WHY INNOVATION FAILS

The 7 keys to succes

JOACHIM DE VOS

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President Emeritus of the European Council

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"There is no doubt that the way we live will be different in the future."

BILL GATES

"There is no doubt that the way we live will be different in the future. The advances in PC technology and low-cost communications are bringing a revolution that we all talk about today as the information superhighway. I think that the impact that is coming in the next twenty years will be very dramatic. So, I think it's very wise for us to start exploring what it all means. A project like this one where you are brainstorming about what is possible and you are getting people to come in, look at this and that, and think about what this all means... It's fantastic that this is happening early on. I was certainly impressed with what I saw. And I'm very pleased to be here. Thank you."

These were the words of Bill Gates on 16 March 1995 at the opening of Living Tomorrow, the first project that I worked on with heart and soul to build a better future. It also marked the start of my professional career. He told me that he was impressed with the vision that we had for that future. Today, 27 years later, the time has come to look back, but also to look forward. This is a book about how I experienced innovation in hundreds of different organisations, both great and small. About how I learnt to predict the future, so that I and others could be prepared for it in the best possible way. Above all, it is an honest and frank account of how I saw innovation succeed and fail, often because the drastic nature of change had been underestimated. This is truer now than it has even been: "The next twenty years will be very dramatic."

INTRODUCTION
WHAT DOES THIS BOOK HAVE TO OFFER?

Returning to normal after Covid-19 is an illusion

Covid-19 was the 'black swan' that surprised us all by its intensity and scale. No one could have imagined that something as ordinary as a bat would catapult the globalised world a quarter of a century back in time, with several large-scale lockdowns that paralysed both society and the economy, with millions of deaths as a result. Yet in spite of everything, the pace of technological progress did not slacken. Quite the reverse. There was also significant societal change. Covid-19 caused us to fundamentally question the way we look at the world and our role in it. António Guterres, the secretary-general of the United Nations, issued the following stern warning: "I am here to sound the alarm. Our world has never been more threatened…"

In the old normal, we used to spend hours in traffic jams, rushing from one meeting to the next, but scarcely making an active contribution when we got there. We attempted to pass on our knowledge to our children by making them sit for hours in overfull auditoria, where there was little or no interaction. We organised events that were only viable if attended by huge numbers of people and we were able to fly around the world for less than the price of a decent meal.

Until everything suddenly ground to a halt: total lockdown. We were imprisoned – happily or unhappily – in our own bubbles, only being allowed out of doors for 'essential travel'. Our lives changed drastically. Never before in the history of mankind had there ever been such a massive change experiment that affected our habits and our way of living and working. But people soon grew tired of accepting the rules that had been imposed upon them. Soon

there was a growing number of dissenting voices, shouting in unison: "Let's get back to normal, as soon as possible." And that is what we did, as far as we could. As a result, we are now once again sitting in traffic jams, flying around the world and buying things like it is going out of fashion. So, we need to ask the question: has innovation failed?

In the meantime, we are also being confronted with the downside of the rapid recovery of the economy, which finds expression in a shortage of materials and energy. This further contributes to the level of harmful emissions, while the weather continues to become increasingly capricious, with blisteringly hot summers in some parts of the world and devastating floods in others. But this is just the beginning, and the further development of these trends will force us to change almost constantly. To make this possible, innovation will need to play a key role in helping to provide the structural change that is so desperately needed.

What if we all travelled less?
What if we all worked online, wherever possible, instead of commuting?
What if we all generated our own energy?
What if we recycled and reused things, and consumed less?

How can we change our objective from 'getting back to normal' to 'finding a way forward'? How can we learn to embrace change fully, even in the face of the uncertainties it presents? This will be the great challenge in the coming century, both for individuals and organisations. Why does innovation so often remain just a one-off project? When I ask companies to tell me about the recent innovations that make them feel proud, they usually answer with something like: "Well, Eric and his team did something great last year" or "We had a fantastic hackathon back in 2020". But after these 'great' and 'fantastic' initiatives, things suddenly went quiet. There was no follow-up. The idea of non-stop innovation failed to catch on. Things simply went 'back to normal'. 'Business as usual' is the order of the day.

So what is going wrong? Why do we find it so hard to innovate in the way we should? Why are we unable to convert innovation into an integrated process that continues to produce success after success?

Wanting to tackle these questions was one of my main reasons for writing this book. Having said that, I am the first to admit that I do not have all the answers.

That would be presumptuous in the extreme in a domain as volatile as innovation. What I can do, however, is to share the lessons I have learnt from a life that has been devoted to innovation. Sometimes these insights were gleaned from success; sometimes from the scars of painful failure. Yet whatever their origin, they always led to greater clarity and understanding.

What will your approach be? Will you let change just happen to you? Or will you seek to shape it?

My life dedicated to innovation and the future

My professional life has been driven by a boundless passion for the future and the innovation that will be necessary to get us there. As a child, I was given an encyclopaedia about technological progress. I soon knew its contents by heart. During my engineering studies, my interest was captured most forcefully by 'what must come'. In 1995, we built the House of the Future – Living Tomorrow – in Brussels, so that we could imagine what life would be like in the 21st century, surrounded by new technologies, products and services. A living glass dome, the purpose of which was to stimulate and communicate innovation. It was a huge success. Since then, millions of people have visited one of our six generation projects; hundreds of millions, if you count our virtual visitors. In the intervening years, I have worked closely with more than a thousand organisations to develop new products and services. Together with them, I have been able to think about the challenges that will need to be met to secure all our futures. This has become an international open science project of which I am immensely proud, as I am of the many people who help – and continue to help – to make it possible each day.

When Living Tomorrow was launched in 1995, Bill Gates was one of our main guests. On the evening of the launch, we walked together through the House of the Future, admiring its many radical new ideas, like a kitchen computer integrated seamlessly into one of the work surfaces. As a result, daily products could be ordered automatically and you could fun-shop via a virtual supermarket, so that you could organise your next house party quickly and easily. Your virtual assistant – "My name is Franz and I'm going to help you organise your evening" – knew your preferences, which made choosing from an endless range of products so much simpler. At the same time, demotics ran everything in your home and you could even let the delivery man into your house from

a distance, watching on camera while he put everything away neatly in your fridge.

In addition to our many 'ordinary' visitors, a number of my idols also found their way to Brussels, such as Nicholas Negroponte, Pattie Maes, Ray Kurzweil, the Chinese premier Zhu Rongji, Zaha Hadid and Chief Raoni Metuktire – one of the chiefs of the Kayapo people, who fought together with Sting to combat deforestation. We have also been fortunate that former European Council president Herman van Rompuy has regularly chaired our international round-table meetings to discuss future thinking and innovation.

At the heart of the future that surrounds us, we had and still have the most fascinating discussions. People start to dream about what might be; they see the future and decide to think and act differently.

Many of the things we demonstrated later came onto the market. Sometimes as long as 20 years later. We often saw the magic unfold right before our eyes. Dozens of products and services, which we had helped to co-create, either through design or the building of prototypes, have become a huge success: household automation with voice interaction became Google Home and Alexa; e-commerce became Bertelsmann Online and later bol.com and Amazon; the virtual travel planner became Tripadvisor; video meetings became Zoom and Skype; delivery box became DHL packing stations; the automatic doorbell that lets in delivery people became Amazon Ring; the streaming jukebox became Spotify. And that is to name only a few.

At the same time, it needs to be remembered that many innovations failed; far more than ever succeeded. Some never made it out of the lab. Others failed to catch on in the market, often because they were ahead of their time or insufficiently adjusted to the needs of the moment. We introduced speech technology far too early in 1999. Job matching (active collaborative filtering), used by Randstad as long ago as 1998, also arrived two decades too soon. The idea of an intelligent 'kitchen board' – offering a range of smart services and communicating with smart packaging and kitchen devices – dates back to 2007, but only looks set to make a big breakthrough in the next ten years. The smartwatch – which tells sportsmen and women when they need to top up their energy levels and what energy bar they should eat, before automatically adjusting their dietary profile, thanks to the biochips contained in the bar – was first developed as a concept back in 2010 and is now available as an aid to help people follow their

medication correctly. The intelligent mirror, which also functions as a virtual doctor, is only now starting to become popular after six years, through the use of apps like SkinVision and Doktr.

Imagining what the future will be like excites passionate emotions, both in terms of the innovations themselves and their adoption by consumers. I can remember weekends in the House of the Future when we had intense and sometimes heated discussions with our visitors. Some people thought our ideas were madness and saw us as demons who were determined to introduce an artificial, technocratic world that needed to be resisted at all costs!

A screen in every room? How dare you suggest such a thing! A screen that you can carry in the palm of your hand? Never! Discussions of this kind are still being conducted today, but the themes have moved on from screens and smartphones to Artificial Intelligence (AI), self-driving cars, brain-computer interfacing and other similar possibilities.

Your mirror on the future

Like the House of the Future, this book is intended to serve as your guide to discover the future and how you can best prepare for it. Above all, you will also learn how you can innovate with the future in mind and how you can increase the likelihood of turning your innovative projects into repeatable successes in both the short and the long term, not only for yourself but for your customers as well.

> *This book will be your mirror on the future,*
> *your guide for your own future,*
> *and for the future of your children,*
> *your company, your customers and your partners.*

Whether you are an incumbent, a start-up, a family business, a major company, a government authority or an educational or care institution, this book will offer you a number of practical tools and instruments that will help you to make your innovation more successful and more meaningful. But on its own this will not be enough. The saying "a fool with a tool remains a fool" contains more than a grain of truth. Successful innovation requires much more than just the right people and the right tools. It also requires a clear vision of the kind of

future that you want to build, and I hope that this book will show you how best to do this. Having a clear vision, supported by the right people, tools and processes, will make it possible for you and your organisation to remain relevant in the future. That is the ultimate goal of successful innovation. This future is something that should interest and fascinate us all: after all, we are going to spend the rest of our life there! But it begins here. And it begins now.

Innovation: the new religion

'Innovation' is one of the buzzwords of the modern business world. You see it and hear it everywhere. The hype around new products and services continues to increase. It has also been suggested that the Covid-19 pandemic has not only further intensified this urge to innovate, but has familiarised it as well. Development of a Covid-19 vaccine put mRNA biotechnology in the public spotlight, while contact tracing did much the same for Bluetooth. We all Zoomed from our front rooms instead of commuting into the office. Air travel was replaced by video conferencing. Museums and galleries were visited virtually rather than physically, thanks to the ingenuity of VR glasses.

Without innovation, it is possible that the effects of the pandemic might have been insurmountable for the economy and perhaps even for mankind as a whole. Recent innovation has drastically changed our lives in many different ways. And I am not talking about robots, drones or AI, linked to our brains or not. In spite of the pandemic, things continued to grow. Innovative companies continued to make their way inexorably to the top. Look at the stock market explosion that took place in the middle of 2020. With an estimated value of 2,500 billion dollars, Apple became as large as the entire British or French economy. Tesla is now worth more than the three largest German car manufacturers and the rest of the top ten put together. Elon Musk has become the richest person in the world. This is a seismic shift. Successful innovation on a massive scale.

Innovation is doing something new.

Change is taking place faster than ever before. Technology is booming. The world is being shaken by the scruff of its neck. When I started my career in future thinking at the age of 25, I can remember a visit made to Living Tomorrow by the top man at Intel. The title of his speech to a packed hall of CEOs was

short and to the point: "Innovation. The quick and the dead!" It was quite a performance, but in 1995 people felt that they could still afford to laugh at his words. They are not laughing now.

As an organisation, you need to innovate. You have no choice. As a result, countless new initiatives are launched: idea boxes, participation platforms, R&D labs, accelerators, incubators, venture capital starters, innovation boards, skill learning programmes, culture programmes, open innovation, partnership programmes, intrapreneur bootcamps, hackathons, innovation tours, innovation cafés, disruption boards, etc., etc. I see this happening week after week in our event spaces and during my location visits, or when I am invited as an 'inspirational speaker' to fire up people's creative energy. Please don't misunderstand me: these are all noble and worthwhile initiatives, but they seldom lead to positive results. They lack structure. There is no connection between the different projects. No vision. No follow-up system. Each innovation is an end in itself, rather than a springboard to something bigger and better. Innovation of this kind is a waste of time. It can be done better. It must be done better.

Every level of society is fixated on innovation. Since the early 2000s, we have learnt to worship a quadrumvirate of new gods: Google, Apple, Facebook and Amazon, collectively known as GAFA. More recently, this constellation has been expanded and reformed to create MATAMA (Microsoft, Apple, Tesla, Amazon, Mega and Alphabet). These super-organisations all have the most charismatic leaders: Steve Jobs, Mark Zuckerberg, Jeff Bezos, Satya Nadella and Elon Musk. Fortunately, there are also a number of women among them: Susan Wojcicki, the CEO at YouTube, and Gwynne Shotwell, the COO at SpaceX, to name but two. Even so, the very top of the business world is still far too male-dominated. Where do these 21st century divinities come from? Some of them are from the promised land of Silicon Valley, but others have emerged from China, a country that we thought (until recently) had embraced capitalism, resulting in organisations like Alibaba, Tencent, Neo and TikTok, led by innovative entrepreneurs like Jack Ma. With their army of innovation teams, unlimited budgets, radical technology and out-of-this-world business models, they rapidly created a business value of a kind that has never previously been seen, running into trillions and trillions of dollars. The world seemed to be theirs for the taking, until they were called to a halt by President Xi.

Unbridled techno-optimism?

Here are some questions to consider. In this turbulent age, how should I organise myself and my company to have the best chance of a successful future? Sadly, I am not part of a MATAMA organisation, so how can I innovate successfully with only a millionth of the innovation budget available to these business giants? Or should I simply admit defeat and try to sell my company as quickly as possible? Or perhaps pass the problem on to the next generation, to see if they can do any better? These are not simple choices. But one thing is certain: you will solve nothing by engaging in what professor Steve Blank refers to as 'innovation theatre'.

There is no point in pretending to be innovative. In fact, it can even be counterproductive, since it often leads to a reaction against too much unbridled techno-optimism and the ceaseless urge to innovate. Some people even abandon innovation altogether, claiming that we have reached the so-called Great Tech Stagnation, the point at which technological breakthroughs no longer contribute to the economy or change people's lives in the way they once did. There are no longer any revolutionary and life-enhancing inventions, such as the light bulb or the refrigerator in the 20th century. New products seldom succeed in creating a significant and sustainable added value for the globalised world market as a whole. "Let's get back to normal" is their cry, in much the same way that people are anxious to revert to their old way of doing things after the Covid-19 pandemic. Or that, at least, is how it seems on the surface.

The believers in the Great Tech Stagnation argue that all the major steps forward in terms of life extension, electrification, construction, transport, etc. have all been made.

So, the million-dollar question is this: are they right or are they wrong?

I want to build a bridge between today and tomorrow

Whenever I start a conversation in organisations about innovation and the future, I am usually confronted with the supporters of both points of view: those who are enthusiastic to explore what the future might hold and those who are equally convinced that a focus on the present must be the priority. How do you deal with this kind of situation? How can you set everyone's sights on the fu-