



WHY DATA WINS

Transform your organisation
into a data-driven powerhouse
in 7 essential steps

JOACHIM DE VOS

Lannoo
Campus

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**Foreword by Herman Van
Rompuy, President Emeritus
of the European Council and
Minister of State**



**Watch the book launch
aftermovie**

AUTHOR'S PREFACE

So far, I have devoted my life to innovation and the future. For more than thirty years, I have been able to call my passion my profession: helping companies explore what tomorrow will bring and how they can start shaping it today. I did this from the very beginning, in 1995, at Living Tomorrow in Brussels and Amsterdam, an internationally active organisation that develops projects around living, working and life in the future. We worked on immersing thousands of organisations and millions of visitors in their future, all driven by the same curiosity: what will our future look like, and how do we prepare for it? I later continued this work through my involvement with Ghent University and through my own strategy companies focused on the future and innovation. What I saw time and again was that visions of the future rarely fail because of a lack of ambition. They fail because of a lack of data literacy. People underestimate how decisive data are for the success of every new product, every service, every process.

I still vividly remember the first kitchen computer from 1995, which allowed you to do teleshopping via the early internet. Or the very first remote video doorbell. I programmed all these applications myself, simply because they did not yet exist. Around the table were companies such as Philips, Microsoft, Carrefour, then GB, NCR and AT&T. Everyone thought they were fascinating gadgets to show in the 'House of the Future', but the real potential lay elsewhere: in understanding customers through data and in realising that every digital contact says something about behaviour, preference and intent. On the other side of the world, a young entrepreneur was driven by a similar conviction: Jeff Bezos. His online bookshop seemed marginal, but he saw what almost no one saw at the time: data would become not only the engine of sales, but also the engine of trust and personalisation. He understood that data could deepen relationships, not just accelerate transactions.



Bill Gates was my guest at the opening of our first House of the Future in 1995. He immediately sensed both the power and the chaos of the internet. His first response was understandable: 'The web is too unstructured to do business on.' At the time, Microsoft was *the* company making the world more efficient, so his reflex was to create order. The answer was the Microsoft Network (MSN), a structured digital platform where knowledge was offered in a clear and reliable way. I still treasure the short film he had made at the time (see the QR code). He was visibly impressed by what he saw: homeshopping and internet services as the beating heart of the house of the future. It was completely new, something that did not yet exist anywhere. And yet it felt like a glimpse of what was to come. Gates saw how technology, connectivity and data together heralded a new era.

During his visit, as we walked around, he said something I have never forgotten: 'Microsoft must become the core of our daily lives in this future, nothing less than that. Information at your fingertips.' A few months later, he published his book *The Road Ahead*, in which that ambition was embraced in full. Information at your fingertips perfectly captured what I have since seen happening all over the world: technology becoming human and data gaining meaning. What connects my experiences is timing rather than technology. I had the privilege of seeing these developments emerge, in prototypes, conversations and experiments, long before they became mainstream. That is an observation point, not an achievement. From that position, I saw the same pattern again and again: those who understand data see sooner and make better decisions.

I later founded TomorrowLab Consulting out of my MBA studies at KUL/FBS in Belgium and Kellogg in Chicago: a strategy and foresight company that helps organisations find direction in a world of constant change. For about ten years now, I have also been trying to pass this on to students at Ghent University, the leaders of tomorrow. By now, it is very clear to me that data are the connecting language between vision and execution. The language of the eye is form, colour and pattern; the language of the brain is numbers, words and concepts. Eye and brain together create direction: strategic direction. The challenge for most organisations is that they do not yet know how to find that direction. They measure without understanding, collect without connecting, and too often compare themselves with others instead of forging their own path. The future belongs to leaders who dare to think as Gates and Bezos did back then. They were visionaries who saw what was coming and, above all, understood

why it mattered. The winner is not the one with the most data; what matters is daring to understand them and using them to rewrite the future.

At the opening of Living Tomorrow Amsterdam, the CEO of CMG, later CGI, said something I have never forgotten: 'Innovation is seeing what everyone sees, but doing what no one does.' That is exactly what data make possible. You learn to see what others overlook because it remains misunderstood. Data make ideas discussable. Through the right visualisations and storytelling, even opposing viewpoints become clearly visible and open to discussion. I like to call this visual democratisation.

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VISUAL DEMOCRATISATION

A process in which images, visualisations and data-driven visualisation tools are used to make insight and conversation accessible to everyone in the organisation, regardless of role, technical skill or background, so that decisions are made through a broadly supported and visually informed debate, rather than exclusively by a small technocratic elite.



For me, visual democratisation also includes your feedback, because it is crucial to continually improving this book. I invite you to connect with me on LinkedIn, where I regularly post updates on data, data science and innovation. You can also reach me there directly with ideas, suggestions or questions. The QR codes in the book help keep the content relevant and up to date: a direct connection between the knowledge on paper and the rapidly changing digital world. Your insights help me continue to strengthen this bridge.

Personal
message from
Joachim



Time to reap the rewards!

INTRODUCTION

In May 2017, *The Economist* put data on a pedestal on its cover (see Figure 1). Oil, the world's most valuable resource, had been displaced by data. Most organisations have more data than ever and yet they make worse decisions than they did ten years ago. There are more dashboards, reports and AI experiments, and less clarity, ownership and real decision-making.

Does that make you uncomfortable? Then you are the right reader for this book.



Figure 1 The world's most valuable resource.

From misunderstood value to strategic advantage

This first strategic book on data had to be written because, in a striking number of organisations, data are used to postpone, legitimise or hide decisions. Data have become a shield instead of a compass. That is precisely what makes organisations slower, more fearful and less sharp, while the world is accelerating. Today, the comparison falls short for what data really are. Oil is scarce, finite, loses value after use and is traded on anonymous markets. Data grow, gain value through use and through context, timing and interpretation. They multiply, growing with every click, choice and interaction. That makes them powerful and ambiguous: they can flourish as an ecosystem of insight or run rampant like weeds of noise, bias and privacy debt.

In this book, I cultivate data rather than turning them into a repository. Data provide strategic advantage: direction, choices and action. My research into data provided the motivation for this book. NewVantage Partners, now Wavestone, tracked more than a thousand Fortune 1000 executives for twelve years. Each year, Randy Bean and Thomas Davenport asked the same question: How far along are you on the journey towards data-driven working? The figures, even after twelve years, are staggering. If you pull apart two layers – saying and doing – that is when it gets really interesting.

Table 1 The percentages from 2023 show that organisations often say something different from what they actually do.

SAY	DO
88% see data & analytics as a top priority for the organisation	24% actually have a data-driven organisation
87% claim to deliver measurable business value from their data investments	21% have built a data culture
83% have appointed a Chief Data Officer	40% manage data as a strategic business asset
82% are actively increasing their investment in data & analytics	41% genuinely compete on the basis of analytics

In 2024, enthusiasm around GenAI emerges. Organisations experiment extensively. Nevertheless, there is little integration: 60% say versus 5% do. Why, then? The majority of executives point to culture, people and processes, not to

technology. At the same time, those same organisations invest hardly anything in data literacy and cultural change. This is more a case of failed leadership than technical failure. A good reason, then, for me to focus on leadership in this book. How do you turn data back into a compass and your organisation into a data powerhouse? Insight, expertise and transformation are essential, so that dashboards, tools and investments are used to their full potential.

Data are already shaping the future, and too many leaders still treat them as a technical issue. They are not. Data are a strategic leadership issue. As a leader, you will probably recognise this. Your organisation has invested heavily in data, analytics or AI. Pilots are running; dashboards look professional. What lags behind are decisions. Or gut-feeling decisions are justified afterwards with data, or they are postponed because the figures are supposedly not yet complete.

CEO, operational leader, innovation manager: this book is for you

In my conversations as a sounding board, I usually meet CxOs from organisations all over the world. They ask different questions about data and its usefulness. Usually, they get technical answers or jargon. Do you know my previous book on innovation, *Why Innovation Fails* (2022)? Then you know this cannot be a technical manual full of code and algorithms. For those who do not know that book: I do not write manifestos for data scientists, because they have their own libraries. This book is for you. The CEO who receives a strategic dashboard every week and wonders: Fine, but what am I supposed to do with this now? The marketing director who senses that customer data are worth their weight in gold, but does not know how to mine that gold. The operational manager who knows processes could be smarter, but is drowning in spreadsheets without insight. The innovation leader who wants to build future scenarios based on data, not gut feeling. The SME entrepreneur with limited resources who understands that data-driven working is no longer a luxury, but a matter of survival. The public official or politician who wants to make policy that reflects the reality of today, not yesterday. The research officer who has to translate complex data into clear policy advice.

In other words, for each of us who makes decisions every day and feels: data are important, but I want to understand them without becoming a programmer

myself. Because that is what is missing. We talk about AI as if it were magic; here and there you already hear voices saying that AI is the next hype bubble. We build dashboards as if they were the end goal, and ML and AI already have hundreds of tools. Data science is not a report factory. It is a way of thinking. A way to look better, understand better and decide better in a world that changes every second.

What you will discover

In this book, I try to give you a strategic compass in the data galaxy. I do this on the basis of my personal experiences and the insights I have gained from the many organisations I have spoken to, met and had the opportunity to analyse. You will receive a practical roadmap in four parts.

1. WHY.

Why data are the most crucial lever for change: the urgency, the wonder, the proof that you lose relevance and speed if you are not driven by data.

2. DATA.

What data really are and how data science works, explained strategically, without becoming overly technical, with basic concepts that allow you to join the conversation: to talk to experts, ask the right questions and understand what is possible.

3. FAILS/WINS.

Why 87% of data initiatives fail and what the 13% of winners do differently: the contrast between dashboard swamps and real decision-making power.

4. THE 7 STEPS TO VICTORY

A practical blueprint for turning your organisation into a data-centric powerhouse, ready for the next century of artificially augmented intelligence. What do the most successful companies get right? How do you collect relevant data and build a culture in which insights lead to action? You get tools, frameworks and cases, so you can start applying them immediately.

This is what you will discover:

- What data literacy really means: a new way of thinking, not programming.
- How to assess your organisation's data maturity and improve it step by step.
- Which steps are needed to unlock and protect valuable data.
- How to translate data into concrete business insights that directly stimulate action.

- How to build a culture in which data insights take centre stage, without losing human intuition.
- How to enter into conversation with data experts with confidence.
- How to let products and services improve themselves through data feedback loops.

Whether you work in industry, healthcare, retail, government or financial services, chances are your organisation is sitting on a goldmine of data. Data are only valuable when you do something with them, and that requires a leader with vision, not a technician. A leader like you.

The future belongs to those who turn data into direction.

The fact that you have this book in your hands means you are already further ahead than most leaders. You recognise that data literacy is a necessity, not an option. You understand that in today's economy, the winners are those who work smartest, with data as a strategic lever. We stand on the threshold of a new era in which data inform and transform, insights emerge from intelligent analysis and leaders follow the most well-substantiated voice. Welcome to that era. Welcome to the journey from data to decision-making power. Do not expect this book to confirm how you work with data today. Do expect occasional discomfort, and be prepared to question your decisions and reflexes, because that is when it works.

PART 1

WHY

1

WHY DATA?

THE CEO WHO COULDN'T BREATHE

Thursday afternoon, June 2025. I am in the boardroom of a leading telecom company with its management team. As a neutral adviser, perhaps I can help them gain strategic insight. Dashboards flash across the screen: revenue figures, conversion rates, customer satisfaction scores. Mostly red. The CFO lists what has gone wrong, the CMO defends her campaigns and the COO points to operational problems.

'Stop, everyone,' the CEO suddenly says. 'Can you just tell me: why are our customers no longer buying?'

Silence.

Someone points to a graph. 'Conversion has fallen by 12%.'

'Yes, I can see that. But why?'

'Traffic is stable, but—'

'Why are they not converting?'

More silence. They have mountains of data. Terabytes of click behaviour, transaction history, feedback forms. They have dashboards that show every figure to three decimal places. They even have a Chief Data Officer and a team of data scientists. What they do not have is someone who can answer the question. Nothing will happen, except waiting, or calling even more customers to ask whether they want to convert. At that moment, I realise: data are not a luxury, they are oxygen, and this organisation is suffocating.

If you have no oxygen, it ends now, immediately; it does not take a week. The same applies to organisations. Without data – or rather, without the ability to turn data into insight – you lose market share this week, today, this hour. It does not take a year. Tesla knows in real time whether your brakes are wearing down. Spotify knows which song you want to hear next before you do. Waze knows where traffic jams are forming before you are in them. Your smart hospital knows that you are at risk of sepsis before you feel feverish. Your competitor? They know what your customers want before you realise they are leaving. The question is not whether you have data. The question is whether you can breathe.

During the meeting in June, and almost daily in just about every organisation, the question is asked: *fine, but what do the data say?* Usually, the most honest answer is: data say nothing at all as long as we do not know what data are, how we treat them and where they create value. Data are anything you can record, such as:

- figures in spreadsheets;
- the 47 seconds a customer spends on your homepage;
- the word ‘disappointed’ in an email;
- the two stars in an app review;
- the photo someone shares of your product;
- the 18°C in your warehouse at three o’clock at night;
- your heart rate during a presentation.

Raw data are noise and only gain meaning when you transform them:

Data → Information → Insight → Action → Impact

If we apply this transformation to the breathless CEO that Thursday afternoon: data: 12% drop in conversion → information: mainly among new customers on mobile → insight: check-out requires five steps on small screens; people give up at step 3 → action: simplify check-out to two steps with Apple Pay integration → impact: conversion rises by 28% in six weeks. Data are always there, but nothing changes if no one transforms them into a question that leads to action. Want to know what to do with data? I use six characteristics to determine how to work with them: the 6 Vs. This will be discussed in detail later in the book, but here is the essence:

1. How much data do we have? From megabytes to zettabytes: *Volume*.
2. How quickly do we have them available? From daily reports to real-time streams: *Velocity*.