted more net profit than the top 45 Japanese consumer electronics and technology companies combined.

Samsung's ability to mount such a prompt riposte to Apple's hit product reveals much about its core strengths: rapid, quality manufacturing, nimble decision-making and massive capital expenditure even during economic downturns.

Although Apple launched the iPhone in 2007, Lee Don-joo, executive vice-president of Samsung's mobile division, says the company kept its powder dry until April 2009, to make sure that smartphones really were the next big thing.

Samsung can afford to wait this long before pulling the trigger, because it can rely on enormous in-house research and development resources, even in tough times.

Samsung Electronics' parent group has vowed to increase its capital expenditure by about 12 per cent this year, to an eye-watering $42bn. Roughly $12bn will be spent on research and development. The numbers are intended to deter rivals such as Taiwan's chipmakers from even thinking of competing with the Korean giant.



As soon as Samsung made the decision to pursue smartphones, it was largely a matter of drawing together technologies already being worked on within the company. Its bright and energy-efficient Amoled (active matrix organic light-emitting diode) mobile screens are fast becoming the industry standard. Designs for glass coverings are constantly being produced at the factory where Samsung collaborates with Corning, the US glassmaker.

Lee Don-joo also notes that Samsung's strength lies in the speed of approval once a path is chosen. He says he would fire off emails on strategic decisions and often get an almost instantaneous order to proceed. This agility is a common feature of many Korean companies, but Samsung makes it a point of bravura.

Kang, the former Samsung president, mentions a dinner in 1974, where he was unexpectedly offered an opportunity to buy into the semiconductor business. Two days later, he mentioned it to the company's founder, Lee

Mikhail Prokhorov

Businessman and Russian presidential candidate

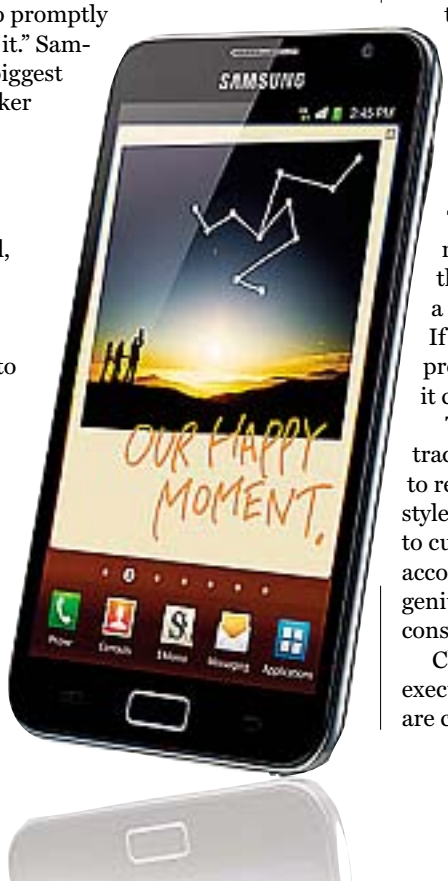
"When I was building my business, boldness meant taking on great risk and accepting responsibility when things didn't turn out well. Now, for me it means trusting the day-to-day control of my assets to my management team in order to enter politics – something even more challenging."

PHOTOS: AFP/GETTY; ITAR-TASS/ALAMY

Made in Korea: Samsung's range of products includes the Galaxy smartphone (below)

Byung-chull, who promptly replied: "Let's do it." Samsung is now the biggest memory chip maker in the world.

Despite these advantages, the company is not immortal. Indeed, it says survival depends on successful diversification into new fields such as green energy, pharmaceuticals and medical technology. Changing direction is part of the culture: Lee Byung-chull's business started out as a small trading company in 1938 that branched out from groceries into sugar and textiles.



Chang Sea-jin, a professor of business at the National University of Singapore, argues that the company will remain strong as long as it can reduce any commercial contest into the production of hardware commodities through disciplined manufacturing. Samsung's goal is to churn out pills and ultrasound machines in the same way it now churns out chips and televisions.

> Samsung's strength lies in the speed of approval once a path is chosen

The looming threat is that technological supremacy will pass to those companies that control the innovation of software, which is Samsung's Achilles heel.

Last year, the acquisition of Motorola Mobility, the mobile phone company, by Google, the search engine group, sounded an alarm at Samsung. Samsung has succeeded in smartphones because Google's Android has been universally available as the operating system. The prevalence of Android meant Samsung could turn the smartphone race into a battle for slick hardware. If software makers start to produce their own hardware, it could hurt Samsung.

The company has traditionally found it difficult to reform its rigid, Confucian style of management, struggling to cultivate soft skills and to accommodate foreigners or genius oddballs into its conservative corporate culture.

Choi Gee-sung, its chief executive, stresses that things are changing, arguing he is filling the company with foreign-educated PhD graduates who will no longer tolerate the old battery-chicken approach to research, in which teams worked ceaselessly for weeks, bedding down in simple company dorms. But employees still joke that late-night pizza delivery services make a small fortune feeding the sleepless research teams round Samsung plants.

Samsung also has to accept that South Korean society and politics is not as worshipful and grateful as it once was.

The country's president pardoned Lee Kun-hee, Samsung's chairman, for serious financial crimes, acknowledging his role as a nation builder. But younger generations of South Koreans are increasingly exasperated with corporate corruption extending into politics and the media. They are calling on their politicians to take more action in docking the power of conglomerates, which are accused of snuffing out innovative small businesses.

In 2010, Kim Yong-chul, Samsung's former chief attorney, published a whistleblowing account of the scandals around the chairman. South Korea's timorous media – fearing they would lose advertising – refused to review it. Samsung officials fulminated that readers should avoid the author "like a turd".

Revealingly though, the exposé became a national bestseller. South Koreans still generally regard Samsung as a national champion, but many now feel rising frustration about its ubiquity and the chairman's legal pardon. ■

NEWCOMER
MUDDY WATERS

New kid on the block

Less than two years after publishing its debut report, Muddy Waters' research is now required reading for investors in the Chinese companies listed in North America, writes **Jamil Anderlini**

When Carson Block published his first research report under the Muddy Waters name in mid-2010, he was still the chief executive of Love Box, a small, struggling self-storage company in Shanghai.

But within a year his one-man research outfit had become one of the best-known short-selling outfits in the world, and his exposés of Chinese companies listed in North America had claimed several high-profile victims.

Those who lost big included Hank Greenberg, the former chief executive of AIG, the insurance group, and John Paulson, the hedge fund manager who made more than $20bn betting against subprime mortgages while Block was co-authoring *Doing Business in China for Dummies* to make some extra cash.

Paulson's flagship funds lost more than $500m last June when they dumped all their shares in Sino-Forest, a Canada-listed Chinese forestry company, just weeks after Muddy Waters published a report on its website accusing the timber business of fraud.

That report triggered a chain of events that has left Sino-Forest suspended from trading on the Toronto exchange, teetering on the edge of bankruptcy and the subject of investigations by Canadian regulators and police.

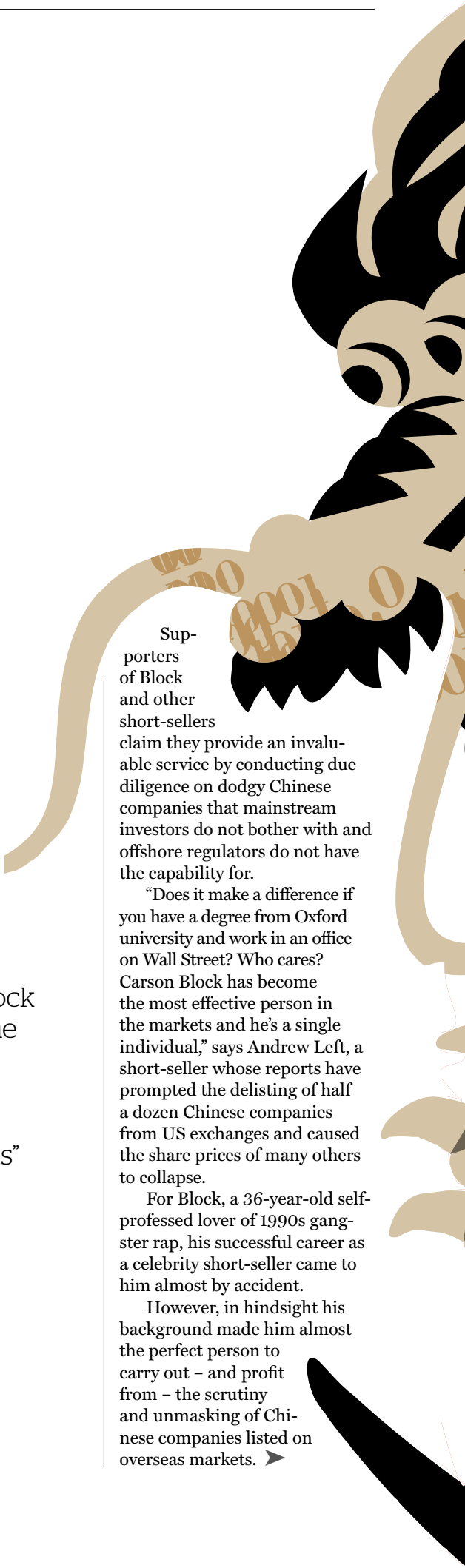
It also firmly established Block and Muddy Waters as the most successful and notorious of a small group of independent researchers and investors who have publicly alleged extensive fraud among dozens of Chinese companies listed abroad.

These investors are mostly financial sector misfits working outside the big institutions. They have attracted serious criticism, because they have mostly made money by first shorting the stocks they write about.

"Carson Block has become the most effective person in the markets"

Selling a stock short involves borrowing shares and selling them immediately in the hopes of buying them back at a lower price later and thus profiting from the price drop.

"I always had a lot of disciplinary problems at school and teachers said I had a problem with authority," Block told the Financial Times. "I have stepped on a lot of toes in my life but probably there's a part of me that enjoys that."



Supporters of Block and other short-sellers claim they provide an invaluable service by conducting due diligence on dodgy Chinese companies that mainstream investors do not bother with and offshore regulators do not have the capability for.

"Does it make a difference if you have a degree from Oxford university and work in an office on Wall Street? Who cares? Carson Block has become the most effective person in the markets and he's a single individual," says Andrew Left, a short-seller whose reports have prompted the delisting of half a dozen Chinese companies from US exchanges and caused the share prices of many others to collapse.

For Block, a 36-year-old self-professed lover of 1990s gangster rap, his successful career as a celebrity short-seller came to him almost by accident.

However, in hindsight his background made him almost the perfect person to carry out – and profit from – the scrutiny and unmasking of Chinese companies listed on overseas markets. ➤

NEWCOMER
MUDDY WATERS

A native of New Jersey, Block grew up in the equity research business, working holidays and later full time at his father's firm, WAB Capital, which specialises in producing research reports on US "micro-cap" companies.

After graduating from the University of South California in 1998, Block moved to Shanghai in the hope of establishing an equity research firm to cover the nascent Chinese stock markets. "I was five to 10 years too early for the market at that time, so I went back to the US," Block says. He returned to his father's business before taking a degree at the Chicago-Kent College of Law.

He moved back to Shanghai in 2005 and worked at the Jones Day law firm, but quit at the end of 2006, planning to set up a private banking business in Singapore. However, he ended up founding Love Box instead. "Love Box was an accident – as I guess Muddy Waters was," says Block. "But without that experience I definitely wouldn't be where I am now."

After nearly three years he realised the chances of making it big in the opaque and cut-throat world of Chinese business were elusive at best.

"I had a lot of friends in Shanghai who were also entrepreneurs, and after getting our asses kicked [financially], we saw another side of this place," he says. "We were asking if we were crazy or if the rest of the world was crazy, because what the rest of the world thinks goes on [in China] doesn't mesh with the reality we observed."

> "What the rest of the world thinks goes on [in China], doesn't mesh with reality"

His metamorphosis into a notorious short-seller began by chance when he visited Orient Paper at the behest of his father. After looking into the paper producer, he became convinced its reports to the American Stock Exchange contained falsehoods.

With no idea how it would be received, he prepared a report. He published it on a new website he called Muddy Waters in June 2010, after taking a short position in the company's shares with "the kind of money that didn't really matter."

"By hitting 'send' on that report, the world changed tremendously for me," Block says. "I realised this problem was

PHOTOS: NEW YORK TIMES/REDUX/EYEVINE; BLOOMBERG

Jimmy Wales
Founder, Wikipedia

"Boldness has always been a value in business, and always will be, because without boldness – the willingness to take risks – we become mired in doing things the same old way, without progress. We need to rid ourselves of the dogma of 'too big to fail'."

Varied career: Carson Block set up Muddy Waters after working for a law firm and founding a self-storage company

systemic." Block felt he had the right skills to highlight questionable practices.

Orient Paper's share price collapsed. The stock is still trading at about half the level it was at before the report. The company has vehemently denied the allegations, and has published a report from its own audit committee, assisted by Deloitte Financial Advisory Services, which, after a four-month probe, found no evidence to support most of Muddy Waters' claims.

But Block's report was noticed by some influential market players and soon he was on the lookout for other US-listed Chinese companies that he could sell short. In rapid succession he published reports that led to the delisting of three large Chinese companies trading on US exchanges.

Then came Sino-Forest – a much bigger target. Block hired 10 people, who dedicated two months to investigating and preparing the report, published in June last year.

Since then, Muddy Waters has published an open letter to the management of Spreadtrum Communications, raising various "concerns", and has initiated research with a "strong sell" recommendation on investor darling Focus Media.

But much of Block's attention these days is directed towards establishing a more sustainable business model for his company.

"We are spending a lot of effort trying to make this more resemble a conventional business internally. This is complicated by the fact that most people involved in [Muddy Waters] need to have their identities protected," Block says.

For now, he and his company are still focused on Chinese companies listed in North America. However, by the end of the year he expects to have published research on some non-China related names.

This is partly due to the fact that Block has not been able to return to China or Hong Kong because of death threats he has received. ■

Hit list

Muddy Waters' targets

- Muddy Waters report on Orient Paper, listed on NYSE Amex, was published in June 2010. Orient Paper's share price slumped 47 per cent in the next month.
- MW report on Rino International, listed on Nasdaq, was published in November 2010. Rino's share price fell about 80 per cent in a month. The company was delisted and the US Securities and Exchange Commission opened an investigation.
- MW report on China MediaExpress, listed on Nasdaq, was published in February 2011. MediaExpress's share price fell 30 per cent before company delisted.
- MW report on Duoyuan Global Water, listed on NYSE, was published in April 2011. Duoyuan's share price nearly halved; company later delisted.
- MW report on Sino-Forest, listed on the Toronto Stock Exchange, was published in June 2011. Sino-Forest's share price slumped 85 per cent within a month. Sino-Forest shares have been suspended since August, and the company is being investigated by Canadian regulators and police. **-JA**

BOLDNESS IN BUSINESS SHORTLIST

The 2011 nominees

DRIVERS OF CHANGE

AL JAZEERA, the Qatari broadcaster
AMAZON, the online retailer
GLAXOSMITHKLINE, the pharmaceuticals group
GOOGLE, the search engine group
MASTERCARD, the payment processing network
TATA GROUP, the Indian industrial conglomerate

CORPORATE RESPONSIBILITY

MARKS AND SPENCER, the UK retailer
ONE WATER, the bottled water company
PUMA, the sportswear manufacturer
TOMS, the charitable shoe retailer
UNILEVER, the consumer goods group

EMERGING MARKETS

AIRASIA, the Malaysian budget airline
BM&FBOVESPA, the Brazilian bourse operator
BTG PACTUAL, the Brazilian investment bank
QUANTA, the contract PC maker
SAMSUNG ELECTRONICS, the South Korean electronics group
SANY HEAVY INDUSTRY, the Chinese construction equipment company

ENTREPRENEURSHIP

ARM HOLDINGS, the UK chip designer
FAST RETAILING , the Japanese clothes group
FLIPKART, the Indian ecommerce company
HYFLUX, the Singapore-based water treatment company
INDIGO, the Indian budget airline
SPOTIFY, the digital music service

ENVIRONMENT

GOLDWIND, the Chinese wind power equipment maker
HUSK POWER SYSTEMS, the Indian electricity generator
HELVETA, the UK timber-tracking company
LUYUAN, the Chinese electric scooter maker
NOVOZYMES, the Danish industrial enzyme maker
SIEMENS, the German industrial conglomerate

NEWCOMER

ECOTRICITY, the green-energy company
MODA OPERANDI, the haute couture ecommerce company
MUDDY WATERS, the US short-selling group
OPOWER, the energy-efficiency software company
SQUARE, the mobile payments company

The stormy world economy.
Get the trusted, global guide.
Our unrivalled network of journalists provides essential international coverage. To subscribe to the Financial Times go to **www.ft.com/subscribe**

We live in FINANCIAL TIMES

© Thoburns.com 2012
Steel.
Art.
Sport.
A bold combination.
Teaming up with Anish Kapoor and Cecil Balmond to create an iconic landmark for London 2012 was a bold move. But a resoundingly successful one. The ArcelorMittal Orbit perfectly encapsulates the company's values: sustainability, quality and leadership. A tribute for 2012 and for the future.
ArcelorMittal
official steel supporter of the
2012 Olympic and Paralympic Games