

China's Next Miracle

CHINA'S NEXT MIRACLE

100+ tips to stay in the game
as China redefines the innovation model

PASCAL COPPENS

P E L C K M A N S

Acknowledgments

Why do we write books? Most authors want to convey knowledge, tell a story, share a vision, or make a name for themselves. That was the case for my previous two books—and it worked. This time it's different, though. I wrote *China's Next Miracle* not only to share my insights, but also out of genuine concern for Europe.

I started writing in spring 2024—months before Joe Biden dropped out of the presidential race and Donald Trump survived an assassination attempt. Before Trump's presidency, we primarily viewed China with fear and anger, rarely inspiration or curiosity. Since 2025, we've retreated even further into this defense mechanism—due to the influence of Putin, Trump, immigration, and our own polarization—making our blind spot for China even more dangerous.

It feels like we're standing on the deck of a ship, fighting off attackers, while beneath our feet, a leak is slowly appearing: China, which is making us increasingly irrelevant. This book is my attempt to look beyond the top-down perspective to the undercurrent of bottom-up forces and innovation that are truly propelling the country forward and redefining the business world.

I could never have written *China's Next Miracle* on my own, so I want to start by thanking everyone who helped me make this story clear, informative, and practical.

I would especially like to thank **Temperance Shen**. We reviewed the new content together every week for twelve months. I write an average of 2,000 words a week. Writing a book is 20% inspiration and 80% perseverance—a marathon I never would have finished without Temperance.

The hardest part about writing a book is the first sentence, then the first paragraph, and finally the first chapter. After that, you're in the flow. For helping me get there, my thanks go to **Luc Declerq**. After each chapter, he encouraged me, gave honest feedback, and cut out anything that didn't add value.

After a year of writing, mentally exhausted, you start to doubt yourself. What will people think? Is it boring? Is it academic enough? Will it resonate

with my target audience? Is it comprehensive enough—or perhaps too much? **Pelckmans** acted as my mirror throughout. I would therefore like to give special thanks to **Peter Saerens** for his enthusiasm to also publish my third book.

Then comes the most difficult part: the finishing touches. It's frustrating, exhausting, and hard work—but it's also the most important part, because it makes the book readable and engaging. People like **Anneleen Baum** and **Evelyne Van der Niepen** were invaluable in helping us climb that final mountain.

A book's true value only becomes apparent when you receive genuine feedback from experts right before publication. For this, I would especially like to thank **Karel Eloot, Öztürk Taspinar, Bert Van Genechten, Eric Verhulst, Amaryllis Verhoeven, Fred Sengers, Mark West, Albert-Jan Shi, and Frank Willems**.

I'd also like to give special thanks to **Andrea Kates**, who wrote the foreword. Our conversations—especially at moments of doubt—pushed me to sharpen my thinking and trust my own judgment. Andrea's honesty, curiosity, and friendship are extraordinary, and they helped transform this book from my interpretation of China into a guide meant to help companies get unstuck by challenging long-held assumptions about China and its future.

Finally, I'd like to thank **nexxworks** for giving my voice an audience, especially **Peter Hinssen, Steven Van Belleghem, and Rik Vera**. Their enthusiasm and books gave me the energy to make this book even more inspiring.

In the past, the greatest impact of my daily writing has been on our family life—especially for my wife, **Annelies**. To spare her from that, I wrote this book largely in secret. For nine months, I kept quiet about the fact that I was working on a new book—and that silence proved even more difficult for me than the writing itself.

I wrote this book while my daughter **Amélie** was working on her master's thesis on Chinese queer migrants living in the Netherlands. She did know I was writing another book, so we were able to act as a source of encouragement for each other. She is now an anthropologist, and I am incredibly proud of her.

I want to thank everyone who helped me through this writing process. You are my miracles. Thanks to you, *China's Next Miracle* has become what it is today: a book that will hopefully help Europe and Western companies wake up and look to the future.

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Foreword

Early in 2025, right in the middle of a debate over which AI model would win the race—OpenAI or Anthropic—in walks DeepSeek’s R1, a free, open-source, high-performing large language model. Jaws dropped. Nvidia stock dropped 18%. Investors were rattled. How could it be that a Chinese company using a much less expensive approach than the frontrunners in the West performed so beautifully?

At the time, we in the West called it a “Sputnik moment” because the appearance on the scene of an unanticipated AI tech competitor reminded everyone of the days when we were blindsided by Russian space technology that seemed to appear out of nowhere.

How should companies respond? Everyone wondered: If China could truly produce DeepSeek, what other surprises might be coming next? Was this a one-time miracle or a peek into a culture we’d been interpreting in a way that was out of step with reality?

Some people had no idea where to turn to evaluate this DeepSeek moment. That’s because they weren’t lucky enough to know Pascal Coppens – the author of this groundbreaking book *China’s Next Miracle*. But I was lucky. I knew exactly who to call.

I’d met Pascal during COVID when a small mastermind group gathered regularly to make sense of the world. Despite a calm tone, Pascal was a radical voice in the group. I pride myself on being tuned in to global business strategy. After all, I’d been CEO of a Silicon Valley tech startup, am serving as Entrepreneur in Residence at MIT, had worked with dozens of international companies on strategy, and had even worked with GM and Ford on projects in China for ten years.

Listening to Pascal during the mastermind groups, I was startled. He had a consistently different read on where China was heading, how innovative their companies were, and how much momentum they were about to unleash in industries from pharmaceuticals to logistics to robotics.

To be honest, I was skeptical.

But starting with that DeepSeek moment, I started to pay more attention to what Pascal had to say, listened to his podcasts, and saw mounting evidence that Pascal was right. While many of us were convinced that there was only one way to build our companies, commercialize technologies, and innovate, China had a whole different model that hadn't yet come into full view for the rest of us.

But now it has.

And now every executive, manager, and decision maker in every company and every industry needs to stop and read what Pascal has to say about the consistent long game that China is playing. Corporates and entrepreneurs around the world need to recalibrate our reading of the facts and decide exactly what our business strategy should look like in this shifting landscape.

Here are some of the headlines we must insert into our next strategy sessions.

1. China's Next Miracle explains a radically different business mindset

China's business mindset is less focused on profit and more interested in market embedding – where they concentrate on building their customer base in the short term and bet on the long game. "Step by step, often quietly and without notice—the Chinese are building their fortunes with discipline and perseverance with a long-term vision deeply embedded in their culture."

2. China has hit the tipping point of success in multiple industries.

Success velocity is increasing and talent is being cultivated locally in China

- The pharmaceutical sector just experienced its "DeepSeek moment." In 2018, there was no major licensing for drug testing. In 2025, China accounted for 42% of licensing deals with global pharma companies.
- Level 4 self-driving robot taxis are available in 54 cities in China.
- BYD sales of electric vehicles just outpaced Tesla's global sales.
- 65% of the humanoid robot components are produced in China
- The training grounds for the next generation are in place. China today has 5 times the number of science students compared with the United States.

3. Classic business models and assumptions about innovation are about to be challenged

The “blue ocean” mindset at the core of today’s innovation strategy – where companies look to advance in the market starting with creativity and uniqueness stands in contrast to what China’s Next Miracle presents as The Red Ocean Strategy—where companies begin with rapid entry to solve big customer needs, survive the “red” ocean that’s full of competitors, and only then advance to uniqueness. [Think of Xiaomi evolving from an early Android phone maker inspired by the iPhone to producing the SU7-Uulta, an ultra-performance EV rivaling even Porsche.]

4. Geopolitical musical chairs are rearranging

In a world of new political forces and policies on everything from tariffs to immigration, alliances are being redrawn. Trade, supply chains, and the use of natural resources **are shifting**, with **potential for dramatic implications**. We have no time to waste in crafting our next moves.

I won’t spoil the ending of the story, but encourage you to read *China’s Next Miracle* with a notebook beside you. Prepare to be uncomfortable. Expect to ignite debates when you share the models, frameworks, and facts presented in the book.

But don’t despair. Pascal has not written a doomsday scenario.

The book is packed with practical tips on how to recalibrate our perceptions, shift our strategies, and keep our business edge.

As a person deeply attached to the questions of corporate strategy, innovation, and getting “unstuck”, I view *China’s Next Miracle* as a must-read for every manager.

You’ll have everything you need to avoid being blindsided by China’s next moves – whether you consider them to be miracles or not.

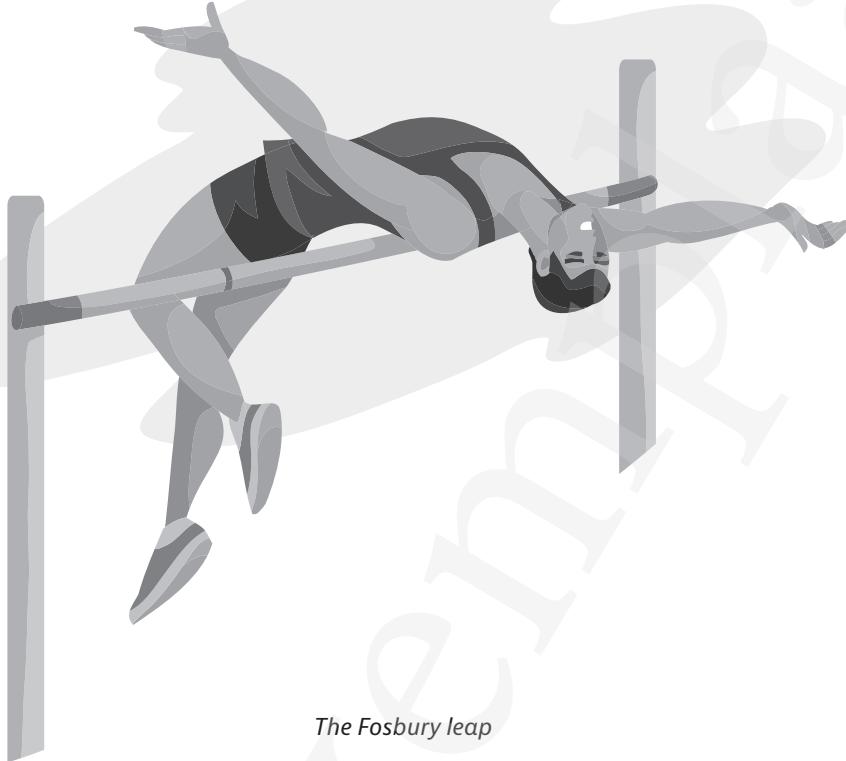
Get ready for an eye-opening ride,

Andrea Kates
MIT Entrepreneur in Residence
Author of *From Stuck to Scale*

Leesexemplaar

INTRODUCTION

Large example text



The Fosbury leap

Whenever I use the “we” form in this book, I mainly mean the West. This primarily refers to the inhabitants of North America and the European Union, but it can also include citizens of countries like the United Kingdom, Ireland, Norway, Switzerland, Australia, New Zealand, and even Japan or South Korea—countries that are often considered part of the collective West, to which I, as a Belgian, also belong. My intention is not to reinforce the “us” versus “them” divide, but to illustrate the opportunities that emerge in a multipolar world in which China is the main driving force. Where I use the terms “us” and “them,” it is only to clarify the differences so that we can gain a better understanding of what is truly at stake.

China's Fosbury moment

Two hundred years ago, in around 1816—on the eve of the First Industrial Revolution and the birth of the British Empire—Napoleon Bonaparte told British officers: “China is a sleeping giant. Let her sleep, for when she wakes, she will shake the world.”¹ His words were a warning to the West: so long as China sleeps, your world order will remain intact; but when she wakes up, everything will change.

Now that China has woken up, however, it appears that the West has fallen asleep. The Chinese saw their awakening of the last few decades not as the end of a nightmare, but as the beginning of a new dream filled with hope—the rebirth of China. It would take several miracles, though, because deep-seated poverty, colonial humiliation, domestic disruption, and economic deprivation all meant there was a lot of ground for the country to make up.

China started work on its **first miracle in around 1990**: through export zones like Shenzhen and the strategic opening of Pudong in Shanghai as a new financial and economic center, the country transformed itself into the “world’s factory.” The first wake-up call for the rest of the world was China’s entry into the World Trade Organization (WTO) in 2001: a sign that the country was no longer standing on the sidelines, but had thrown itself into the game of global trade at a speed and scale that made the world sit up and take notice. Yet the West then chose to roll over and go back to sleep.

The West was convinced that China was nothing more than a “low-wage factory”: a nation of workers who—without us—would only be capable of producing cheap junk. This gave rise to a golden age of foreign investment between 2001 and 2012, when Western multinationals moved their production to China. Shareholders saw their profits soar, while Western consumers reaped the benefits of lower prices, their purchasing power and quality of life increasing as a result. Developed countries, however, refused to admit that it was China’s cast-iron work ethic, collective determination, and ultra-pragmatism—and not that of large, low-wage countries like India or Indonesia—that had turned the country into *the global factory*.

Ten years later, as hosts of the 2008 Olympic Games and the 2010 Shanghai World Expo, China gave the world a second clear wake-up call. The country was suddenly presenting itself as a modern, self-confident nation with global ambitions. Yet the West carried on sleeping soundly, rest assured that only liberal democracies could achieve real progress. We saw China’s top-

down, state-driven infrastructure projects, along with the massive outflow of Chinese talent and wealth into North America and Europe, as proof that China's success was temporary—and ultimately dependent on us. The fact that an authoritarian regime could be simultaneously efficient, forward-looking, and even popular was utterly incompatible with the Western worldview. Our blind spot was deeply cultural. We saw China's 5,000-year-old civilization as an old, lumbering dragon, while the country was gradually releasing all its phoenixes: innovators who rose from the ashes with vision, courage, and ambition.

In 2008, China began its **second miracle**: becoming a digital pioneer with innovative platforms, mobile payments, artificial intelligence, and technology companies that no longer copied the West, but led the way. China did initially look to Silicon Valley as an example, then in January 2009, began rolling out its own 3G connections nationwide.

The next Western wake-up call came a good ten years later, when TikTok, SHEIN, and Alipay arrived in the US. They started to challenge companies like Facebook, Amazon, and Visa, and for the first time, it was the Chinese super-apps that were being copied. Yet the West carried on sleeping. China's technological rise was attributed to lax regulations, a lack of privacy, and the explosive growth of the consumer market—not to the creativity, vision, or customer focus of Chinese corporate culture. The assumption was that only the West could be inventive, enlightened, and empathetic. The fact that our own children had meanwhile started endlessly scrolling on TikTok, buying their clothes from SHEIN, and tirelessly playing Tencent games like *League of Legends* passed us almost completely by.

In 2015, China launched its **third miracle**, transforming its industry to the level of Germany's Industry 4.0. With its "Made in China 2025" plan (MIC2025), China would give itself ten years to become the global leader in ten strategic sectors and gradually reduce its foreign dependence. The US responded to this master plan with a geopolitical war. China had suddenly become a rival, so America planned to hold the Chinese back by making it more difficult for them to buy (and therefore also use) a lot of cutting-edge Western technology.

The West then returned to its slumber for a while, safe in the knowledge that the technology gap in telecommunications, smartphones, AI, chips, and quantum would start widening again. This sudden tech war, however, only accelerated China's mindset shift from capacity to quality, from copycats to creators, from producers to innovators. Yet it wasn't until 2023 that the real wake-up call came, when the Western car industry realized it wasn't China

that was dependent on them for electric cars, but that the West had become dependent on China. Another realization that came almost ten years too late.

The West had been convinced that China would never set the global standard and certainly wouldn't dominate our markets. The explanation for this "anomaly" was sought in subsidies and strategic overcapacity without any regard for China's long-term vision, its army of engineers that were graduating annually, its wealth of experience, or its market- and consumer-oriented product development.

From 2024, the West started shielding its markets with import tariffs against this "unfair competition" from China. Yet, when we flooded the Chinese market with Western brands back then, our success was all down to "healthy competition." In doing so, the West lulled itself to sleep once again. Instead of competing, we would now shut the Chinese out of our market. We now barely even consider the fact that this would allow China—the world's second-largest consumer market and an inexhaustible source of innovation, talent, raw materials, and trends—to shut itself off from us too. Some 230 years after the Chinese Emperor Qianlong told the British, "We don't need your technology," that statement now reflects how the West is approaching China. What once led to China's isolation and the country missing out on the Industrial Revolution—causing them to lag behind for more than a century—should serve as a history lesson for the West today.

Meanwhile, **2025** is being heralded as the moment when China will usher in its **fourth miracle**. By 2035, the country intends to become not only a fully modern society with a robust domestic market, but also a sustainable manufacturing nation and an innovative superpower. This book describes China's model and plan in detail. This time, the West really cannot afford to fall asleep! The world has become increasingly volatile, complex, and unpredictable, with a sharp rise in conflicts, deep-rooted nationalism, and reckless world leaders. Right now, China is presenting itself as an oasis of stability, open dialogue, and strategic calm. Yet the West sees China's stance as fake, which is precisely why we are now in danger of sleepwalking into the next decade. Underneath the seemingly calm surface, a tectonic shift is quietly taking place—one that will be felt all over the world within the next ten years, and may even become irreversible. Under the radar, China is rewriting the narrative of innovation—in a language that is not yet fully understood. Since Dick Fosbury radically transformed the high jump in 1968 by jumping over the bar backward, we've known that those who dare to invert the model can reach greater heights. China is now doing the same with the Western innovation model. The West may already see this as another "Sputnik moment"² in terms

of the technological threat posed by China, but perhaps it's more accurate to see it as a "Fosbury moment": a quiet revolution of the radically different way China approaches innovation, and one that is surprisingly effective. Just as Fosbury made history by redefining the high jump, China is today rewriting the next leap in innovation. Understanding how and why isn't just a smart move—it's absolutely essential! But why now? Because the bar is already set, and China is already jumping higher. This is China's Fosbury moment. The first warning came from Napoleon. The rest is up to us.

Superpowers

My biggest childhood hero was Bruce Lee—I used to have a huge *Enter the Dragon* movie poster on my bedroom wall. As soon as I opened my eyes in the morning, I would quickly swing my legs and torso upward in a single, fluid motion and jump straight out of bed. I can still do it, in fact. I would then walk over to the full-length mirror and adopt a fighting stance in the best Bruce Lee impression I could muster. With my body turned slightly to one side, one foot and hand toward the front and the other foot and hand toward the back, I was ready for anything. I tilted my head slightly, squinted, and looked up with a fixed, menacing gaze. It's a move I would practice to perfection, until one of my parents came in and brought me back down to earth.

From a young age I was obsessed with martial arts, which may well have been what sparked my fascination with Asia. I wanted the superpowers of a Japanese ninja that could fly through the air, combined with the masterful control of my hero Bruce Lee—able to overpower any opponent, no matter how big or strong.

This book is about how China has developed into a superpower, thanks to the individual superpowers of its people, entrepreneurs, and policymakers. It is a follow-up to my two previous books, *China's New Normal* and *Can We Trust China?* In *China's New Normal* (2019), I described *how* China would set the global standard for innovation by 2025. In *Can We Trust China?* (2022), I explained *why* China now intends to take on a global leadership role in economics, politics, the military, and technology.

Since 2022, we have been living in extremely turbulent times: wars in Ukraine and Gaza, lockdowns and economic crises, an intensifying Western tech and trade war and protectionism against China, the impact of climate change, an AI revolution, an American president who is rewriting the rules... It is also

becoming increasingly clear that China is playing a progressively more decisive role in the West's future, while today the country is seen as a growing threat and enormous challenge to the West itself. Chinese policymakers are now also assuming their new role as global leader. The world can no longer deny it: China is today's superpower.

What if?

In this third book, I focus on *what* China is doing differently that could shake up or even completely transform today's business environment. I also consider *what* managers can do to learn from China's successes or prepare for the next Chinese miracle. For those who embrace it, this miracle will present both challenges and opportunities.

This book is intended as a guide for entrepreneurs, business leaders, marketers, executives, investors, and anyone looking for an answer to the question: **WHAT IF** China were to help shape or in fact determine the future of the entire world? You only need to look at TikTok, Temu, or BYD to realize that, in some sectors, this is clearly no longer fantasy. What if the real Chinese tsunami is still to come, though? How should we deal with it, and what can we do to protect ourselves, to become stronger, and to seize new opportunities? To lend extra weight to this, the book includes a collection of more than 100 tips—or red pills—as strategies or insights. These reference points should help prevent us from drowning or panicking every time another Chinese miracle (or competitor) reaches our shores—or disturbs our sleep.

This book does not make any predictions about China's geopolitical or economic future. It is also not an opinion piece or explanation of how China's leadership is choosing the right or wrong path. The starting point for my story is the bold claim that by 2035, China will be at least as influential—economically, technologically, and geopolitically—as the United States. This assertion can certainly be disputed. Yet having read thousands of opinion pieces and articles by other authorities on the subject from both China and the US, I am now convinced that, as one of those experts on China, my claim deserves due attention.

China-positive experts usually exaggerate the problems in the US, while US-positive experts almost always exaggerate China's problems. The irony is that both believe the other country urgently needs economic, social, and political reform in order to survive. The solutions they propose are also excessively biased toward the model they wish to promote, with the neutral

China expert a rapidly dying breed. The highly polarized discussions among economists from the US and China resemble two teachers, each claiming that a child needs more or less structure to be able to reach their full potential. Meanwhile, the objective voices are being drowned out by the media and their echo chambers.

This fits perfectly with the zeitgeist. In his book *Contro la comunicazione* [Against Communication],³ Italian philosopher Mario Perniola distinguishes between communication and information. Communication is ideological in nature and aims to steer the audience in a certain direction. Information is more neutral and aims to give the audience the space to choose their own direction, based on the facts. There are certainly many ideologues, and a great deal of communication, about the dominance of China or the US. This book aims to provide more information.

I will start with the forecast that China will overtake the US as a superpower by 2035, so that I can then reflect on *what* China needs to do to achieve its goal: **the next miracle**. So I'm starting with a **WHAT IF?** proposition: what if China were to become the largest global economy in terms of gross domestic product (GDP) by 2035? However relative GDP may be as a benchmark, this would be the true wake-up call for the West that China—and not the US—is the leading superpower. To achieve this, China would need to grow by an average of 5 percent per year for ten years, while the US would need to grow by an average of less than 1 percent per year over the same period. To make it a fair comparison, I will assume that the annual debt increase of the US and China is the same and that the USD–CNY exchange rate remains stable; only then can the difference be attributed purely to economic growth.⁴ I am using this bold hypothesis to be able to immediately reflect on possible outcomes or scenarios. The goal is to think critically about how China is challenging the world and to gain insights into the consequences of the various choices we are making today. In my opinion, the West can no longer afford to wait, because that will only lead to disillusionment.

What reinforces my belief in this assumption is that the West has misjudged China far too often in the past. It would be shortsighted and perhaps even a missed opportunity to do so again now, at a time when our future, prosperity, democracy, and security are all at stake.

- After 1980, the West was convinced that strong economic growth would lead to the democratization of China and the rapid weakening of the power of the Communist Party (CPC).
- After 1990, and partly because of the Tiananmen Square protests (1989), the West believed that China would isolate itself again, focusing mainly on its domestic economy.

- After 2000, and especially after China joined the World Trade Organization in 2001, the West was convinced that the country would remain a passive international trading partner to safeguard the engine of its economy, in particular exports to the West.
- After 2010, the West was certain that China could never become a real innovator without our help and that we had little to fear from Chinese competition in our markets.
- Since 2020, the West has been convinced that China's economy is declining and that Xi Jinping is putting his Marxist-Leninist ideology above the country's financial stability.

Continuing to make the wrong assessment for forty-five years cannot be described as a coincidence. The West has always viewed China through its own lens, to keep the country dependent on us and the international political-economic model. Yet we forget that the Western model is also feeling the strain and is therefore increasingly less of an example for China. Meanwhile, the country has consistently survived the many doomsday scenarios predicted by the West over the past decades, with China's miracle factory continuing to impress us.

China is also the only country in world history to become a global power without waging a major war, and in the shortest time ever in the history of humanity. China has exceeded all expectations.

- In the 1980s, China was an extremely poor country emerging from the Cultural Revolution.
- In the 1990s, China was a pretty corrupt country with a very poor rule of law.
- In the 2000s, China was a nation of copycats with not enough leading universities and few specialists in the field.
- In the 2010s, China was the most polluted country in the world with one of the highest levels of income inequality.
- In the 2020s, China became the biggest rival to the world's most powerful country and experienced its first major economic crisis since the Cultural Revolution.

Against all odds, China has achieved success after success: economic, social, geopolitical, military, technological, infrastructural... so I see little reason to blindly assume that China won't be successful again this time too.

Innovative China

In 2016, Beijing issued the “Outline of the National Innovation-Driven Development Strategy,” which proposes a three-step plan:⁵

1. By 2020: join the group of innovative countries.
2. By 2030: be one of the leading innovative countries.
3. By 2050: develop into a global powerhouse in scientific and technological innovation.

China has already achieved Step 1. Looking at Step 2, there’s little doubt today that we won’t have to wait until 2030 to recognize China as one of the leading innovative countries in the world. In this book, I will demonstrate that China is already there. The big question, however, is when China will achieve Step 3 and become a formidable scientific powerhouse, like the United States. Some “panda-huggers” claim that China already is. Others argue that China is leading the way in certain industries, such as battery technology, but in sectors like chips or medicine, may still be at least ten years behind companies like ASML, NVIDIA, Pfizer, or Medtronic. It is difficult to accurately determine to what degree China is in the lead, because its path to innovation is very different from that of the West. This is precisely why many people remain confident that China will never catch up with the West. In this book, I explain in detail how China innovates by achieving quality through capacity, rather than by taking the Western approach of starting from quality and then scaling up. The Chinese go through this reverse process not only in product development, but also for inventions, fundamental research, patent applications, talent development, data utilization, industrial applications, knowledge centers, technological ecosystems, infrastructure facilities, research funding, and so on. The question of whether you can really achieve quality over such a high quantity is a topic of lively debate between Western and Chinese academics. If hundreds of Chinese biotechnologists develop a new cancer treatment, are they more likely to succeed than a dozen Western biotechnologists who are able to think and experiment freely without any commitment to results or time pressure? I am convinced that the answer is not binary, and that it depends on the team, the timing, and above all, a lot of luck. As Confucius once said: “Isn’t it a joy to study and practice what you have learned?” This is a core idea in Confucianism, which emphasizes lifelong learning and self-discipline. Happiness comes from gaining more knowledge and, above all, from extensive experimentation—so quantity certainly counts. Yet there are good arguments for both strategies. Intellectually independent geniuses like Albert Einstein, Isaac Newton, Marie Curie, and Stephen Hawking

became global icons as critical, curious researchers who came up with a quality model that would change the world. This model became the norm, but the world is different today than it was back then. Consider artificial intelligence, interdisciplinary research, the interconnected world, and geopolitical tensions. We can no longer simply look to the past to find the best model for the future.

For example, since 2020 China has had limited access to cutting-edge Western technology. While this has led Beijing to provide much more financial support and time for scientists to innovate, the downside is that it leads to less private investment. The rise of artificial intelligence has meant increased automation of fundamental and applied research, and AI researchers are now busily cataloging all the data or validating the results. This gives China an advantage because of the sheer quantity of engineers the country has. A growing number of Chinese scientists have also studied abroad, while Chinese companies are steadily hiring more foreign researchers.

The innovation landscape has therefore become far too complex and interconnected to provide a simple answer. If the formula of starting with quantity to achieve more qualitative research proves successful, though, China is in pole position to become an innovation powerhouse.

Innovation powerhouse

Can China become *the* scientific powerhouse? According to *The Economist* magazine, the answer is a resounding “yes.”⁶ In June 2024, a long article appeared with the unambiguous title: “The rise of Chinese science: Welcome or worrying?” When determining China’s performance in terms of research and development (R&D) input and output, we need to consider several factors, such as funding, talent, scientific centers of excellence, high-quality articles, and patents filed. The article described how, in 2003, the US produced twenty times more high-impact publications than China. In 2013, it was only four times as many, and by 2022, China had overtaken the US and Europe.

This trend is also reflected in the Nature Index, which, since 2014, has calculated the number of contributions by scientists to publications in prestigious scientific journals. Here, too, China had already surpassed both the US and Europe by 2023. In terms of quantitative scientific research output, according to the Nature Index, eight of the top ten universities are Chinese. Institutes such as Tsinghua University, Beijing University, and Shanghai Jiaotong now stand proud alongside Harvard and Max Planck.⁷ In 2024, it emerged that half of the world’s top 100 “science cities” were Chinese, with Beijing and

Shanghai at number one and two (*ahead of New York and Boston*) and Nanjing at number five (higher than San Francisco, which is at number six). Wuhan, Hefei, Tianjin, Chengdu, and Changsha are perhaps less well-known, but they too are toward the top of that list, ahead of Cambridge, Zurich, and Munich. China also boasts an impressive inventory of advanced scientific research infrastructure, including supercomputers, the world's largest fixed-aperture radio telescope, and an underground dark matter detector. The country now lays claim to the most sensitive detector for ultrahigh-energy cosmic rays, the world's strongest stationary magnetic field, and the world's most sensitive neutrino detector.

I could go on, but it would start to look like it's game over for Europe, perhaps even for the US. That's not the case yet, but we need to watch out. Chinese labs are now incredibly well resourced with the most advanced equipment, often more so than at institutions like MIT or Stanford.

All of this has been achieved because, since 2000, China has increased its R&D budgets by a factor of eleven. In purchasing power parity terms—which provides a better understanding of comparable resources for researchers—China invested \$668 billion in R&D in 2021, just below the US's R&D budget of \$806 billion, also in 2021.

Then there are the researchers themselves. Depending on which report you read (the data isn't publicly available), a significantly higher number of STEM students graduate from Chinese universities than from US universities. My own estimate is over 3 million per year, compared to about 800,000 in the US. China also has over 77,000 PhD researchers in science and technology each year, compared to 40,000 in America, where one in three in fact turns out to be Chinese.⁸

Chinese researchers also file more patents today than any other country. Since 2000, over 6 million Chinese people have studied abroad, of whom more than 85 percent return after their studies. China has undoubtedly become the world's largest factory for fundamental research and development. The only question is how sophisticated the knowledge factory of patents, contributions, and high-impact publications has really become—a hotly debated topic.

The same debate continues to this day regarding the world's goods factory. Too many people still don't believe that China can deliver good-quality products. To me, it seems wiser not to underestimate China's impact on scientific superiority, nor repeat the same mistake we made with our perception of "Made in China" products, which we thought would always remain inferior. From smartphones to home appliances, drones, genome editing and electric cars... few of us ever imagined China could pull itself out of this low-quality trap by focusing on quantity and price. So why wouldn't China be able to repeat the same success now with "Invented in China"?

Invisible China

In this book, I will write about China's many future miracles. To this day, this is how the outside world sees all Chinese achievements because—to outsiders—they always seem to come as a complete surprise. They hit like a Bruce Lee kung fu blow: fast, hard, and unexpected. Yet just as winning a fight didn't feel like a miracle to Bruce Lee, the Chinese believe that these miracles only come about because millions of people have worked incredibly hard, demonstrating extreme discipline, a strong mindset, and great collective resilience. For the world, China performs miracles; for the Chinese, China performs many wonders of dedication. I call them "miracles" because they inspire awe, not because they are unexpected. If we look much more closely at the inner strengths that the Chinese have built up throughout their very ancient—and especially more recent—history, those miracles were actually rather predictable. The signs and patterns were definitely not invisible. We were simply looking in the wrong direction. We still are.

China becoming the world's second-largest economy is therefore not a miracle in the sense of an unexpected event. It is the result of hundreds of millions of Chinese people working extremely hard to build a better life for themselves and their families. They are the invisible driving force behind China.

The fact that China lifted 750 million people out of extreme poverty in just thirty years is also no miracle. It was primarily down to the pragmatism of the Communist Party, which suddenly allowed globalization, privatization, liberalization, urbanization, and better education. This is the invisible hand of China.

Apps like TikTok or SHEIN, which half of all Americans are avidly using, aren't exactly miracles either. Their success stems from their sophisticated algorithms, excellent user experience, psychological engagement, and efficient marketing strategies. They are built on China's invisible creative network.

Chinese electric cars taking the lead in the automotive industry is no miracle either. This breakthrough was the result of a planned transition to a more innovative and environmentally friendly society, with less dependence on the West. They are the product of China's invisible industrial ecosystems.

We often claim that previous Chinese miracles were the result of unfair practices and advantages: copycat behavior, a lack of privacy, human rights violations, a dictatorship regime, state intervention, subsidies, espionage, a legal vacuum, a biased judicial system, different norms and values, a lack of market reciprocity... We claim that it is all *thanks* to state intervention,

protectionism, and an unfair system that Chinese companies can do what we cannot—or are no longer allowed to do—in our state under the rule of law. The frustration for many foreign companies and politicians is that Chinese multinationals are favored and protected by the state, and that China does not always play the economic game by the international rules.

While this annoyance is historically accurate, the greatest danger lies in viewing these actions as the primary foundation for China's success. The idea that China can only catch up with us by cheating comes from not only China's past but also our collective belief that the West is still much further ahead. This creates blind spots that prevent us from seeing the new Chinese competitors that are zooming past us at lightning speed. There's absolutely no point in checking your rearview mirror for something that's already overtaken you. Mirror, mirror on the wall...

Cognitive dissonance

The biggest challenge is that Western politicians, business leaders, opinion makers, and the mainstream media usually describe every Chinese miracle by putting forward a reality that sounds diametrically opposed to our own: dictatorship China, repressive China, dishonest China, unjust China, restricted China, copycat China, authoritarian China, closed China, nontransparent China, assertive China, spying China, Big Brother China...

The West uses these loaded words, consciously or not, to project a negative image of China, but more often to reinforce our own image, policies, and model as a positive counterpart. When we're confronted with the reality, namely the rise and successes of China, we experience cognitive dissonance: the psychological conflict resulting from incompatible beliefs and behaviors. In response, our brains avoid the conflict, ignoring arguments and facts that exacerbate it.

The West continues to see China as a source of manual-labor manufacturing, with a low-tech label firmly attached. Yet that no longer aligns with the technological advances of Huawei, DJI, or BYD. Surely a surveillance state can't innovate? China's Western competitors know this is an outdated view, but prefer to keep quiet. The louder our deafening silence, the prouder the Chinese are of their innovative strength.

The West continues to see Chinese products as cheap and inferior, but this clashes with the fact that China also owns its own commercial aircraft, luxury mega-cruise ship, and space station. The image of "cheap Chinese junk" is ingrained in our minds. Surely a copycat nation can't produce quality? Yet the

Chinese themselves increasingly prefer Chinese quality and are buying less and less of the junk they'd rather ship out to the rest of the world.

The West continues to view China as a country that has made progress at the expense of human rights and civil liberties. This image clashes with China's strict privacy and labor laws, which now offer much more effective protection for the world's largest middle class. The thought of a repressive, restricted China makes us shudder. Surely a totalitarian country can't have a fair justice system? Yet Chinese people traveling to the US believe that we are the ones increasingly living in a climate of fear, injustice, xenophobia, volatility, curtailed civil rights... essentially claiming it is the West that is in its own bubble.

We continue to view China from above, as an authoritarian regime orchestrating its people and businesses. This jars with the efficiency, speed, flexibility, and innovative strength demonstrated by Chinese companies today. The West increasingly views Chinese state intervention as cheating. Surely an undemocratically governed country can't be productive? Yet in China it is the United States that is increasingly seen as authoritarian and has long been disregarded as a model of democracy. Since Trump took up his second term, many other countries have adopted a similar view.



TIP

Let go of the idea that China's success is still down to cheap wages, copycat behavior, a controlled society, or a state-managed planned economy.

Historians like to determine China's future by studying its long history, but this is a country that is less repetitive than it is transformative, which means we are better off not trying to predict the China of tomorrow based on the nation of yesterday. China certainly doesn't want a return to its past, to Mao, or to the emperors—that would be far too painful. What they do want is to learn from their long cultural history. The Chinese also no longer want to live in a future utopia, because that only leads to anxiety. Instead, they want to plan for an even better future. The Chinese prefer to live in the present, without worrying too much about how today's conflicts will impact the future.

In 2025, China is a mix of the world's most modern cities and some of the most traditional, or underdeveloped, villages on earth. It is precisely this dissonance—between rich and poor, modern and old-fashioned, fast and slow, open and closed, global citizens and nationalists—that we find so confusing.

There are many different Chinas, but the progressive transformation of the entire country is still happening much faster than anywhere else.

- China's latest wages are no longer as low as those in Vietnam or India.
- China produces more patents and research publications than any other country.
- Chinese laws and their implementation are now almost as strict as in Europe.
- Chinese people today feel much freer and better informed than their parents did.
- Chinese companies see state intervention as both an accelerator and a brake.
- Chinese youth have the same opportunities, dreams, and pride as American youth.
- Chinese people understand the world better than we understand China and its people.
- Chinese Communist Party leaders—even Xi Jinping—are as pragmatic as Chinese business leaders when it comes to finding smart solutions to their problems.

TIP

Don't be fooled by the difference between rich and poor, rural and urban areas. Cities are mini-testing grounds where young people and businesses experiment before the success stories are rolled out elsewhere.

In spite of China

Another good reason to let go of the idea that the Chinese government, system, or protectionist model have led to unfair competition is that companies have often achieved great miracles *in spite of* the system, as opposed to "thanks to the Party state."

When we think of Chinese companies that have become internationally renowned premium brands, we think of Huawei (telecom), Alibaba (e-commerce), Tencent (social media and gaming), Lenovo (PC), Haier (appliances), Hisense (TV), Ping An and Alipay (insurtech and fintech), or younger companies such as ByteDance (TikTok), DJI (drones), Temu and SHEIN (e-commerce), Xiaomi and VIVO (smartphones), Didi (Chinese Uber), or BYD, Geely, NIO, Li Auto and XPENG (electric cars) and so on.

What immediately stands out is that these are all private companies. We may also be familiar with state-owned enterprises like China National Petroleum (CNPC), State Grid, China Mobile, China National Offshore Oil (CNOOC), China Railway Construction (CRCC), China State Construction Engineering (CSCEC), Bank of China, or China Airlines. These Chinese state-owned enterprises are, however, not the companies we usually discuss. It is primarily the private Chinese tech companies that concern the West most in terms of our competitive position and staff layoffs. We are particularly anxious about Chinese businesses that are driven by the market and innovation. Yet it is precisely these companies that have received considerably less government support than the state-owned enterprises, meaning they are more likely to be at a disadvantage compared to the “national” corporations.

These companies neither benefited from the advantages nor had to face the disadvantages of Chinese state-owned enterprises. For example, they were not under significant pressure to support Beijing’s government objectives. They were not required to make large investments contributing to economic growth. They were not under the Party’s directive to create jobs or to sell their products at cost price or even at a loss in order to, for example, eradicate extreme poverty or ensure the production of face masks for the entire population during the Covid pandemic. Even with direct support from Beijing, Chinese state-owned enterprises are often less productive, effective, and innovative than their private-sector counterparts. So the benefits of Chinese state subsidies and support are frequently exaggerated, while the disadvantages of state intervention are drastically minimized.

This doesn’t mean that private companies in China don’t also receive government support. In chapter 5, I explain that this support isn’t a gift, but comes with strict conditions—often following a more capitalist model than in Europe.

I am sure very few Western companies would want the subsidies that Chinese state-owned or private companies get when they realize that all the disadvantages are also part of the deal. The greatest threat to international corporations comes from the Chinese private companies that have achieved success after years of struggling to survive in an unpredictable China that was anything but supportive of them. If you think back to the well-known Chinese private companies today, these are the sole survivors. We don’t talk about the losers because they’ve either folded or been acquired. In the past, both the losers and the winners were at a disadvantage compared to Chinese state-owned companies, as the challenges they faced ranged from overcapacity from sometimes dubious competitors to deceit, corruption, nepotism, a weak rule of law, being denied access to intellectual property or licenses, limits on attracting

talent and funding, and much more. If it's the thousands of blows and intensive training that make a boxer stronger, it's irrelevant which power foods they eat.

TIP

Keep Chinese private companies—not state-owned or government-subsidized enterprises—on your radar, as these are the ones that have learned to navigate strong headwinds, plenty of setbacks, and intense competition.

Faceless companies

The fact that Chinese companies are able to conquer global markets is not so much down to the Chinese system or the Party, but mainly due to the resilience of their leaders in creating one miracle after another. The West often sees Chinese companies as faceless, so we rarely idolize their leaders. This is partly because founders have learned not to fly too high, to reduce the risk of having their wings clipped, like Jack Ma, or being seen as the greatest national security threat to the United States, like Ren Zhengfei (Huawei). The Communist Party will always put political power above the power of money. This is a major political-economic difference compared to America, where money dictates politics. That's why Western founders like Steve Jobs, Elon Musk, Mark Zuckerberg, Jeff Bezos, or Bill Gates have been very visible and able to speak out much more publicly than their counterparts in China. When they speak, Wall Street listens—and reacts. Show someone a photo of one of these Silicon Valley tech giants and they'll quickly be able to identify the company, leadership style, successes, and dreams associated with these figures. Then show them a photo of Lei Jun, Richard Liu, Robin Li, Zhang Yiming, or Wang Chuanfu—I've tested this extensively with thousands of Europeans and Americans, by the way—and it's extremely unlikely that anyone in the West will be able to even name the company they're linked to (Xiaomi, JD.com, Baidu, TikTok, and BYD). In China, meanwhile, these founders are just as famous as the tech rock stars in the West. These are the invisible Chinese founders who are moving the needle and redefining the business world. We'll come back to this in more detail later.

To understand how Chinese business leaders achieve this, I recommend watching a kung fu training session at the Shaolin Temple. You'll get to see how each student

increases their physical strength and flexibility, develops intense focus, builds a stronger body and mind, learns self-discipline, self-confidence, and self-control, forges trust and strong friendships, and much more. This intrinsic superpower, which takes blood, sweat, and tears for a kung fu master to develop over many years, also characterizes these successful Chinese business leaders—but now they're raising the bar. They, too, now want the power of the West: to operate in a way that's creative, inventive, sustainable, productive, efficient, inclusive, empathetic, people-oriented, unique, strategic, and in line with international regulations. They want to build a respected, reliable, and service-oriented premium brand. This is their ultimate mission in conquering global markets.

None of this requires you to actually learn kung fu (功夫), which literally means "mastery through perseverance." Instead, it is about learning "self-actualization." In 1943, the American psychologist Abraham Maslow described the pursuit of self-actualization as the highest need in a five-level pyramid. China is now moving up Maslow's hierarchy of needs. It is not that Westerners have reached a higher level on that pyramid than the Chinese. For many Chinese people, it was primarily about getting ahead, not about self-actualization. In the last century, their priority was survival and financial stability; this century, steps have been taken toward fulfilling personal growth, creativity, self-awareness, and soul-searching—steps they are taking incredibly quickly.

Since 2020, millions of Chinese people have been making kung fu-inspired leaps toward a completely different lifestyle and aspirations. Many factors have contributed to this reorientation of their needs: the hardships of the Covid lockdowns, the West's anti-Chinese stance, economic challenges, more paternalistic government policies, and a new generation of young middle-class Chinese wanting to redefine their quality of life.

It is safe to say that there has been a true turning point. I am convinced that in the next five years, this momentum of new needs, combined with China's more traditional kung fu superpowers, could give rise to another Chinese miracle. This heralds the end of the Chinese rat race and the beginning of a return to the "way and virtue principle" from the ancient teachings of Confucianism and Taoism. The Chinese are now returning to the past to build a new future: China's next miracle.

Red or Blue pill?

One of my favorite movies is *The Matrix* (1999), directed by Lana and Lilly Wachowski. It's a science fiction film set in a dystopian future where reality

has been designed by super-intelligent machines to control humanity. When computer hacker Neo sees messages online containing the phrase “The Matrix,” he goes in search of the truth. Revealed by freedom fighter Morpheus, the truth is that everything he considers to be real is actually a simulation. Morpheus offers Neo a choice between a red pill, which would reveal the truth and take him out of the Matrix, and a blue pill, which would make him forget everything and keep him in the simulated world. Neo chooses the red pill and wakes up to find himself in the real (under)world.

On the cover of this book, you’ll see a red and a blue pill, because we all have a choice about which pill to swallow when it comes to the reality of China—the new world that China is building and that is transforming our current one. A red pill that will reveal the truth, however uncomfortable it may be, or a blue pill that will keep us blissfully ignorant in our familiar old world. To re-enforce the symbolism, red represents China, socialism, and communism, while blue represents Western liberal and democratic values.

Throughout this book, I also want to shed more light on the meaning of the colors red and blue. In Chinese philosophy and traditional medicine, red is associated with the element fire, which represents warmth, happiness, and energy. In Western culture, blue is associated with innovation, reliability, stability, and professionalism. In China, red represents energy, and in the West, blue represents tranquility. We need a bit of both to maintain a healthy balance in life—a yin–yang effect.

This book represents the many red pills I can offer to help you gradually understand the reality of the Chinese corporate world. Just like in *The Matrix*, I will also go in search of superpowers. Where do Chinese business leaders get their incredible speed and strength? How are they able to make so many enormous leaps, sometimes even seemingly landing where no one expects them to?

I certainly don’t want to suggest that people outside China live in a simulated world controlled by, for example, the Western media, or that I have a red pill that will wake us all up from this illusion we’re under... as that would be just a little too ironic. It is not about whether people in China or the West are living in the real world or an illusionary one, but that we all have our own reality and illusions. I do worry, however, that since the Biden and Trump eras, the Western media has fed us an overdose of blue pills, and that our factual and genuine knowledge about China has drastically shrunk. This book can certainly be seen as an antidote to this—one red pill a day should suffice.

In eight chapters, I’d like to take you on a Chinese journey into the future: another miracle in the making that we’re better off predicting well in advance