

**THE CONTRIBUTIVE
COMPANY**

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THE CONTRIBUTIVE COMPANY



RECONCILING THE
CORPORATE WORLD
WITH PLANETARY
BOUNDARIES



DUNOD

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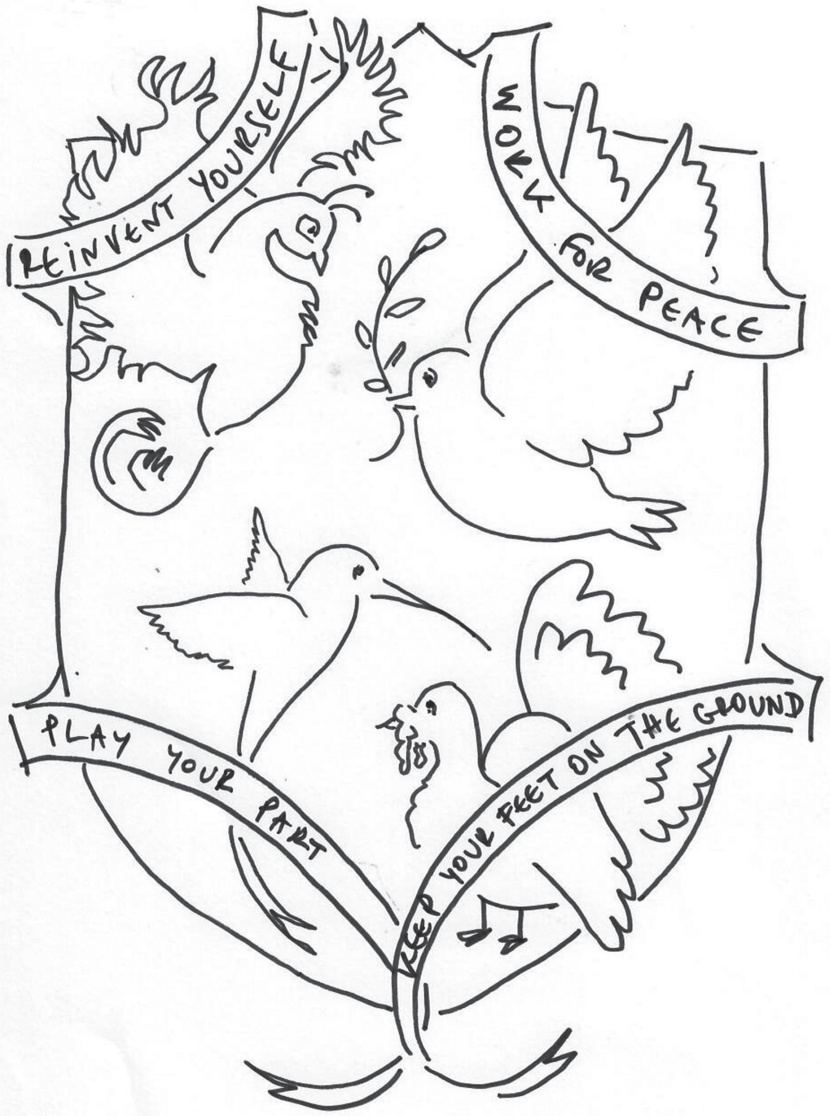
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Author's note

This book invites you to cast a critical but non-judgmental eye on the state of the world today, a world that we – as a society – have transformed, despoiled, and in many ways destroyed. It invites you to step back and reflect, as objectively as possible, on what businesses must do to reinvent themselves. We are not just part of the problem; we are also part of the solutions. As citizens, employees or entrepreneurs, what role can we play today? How can we “do things differently” and “do better” with “less”?

If it's naive to ask questions like these and attempt to answer them, then yes, we're unashamedly and wholeheartedly naive. Yet realistic utopias and inspiring true stories can be catalysts for change in people's actions and behaviour, and in society itself. These visions of possible futures of hope offer an alternative to cynicism, passivity, discouragement and indifference. Our aim in this book is to present solutions, groundbreaking initiatives, useful methods and the inspirational people behind them.



Foreword

“Tomorrow will not be like yesterday. It will be new and it will depend on us. It is less to be discovered than invented.”

Gaston Berger,
Phénoménologie du temps et prospective, 1964

Gaston Berger, a founding father of the concept of prospective, or “the study of possible futures”, is acutely relevant. His quotation carries extra resonance amid the climate change that we are experiencing and that we, as humans, are responsible for.

As climate scientists, we take a prospective stance when we model climate projections and the associated socio-economic scenarios. Our projections are not predictions, but explorations of possible, or plausible, futures. They inform the choices we must make together in order to protect ourselves today from the major risks of tomorrow.

“It will be new and it will depend on us” encapsulates what we know about the future of our climate. The fact that human influence has changed the climate has been unequivocally demonstrated, as set out in the first section of the Sixth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC) on the physical science basis for climate change, published in August 2021.

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Human activities are responsible for 100% of the global warming experienced over the last decade, with temperatures rising to what is very likely the highest level seen for at least 100,000 years (1.1°C higher than pre-industrial levels). And you have to go back two million years to find a level of atmospheric CO₂ concentration higher than today's.

Human-induced climate change has already made measurable impacts in every region of the world. Higher temperatures have caused glaciers and ice caps to melt, leading to rising sea levels and increasingly frequent extreme weather events such as heatwaves and droughts, with knock-on effects on ecosystems, harvests, human health and livelihoods. Research has established that these effects are due to climate change. The causal link is particularly clear between climate change and more frequent, intense heatwaves. We now know that, due to human-induced climate change, the probability (and thus frequency) of heatwaves such as those seen in France and western Europe in June and July 2019 (when temperatures neared 45°C) is five to ten times higher.

The increase in heatwaves takes its toll on terrestrial and aquatic ecosystems. For example, hundreds of millions of marine animals are estimated to have died due to the heat dome that hit Canada's western coast in the summer of 2021. Extreme heat events also destroy crops, posing a risk to food security and the income of those who depend on it. This is what happened in early 2022 in Argentina, when high temperatures devastated part of the corn and soybean crops. Heatwaves also adversely affect human health, particularly among people who are vulnerable – young children and the elderly – or highly exposed, especially outdoor workers. In

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addition, recent research has found that heatwaves diminish our cognitive abilities and capacity to learn, and contribute to a rise in violent behaviour at every level of society.

Current scientific knowledge enables us to forecast future climate-related risks. As the average temperature of the earth rises, so do these risks, and the planet's most sensitive systems now face high or very high risks. These systems include coral reefs and the fisheries that depend on them, arctic regions and coastal areas, where 1.5°C has already been surpassed. Many changes in the climate system are amplified by global warming, causing more frequent and intense heatwaves, heavy precipitation, agricultural and ecological droughts in some regions, and a reduction in sea ice, snow cover and Arctic permafrost. The longer global warming continues, the greater the impact will be on terrestrial and oceanic ecosystems, infrastructures, essential networks and services, living standards, human health, food security and access to water. This drives up the likelihood that we will face widespread and irreversible consequences.

France is already experiencing the impacts of climate change, with average temperatures having increased by 1.7°C since 1900. Climate conditions are moving beyond their ranges of natural variability, which increases their impacts on our living and working conditions, health, living standards and wellbeing. Two thirds of the French population are already highly or very highly exposed to climate risk. The Mediterranean region, including the South of France, is a climate change hot spot, given its high level of exposure and vulnerability to the impacts of climate change. But the whole of France's mainland and overseas territories is affected. This has resulted in rising sea levels,

causing the erosion of the coastline, marine submersion and groundwater salinisation. It is also reflected in melting glaciers in the Alps and Pyrenees, diminishing snow cover and disruption of the river regimes that depend on it, droughts and tensions over water use, forest dieback, an increased risk of fires... and the list goes on.

If we do not tackle climate change now, these effects will continue, the associated risks will increase and rising living standards across the world could be compromised. Every fraction of a degree counts. For example, at 1.5°C, global warming exposes 250 million more people to the risk of a water shortage. At 2°C, the figure doubles.

Many of the changes caused by greenhouse gases already in the atmosphere will be irreversible for centuries or even millennia. This is true in particular of changes in the oceans, ice caps and sea levels. For the next twenty years, we know that the warming trend will inevitably continue, due to the concentrations of greenhouse gases already in the atmosphere and those yet to come. The same is true of extreme weather events, which will be more frequent and more intense than ever. In the 2040s, extreme weather events equivalent to the heatwaves experienced in western Europe in June and July 2019 will be four times as frequent.

That is why we must act now to adapt our towns and cities, our infrastructures, and our water management systems, to prevent forest fires and to reduce the risks to our health and lives. These risks stem not only from heatwaves, but also from the other foreseeable effects of climate change. Adapting means using the knowledge we possess today to anticipate unprecedented events, to prepare for them and

to reduce people's exposure and vulnerability to them. In towns and cities, for example, that means bringing back more vegetation and water, using lighter-coloured surfaces, restoring degraded land, and so on.

That said, we will not be able to adapt to everything. There are certain thresholds – limits to the speed and magnitude of change – beyond which human ecosystems and societies face catastrophic damage. Hence the urgent need to reduce greenhouse gases, the cause of climate change.

There is a near linear relationship between cumulative human-induced carbon dioxide (CO₂) emissions and the global warming they cause. This means that, as long as the amount of CO₂ emitted minus the amount of CO₂ absorbed – i.e. “net” CO₂ emissions – is above zero, the concentration of CO₂ in the atmosphere will increase and global warming will continue. On the brighter side, it also means that if net emissions reach zero, the situation will stop deteriorating. To stabilise global warming (whether at 1.5°C or 2°C above pre-industrial levels), we must achieve carbon neutrality within a few decades. In other words, the human-managed carbon sinks that absorb CO₂ from the atmosphere (forests, soil) must offset the CO₂ emissions caused by human activities. Emissions of other greenhouse gases, especially methane, must also be reduced at pace.

In order to achieve carbon neutrality, we must drive transformations across the globe at a speed and on a scale never witnessed before, so that CO₂ emissions in 2030 will be almost half the 2010 level (bearing in mind that global emissions are currently still rising). All human activities, no matter which economic sector they fall into, are included

in the emission reduction target. An increase in emissions in one sector therefore requires a reduction of greater magnitude in another, or a higher level of absorption by carbon sinks.

The IPCC's scenarios for greenhouse gas emissions show that, in order to stabilise global warming at 1.5°C or 2°C above pre-industrial levels, we must drive far-reaching radical transformations on an unprecedented scale across all our major systems: energy systems, land use systems, food systems, industrial systems, transport systems, infrastructures, buildings, towns and cities. These scenarios share a number of common characteristics, which act as milestones: relatively weak global energy demand, corresponding to weak growth or a decline from today's level; complete decarbonisation of electricity generation by 2050; exit from coal and a reduction in the use of other fossil fuels; a sharp fall in agricultural emissions; sweeping transitions in land usage to increase the CO₂ stored in forests and soil; reduced industrial emissions due to improved energy efficiency and greater efficiency in the economy as a whole, recycling and frugality (i.e. embracing moderation in the production and consumption of products and materials); lower transport emissions, due to reduced distances travelled, the use of alternative modes of transport with low or no emissions (cycling, public transport, trains) and a ban on sales of internal combustion engine vehicles; and reduced building emissions, with new net zero carbon and nearly zero energy buildings built this decade, and extensive renovation of the existing building stock.

The transformations we must implement are game changers, unlike any development trajectory that has gone

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before. And we already know what we must do: invest heavily in low carbon technologies, insulate buildings, stop investing in fossil fuels and anything that increases our dependence on them (such as urban sprawl), develop or improve low carbon transport infrastructures (public transport, cycling networks, rail systems), establish more sustainable supply chains, and so on.

By reducing our use of fossil fuels, we not only mitigate climate change, but also drive rapid improvements in local air quality and health. Research also shows that mitigation approaches geared towards reducing demand (for energy, materials or land-intensive products such as meat) for reasons of frugality as well as efficiency are the ones that create the most synergies with the sustainable development goals.

Our current knowledge is wholly unambiguous, making any delay to climate action irresponsible. The choices we make today are vital, because they will determine the scale of change to come. It is never too late to act, because every emission avoided curbs the impacts of climate change and lowers the risk to humans and ecosystems of crossing the tolerance threshold. Unless we take immediate action, which must be decisive, far-reaching and designed to last, the 1.5°C and 2°C thresholds will be out of reach. But the worst-case scenario is neither inevitable nor unstoppable – far from it – because the solutions that will enable us to avoid it by reducing global emissions are already in our hands.

We must, however, urgently accelerate our actions. Whatever the climate change stabilisation target, we must achieve carbon neutrality on a global scale. The longer we wait, the more difficult it will be, and the more damaging the

impacts of climate change will become. We must therefore effect change in everything we do (travel, housing, heating, production, consumption, town and regional planning, organisation of our agricultural systems and food supply, and so on). These transformations require determined action and they require it now, encompassing all of society in a fair transition.

Tackling climate change also means taking the issues on board, thinking about the links between climate and inequality, climate and biodiversity, climate and health... This calls for a determined interdisciplinary effort in terms of research, practices and training. The action we need to see is neither marginal, nor one-dimensional, nor solely individual. Transformations on this kind of scale require coordinated public policies at every level, from local to global. They require all members of society (businesses, civil society, citizens) to play their part in changing our infrastructures, collective organisations and social norms.

That's where this book comes in. Its authors invite you to put your knowledge into practice, to act on the evidence. They urge you to roll up your sleeves and actively drive these game-changing transformations.

Discourses of delay are not an option for Céline Puff Ardichvili, who casts an acerbic eye on climate delayers in her offbeat illustrations throughout the book, providing light relief along the way. Delayers accept the existence of climate change but justify inaction or minimal effort. Some skirt the big issues by focusing on non-transformative individual solutions, the "little things" we can do, such as sorting waste, which, while being steps in the right

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direction, fall way short of what is needed. Others pin all their hopes on “imminent” technological solutions, which, in reality, are a long way off and risky.

And some rely on shifting responsibility, claiming that “someone else”, whether a country, group or individual, should act first. They might say, for example, that it would be pointless for France to take climate action since it represents “only” 1% of global emissions, conveniently overlooking the fact that France’s carbon footprint is ten tonnes of CO₂ equivalent per capita, almost double the global average. Others emphasise the downsides of climate action, citing risks to low-income populations as a reason not to implement climate policies. Lastly, some delayers argue that it’s too late to take action, whereas in reality every action counts, because every fraction of a degree counts. While these discourses may echo some legitimate concerns, they prevent adequate measures from being taken, by discouraging action or focusing on the problems instead of the solutions.

In the chapters of this book, the authors present many avenues to explore on your journey to a better future, through a wealth of inspiring case studies, new methods and questions to ask (yourself). “Changing business models, changing management, changing design, changing procurement, changing performance measurement, changing recognition... All these factors are part of it”. They urge you to find new ways of doing things and try them out – to envision and build the future we all want to live in, no less! This shared future can be a better world if we resolve to make it happen. As Gaston Berger said, the future *“is less to be discovered than invented”*.

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So now it's time for Céline Puff Ardichvili and Fabrice Bonnifet to take over. And it's time for you to think creatively and become a changemaker.

You want to change the world? Go for it! This book will inspire you to make it happen. Think it's not possible? Well, read it anyway. We bet it'll get you on board!

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Welcome to your journey through the universe of the contributive company

Here we go yet again. Hoping for a return to growth when, deep down, we all know it's a mirage. Could there be another kind of growth? Not according to the criteria that define growth as we understand it today. That is why we're talking about a new growth model, or, more specifically, a model for holistic human development. When we put it that way, it sounds daunting, but that is the kind of development this book is all about. And while it won't come from companies with traditional business models, it can certainly be driven by companies that make positive economic, societal and environmental contributions. We'll call them "contributive companies".

If we ask founders, employees, customers or partners what humanity would miss out on if their company didn't exist, and the answer they give, in all honesty, is "nothing" or "not much", then we clearly have some way to go. Of course, no company can claim to be 100% "virtuous". But some companies are already leaning towards a contributive model, and we have met their founders and their employees. Some employees are striving to change their organisations'

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business models from the inside, and what they have to say is highly motivating, because, yes, there are indeed alternative ways to produce.

Have you ever seen a Mexican wave in a stadium? It all starts with a few passionate fans, whose contagious enthusiasm spreads from stand to stand. Contributive companies also have the power to inspire. There's no doubt about that – in fact, they have already done so. In the words of Margaret Mead, *“Never doubt that a small group of people can change the world. Indeed, it is the only thing that ever has”*. Isn't that the most overused quote ever? It probably features in every management textbook! And likely in every sustainable development book too. That said, we haven't found a better one to express our conviction: there are already people out there creating the “right” kind of companies – not hypothetical businesses of the future, but real companies operating today. The more people who follow suit and show their model to be the best, the more this model will readily be adopted by others.

What if we stepped out of comfort into happiness?

*“History is not the soil in which happiness grows.
The periods of happiness in it are the blank pages of history.”*

Friedrich Hegel

An alternative corporate vision is perfectly conceivable: it all comes down to leadership and methods! While

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humanity sinks deeper into the Anthropocene¹, destroying ecosystems along the way, there are people among us who refuse to give in to fatalism. These are the utopians, the unaware, the humanists, the idealists, the optimists, the naive and those who are driven by something bigger than themselves. They believe that there is another way forward, a way to create value without destroying living things, including humans. As advocates of the contributive company, we stand with them.

Let's begin with a rant

The verdict is final: we humans are living beyond our means. Not only are we overspending financially, judging by the levels of private and public debt in most countries, but we are also, crucially, overstretching our natural resources. We need them to sustain our globalised economy, which exploits the living world and is incompatible with the ecosystems we depend on to survive. Ultimately, these two types of overconsumption feed into a vicious circle of debt: by living beyond our planet's means, we are constantly adding to our environmental debt – and at a significant cost, since the bigger our ecological debt becomes, the more we will have to spend to put things right, thus driving up our financial debt.

1. An important term meaning “the human era”, popularised by Paul Josef Crutzen – a meteorologist and chemist awarded the Nobel prize for chemistry in 1995 – and Eugène Stoermer, a biologist. The Anthropocene is the geological age that begins, in their view, with the industrial revolution, and follows on from the Holocene era.

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As pointed out by Gaël Giraud², an economist and Jesuit priest, researchers have demonstrated the usefulness of applying accounting methods to ecological debt and assets, just as we do with financial debt and assets. After all, which asset type is truly vital?

Nobody can deny that the advances in health, nutrition and production brought by industrial development over the last two centuries have lifted whole populations out of discomfort and poverty. But does our ultra-materialistic economy – our “consumer culture” borne out of globalisation and the lifestyles it encourages – make global citizens any happier? Proponents of “business as usual” will be rolling their eyes at this naive question. And French economist Jean Gadrey demonstrated³ that it’s a tricky one to answer, not least because the reference points against which we measure happiness are constantly shifting. Gadrey also showed that, above an annual threshold of around 15,000 dollars per capita, any further increases in a country’s gross domestic product (GDP) do not appear to increase its level of “happiness” – or, more specifically, the subjective wellbeing of its population.

So, money doesn’t make you happy – nothing new there. Why, then, have we based all our economic and political principles on it? Consume and be happy! I buy, therefore I am! Let’s face it, we are being conned. It’s the scam of the century, literally: “they” have made us believe that

2. Gaël Giraud, Director of Research at the CNRS, economist, former chief economist at the AFD, professor (IEA, Stellenbosch university, ENPC), honorary President of the Rousseau Institute, holder of a PhD in theology.

3. Jean Gadrey, “Le bonheur est-il dans le PIB”, *Alternatives économiques*, 8 January 2008.

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consuming will make us happy. It's a story spun by the few who exploit the many. And we fell for it. Yes, for as long as money has existed, everybody has aspired to have more of it, chasing the presumed wellbeing and, of course, status that it promises. As for happiness, well, like Faust when he signed his pact with the devil, we were promised happiness at the time when we were most susceptible to marketing.

Marketing is everywhere: in the things we read, in our leisure pursuits and all over the media. Our unquenchable thirst for "stuff" compels us to keep buying until the source dries up. Which brings us back to our circle of debt – in a nutshell.

If we upgrade to a better service or buy a product advertised as more useful, more powerful or "prettier" than the previous version, then it's hard to go back for any reason without feeling disappointed, because we see it as a regression. Our reference points move up and down in this way in every area of our lives. Each generation has its own worldview, in keeping with its era. Things evolve for better or worse over time without us being fully aware of it in the moment. Satisfaction is a relative concept and it changes continuously.

In the early days of electricity, the extra comfort and convenience it brought to users was widely recognised. It's easy to see why. The same is true of major advances in medicine. Easy access to drinking water and improved sanitation also crucially enhanced the real comfort perceived by individuals, while at the same time helping to stamp out diseases. Today, many of us are used to having these services and are oblivious to the "magic" they once held.