POST-GROWTH FOR BUSINESS

RETHINKING ACCOUNTING, GOVERNANCE AND BUSINESS MODELS

Prophil Enterprise for the common good

IN COLLABORATION WITH

WITH THE SUPPORT OF

A STUDY PRODUCED BY

Prophil

Prophil is a mission-led research and consultancy firm dedicated to fostering business that serves the common good. Its co-founders Virginie Seghers and Geneviève Ferone Creuzet have, between them, over 25 years' experience working with French and international foundations, companies and investors. Prophil comprises a research department and a consulting department: the former focuses on exploring and shaping alternative legal structures, business models and forms of governance, while the latter devises tailor-made strategies for companies eager to serve the common good. The firm was instrumental in getting mission-led companies and shareholder foundations recognized in France and supports entrepreneurs interested in adopting these models. Prophil also advocates for change and coordinates communities of pioneers in the field.

ACADEMIC PARTNERS

Audencia – Integrated Multi-Capital Performance Research Centre

The Integrated Multi-Capital Performance Research Centre pursues research on and develops expertise in measuring and auditing the full range of capitals involved in business (social, environmental, financial, etc.). Operating as a teaching laboratory focused on the ecological transition, the Research Centre has developed its own multi-capitals accounting methodology. It also plays an active role in efforts to harmonize and regulate non-financial reporting and provides training on sustainability accounting.

HEC – S&O Institute

Set up in 2008, the Society & Organizations (S&O) Institute is an interdisciplinary institute at the HEC Paris business school bringing together over 60 professors and researchers. Together, they work on topics related to loss of purpose and the ecological and social transition. The S&O Institute aims to reinvent business by promoting sustainability and unleashing human potential. Its three centres (Purposeful Leadership, Inclusive Economy and Climate & Earth) strive to enhance our understanding of contemporary challenges and support those looking to become part of the change.

Lumia

LUMIÅ is a private higher education institution with its own research centre as well as a training centre for business managers and leaders. Its programmes aim to get trainees thinking about how they want to do business, equipping them with the methods and tools they need to pursue viable, positive activities or else to adapt their existing activities to planetary boundaries and the living world. The research centre specializes in developing business models to support these transformations.

A WORD FROM PROPHIL

Venturing into post-growth business

Venturing into "post-growth" business takes both courage and determination. Courage, because it means leaving behind the familiar entrepreneurial world where performance is measured by how much wealth is created and capital raised. And determination, because it means championing a new world-view – one capable of succeeding where degrowth has failed and green growth has lost credibility. This is no time to beat about the bush: we need to revolutionize our production and consumption practices within the next decade in response to the irreversible damage inflicted on the environment and the ever-widening gulf of inequality in our societies. It is time to reset our thinking and make real changes in our companies to step up and meet the challenges faced. But where do we start?

Our third study invites you to join us on an exploratory voyage into this emerging "post-growth world". We will learn about alternative models for business, looking at both the theory and what some companies are already doing. We will hear from visionary experts and pioneering entrepreneurs who are taking the leap, devising and implementing new corporate tools. And it truly is a leap of faith: we are so used to thinking of growth as being the only way that it takes daring to change course.

Yet this is the challenge we have set for ourselves as we attempt to urgently unravel the complexities of post-growth business, true to our *raison d'être* of "showing new ways to help companies do more for the common good". Our two previous studies both explored new hybrid models, and both were instrumental in prompting regulatory change, as regards shareholder foundations[1] and mission-led companies[2] respectively. These concepts have since passed into our business lexicon and into law and are proving increasingly popular with French companies.

We now want to take things a step further, building on our previous research with the support of academic chairs and other partners – to whom we are sincerely grateful. We will concentrate on three essential and interconnected areas: corporate governance, business models and accounting rules. We need governance for change to happen, new business models – with new limits – to open up new opportunities, and appropriate accounting rules to ensure that we look at "what really counts" when assessing the results of our efforts in the first two areas.

This study shines a light on the emerging post-growth paradigm and gives a platform to those who are fearlessly forging ahead, beating a path for us to follow. We thank them for their dedication.

GENEVIÈVE FERONE-CREUZET AND **VIRGINIE SEGHERS**
CO-FOUNDERS OF PROPHIL

1. *Shareholder Foundations: the First European Study*, Prophil, 2015.
2. *Mission-Led Companies: International Overview of Hybrid Legal Forms Serving the Common Good*, Prophil, 2017.

A WORD FROM OUR PARTNERS

ACADEMIC PARTNERS

Audencia – Integrated Multi-Capital Performance Research Centre

DELPHINE GIBASSIER, PROFESSOR AND CENTRE DIRECTOR

Audencia's Integrated Multi-Capital Performance Research Centre is delighted to partner with Prophil on this study. Prophil's association with a number of consultants, researchers and companies, all committed to developing expertise on post-growth models, is precisely what makes its approach so interesting. Their input has sparked exciting new ideas on the subject, some of which will hopefully get you, as readers, thinking about how you do things in your own companies. The wide range of topics covered in this study – from the meaning of growth to business models and accounting practices – indicates the complexity of shifting our economy to a new space where planetary boundaries and the social foundation are taken into account. Prophil has included various case studies on companies that have already taken the plunge and are trying out new things, pushing themselves to find a new way of operating. Their examples can serve to show how you too can embark on this transformation.

HEC – S&O Institute

RODOLPHE DURAND, PROFESSOR AND CHAIRHOLDER

The situation is serious: the effects of climate disruption are increasingly plain to see and unequal access to essential resources is bringing society to its knees. It is therefore vital for us to reflect on the meaning of economic growth and the forces driving it. Companies are of course central to these considerations and are a good place to start taking action. How can we redefine their business models? How can they change attitudes towards growth? What can they do to help build a post-growth world? At the Society & Organizations Institute, founded at HEC Paris in 2008, we try to answer these questions through debate, academic research and training, drawing on the management sciences as well as practical experience. Having supported Prophil since its previous study on mission-led companies, we are fully behind them on this latest initiative. We can all do our bit to help entrepreneurs tackle the challenges surrounding growth, as well as those that post-growth will bring in the future.

LUMIA

CHRISTOPHE SEMPELS, RESEARCH CENTRE DIRECTOR

We have come to expect bold, ambitious projects from Prophil, and this latest study is no exception. It boldly broaches the subject head on, urging us to move beyond the goal of growth as we know it, instead putting our minds and creative energies to work on coming up with new ideals and new goals to go with them. And it ambitiously tackles the crux of the matter: our business models and the systems of assessment and accounting that guide so many of our decisions.

Having lobbied for new business models with a view to effecting far-reaching and long-lasting change for over fifteen years now, I jumped at the chance to contribute to this study. This is one of the biggest challenges facing humankind today – the very habitability of planet Earth is at stake. Surviving here will require new, more inclusive and socially just models. Winston Churchill once described another challenging time as “a period of consequences”. Our own period of consequences is already upon us; we have a narrow window of opportunity and a lot to do. As hydrologist Emma Haziza says, “it is no longer about finding the solutions themselves; we now need to find solutions to implement our solutions”. This study offers just that: a framework that shows companies how they can change, one step at a time. This is what makes it such an important contribution.

INSTITUTIONAL PARTNERS

AFIR

PIERRE GUÉRIN, GENERAL SECRETARY

AFIR stands for *Association Familiale d'Investisseurs Responsables*, which means "family office for responsible investors". Our mission is to help make the world a better, fairer place wherever we can, by seeking to achieve the greatest possible positive impact for the companies in which we invest, but also for their employees and users, local authorities and the planet.

The Leclercq family has a strong entrepreneurial spirit and is always willing to get behind not-for-profit initiatives (Time For The Planet, *Résilience*). Prophil's study will help make us a better partner to the companies in which we invest, arming us with knowledge and practical know-how to support them in their human and environmental transitions.

Business leaders have a lot of questions right now. Where should they start when factoring human and environmental issues into their decision-making? How can they align growth with our planet's limited natural resources? Which are the best business models for them? Do they need to develop new ones? We want to help answer these questions, with a view to better supporting our companies and projects.

Compagnie Nationale des Commissaires aux Comptes (CNCC)

YANNICK OLLIVIER, PRESIDENT

Companies can no longer focus solely on financial performance. Their social, ethical and environmental performance is now every bit as important in attracting employees, clients and investors. Such matters have become major concerns for citizens, politicians and investors alike, leaving companies – whether large corporations or SMEs – no choice but to get on board. When creating value, they must now consider not only their industrial and financial performance, but also all of the resulting social and environmental externalities, both positive and negative.

This forces executives outside of their comfort zone, into territory that is less familiar to them than the ordered world of finance. Stakeholders, public authorities, financial institutions and rating agencies now demand the same rigorous analysis and consolidation for both financial and non-financial data. And internal and external stakeholders are starting to look to auditors for confirmation that they can trust a company's non-financial reporting. The checks and audits we perform are going to become a key link in the chain of trust between reporting entities and their target audiences.

Our profession is evolving and the CNCC wants to be a part of this. Supporting Prophil's study is an excellent opportunity to get involved in the debate and help shape this new role for auditors as it develops.

norsys

SYLVAIN BREUZARD, FOUNDER AND CEO

Our permaenterprise model is designed to provide a framework for development founded on three indissociable ethical principles: people care, earth care and fair shares. The last of these principles is about setting limits and redistributing any surplus – very much in line with what Prophil hopes to achieve with this study, i.e. to help us see growth as a way to address societal issues rather than as an end goal in itself.

At norsys, we have been reflecting a great deal recently on how we grow. We have dropped the traditional dogmatic approach in favour of a more pragmatic attitude to growth. This has meant laying down certain limits and ensuring we do not transgress them in pursuit of our goals, and striving to regenerate human and natural resources wherever possible.

It is more important than ever before to get companies working towards the general interest rather than depleting natural resources in a bid to hoard ever more wealth. Prophil's work on the concept of post-growth business, centred on the notion of planetary boundaries, is vital to this endeavour. By supporting Prophil, norsys hopes to help foster new attitudes and encourage more companies to reorientate their development towards growth that is fair and improves living conditions for all humankind.

SeaBird Impact

CYRILLE VU, CEO OF SEABIRD AND FOUNDER OF SEABIRD IMPACT

The challenges facing humanity are greater and are converging on us faster than ever before. Our planet's ecosystem has been increasingly weakened by human activity since the beginning of the Anthropocene: it is imperative that we protect it from further damage. And with conservative estimates placing the world's population at 9 to 10 billion by 2050, and developments in digital technologies and artificial intelligence revolutionizing society, social inclusion is another priority issue. As entrepreneurs and shareholders, we have a clear responsibility to take action to address these challenges.

SeaBird's shareholder foundation, SeaBird Impact, supports Prophil's study because we want to show that new business models, founded on a better redistribution of profits and a new type of capitalism, can work. Within the SeaBird ecosystem, for example, we have adopted a virtuous governance model that serves our goal of reconciling business with philanthropy.

This study's scope, and especially its exploration of new assessment and accounting systems, is closely aligned with SeaBird Impact's work on identifying and measuring externalities within the insurance sector. Through our work, we hope to raise awareness and share knowledge on these issues, laying the foundation for more in-depth research to boost the wider financial sector's contribution to the all-important ecological and societal transition.

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INTRODUCTION

POST-GROWTH BUSINESS – UNCHARTED TERRITORY?

BY **GENEVIÈVE FERONE-CREUZET**
PARTNER AT PROPHIL

Nec plus ultra. No more beyond. This was the warning to sailors inscribed on the Pillars of Hercules, said in Antiquity to mark the limit between the world fit for human habitation and exploration and the great unknown beyond, where those who ventured forth would be lost forever. Over the centuries since, our world has broadened its horizons to encompass infinite possibilities and desires. Describing another mythological place, Sir Francis Bacon wrote in *New Atlantis* (1627) of "the enlarging of the bounds of human empire, to the effecting of all things possible." An attitude that focuses on the ends rather than the means: everything doable should be done; everything doable represents progress. But has this progress brought us to an impasse, to our very own Pillars of Hercules?

Despite what we are often told, we are not (yet) facing a scarcity crisis. In fact, it would be more accurate to talk of an "abundance crisis". This requires us to reconsider our limits: the limits of our ability to adapt to climate change, of the sustainability of our terrestrial and marine ecosystems, socio-economic structures and bodies, and even of trust. How can we learn to let go of our idealized vision of growth, shedding our current beliefs and fears to accept degrowth where necessary, even embracing it as offering freedom from constraint?

Neither growth nor degrowth can exist in isolation. Presenting these relative concepts as an either/or choice is misleading. It is, of course, clear that unchecked growth cannot go on forever, and we should waste no time in discrediting this toxic ideology that reduces all of human history to an economic and technological footprint. Promoting degrowth as an alternative to our current frenzied, senseless consumerism is thus bold yet rational. But although many see degrowth as the way to a better future, the concept arouses considerable hostility or even flat-out rejection in others. Both words – growth and degrowth – are ideologically charged. Coining "new" terms to talk about our future world and challenge these negative attitudes is far from simple. So where do we go from here?

"BOTH WORDS – GROWTH AND DEGROWTH – ARE IDEOLOGICALLY CHARGED. COINING 'NEW' TERMS TO TALK ABOUT OUR FUTURE WORLD AND CHALLENGE THESE NEGATIVE ATTITUDES IS FAR FROM SIMPLE."

Showing the way towards a post-growth world

Critics of capitalism and the growth paradigm are nothing new. Many have attempted to come up with alternatives over the years. But few have sat down and thought about how their proposals could work in practice for companies. The law has long equated companies to instruments of profit maximization. As a result, many of them have developed a core business that is neither ecologically nor socially sustainable. We need to ask ourselves what future these companies have. How can we realign their business models*, development strategies and assessment systems with the strong sustainability* paradigm?

These are the questions we have tried to answer in this study on post-growth for business.

A great deal of thought went into our choice of the term "post-growth". The prefix "post" refers to what will come after we give up the pursuit of unchecked economic growth* as a societal ideal (see p. 18). And there has to be an "after" – one that starts in the here and now – because if we fail to change course, we are headed straight for disaster. The post-growth paradigm is a response to the immediate imperative of decarbonizing our economy. But it must also offer a broader lens and viable alternatives for the shift in mindset to happen. It requires us to accept that life is about more than just money and metrics. As humans, we need to connect: with one another, with our surrounding environment and the rest of the world. These connections expose us to a broad spectrum of emotions, attitudes and sensitivities, as well as techniques and inventions.

The post-growth model, built on a system of values (economic, ethical and philosophical), provides a form of sustenance for what can still be a bright future for us. This idea of sustenance is of course closely connected to the concepts of support and sustainability, making it directly transposable to the corporate environment. We can say that a company is committed to shifting to a post-growth model when it strives to be fully sustainable: environmentally (by respecting planetary boundaries*), socially (by respecting the social foundation*) and economically (by bringing prosperity). To be effective, this commitment needs to permeate all three pillars of change within the company: its governance, business model* and accounting* (see p. 32).

"A COMPANY IS COMMITTED TO SHIFTING TO A POST-GROWTH MODEL WHEN IT STRIVES TO BE FULLY SUSTAINABLE: ENVIRONMENTALLY (BY RESPECTING PLANETARY BOUNDARIES), SOCIALLY (BY RESPECTING THE SOCIAL FOUNDATION) AND ECONOMICALLY (BY BRINGING PROSPERITY)."

Methodology

Guiding companies in their transition to post-growth business is no easy task given the relatively limited body of work – mainly theoretical – in this field to date. We have met[1] with pioneering individuals from corporate, investment and research backgrounds who are doing ground-breaking work, each exploring their own paths to post-growth business. We have done case studies on around fifteen companies that are in the process of transforming their governance, business models and/or accounting systems.

We scoured academic articles, international business intelligence and our own professional networks

1. Often virtually, due to the Covid-19 pandemic.

to find a mention of companies that were trying out something new. We then selected those we wished to feature on the basis of certain criteria (shareholding structure,[2] sincerity, peer recognition, experimental integrity, etc.). We have tried to cover a range of sectors and companies of different sizes – post-growth business is not just for social entrepreneurs, family-run SMEs or niche sectors.

Our study includes informative articles by academics, expert analysis, commentary from entrepreneurs and portraits of pioneering companies. It is these companies that are showing the way forward, having already realized that we have no choice but to switch to a new paradigm, even though most of us still do not fully understand or accept it. They are leading the way and, most importantly, galvanizing the rest of us.

Organization

We begin our study by "**(re-)setting the scene**", exploring what is not working in our current economic system and explaining why we need to embrace a new paradigm. It is worth noting that there is nothing "magic" about the post-growth paradigm: we are fully capable of grasping all of the concepts. Making the shift is about adopting a new mindset, implementing new concepts in our systems and practices and upending our priorities and the value we attach to what serves and matters to us most. In other words, we need to look anew at our entrepreneurial ideals and move the focus away from growth and economic performance.

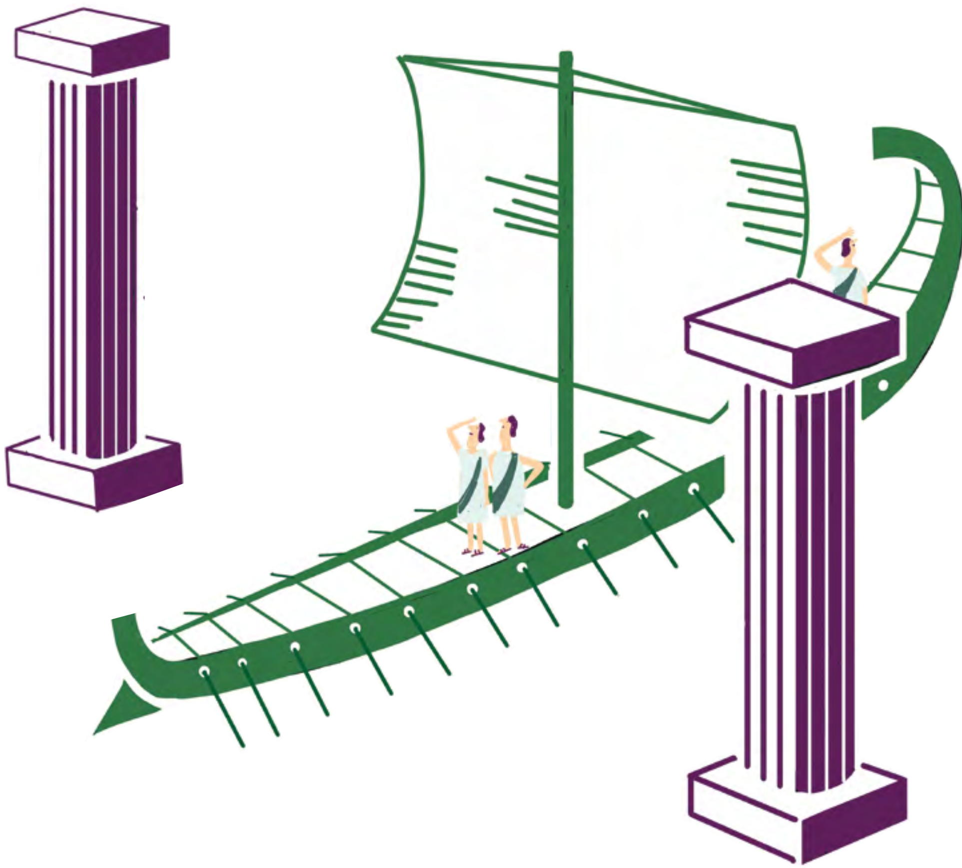
This change needs to start within companies' **governance.** Rethinking how we share value and take decisions will trigger change in other areas.

The shift will also require companies to review their **business models** and development strategies – part of both the problem and the solution. Based on sustainability, co-operation, accountability and the need to give up damaging activities, the post-growth paradigm urges us to pursue *heightened* performance, guided by qualitative targets.

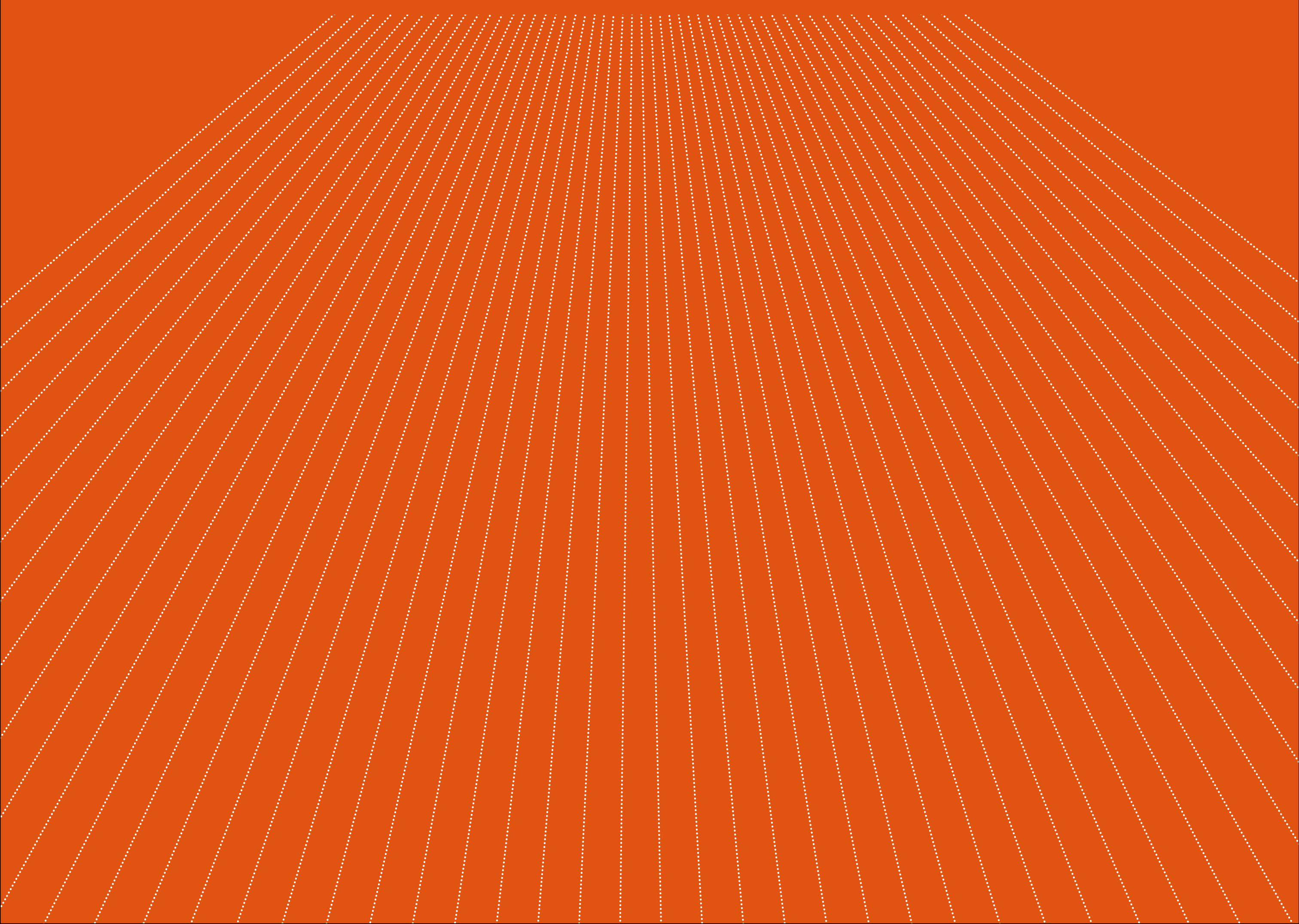
This idea of qualitative targets brings us to the limitations of our **current accounting models and assessment frameworks**. How we address them is both an economic and a political matter, and will be key to redirecting investments and financing. A number of interesting new methods are already being trialled in a bid to expand the horizons of accounting beyond the financial sphere to where it can reflect the rich complexity of all types of capital* used in business.

2. We opted to exclude primarily listed companies, although they will no doubt find much of interest to them in the trials we have covered. This decision was down to the fact that, in light of the radical changes involved and the constraints of public listing and the regulations that come with it, such companies can only switch to post-growth business if their shareholders and executives are on board.

We have defined the key terms used in this study in a glossary (see p. 138).
Glossary terms are indicated by an asterisk (*).



(RE-)SETTING THE SCENE



In this first section, we invite you to press the reset button,
starting afresh with a new perspective on the ways
in which we traditionally think about and do things –
ways developed through habit, dependence or lack of a viable alternative.
Join us on an entrepreneurial adventure,
exploring new takes on growth, performance and capitalism.
Ready?

BACKGROUND

THE ORIGINS OF THE POST-GROWTH PHILOSOPHY

There have always been critics of the economic paradigm in which the accumulation of wealth contributes to progress. In the fourth century BC, Aristotle was already speaking out against chrematistics, i.e. the pure practice of accumulating wealth and the means to acquire it (especially money) through trading. These voices have grown louder since the second half of the twentieth century, emboldened by growing inequality, greater awareness of environmental issues, and the excesses of consumerism, among other things.

Without claiming to be an exhaustive history, the next pages give an overview of the main concepts and developments in international legislation and corporate practices in recent decades that cast doubt on the aptitude of a market economy to address social and environmental issues. We begin in the 1970s, when academic and scientific researchers were increasingly ringing alarm bells. It was not until the 1990s, however, that "sustainable development*" made it onto the international political agenda. And it is only in the last fifteen years or so that corporate regulation has been introduced and we have started to see more significant changes (many of which have been undertaken voluntarily). Given the immediacy of the climate crisis and the widening inequality gap, these changes have come very late in the game.

The main alternatives to growth

Degrowth

The origins of degrowth as a political economic proposal can be traced back to Nicholas Georgescu-Roegen's work in the 1970s (most notably "The Entropy Law and the Economic Process"). Against a backdrop of neoliberalism in politics, Georgescu-Roegen condemned the traditional one-way, linear process for producing wealth (take, make, consume, dispose), criticizing it as being incompatible with finite natural resources. He saw degrowth as the only way to ensure humanity's long-term survival. He proposed the theory of "bioeconomics", in which the laws of biology and thermodynamics replace the economic rationale, and the natural limits on economic activity are recognized. Serge Latouche later adopted the term degrowth (or, rather, its translation: *décroissance*) in France, where it has become something of a catch-all for followers of a wide range of philosophies (libertarians, ecologists, "strong-staters", etc.). The term most frequently crops up in political discourse to lay bare the flaws of sustainable development and "green growth". Champions of degrowth see it as a chance to build an alternative civilization – one in which people and society as a whole can thrive. Its critics, on the other hand, decry it as backwards-thinking, pointing out the economic definition of the term (a long-term recession in GDP) and all the negative associations that come with it.

Steady-State Economy

The concept of the "steady-state economy" was first introduced by classical economists such as Smith, Malthus, Ricardo and Mill. Although they each had their own take on the term, it broadly referred to the natural follow-up to a period of prosperity. In the 1980s, economist Herman Daly revived the concept, drawing on the work of Georgescu-Roegen and the Meadows Report (The Limits to Growth, 1972). Daly agreed with the definition of a steady-state economy as one in which population size and capital stocks remain constant (births/production balancing out deaths/destruction) and intermediate production (i.e. flows of resources and energy from the first stage of production right through to the final stage of consumption) is minimized (Costanza et al., 1997). He has denounced the "uneconomic growth" of our contemporary economies, claiming that it generates such significant negative externalities* that it reduces our quality of life. In the book he co-authored with Joshua Farley, Daly proposed an analytical framework for development without growth and a resizing of the economy in line with finite resources (Daly & Farley, 2004).

Inclusive Growth

The concept of inclusive growth emerged in the 2000s. It advocates measuring development using indicators other than GDP. For its proponents (including the OECD and other international institutions), it is about defining the terms of an "economic growth that creates opportunity for all segments of the population and distributes the dividends of increased prosperity, both in monetary and non-monetary terms, fairly across society" (Gurria report, 2014). Its critics claim it is nothing more than an adjustment of the economic growth and sustainable development paradigms, however, and that it perpetuates the idea that (a significant) part of human well-being relies on a market economy.

Green Growth

The concept of "green growth" is founded on the idea that economic growth can be made compatible with ecological constraints. It assumes that new technologies (such as carbon capture technologies) will allow us to decouple increased production from the depletion of natural resources. This theory has proven popular and many of our current policies (such as the European Green Deal) are based on it. Nonetheless, numerous scientific studies have shown that decoupling is in fact impossible and that we need to rethink the basic foundations of our economy. Despite its critics, however, green growth remains the dominant economic paradigm at present.

Strong Sustainability

The theory of strong sustainability is based on scientific evidence showing certain environmental damage to be irreversible. Its proponents view social, human and environmental capitals as non-substitutable, meaning that one type of capital cannot replace another. With strong sustainability thinking, maintaining our current levels of production and consumption is not an option.

TWO-TRACK DEVELOPMENT

INTERNATIONAL DEVELOPMENTS

1972

The **Meadows Report** (titled The Limits to Growth) from the Club of Rome warns of the ecological and social consequences of exponential economic growth.

1987

The **Brundtland Report** ties corporate responsibility to each of the three pillars of sustainable development.

1988

Creation of the IPCC (Intergovernmental Panel on Climate Change), which gained further recognition with signature of the UNFCCC (see under 1992).

1992

The **Rio de Janeiro Earth Summit** officially recognizes state responsibility in environmental matters (adoption of the Convention on Climate Change – UNFCCC).

1970 | 1975 | 1980 | 1985 | 1990 | 1995

CORPORATE DEVELOPMENTS

1. Companies with more than 500 employees and either net turnover in excess of €40 million or a balance sheet total in excess of €20 million.
2. Similar corporate forms already existed in other countries, such as in the United States (Benefit Corporations introduced in 2010) and Italy (*Società Benefit* introduced in 2015).
3. The CSRD will apply to all listed companies (except for micro-companies), as well as all non-listed companies exceeding any two or more of the following thresholds: balance sheet total of €20 million; net turnover of €40 million; 250 employees. This brings the number of companies covered up to some 40,000 (from around 15,000 under the NFRD).

2000

The UN defines its **Millennium Development Goals (MDGs)**, designed to address developmental inequality worldwide.

2008

In its **Growing Unequal? report**, the OECD shows that, instead of bringing about a levelling-up, growth actually increases inequality.

2009

The research team led by Rockström identifies **nine planetary boundaries** and indicates that the associated thresholds for three of them have already been breached.

2015

The **COP 21** conference results in a universal agreement to keep global warming to beneath 2 degrees.

The **Sustainable Development Goals (SDGs)** follow on from the MDGs for 2015-2030.

2021

The first part of the IPCC's report warns of the consequences of global warming by 2 degrees and calls for radical action at all levels (individuals, companies, governments, etc.).

2000 2005 2010 2015 2020

2000

The United Nations **Global Compact** urges all companies worldwide to adopt a socially responsible attitude.

2001

Non-financial reporting becomes mandatory for listed French companies (under the "NRE" Law).

2010

Benefit Corporations introduced in the United States.

The French **Grenelle II Law** imposes new transparency requirements for companies with more than 500 employees.

2013

The **Integrated Report from the IIRC** (International Integrated Reporting Council) suggests measuring the value created by companies by reference to six capitals (financial, manufactured, intellectual, human, social/societal and environmental).

2014

The European Commission introduces its **Non-Financial Reporting Directive (NFRD)**, offering the first non-financial reporting framework for large corporations.[1]

2015

Launch of the **Science-Based Targets** initiative, which sets greenhouse gas emissions reduction targets for companies in line with the 2°C scenario, based on their sector, size and activity.

2016

Introduction of a **"duty of care"** for parent and client companies under French law.

Section 173 of the French law on energy transition and green growth introduces new requirements for ESG reporting to investors.

2017

A **Non-Financial Performance Statement** becomes mandatory for all large French corporations as part of the NFRD's transposition.

2018

Adoption of the European **Circular Economy Package**.

2019

Mission-led companies* introduced in France under the **PACTE Law**, enabling companies to enshrine a *raison d'être* in their by-laws, coupled with social and environmental targets.[2]

2021

The European Commission proposes its **Corporate Sustainability Reporting Directive (CSRD)**, to replace the NFRD. The CSRD introduces the principle of double materiality* and applies to more companies.[3]

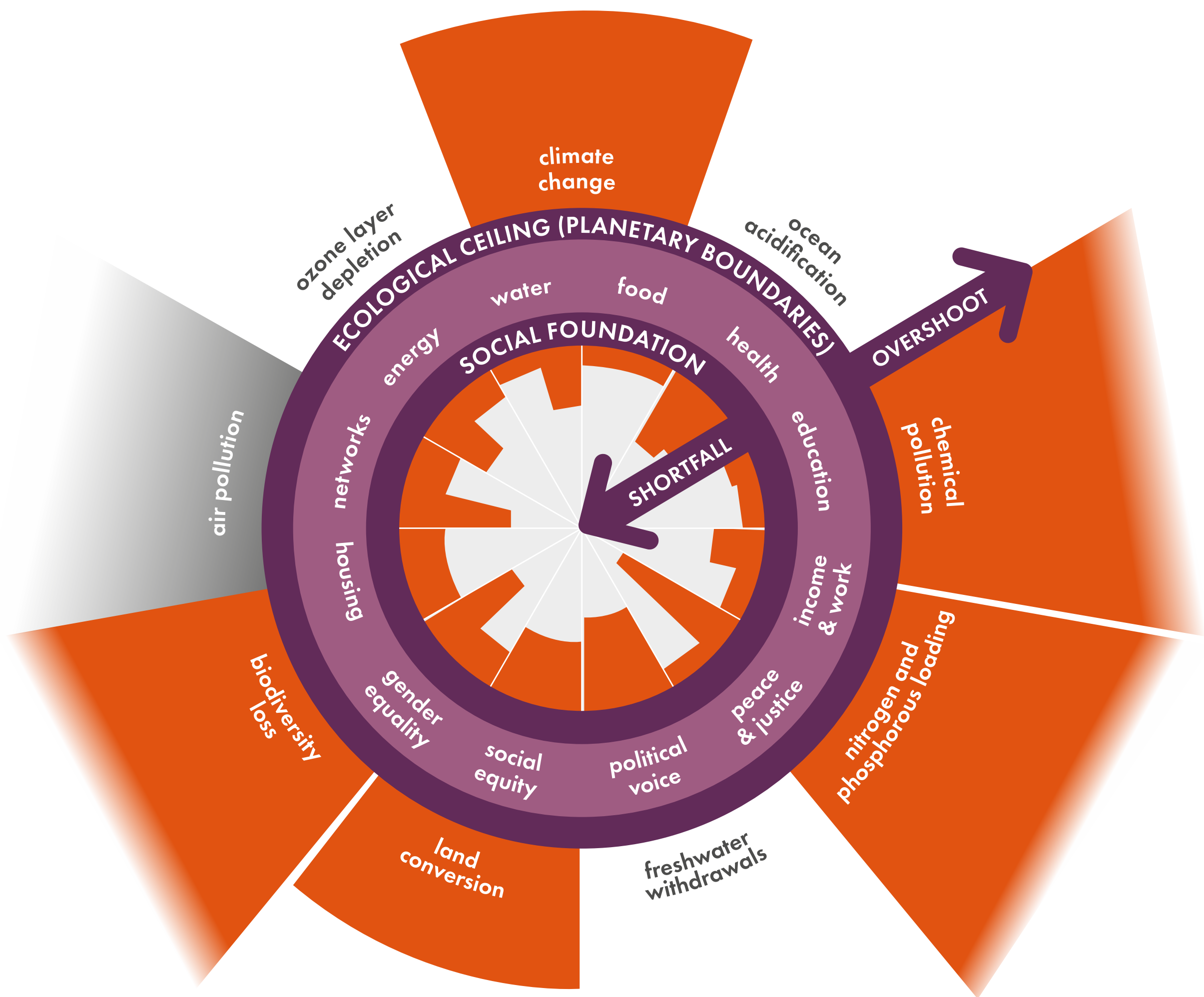
POST-GROWTH & DOUGHNUT ECONOMICS

Academic researchers such as Kate Raworth, Tim Jackson and Dominique Méda have in recent years attempted to move on from the growth vs. degrowth debate. Instead, they have turned their attention to what will happen when our "obsession" with growth (Jackson, 2021) runs out of steam, attempting to come up with an alternative blueprint for society. With so many possibilities for what this will look like, it is hard to fit their work into a neat definition. As a result, the term "post-growth" has been coined to denote "an era that we are entering yet are unable to define precisely, other than by reference to what we are leaving behind" (Cassiers et al., 2018).

This Prophil study has been inspired in particular by the work of economist Kate Raworth (2017). Raworth calls for us to be "agnostic about growth", scaling the economy back to an **ecologically safe and socially just space** in which humanity can thrive and prosper without fear for its future. She presents this "safe and just space*" in the form of a doughnut (see opposite): the inner circle represents our basic social needs (i.e. the minimum thresholds for well-being, or what Raworth calls the "social foundation"); the outer circle represents an ecological ceiling that we must not exceed (the "planetary boundaries"). Raworth developed her theory with both public and private organizations in mind and it is already being trialled in several cities (Amsterdam, Philadelphia, Portland).

Work is underway on tools to help companies implement doughnut economics, although there is not yet a how-to guide on the subject. This study does not purport to constitute academic research. It is simply intended as an invitation to explore post-growth theory further. We hope to inspire business leaders to rethink how they operate, encouraging them to try out new business models and approaches to governance and accounting and to set sail for a post-growth world.

"The term 'post-growth' has been coined to denote 'an era that we are entering yet are unable to define precisely, other than by reference to what we are leaving behind'."



Thresholds not respected: basic needs not met (middle of the doughnut), ecological limits breached (outside the doughnut)

Indicators not available

FROM ANOTHER ANGLE

RETHINKING OUR IDEAS ON ECONOMIC GROWTH

BY **CHRISTOPHE SEMPELS**

Christophe Sempels is Co-founder and Director of the Research Centre at LUMIA, a new higher education institution focused entirely on social and ecological advances. Over his career as a researcher and associate professor at prestigious universities and a corporate consultant, he has built up extensive theoretical and practical expertise in transforming business models. In this article, he explains why we need to let go of our ideas about growth in order to position our economic system and companies within a "safe and just space".

The goal of economic growth – meaning growth in gross domestic product (GDP) – is what drives economic policy in the vast majority of countries worldwide. It pushes us to strive for "ever more", influencing regional development policies and corporate strategy. We have formed a whole set of ideas around it, convincing ourselves that growth is beneficial in all sorts of ways. We equate it with progress, social stability, work and well-being for all, among other things. But do we really know what goes into making growth happen? Do we truly understand what it means for our world view and the associated goals we work towards at macro- (states and international organizations), meso- (regional) and micro- (organizations) economic levels?

How do we generate economic growth?

Economic growth is underpinned by two simple mechanisms: expansion and intensification (Parrique, 2019). **These mechanisms relate directly to the concepts of scale and speed.** A growing economy is one that is expanding its geographical, social or temporal scale and/or intensifying trading for monetary consideration (what we will call monetized trading – which may or may not be for profit).

To expand an economy, new things need to be brought within the realm of monetized trading. For example, if I couch surf at a host's home for free, I am not contributing to economic growth. But if I pay for that accommodation, through AirBnB say, then I am. Sunday trading and 24/7 opening hours have expanded the temporal scale of monetized trading. And we have seen an expansion of its geographical scale too: people living in even the remotest of places can now shop online and have their purchases delivered to their door. Further growth thus demands an ever greater expansion of monetized trading, impacting ever more of our social lives and free time.

To intensify an economy, our trading needs to be accelerated. If I buy a new smartphone every year rather than every other year, or get a haircut once a fortnight instead of once a month, I am doubling my transaction volume and contributing to economic growth. **It is always about more – more trading, more quickly, in more social, geographical and temporal contexts. This is how we generate economic growth.**

Is economic growth a good measure of societal well-being?

GDP measures flows of goods and services produced by a nation's public and private entities over a given time period (e.g. a year). It is calculated as the total value added of those goods and services. However, it gives no indication of the nature or quality of the flows, or of the existing level of stocks in goods and services. GDP reflects a wide range of diverse activities. Some of them are absolutely essential to human survival (e.g. food production) or other activities (e.g. energy generation and transmission). Others are necessary to keep society running smoothly or to maintain good physical, mental and social health within the population (e.g. healthcare, edu-

cation or culture). But GDP also includes activities that offer no societal benefits, and even some that are wholly negative (e.g. gadgets with short lifespans or activities in connection with car accidents). This range can even be seen within a single sector. If we take the example of facilities and infrastructure, there are activities that multiply existing stocks needlessly (e.g. the construction sector and civil engineering), others that focus on preserving existing stocks (e.g. upkeep and maintenance services), and others still that actively deplete or damage stocks (e.g. demolition and extractive industries). So how do we differentiate between the good and the bad?

GDP alone cannot tell us whether a society has made progress, or if its useful stocks of goods, facilities and infrastructure have increased. The United States has posted stronger growth than Europe in recent years, for example, and yet its infrastructure is in a sorry state, requiring investment of some $4.6 trillion in the next ten years (Laurent, 2019a). And its natural resources – essential to societal well-being – are no better off. **There is no guarantee that continuous economic growth will bring improved quality of life for a society's members. It all depends on the nature of the flows involved and how they are distributed – information we cannot get from GDP figures.** If three people earn €1 each and a fourth earns €97, the GDP figures will look exactly the same as if all four of them earned €25 each. But if an increase in wealth only benefits a tiny minority of the population, then it will not contribute to social progress in that society as a whole. Unfortunately, research from the World Inequality Lab confirms that such wealth inequalities exist in practically every country worldwide. Moreover, French economist Jean Gadrey (2008) has shown that when GDP per capita exceeds $15,000, there is no longer any correlation with average life satisfaction. Similarly, the correlation with life expectancy evaporates as from $18,000 per capita, and with secondary education rates as from $12,000 per capita. For reference, GDP per capita in France at the end of 2019 stood at $40,493.

Is constantly chasing growth the right way to go? What side effects can this have?

If a market is expanding, that means that processes or access to goods and services that were previously provided on a disinterested, publicly minded or altruistic basis are being converted into processes or access that can be traded, monetized and taxed.[1] However, studies have shown that putting a price on such things diminishes the level of satisfaction they procure. Moreover, it can be detrimental to relations between the parties involved and encourage socially undesirable behaviours and attitudes (cronyism, lack of empathy, pursuit of personal over societal interests, etc.).[2] Intensification then exacerbates the problem by creating a self-perpetuating cycle. The more we rely on market trading to satisfy our needs, the more time we must devote to making money. We end up becoming entirely dependent on the market for whatever we need, and this makes us less resilient.

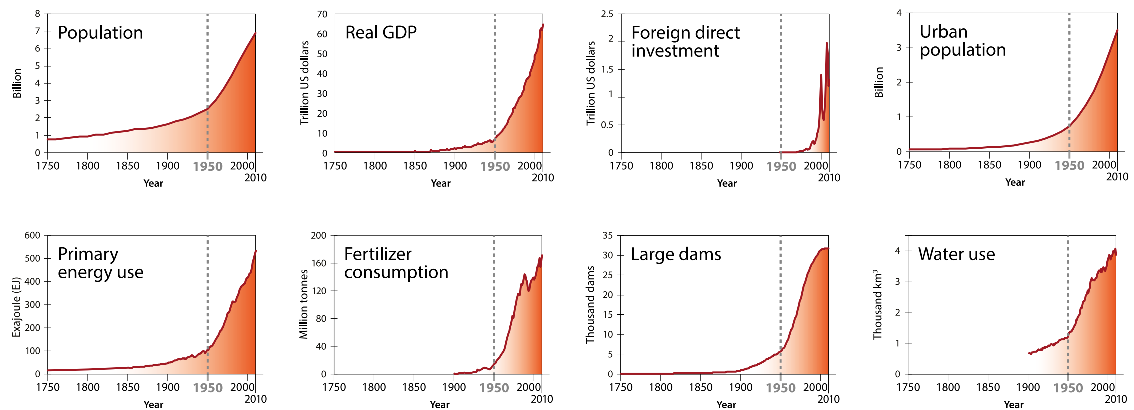
It takes ever more resources and energy to keep producing more things, faster, in more obscure social and temporal domains. Scientists have termed the period since the Industrial Revolution, and especially since the Second World War, the "Great Acceleration". The majority of socio-economic and environmental indicators (population, economic growth, primary energy use, urbanization, water use, CO_2 and methane emissions, fish capture, etc.) have shot up in this time, establishing a direct link between pressure from human activities and the state of our planet (Steffen et al., 2015 – see graphs overleaf). Not only does constant growth do nothing to improve well-being, social cohesion and relationships for humankind, it piles ever more pressure on the environment.

Is "green" growth a game-changer?

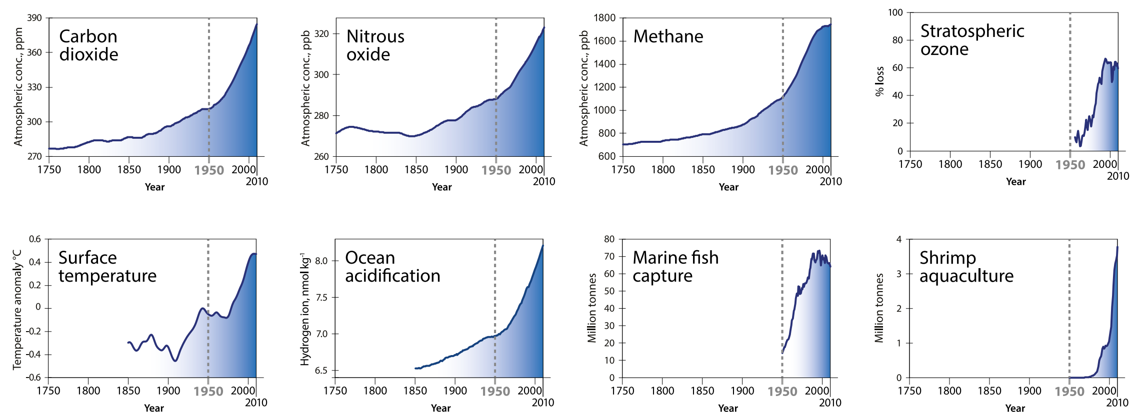
Green growth is based on the assumption that we can decouple the production of goods and services from resource and energy use. Understanding the basic mechanisms of growth – expansion and intensification – can give us a new perspective on this. If decoupling is to rid growth of its harmful effects, especially for the environment, it must be:

1. Cash-in-hand work is by definition undeclared and not included in GDP.
2. Bartolini (2010) has shown that when we convert something that is essential to our well-being and that cannot be bought (such as friendship, love, river bathing, etc.) into a trading commodity, the level of satisfaction and well-being we get from it is diminished.

SOCIO-ECONOMIC TRENDS



EARTH SYSTEM TRENDS



Source: Steffen et al. 2015

- **absolute rather than relative**: decoupling is absolute when resource and energy use goes down whilst GDP keeps going up (i.e. the two variables move in opposite directions). Relative decoupling is when, despite improvements in the resource- or energy-intensity of production, use continues to go up overall along with GDP, albeit more slowly (i.e. the two variables still move in the same direction, just not at the same speed);
- **total**: the decoupling must cover all resources and all impacts;
- **global**: the decoupling must be on a planetary scale;
- **permanent**: the decoupling must be lasting, without any subsequent recoupling;
- **sufficient and sufficiently fast** to achieve the environmental targets defined by science before time runs out (Parrique et al., 2019).

However, numerous studies[3] have **shown, both empirically and theoretically, that this type of decoupling cannot be achieved with unlimited GDP growth.** This is particularly evident at macro-economic level. For example, between 1965 and 2017, the primary energy input required to produce an additional unit of global

3. Sources include, among others, Parrique et al. (2019), Jackson (2009) and Grosse (2010).

GDP dropped by 33.5%. But over the same period, global GDP rose by 450%, entailing a 360% increase in primary energy use worldwide (World Bank). There are a number of reasons for this. There are the ripple effects (where efficiency* gains in one area trigger increased demand in others), the limited potential of recycling[4] and the circular economy*, and miscalculations as to the environmental impact of services and digitization. Worse still, **the data show that there has been an absolute recoupling since the early 2000s, driven primarily by the resource- and energy-intensive digital transition** (Laurent, 2019b).

Forging new ideas

Our current ideas are defined and limited by our pursuit of GDP growth. We no longer view GDP growth as just one possible way of doing things. Instead, we now see it as more like a natural law, something that influences political and economic decision-making at all levels. States strive to attract domestic and foreign investors, foster innovation and simplify relations with trading partners to boost exports. Most local authorities will go to great lengths to make their region appealing to new business, counting on knock-on positive effects for local stakeholders. Companies, too, follow the same logic. The premise of never-ending growth is hard-wired into their business models (see p. 71), pushing most of them to increase production, market share, added value, margins and profits year on year. Even if that means marketing goods or services that are of little inherent use, or could even be damaging to society or the environment. In an internal document recently revealed by the *Financial Times*, the agri-food giant Nestlé acknowledged that over 60% of its products did not satisfy the recognized "definition of health". The Group wrote that "some of our categories and products will never be 'healthy' no matter how much we renovate."

With this in mind, **the time has come for us to forge new ideas, shedding this set of beliefs that we have taken as law for so long. Academic research has shown that our constant pursuit of GDP growth is not only propelling us straight into environmental disaster, but also damaging social cohesion**. Moreover, certain academics suggest that our current growth trend will in any case fade, leaving us in a state of secular stagnation, with weak GDP growth as the norm (Gordon, 2016).

Does this mean we have to give up growth altogether? When it comes to material growth, energy growth and the constant accumulation of financial and monetary wealth, the answer is unequivocally yes. By extension, that means giving up the pursuit of growth as measured by GDP, together with the policies that have come with it at all levels, right down to companies. But we can still strive for growth and expansion in many other areas: biodiversity, ecosystem quality, education, health, the quality of the food we eat and the air we breathe, local communities, life expectancy, facilities and infrastructure repairability, solidarity, all forms of cultural, relational, sports and creative activities, and the free time to enjoy them. **So perhaps it is time to move on from the sterile debate between pro-growthers and degrowthers. Would it not be more productive to focus our efforts on finding common ground and working together to promote growth where it brings benefits, and degrowth in those areas that are more problematic?** Now that science has given us the keys to understanding and clear guidelines to help us find a new balance, what are we waiting for?

4. Whilst recycling is, of course, a good thing, it is not sufficient: resources can remain in the economy for a long time, become irrecoverable due to dissipation through use, etc.

FROM ANOTHER ANGLE

BREAKING THE SPELL OF GROWTH

BY **RODOLPHE DURAND**

Rodolphe Durand is a professor at HEC Paris and Founder and Academic Director of the Society and Organizations (S&O) Institute. He has also co-authored a book with Antoine Frérot (*L'entreprise de demain*, 2021). In this article, he reflects on how the pursuit of growth is ingrained in our political and economic systems and the need for new ways of measuring performance.

The supposed benefits of "stackable" growth

Since the end of the Second World War, statistics institutes the world over have stepped up their game when it comes to gathering production data to calculate gross domestic product (GDP). **National accounts systems have provided economic entities with a standard set of production indicators to measure "wealth creation" and economic growth**. These systems record all exchanges of goods both within and between countries, along with volumes and pricing data. The goods and services produced in a country are measured based on the aggregate data from the balance sheets and profit and loss statements of all companies active in the economy. This measure gives an indicator of whether the value of trade is increasing or not. The variation from year to year shows whether an economy is growing or shrinking and whether companies are producing more or less.

The resulting growth figures for the various levels are what we might call "stackable": public- and private-sector entities from an individual workshop right up to state or even global level can opt to use the same unit of measure, facilitating comparability between them, as well as forecasting. Growth forecasts are now ubiquitous. In the public sector, they influence budgeting at all levels, from the remotest villages right through to the Ministry of Finance. In the private sector, they are an essential tool for tiny joint-stock companies and global conglomerates alike. **These forecasts constitute the basis of trust in our economic system and are a key component of both public policy and private strategy.**

States look at forecasts when defining public welfare and pension policies and even when setting debt ceilings. They provide insight into how the country's economic fabric and trading is expected to evolve, both in the short-term and further ahead. This, in turn, gives an indication of future revenues. Banks and insurers use this information when deciding whether to approve investments and loan applications – decisions that affect both companies and households. All sorts of things that we take for granted rely on growth forecasts: benefit payments and pensions, as well as the government bond issues that have made furlough schemes and free vaccinations and healthcare possible during the Covid pandemic. Companies play a part in the growth process by both responding to and prompting changes in consumer demand. Higher demand will allow a company to grow whilst still paying its creditors and distributing dividends to its shareholders.

The stackable and fungible nature of growth measurements also makes it easier to identify and iron out any wrinkles in the economy. Without shared, compatible performance indicators, how would politicians and CEOs be able to identify what is working for them and what is not?

Growth measurements thus underpin our entire economic forecasting system and the interconnected financial flows across all levels of production and con-

sumption chains. Benefits, pensions, services, wages, dividends, debt repayments and more are all tied to growth. It provides visibility and guarantees, drives investment and supports credit and insurance. So far, so good.

But what if there's a problem with our growth measurements? What if the "stackable" growth we are measuring in fact only represents a shrinking proportion of the overall value created by a region or country?

Flawed systems and a new vision

For at least a decade now, two groundswells have been building, bringing to light certain aspects of trade value that had previously lain hidden beneath the surface. First, the definition of planetary boundaries has shone a spotlight on the issue of primary resource scarcity (affecting mineral, agricultural and aquatic resources, among others). We now put a price on things it never occurred to us to value before – and that price is going up as resources get scarcer. Second, businesses are keen to show how they have improved their value creation and redistribution practices. They vaunt new production methods that respect both natural and human systems; they set up less energy-intensive distribution channels; they recycle, re-engineer or refurbish second-hand goods and materials. The problem is that our current assessment and accounting systems, focused on production data and economic growth, cannot measure these things.

These two trends are connected. **It is because we are fast approaching (and, in some cases, exceeding) planetary boundaries that entrepreneurs and investors now want to be able to see information on "total" impact**. This means looking at a company's entire value chain (from supplier practices through to how its customers use its products). Product pricing reflects one side of the company's activity (determining its revenue, which in turn affects its margin and profit), but what of the mark its activity leaves on natural and social systems? How can we account for a company's environmental and societal impacts in addition to its return on capital employed?

Researchers have been grappling with this question for some twenty years now. They have shown that companies that care about what is somewhat clumsily called their "corporate social responsibility" enjoy a range of knock-on benefits. These include strategic differentiation and reputational rewards, as well as improved customer loyalty, the ability to attract and retain staff, innovation, operational performance, and creditor/long-term investor confidence. In short, being a responsible corporate citizen is a factor in boosting economic performance.

This has prompted many entrepreneurs, executives, researchers and finance and accounting specialists to call for a new vision of economic growth. One that looks beyond the commercial value of goods and transactions. One that ushers in a whole new paradigm rather than simply adjusting our existing view of economic performance or tweaking the extent to which biological and human diversity enter into consideration. Proponents of this new vision argue that volumes and prices only reflect part of the picture when it comes to assessing the value of goods. They want a company's financial statements to show environmental and social impacts alongside economic value.

This new vision requires new ways of measuring growth. If we are to retain the ability to stack growth figures, building out from workshop to nation, each level feeding into the next, we must develop valid and reliable measurement methods. This requires us to reflect on the true meaning of performance and growth, and rethink how these two concepts hang together.

Influence and deconditioning

Allow me to take you back to the Paris International Contemporary Art Fair of 1977. French artist ORLAN caused quite a stir there with her work titled *Le baiser de l'artiste* (The Artist's Kiss). Clothed in leather, she sat on a stool behind a breastplate fashioned into a slot machine and bearing the image of her naked torso. Visitors could put a five-franc coin in at the top and watch it drop down to a triangular receptacle between her legs, in return for a kiss. How did ORLAN gauge her

performance? Was it purely artistic and/or economic? Did she measure her success by how much the art fair made? By the originality of her idea? By the message she conveyed about how we objectify the female body? Or perhaps by the price for which she later sold the breastplate to a collector?

Considering economic performance in this light demonstrates that the price we get for an object or service is only one part of it. Nobody would dream of valuing *Le baiser de l'artiste* by adding up all the five-franc coins collected. **Limiting our assessment of economic performance to the transactions involved in marketing a product, without even considering the purpose for which that product (or indeed work) was designed, carries the risk of over-simplification. Can a company's performance be summed up by revenue, gross margins and job creation stats alone?** These questions are becoming increasingly pressing for operators all along the economic spectrum – and not just in the art world.

Like *The Artist's Kiss*, growth's kiss packs a heavy punch. It influences not only how we think about economic activity (equating growth with progress, visibility, and the ability to fund the benefit system, wages, pensions and so on) but also its reality. Growth is present in every spreadsheet and forecast; it drives asset managers, investors, executives, entrepreneurs and taxpayers alike. It sustains our minds and bodies as well as our business models. **We cling to growth for reassurance, without realizing that it is blinding and suffocating us. If we are to get out from under the spell cast by growth, we must find a way to undo this conditioning and measure things differently.**

Here are some suggestions for how to go about this:

1) Retain the accounting and production-related aspects of our current methods (as applied at all levels, from profit and loss statements right through to GDP figures);

2) Extend how we measure value to encompass scarce and increasingly expensive inputs, carbon emissions, societal benefits, etc. This would allow for environmental and societal impacts to be included in accounting;

3) Establish a broader standard definition of economic performance so as to be able to apply the same method (with the necessary adjustments) at all levels: company, regional (European), national. This would ensure the "stackability" of the new metrics and measurements;

4) Use this new method to reconfigure and simplify spreadsheets, algorithms and programs for all public- and private-sector entities that contribute to economic well-being and political stability in our democracies.

Shifting focus from a single bottom line (i.e. profit derived from growth) to a triple one (economic, environmental and social performance) is vital to this deconditioning. And commitments in this respect need to be binding. This would have far-reaching consequences, prompting a comprehensive rethink of what goes into a price and fostering a new approach to economic competition – precisely what this study's authors and contributors hope to achieve.

FROM ANOTHER ANGLE

TO GROW OR NOT TO GROW? THAT IS THE QUESTION.

THREE MYTHS ABOUT GROWTH IN THE BUSINESS WORLD

BY **PROPHIL**

Growth – meaning an increase in size and/or financial worth supported by higher sales – is the yardstick by which we most frequently measure a company's performance and health. But is growth in fact, as popularly believed, essential to a company's survival? Is it always desirable, and indeed desired? Our personal and collective ideas about growth stem from a whole host of beliefs that associate it with performance and success. With a view to fostering a new take on the subject, we want to start by dispelling three of the most pervasive myths in this respect.

MYTH NO. 1

"A company must grow or die"

This axiom can be traced back to the neoclassical economists of the 20th century. They saw growth as a natural phenomenon: the market supports a company's growth up to its optimum size (i.e. the size at which economies of scale are maximized). If a company stops growing before it reaches that point, its costs will be too high, and it will end up folding. Those who accept this axion see SMEs as companies still in the growth phase (unless, of course, the market dictates that a particular company's optimum size is relatively small, as is the case in the craft trade sector, for example).

Despite the fact that many economists have since debunked this idea, **the belief that a company needs to be constantly growing persists to this day**. Politicians are still very much pro-growth, seeing it as the way to create jobs and bring down unemployment. It is true that large corporations (> 250 employees) represent a significant proportion of employment (35%) and value added (47%), as do high-growth "gazelles". However, less than 1% of companies in Europe fall into this category; the vast majority have fewer than 50 employees. Moreover, only 11.9% of all companies with more than 10 employees (average headcount: 81) increased staff numbers by more than 10% in 2018 (Eurostat). It is clear, therefore, that most companies manage to survive perfectly well with little to no growth.

MYTH NO. 2

Growth is always good for the company

Growth enjoys an excellent reputation among entrepreneurs. As well as offering economies of scale, it is seen as facilitating asset acquisition and core investments, whilst boosting performance and profits, thus improving a company's outlook and ability to withstand economic crises. It is also assumed that a growing company will reassure clients and appeal more to promising talent. Growth also begets more growth: a bigger company is able to put pressure on suppliers, thereby reducing its production costs, and is in a better negotiating position with banks.

But **pursuing growth does throw up a number of constraints and risks,** particularly from an economic standpoint. In order to grow, a company needs to invest, but the associated cost and risk can become a burden. In some cases, this can result in "diseconomies of scale" – where the average cost of producing an additional unit actually increases (Liesen et al., 2015). If mismanaged, growth can even cause a company's downfall. Some companies go under because of a return on investment that is too little or too late. Others overextend themselves, taking on so much debt that they cannot make their repayments, in which case their creditors can file for liquidation in order to recover what is owed to them.

The problem is that **entrepreneurs often confuse growth with profitability**. Investors back start-ups that promise hyper-growth, despite the fact that they may never turn a profit. There are numerous examples of this among Silicon Valley unicorns (Uber, WeWork, etc.). In extreme cases, profitability may be viewed as secondary to growth, or even as a bad thing, indicating a lack of innovation.

Research has nonetheless shown that, for an SME seeking long-term development, **it is better to prioritize profitability over growth** (Davidsson et al., 2009). Pursuing a strategy focused on recruitment and customer acquisition in a loss-making company is "putting the cart before the horse". The company is more likely to achieve lasting performance if it focuses on becoming profitable first. Better profitability will give it a competitive advantage (being a sign of inimitable and valuable resources) as well as the funds to invest in steady growth.

> "If you constantly hear about the need to grow or die,
> if everybody seems to be trying to get to the next level,
> if the only companies being celebrated
> – or even taken seriously – are the biggest,
> or the fastest-growing, you may never even think
> to ask about options other than growing your business
> as much as you can and as quickly as you can."
> Bo Burlingham (2005)

MYTH NO. 3

All entrepreneurs want their business to grow

Growth is held in high esteem socially (it is a symbol of success, entrepreneurial spirit and economic superiority, among other things). Yet it is **rarely an entrepreneur's main goal**. It is true that the pursuit of financial gain and growth intentions form part of "typical entrepreneurial behaviour". However, research from around the world has repeatedly shown that growth intentions are relatively low among entrepreneurs. In one European study, when SME CEOs were asked to rank a list of goals by priority, growth ended up in thirteenth place out of fifteen (Janssen, 2011).

This can be explained by fear of the "ratchet effect" – i.e. a potentially irreversible increase in labour regulations and legal obligations. Some CEOs worry about the added bureaucracy, distancing and routine that can come with growth; they are concerned about how it might affect the company culture and employee well-being they have worked so hard to cultivate. Growth can also mean higher workloads and more pressure, eroding a CEO's job satisfaction and work-life balance. In particular, CEOs fear jeopardizing their company's independence and future prospects and losing control over the business (Grandclaude & Nobre, 2019).

As a result, most companies stop growing once they reach a comfortable size (unless further growth is forced on them by outside factors). Once an entrepreneur feels that they are making enough profit, other goals take priority (Jansen, 2011). **Growth is rarely a goal in and of itself; it is more often a means to an end (e.g. a way to make an impact) or a phase in the business life cycle (upon succession or when necessary to safeguard independence, etc.).**

"As for what comes next – after the startup – the question is: how big do you want to get and, more important, what do you mean by 'big'? A lot of revenues? A lot of people? A major impact on the world? A major impact on a community? Alternatively, what do you mean by 'great'? Can't companies choose to be great instead of big?"
Bo Burlingham (2005)

Thanks to research in economics and the social sciences, we can now dispel our personal and collective beliefs around the need for companies to grow. Growth is neither essential to their survival, nor always profitable, nor even something that CEOs necessarily want. Ultimately, it is a set of normative beliefs – the pressures of social convention – that drives us to perpetuate growth behaviours. Even when doing so no longer makes sense.

One suggestion for how to start changing our mindset is to refer to business development rather than business growth, the idea being that this shifts the emphasis from quantitative performance goals to a qualitative process (Cyron & Zoellick, 2018). With traditional quantitative thinking, the focus is on growth in terms of increasing sales figures, employment, assets or outputs. But with qualitative thinking, it becomes about how the company can improve and contribute to the common good.

FROM ANOTHER ANGLE

FROM MONOCAPITALISM TO MULTICAPITALISM

Bill Baue and Ralph Thurm, world-renowned experts in sustainability, head up the think tank r3.0, which advocates for a regenerative and inclusive economy. In this article, they consider the limits of our current capitalist philosophy, founded on shareholder primacy, perpetual growth and privatization of value. They support a new paradigm for resilient, viable business models: "multicapitalism".

"Does capitalism need saving from itself?" This was the question asked by Gillian Tett, Chair of the Financial Times Editorial Board, in a column published in late 2019. She had put her finger on it: in the face of climate emergency and global economic inequality that could "lead to various sorts of political, economic and social catastrophes" (UNESCO, 2018), even the most fervent capitalists are starting to wonder if the paradigm has run its course. But maybe the problem is not capitalism, but rather its monolithic obsession with financial growth. To put it another way, perhaps "monocapitalism" is the problem, and "multicapitalism" the solution.

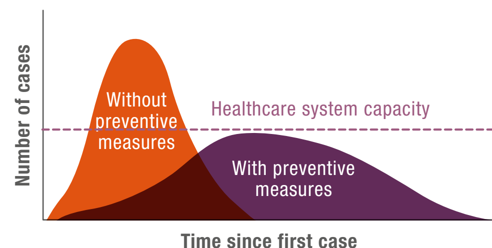
Towards a multicapitalist paradigm

The terms "monocapitalism" and "multicapitalism" (conceived by McElroy & Thomas in 2014) can be defined as follows:

- **Monocapitalism:** capitalism designed to grow and concentrate *one form of vital capital* – financial capital – very often at the expense of the ongoing viability of other capitals.
- **Multicapitalism:** capitalism designed to maintain the carrying capacities (i.e. the maximum population that an ecosystem can support without going into decline) of *all vital capitals* (natural, human, social, intellectual, manufactured and financial) respecting normative thresholds.

Unlike with monocapitalism, **multicapitalism recognizes the planetary boundaries and social foundation and embraces the need to set norms and thresholds** to help organizations manage their impact.

The Covid pandemic gives us an eloquent example of why respecting normative thresholds is so important.



Adapted from a graph prepared by the US Centre for Disease Control and Prevention and The Economist

This graph was used to explain the importance of preventive measures (such as social distancing and mask-wearing) in limiting the spread of Covid-19 and avoiding healthcare system collapse. Healthcare systems are made up of manufactured capitals (hospitals, beds, ventilators) and human capitals (medical expertise), bound together by social capitals (teamwork, administrative protocols). The broken line in the graph represents the healthcare system's normative threshold – its carrying capacity. Provided case numbers remain below that threshold, the system continues to function; if the threshold is exceeded, the system cannot cope, putting society as a whole at risk.

In multicapitalism, all capitals have a normative threshold, above which depletion occurs. It is a comprehensive and holistic doctrine that reflects the dynamics of complex, finite living systems. Monocapitalism, on the other hand, offers only a partial economic doctrine, focusing solely on financial capital and predicated on the assumption that there are no natural limits to growth. What distinguishes multicapitalism is therefore the

four separate elements on which it is based (McElroy & Thomas, 2015):

- Stocks and flows of vital capitals worldwide;
- Organizations and their impact on the capitals used in their business models;
- Stakeholders whose well-being depends on those capitals;
- Norms, criteria and thresholds that show organizations how to manage their capitals.

The importance of context for defining indicators

Multicapitalism calls for us to respond to social and ecological realities. Unfortunately, though, **few of our existing impact measurements take planetary boundaries and the social foundation into account** (see p. 18). The United Nations Research Institute for Social Development (UNRISD) recently highlighted this issue by defining a three-tiered typology for performance indicators (Baue, 2019):

- **Tier One – incrementalistic indicators**: such indicators focus on actual impacts, using absolute data and "intensity" measurements. They include: gross greenhouse gas emissions, gross income and expenditure, gender balance on boards and among C-suite executives, etc.
- **Tier Two – contextualized indicators**: such indicators contextualize actual impacts by taking into account sustainability thresholds in ecological, social and economic systems. They allocate thresholds to organizations, sectors, geographic regions, etc. They include: indicators defined as part of the Science-Based Targets initiative (SBTi), scenarios developed by the Intergovernmental Panel on Climate Change (IPCC), the UN's living wages, etc.
- **Tier Three – transformative indicators**: such indicators take into account current practices and policies, with a view to activating transformation. This type of indicator is still relatively rare but examples include the MultiCapital Scorecard (MCS), MetaImpact Framework, etc.

We can use this same typology to **differentiate between doctrines based solely on actual impacts – such as corporate social responsibility (CSR) and ESG criteria – and multicapitalism** (corresponding to tiers two and three), which adopts a contextualized approach with the goal of respecting the normative thresholds for capitals so as to bring about meaningful change in our economic system.

Sustainability quotient

To help organizations apply the normative thresholds, sustainable development expert Mark McElroy introduced sustainability quotients (2008). The quotient encapsulates the world as-it-is compared to the world as-it-should-be. A quotient above 1 means that the organization's impacts exceed the thresholds for its capitals. The idea is to ascertain if the organization is operating sustainably or not – in which case corrective measures are in order.

$$\text{Sustainability (S)} = \frac{\text{Actual impacts (world as-it-is)*}}{\text{Normative impacts (world as-it-should-be)*}}$$

**On carrying capacity of vital capitals*

Source: Mark McElroy, 2008

To conclude, the paradigm shift from monocapitalism to multicapitalism requires us to attend to all capitals – natural, social, human, intellectual, financial and manufactured – that collectively constitute the stocks and flows of resources integral to building a thriving world. We must move away from our narrow focus on financial capital; this type of thinking is disconnected from reality and no longer makes sense in light of the urgency of climate issues. Only through multicapitalism can organizations identify what they need to do to put themselves on a coherent and sustainable path. This paradigm shift is not only necessary and inevitable, it is already well underway.

WELCOME TO THE

POST-GROWTH ERA

OUR DEFINITION OF POST-GROWTH FOR BUSINESS

The following definition and accompanying explanations
do not purport to be anything more than a first stab
at coming up with a post-growth framework for business.
Our aim is to lay the groundwork and point you
in the right direction and then leave you to explore,
in the hope that, together, we can beat a path
to a post-growth world.

For a company, developing a post-growth approach means striving to make its activities fully sustainable – environmentally (by respecting planetary boundaries), socially (by respecting the social foundation) and economically (by generating prosperity).

The first step is for the company to **set certain limits** on its growth. This keeps progression in economic activity in line with the goal of sustainability. The company (re-)defines its development strategy based on **qualitative targets**, placing the emphasis on growth in areas other than sales, headcount, assets and financial worth.

NB: Setting limits does not mean eschewing all growth. A certain amount of growth may be necessary to establish a solid market position or to effect change (for example, a company may need to redeem shares to regain its independence or free itself from certain market constraints). The key point is to ensure that, overall, the resources (both natural and human) the company is able to conserve or regenerate as a result of its growth outweigh those depleted by its activity.

The company (re-)defines its *raison d'être* in line with its new targets. It commits to giving up any unsustainable activities and devotes the necessary resources to their ecological and social redirection (see p. 94).

The company adopts a system of evaluation, and potentially even accounting, that allows it to measure its sustainability and all-round performance (financial, social and environmental), take informed governance decisions and rethink its approach to costing and budgeting.

POST-GROWTH FOR BUSINESS

In this study, we look into post-growth approaches for business in three strategic areas: governance, business models and accounting. These three areas are of course connected: for example, adopting a new business model will require approval from the company's governance bodies and will entail new targets, assessment indicators, and so on.

Within each of these areas, we have defined three levels of engagement. A company must have fully integrated the new practices involved at each level before it can move on to the next.

GOVERNANCE

VALUE DISTRIBUTION

Fair shares: the company seeks to distribute value fairly, based on transparent criteria defined in consultation with its stakeholders. It starts with its internal stakeholders before extending the process to include all those involved in value creation. Monetary value is thus distributed according to an active governance decision rather than market forces.
> Involves paying taxes and addressing any tax avoidance issues.

Redirection of profits: profits are primarily reinvested in the business to step up its social and ecological redirection.
> Requires a policy of moderation as regards profitability obligations and dividends.

Circularity: any profit left over (after having fairly paid all those involved in value creation, made the necessary investments to keep the business in a safe and just space and paid all taxes) goes towards resource regeneration or general-interest causes.
> Requires total shareholder alignment or a general-interest entity as majority shareholder (such as a shareholder foundation* or citizen shareholders).

GOVERNANCE ARCHITECTURE

Binding social and environmental commitments: the company is legally and morally accountable to third parties in respect of its social and environmental commitments.
> Requires inclusion of the company's mission and targets in its by-laws and shareholder agreements, and a commitment to fostering mission engagement.

Aligned governance: the company's decision-making and supervisory bodies systematically take into account its redirection goals – defined in line with planetary boundaries and the social foundation.
> Requires members of those bodies to be trained on doughnut economics.

Informed decision-making: strategic decisions are based on independent documentation (such as an impact study) and consideration of all stakeholders, including those not in attendance or that are invisible or intangible (biodiversity, future generations, local communities, etc.).
> Requires ethical decision-making procedures and a concerted effort to counter cognitive biases (especially on the board).

BUSINESS MODELS

VALUE PROPOSITION AND BUSINESS MODELS

Eco-design: the company improves its products and services by optimizing resource use and how it manages its externalities (focusing on its most damaging impacts first).
> Requires employee training and/or consultation with experts in the circular economy, the functional economy*, LCA, the principles of eco-design, frugality, etc.

Redirection of commercial practices: the company drops unsustainable activities and revisits its marketing and communications to transform both how it sells its offering (internal change) and how consumers use it (external change).
> Requires changes to sales staff remuneration (e.g. increasing fixed remuneration and limiting commissions), as well as to how the company assesses performance.

Entrepreneurial activism: the company strives to promote a regenerative economy beyond the immediate scope of its own activities.
> Requires a commitment to advocacy and supporting general-interest organizations.

ECOSYSTEM AND CO-OPERATION

Co-opetition*: the company abandons the traditional value chain approach, which perpetuates unequal bilateral relations between stakeholders (e.g. client/supplier), in favour of long-term, mutually beneficial relations within an ecosystem approach.
> Requires the development of partnerships with other companies in other sectors.

Governance of the commons: the company works together with public and private entities within its region and/or sector to preserve the commons* and manage negative commons* (waste, pollution, etc.), prioritizing this over competition concerns.
> Requires active involvement in co-ordinating the various entities' efforts and pooling resources (financial and human resources, innovations).

Wholesale co-operation: the company co-develops and shares innovations with the widest possible public to foster the systemic change needed to regenerate resources.
> Requires sharing of knowledge and expertise based on open-source* principles and the establishment of broad communities representing a range of interests (citizens, universities, not-for-profits, private-sector companies, etc.).

ASSESSMENT & ACCOUNTING

Non-financial reporting: the company implements non-financial reporting in line with strict frameworks and labels and publishes its targets, defined in light of planetary boundaries and the social foundation.
> Requires regular, comprehensive reviewing of the company's social and environmental performance so that it can be taken into account when managing the business and reflected in the financial statements.

Adaptation of financial roles: accounting professionals (CFOs, accountants, auditors, etc.) are assigned a broader remit and extended responsibilities, encompassing social and environmental concerns.
> Requires training on strong sustainability for financial professionals and an accompanying shift from Chief Financial Officers to Chief Value Officers.

Multi-capital accounting: the company implements physical flow accounting for the various capitals it uses in its business, whether directly or indirectly. It respects planetary boundaries and the social foundation, devoting the necessary human and financial resources to its endeavours in this regard.
> Requires capitals budgeting and adaptation of the company's IT systems to capitals accounting.

GOVERNANCE
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GOVERNANCE ARCHITECTURE
VALUE DISTRIBUTION
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01

ALIGNING GOVERNANCE

Having ventured beyond the Pillars of Hercules, we now want to explore governance, to see if we can rethink how we share power and value within our companies.

We first need to reconsider our relationship to "profit". Particularly who should benefit from it. We will hear from pioneering entrepreneurs who have adopted alternative ownership and value-distribution models (A).

We also need to rethink our companies' "governance architecture": how we share power, take decisions and organize our governance bodies are all key to effecting meaningful change (B).

VALUE DISTRIBUTION
p. 38

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VALUE DISTRIBUTION

WHAT THE EXPERTS SAY

"Changing our relationship to profit: the key to shifting to a post-growth economy"

INTERVIEW WITH **DONNIE MACLURCAN** – POST GROWTH INSTITUTE

Donnie Maclurcan is the founder and Executive Director of the Post Growth Institute, an international not-for-profit organization working to enable collective wellbeing within ecological limits. Reimagining economics, reorienting organizations and revitalizing communities are at the heart of what he does. He recently co-authored *How on Earth* (2021), documenting the rapid rise of not-for-profit forms of business.

How did you conclude that not-for-profit business was the way to lead the transition to a post-growth society?

It all goes back to 2009, when I attended a conference on community development. The keynote speaker was talking about his engineering construction company (50 employees and revenue of $18 million), and he said: "We are not-for-profit." At that time, **I would never have thought that an engineering company could or would be not-for-profit!**

"Not-for-profit" can mean different things to different people and in different countries. But one thing is for sure: it does not always mean charity! When we talk about "not-for-profit business" at the Post Growth Institute, we mean **any kind of business that is without private individual equity ownership and that generates more than 50% of its revenue from the sale of goods and services.** There are four main structures we typically see within this definition: foundation-owned companies, state enterprises, co-operatives (including mutual insurance companies and credit unions) and non-profit enterprises. Our research has shown that **these forms of business account for almost 20% of global GDP!**

In our approach, a privately owned company that is not distributing dividends will not necessarily be considered not-for-profit, because there are still the potential capital gains to be had when the shareholder exits. There is a difference between reinvesting all of the company's profits and being not-for-profit. Look at Amazon: it reinvested all of its profits for its first 15 years of existence but has always been profit-driven and does now pay out dividends. **The difference is in the intention, the relationship to profit. This is what we see as key to the transition to a post-growth economy**. It not only impacts inequalities due to the concentration of wealth, but also makes it possible to shift from short-term profit maximization, which is holding back the ecological transition, to a more long-term way of thinking.

So how do you get funding for the company's development if you can't use the lure of capital gains to attract investors?

When we talk about "investors", we tend to think only of equity investors, but if I lend money to a company through a debt instrument (such as a loan or bond), I'm also an investor. Not-for-profit businesses can engage with a range of debt instruments, and investors can still get a return, based on rates that can be fixed in advance, as seen with revenue-based finance models. By fixing the financial return in advance, we promote the psychology of "enough", as an alternative to the "never enough" mindset that underpins the speculation driving most for-profit investment.

In addition, some countries allow not-for-profit businesses to seek crowdfunding or issue (non-equity) member shares, or else grant them certain tax advantages, for example.

If we look at the economy in terms of strong sustainability, do you think that having this kind of governance model will be sufficient to stimulate the transition towards a post-growth economy?

I would say that what we're proposing, although not sufficient, represents the most viable path to a post-growth economy. Let me explain why…

First, **when we shift to the purpose-led model of business, we see a reorientation of business goals** towards something other than consumption. The biggest driver of consumption is the decision by those in power to sell more things, no matter what the cost, and to manufacture needs in society based on the psychology of "never enough". We have seen that there is a positive correlation between not-for-profit business and the concept of "enough". Not in every case, but that is mostly because we still live in a for-profit world where the behaviour of some not-for-profit businesses is still influenced by for-profit values and constraints.

Second, a shift to a not-for-profit structure creates a **cascade effect**: people start asking why, and other entrepreneurs get inspired and decide to follow suit.

Third, we see a **positive correlation between both governance and executive decision-making with respect to sustainability**: not-for-profit businesses are typically "greener", they think more of the future, they're more willing to reduce their bottom line to do something for the planet, and their supply chains are more ethical. Steen Thomsen demonstrated this in his work on foundation-owned companies in Denmark.

Fourth, with the typically **flatter governance structures** we see in not-for-profit forms of business, there's a greater space for openness and questions around sustainability and purpose (beyond profit), etc.

What about companies that revisit their business models to improve their impact without necessarily changing their ownership and governance models?

This raises a really important point. Many companies have stories about how they have reached many of their goals, reduced water consumption, carbon emissions, etc. And then they say that they have also increased profits and sales at the same time. My question is this: what was the environmental impact of those profits going to private individuals? What did those individuals do with that money? Evidence suggests that they most probably invested in other for-profit companies, sometimes environmentally "bad" companies. Or perhaps they took trips around the world or bought boats. They may have used some of it for philanthropy, but the accumulation of cash in their bank accounts necessarily increased debt somewhere else, heightening inequality in the world. I suspect that, viewed through a macroeconomic lens, the overall environmental impact of these companies could be seen as negative as a result of their for-profit ownership structure, even with all of their progress on the production front. This is the untold story. **If you don't change what's happening with the circulation of money, you just continue expanding the voracious, growth-based economy. In aggregate terms, you cannot decouple this economic model from environmental damage**.

What do you think of models that claim to be about purpose-driven businesses with a clear profit objective, such as the B-Corp model?

A few years back, I asked a prominent B-Lab lawyer whether he had seen any examples of board members having to choose between two options: reducing profit and increasing sustainability or vice versa. He said he had not. So then I asked whether he had ever seen or heard of a scenario in a B-Corp where sustainability was chosen over profit. And again the answer was no.

Whilst that does not mean that it has never happened, his answer did not surprise me because B-Corps promote the fulfilment of a purpose *alongside* profit. That is why I say that **the only type of business that can be truly "purpose-driven" is a not-for-profit**, because "purpose-driven" means that your purpose is the primary thing driving your decision-making. **Profit becomes a vehicle to advance your purpose, rather than a separate and competing goal**.

To what extent can the not-for-profit model be applied to existing businesses?

First, we should not forget that many founders of for-profit companies are first and foremost entrepreneurs. They care about entrepreneurialism: taking something, growing it and making something out of it. In today's world, money and profit are often their greatest reward, but **we could show a different path where we're talking about impact and legacy**. These things increasingly matter to more and more entrepreneurs.

Take Henry Ford: in the 1940s, he tried to shift the company to a shareholder-foundation model. He ultimately succeeded in convincing his family to gift their shares to the Ford Foundation. For seven years, Ford was a not-for-profit, foundation-owned business – something very few people know! Why did he do that? Because he had a vision: he wanted all of his employees to be able to own the vehicles they were making. He saw giving people access to vehicles as progress. It's an interesting example of how entrepreneurship can be approached differently. It is often approached through a lens of profit-maximization, but there is also the possibility of a legacy and impact approach (like with social entrepreneurship). That way, profit can be a means to an end, rather than an end in itself.

What about listed companies? How do you see their future?

First, I think that over the coming decade many companies will mutualize and be nationalized. Second, I think many others are going to fail because their model is not sustainable and they are not sufficiently adaptable to a rapidly changing climate and economy. I think post-growth companies will do much better thanks to the financial resilience their models offer. And third, I do think that some companies – especially big companies where the majority shareholder is still the founder or a family member – will convert to foundation ownership, based on a legacy decision.

PORTRAIT

RADICALLY OPEN SECURITY

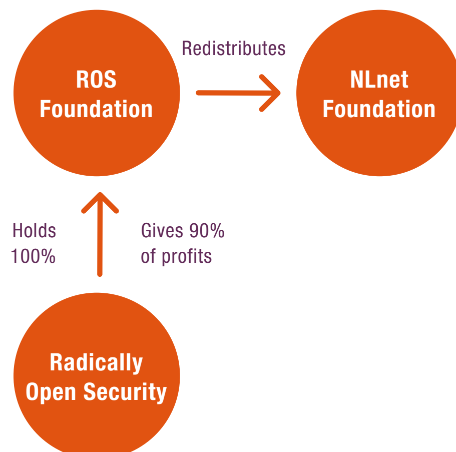
A NON-PROFIT COMPANY

INTERVIEW WITH **MELANIE RIEBACK**
FOUNDER AND CEO

Radically Open Security (ROS) is a computer security consultancy company defining itself as not-for-profit. Ranked in the top 50 most innovative SMEs by the Dutch Chamber of Commerce, ROS has embraced a post-growth approach, which shapes both its business model and its governance.

An activist company

In founding Radically Open Security, Dr Melanie Rieback (PhD in Computer Science) wanted to take a stand against the existing commercial IT security companies. With so much of our lives moving online, she sees security and data protection as basic human rights rather than commodities. Hacking activists, developing surveillance systems and selling data do not sit well with her vision for value creation for both the economy and society. "I wanted to create a company that was radically different from the market leaders. But it's one thing to say you're different, and a whole other thing to actually be different, beyond just your marketing message."



Rieback had heard about a community of nuns in the Dutch town of Vught who had set up a language school (Regina Coeli) and gave 90% of its profits back to the Church. Inspired by their story, she decided to follow suit: 90% of Radically Open Security's profit (after necessary reinvestment) goes to the NLnet Foundation, which supports organizations working towards a free and open internet. "In a way, I was trying to create a kind of non-profit company that could separate the profit motive from the operational vehicle of the business itself. It was about re-envisioning business as a form of activism", she says.

In line with its mission and impact goals, ROS has developed a cost-price offer for non-profit organizations. Non-profits are frequently targeted by hackers but often can't afford a standard commercial security audit. Rieback has come up with a cross-subsidization model to solve this problem: income from ROS's larger corporate and institutional clients subsidizes non-profits and

smaller businesses. By offering them services at cost, ROS can help many more organizations than it could through a pro bono programme.

"IN A WAY, I WAS TRYING TO CREATE A KIND OF NON-PROFIT COMPANY THAT COULD SEPARATE THE PROFIT MOTIVE FROM THE OPERATIONAL VEHICLE OF THE BUSINESS ITSELF. IT WAS ABOUT RE-ENVISIONING BUSINESS AS A FORM OF ACTIVISM."

Governance that leaves self-interest aside to boost performance and impact

ROS's governance structure guarantees that its model will not be undermined over time. First, the Radically Open Security foundation owns 100% of the shares, and the impossibility of selling the company is written into the statutes. ROS also has an "oversight" board which includes representatives of the company (currently Rieback) as well as people drawn from the broader community. "We will also create an association to secure the governance of companies that choose the path of post-growth entrepreneurship. The members will sit on companies' boards and ensure that the PGE principles are respected", Rieback explains.

Despite the early doubters, ROS has proved its critics wrong and shown its governance model to be anything but a hindrance to its development. The company is a government preferred supplier and has worked with around a hundred clients since its incorporation, including the European Commission, Google, Mozilla, supermarket chains, banks, public institutions and SMEs.

ROS's arrival on the scene with its alternative business model and not-for-profit governance has not left its competitors indifferent. They have been forced to take stock and rethink their own practices. "If you tell commercial companies they're doing things wrong and need to do better, they'll just shrug their shoulders", says Rieback. "But if you actually offer a better value proposition for both staff and customers, they'll feel the pressure on their wallets. And that's when they're going to start paying attention and critically evaluate what they're doing and make some changes."

Rieback is more concerned with her company's impact on the IT security market and wider society than with how fast it can grow. ROS is in fact posting steady organic growth, but she prefers to measure its success by the amount it has donated to the foundation: "I think our biggest success so far is that we've donated over half a million euros to NLnet Foundation in the last six and a half years." Rather than chasing growth, Rieback

RADICALLY OPEN SECURITY IN FIGURES

- 2020 revenue: €1 million
- €500K donated to the NLnet Foundation
- 40 self-members
- 2 cohorts of non-profit ventures incubated

hopes to foster a new form of entrepreneurship, compatible with a post-growth economy, and to inspire others to replicate ROS's model. She has set up an incubator for non-profit ventures to help entrepreneurs translate the theoretical principles of this movement into real business action.

> **"I THINK OUR BIGGEST SUCCESS SO FAR IS THAT WE'VE DONATED OVER HALF A MILLION EUROS TO NLNET FOUNDATION IN THE LAST SIX AND A HALF YEARS."**

The concept of cross-subsidization can be seen here too: part of ROS's profit goes towards funding the incubator (the remainder of its funding coming from paid events, consultancy and mentoring for tech start-ups from the European Commission). In return, the incubator generates business opportunities for ROS. Rieback describes this as a virtuous cycle: "talking about post-growth entrepreneurship is actually a better marketing and sales strategy than just going out and talking about security (although I do that too). It's not the traditional way of doing things, but it works really well."

Shaking up the startup ecosystem

Developing post-growth entrepreneurship means rethinking the whole system, which has traditionally placed investors' concerns ahead of those of the company itself or our wider society. Rieback compares the existing startup ecosystem to a casino, with investors placing bets on multiple startups to increase their chances of winning big. The key point here, she says, is "not that nine out of ten startups will fail, but that the tenth needs to succeed wildly to compensate for the other nine."

To her mind, the problem stems from the prevailing culture surrounding startups and the associated valuation model, which is entirely disconnected from reality.

THE THREE TENETS OF POST-GROWTH ENTREPRENEURSHIP (PGE):

1 – **Bootstrapping**:

> Start small and lean
> Focus on a solid value proposition and business model
> Maintain the company's independence

2 – **Flat growth:**

> Organic growth from customer revenue
> Bigger is not always better: don't make the company larger than it needs to be
> Spread the seeds: create a federated economy of smaller organizations rather than one giant

3 – **Non-extraction:**

> Financial value stays in the company
> Dividends are only for charity
> No exits (IPOs or acquisitions)
> Focus on the long term

The third of these tenets illustrates the double meaning of the term "profit": it primarily denotes the margin on turnover that is essential to build a company, but is also used to refer to money that is mostly paid out to shareholders in dividends. In the PGE model, dividends represent a form of "extraction" that holds the company back by taking resources away from reinvestment in R&D or in improving its offering and so on.

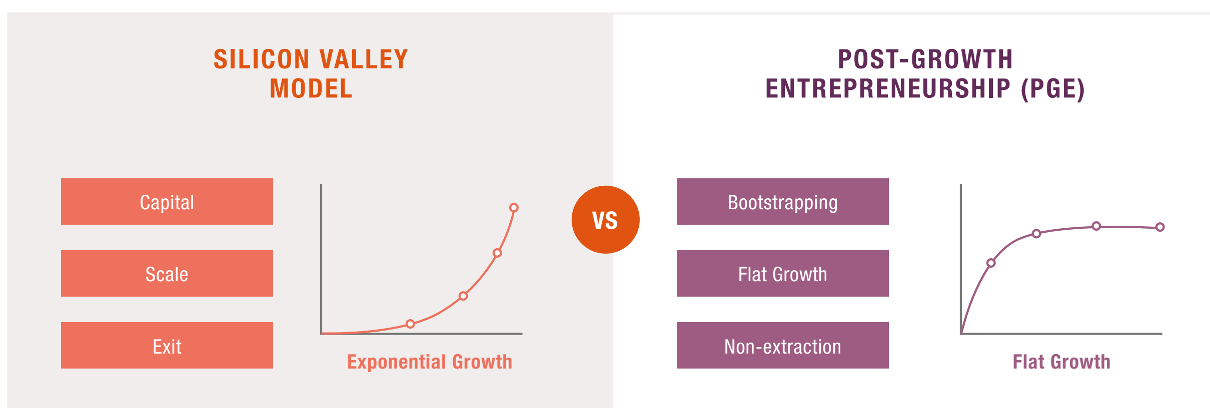
WeWork's collapse is the perfect example of this.[1] "The market treats startups like battery chickens. We artificially plump them up with investment capital, preferably over three to five years. Then once your startup is huge, juicy and attractive, you slaughter it, you liquidate it, essentially taking all the financial value out of the company and leaving behind nothing more than a dysfunctional carcass."

Rieback's hope is that the sector's various players – B-corps, steward-owned businesses, co-ops, social enterprises, mission-led companies and post-growth entrepreneurs – can put their heads together: "we need to honestly evaluate the pros and cons of each approach, and try to find the optimal combination of them that can meet both our real-world and idealistic ideas."

1. Founded in 2010, WeWork (The We Company) is a startup specialized in leasing co-working spaces. It rents flexible office space which it then sublets to its clients – a model that demands considerable capital. WeWork was valued at $47 billion at its last round of fundraising in 2018, despite having never turned a profit. Its revenue gains were quickly eaten up by its ballooning losses. After an aborted IPO in 2020 (by which time WeWork's value had plummeted to $10 billion), a Japanese investor stepped in to rescue the startup.

"THE MARKET TREATS STARTUPS LIKE BATTERY CHICKENS. WE ARTIFICIALLY PLUMP THEM UP WITH INVESTMENT CAPITAL, PREFERABLY OVER THREE TO FIVE YEARS. THEN ONCE YOUR STARTUP IS HUGE, JUICY AND ATTRACTIVE, YOU SLAUGHTER IT, YOU LIQUIDATE IT, ESSENTIALLY TAKING ALL THE FINANCIAL VALUE OUT OF THE COMPANY AND LEAVING BEHIND NOTHING MORE THAN A DYSFUNCTIONAL CARCASS."

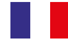
FOR MORE INFORMATION, SEE
https://nonprofit.ventures/



PORTRAIT

2050
POST-GROWTH FOR FINANCE: CRAFTING A NEW ECONOMY

INTERVIEW WITH **MARIE EKELAND**
FOUNDER



Marie Ekeland is well known among French venture capitalists and has played a key role in developing France's digital economy. As a VC at Elaia Partners, she backed startup Criteo as it went public. She went on to co-found France Digitale in 2012, followed by investment fund Daphni three years later. She has now created an entirely new type of investment fund – part VC, part impact investment – with a view to revolutionizing finance and shaping the tech world of 2050.

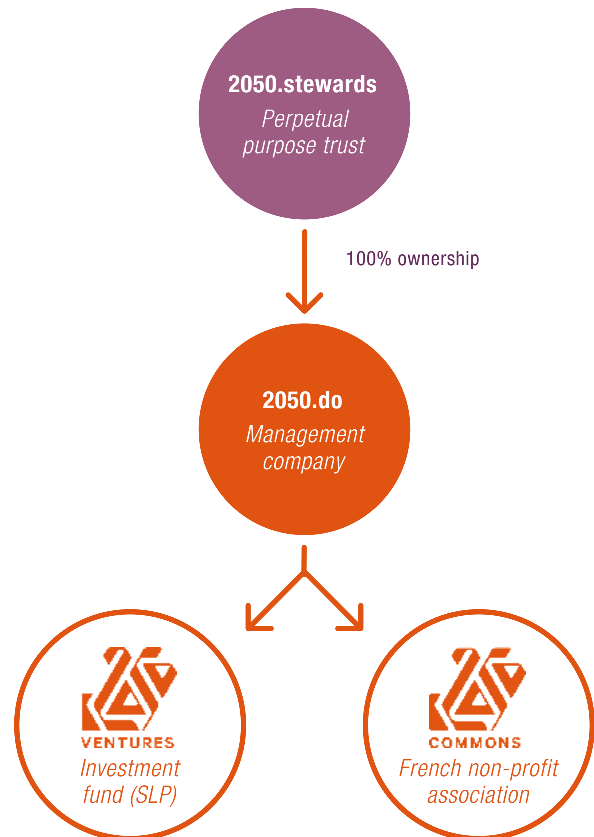
What do you think we need to fix in finance in order to transition to a post-growth economy?

Based on my years as a VC, I realized that there was a major mismatch between the interests of entrepreneurs, fund managers and investors (limited partners, or LPs) on the one hand, and those of wider society on the other. I identified various reasons for this, but **it all boils down to the primacy of profitability and liquidity. This creates a major disconnect in the financing chain**. In a typical financing chain, financial and voting rights go hand in hand. So in startups, where investors generally hold most of the capital after a few rounds of fundraising, it is they who control the political and strategic decisions. Naturally, their liquidity concerns will come into play in this process. This rarely results in decisions aligned with the startup's mission or the entrepreneur's goals, let alone those of wider society.

Another reason for this misalignment is the way investment funds operate, and more specifically how they pay their fund managers. There are three types of pay for fund managers: salaried income (often discretionary, given how few funds have boards), carried interest (performance-linked profit-sharing, generally calculated upon the fund's exit) and proceeds from selling their shares in the management company. Carried interest does help with aligning managers' and investors' interests, but the constant drive for liquidity nonetheless leads to instability. Not just for the portfolio's entrepreneurs, but also for the fund itself, as new managers find it difficult to buy in.

This misalignment between VCs' and entrepreneurs' interests really bothered me. When I started out in private equity, we were told to focus on limiting losses and not get too involved in the companies you invested in. If a company was at risk of folding, you were supposed to stay out of the decision-making process so that you wouldn't be expected to contribute towards paying off its debts. But it is in sticking by an entrepreneur when their business is in trouble, helping them find a way through it, that you forge a strong bond. It's part of what we should be doing as VCs.

The problem is that nobody is questioning the status quo. The finance sector tends to operate rather like a machine, replicating the same decisions over and over. Fund managers look at what has worked well before – by which I mean what brought in the big bucks – and then try to do the same. As a result, the companies in which



they invest are all run by a certain type of person, from a certain background. This cements the existing elites and their investment practices, and nothing changes. We need to break away from this in the finance sector if we are to measure up to current challenges.

> **"THE FINANCE SECTOR TENDS TO OPERATE RATHER LIKE A MACHINE, REPLICATING THE SAME DECISIONS OVER AND OVER."**

How does your model address this alignment issue?

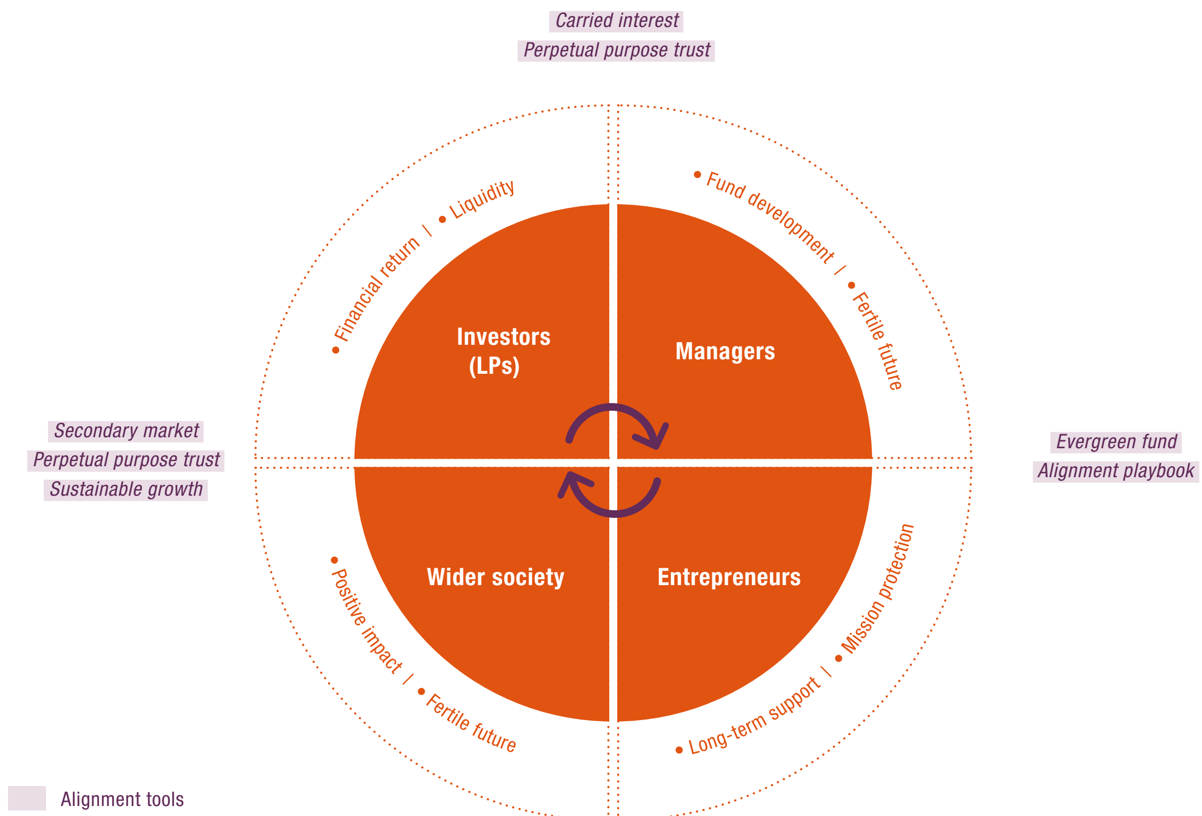
We have based our entire model for 2050 on the principles of sustainable transition. These principles define our value proposition and financial product as well as how our management company operates. We wanted a management company without private shareholders. So **2050 does not belong to any individual. Instead, it is 100%-owned by a type of perpetual purpose trust called a *fonds de pérennité***. These trusts were introduced into French law under the PACTE Law of 2019 and serve purely as a governance structure. I have contributed all shares in the management company to ours. All but one, that is – the French financial markets authority requires me to keep one. The contribution is irrevocable and I did not receive any financial consideration in return. **I've effectively disinherited my children in favour of the trust.**

Our perpetual purpose trust works a bit like a trust fund or a shareholder foundation*, but without a philanthropic purpose. It has a board of 15 members, including representatives of the 2050 team, the investors (LPs), the entrepreneurs we invest in, and various sector experts and academics. Everyone involved in the trust's governance has a say in how it is run (one vote per person) but nobody has any financial rights. This takes short-term individual interests out of the decision-making process: **in that the management company cannot be sold, we focus on maximizing long-term value for all stakeholders**.

2050 IN FIGURES

- €1 billion in AUM by 2030 (€150 million in 2021)
- Management company 100%-owned by a perpetual purpose trust
- 10% of subscriptions and 50% of carried interest funnelled into not-for-profit "strategic commons"

2050'S INTEREST ALIGNMENT



For the investment fund itself, **we have opted for an evergreen model. This means that we invest without setting an exit date**: the companies we invest in decide how long they want to work with us for. We aim to give our LPs opportunities to sell via private trading exchanges, taking the pressure off companies in terms of liquidity. After the first five years, LPs can sell up to 20% of their shares each year on a secondary market, via a platform called Funderbeam. To put it another way, we try to separate the issue of liquidity for LPs from our investment strategy, allowing us to achieve more regular long-term performance and freeing us from the constraint of having to maximize share value for a predetermined exit date.

With an evergreen model, you cannot make a capital gain when you sell. To compensate for this, we have developed a special carried-interest mechanism for our team. The carried interest is linked to the increase in net value of the portfolio's assets and converted into shares in the fund. This means we do not benefit directly from financial performance: we only make money if liquidity is properly managed. What's more, we pour 50% of our carried interest back into "strategic commons", via a registered non-profit association (2050.Commons). This encourages our fund managers to monitor their portfolio's financial performance with a view to a bigger picture in terms of impact.

> **"WE TRY TO SEPARATE THE ISSUE OF LIQUIDITY FOR LPs FROM OUR INVESTMENT STRATEGY, ALLOWING US TO ACHIEVE MORE REGULAR LONG-TERM PERFORMANCE AND FREEING US FROM THE CONSTRAINT OF HAVING TO MAXIMIZE SHARE VALUE."**

I believe that fund managers make better investment decisions when they are in sync with a company's mission and have built a strong relationship of trust with its

managers. And company managers guided by a transformative vision for society are better able to weather any storms that come their way. They can remain calm and collected, digging deep within themselves and their teams to find the strength to keep moving forward. If your sole aim is to make money, you end up paralyzed by the fear of losing it all. That is why it's so important to be driven by "something bigger", to have a clear intention.

> **"I BELIEVE THAT FUND MANAGERS MAKE BETTER INVESTMENT DECISIONS WHEN THEY ARE IN SYNC WITH A COMPANY'S MISSION AND HAVE BUILT A STRONG RELATIONSHIP OF TRUST WITH ITS MANAGERS."**

How is this intentionality reflected in 2050's investment policy?

It is easy to lose sight of quite how important an investment policy is. Fund managers have a significant moral responsibility. It took me a while to realize that investing was not about making money. Money has purpose, it's an incredibly powerful tool. When we choose to invest in a company, we shape the society in which our children will live. With this in mind, 2050's investment policy aims to foster a "fertile" future, by which I mean a future that is resilient and inclusive and creates opportunities and value for all.

> **"MONEY HAS PURPOSE, IT'S AN INCREDIBLY POWERFUL TOOL. WHEN WE CHOOSE TO INVEST IN A COMPANY, WE SHAPE THE SOCIETY IN WHICH OUR CHILDREN WILL LIVE."**

This purpose, reflected in the five strategic challenges we aim to address with our investments,[1] is not the only thing that makes us different. There is also our ecosystem-based approach. **Rather than looking at a company in isolation, at 2050 we consider the entire value chain of which it forms part**. To our minds, you cannot invest effectively in our agri-food system's transition, for example, if you are not familiar with all aspects of that system.

To help us identify, select and support companies, we have developed a framework based on key alignment indicators (KAIs) in five areas: founder & team engagement, mission-lock, ecosystem robustness, planet footprint and diversity & inclusion. We call this the Alignment Playbook and have made it available via a collaborative platform as an open-source resource. We use these KAIs to carry out risk-mapping, which we then take into consideration when analyzing performance. This is a first for the VC world – funds are always talking about their performance but never about the risk they bear. **We have even gone so far as to make our carried interest conditional upon our portfolios respecting certain risk limits: no doubt the best indicator of the alignment we seek when investing.**

It is also important to note that **every time we invest in a company, we also invest in strategic commons***. For example, when we invested in Sweep (a software program that manages carbon footprint measurements and credits) in response to the challenge of living and exploring sustainably, we also developed an open-source MOOC on climate change with the Université Paris Dauphine and the Fondation Madeleine. We support more wide-ranging initiatives too, such as *Intérêt à Agir*, a charity that fights for basic rights and common goods through the courts. We don't feel the need for a specific philanthropic mission: not-for-profit considerations are already at the heart of our business model, built into our for-profit activities. Instead, we want to craft a whole new ecosystem, one that can evolve to stand the test of time.

TO FIND OUT MORE:
https://alignment-playbook.com

1. Eat enough, eat healthfully; Take care of body and mind; Empower learning & creativity; Live & explore sustainably; Put trust at the heart of the economy.

AN ENTREPRENEUR'S TAKE

Cyrille Vu

CEO of SeaBird

In 2010, after some twenty years as a CFO in industry and the service sector, Cyrille Vu joined consultancy firm SeaBird. The firm has since risen to become a leading consultant in the banking and insurance sectors. Having worked hard with his teams to achieve strong growth for the firm, Vu decided to commit to a fairer distribution of the resulting value. He did so by creating an ecosystem in which the firm co-exists with a shareholder foundation.

Reflecting on the meaning of money and where our material wealth comes from

Since I was a young boy, I have always been troubled by the inequalities I see around me. And then there was a point, around 15 years ago, when I got talking to some homeless people who had been sleeping in the entrance hall in my apartment building. I contacted a charity and tried to help them find a way off the streets. It was a tough experience, but it allowed me to finally articulate something I had always felt: that we humans are all part of the same family. I felt every bit as connected to those people in my building as I am to my mother or brother. Our "relatives" are not just those with whom we share genetic material or a lifetime; we are related to all humankind – past, present and future. I also started questioning how much of our success is really down to personal merit and where the wealth we receive and amass over our lifetimes actually comes from (taking a leaf out of Adam Smith's book).

These questions became all the more pressing when I joined SeaBird in 2010 and then took the reins in 2014. The firm has thrived since then: headcount and revenue are up ten-fold and its value now is thirty times what it was a decade ago. This jump in value represented a real boon for the shareholders, so negotiating a reorganization of the firm's ownership structure was no easy task. When I first floated the idea, SeaBird was owned partly by its founder (who no longer had an operational role), and partly by an investment fund. Three LBOs later, I had increased my stake to 78% and employee ownership to 16%; the remaining capital was held by a fund managed by BRED, a French bank.

It was when the founder relinquished his stake in the firm that the incongruity of our relationship to money and how it affects our choices and humanity's overall prosperity really hit me. I had become the firm's majority shareholder, so I was an excellent case in point: why should I get to have the lion's share? Yes, I had taken greater risks than others might have done; I may even have been more enterprising and creative than most, perhaps more daring. But was that the result of active choices or was it simply that I had enjoyed certain opportunities thanks to the lottery of birth? What was I going to do with this new-found wealth? How would it affect my family and my relationships with others? And most importantly of all, how could I make it meaningful?

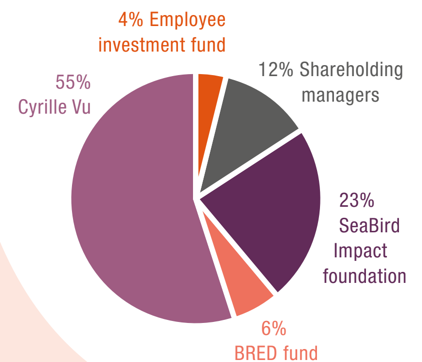
> "Can you own a company in the same way you can own a house?"

Committing to a fairer distribution of wealth

Whilst I was grappling with these existential questions, I was also beginning to realize the full extent of the challenges looming on the horizon for humanity. By 2050, we will number between 9 and 11 billion and will be dealing with the repercussions of climate change and the rise of artificial intelligence (algorithms, robots, etc.). All sorts of new social problems will emerge as a result. Can we simply sit on personal wealth when we look at what is in store for us 30 years from now? Of course we can't!

So I started thinking about what I could do, on a personal level, to try and change the system – this system that produces vast amounts of wealth but shares it with only a lucky few. I wanted to extend opportunities to people who hadn't had the same start in life that I had. I came up with a three-pronged approach.
My first step was to transfer part of my stake in the firm to a shareholder foundation (the SeaBird Impact foundation – set up as an endowment fund). I have started off with a donation of 23% of the SeaBird group's shares. The foundation sponsors general-interest projects that support ecological transition and equal opportunities for young people from diverse backgrounds. Its projects in this second area tie in with our skills sponsorship programme at the firm.
Second, I improved how we shared value within the firm by setting up an employee investment fund. Through this fund, SeaBird employees who have been with us for three months or more can become shareholders of the firm, and two-thirds of them have chosen to do so. I also introduced employee profit-sharing.
The third and final aspect of my approach related to the SeaBird ecosystem. This is something I want to develop further, to give each individual the chance to be their best and achieve their full potential, and to foster a stimulating environment in which they can explore new ideas.
I am pursuing growth for both the group and the foundation. I want to show that hybrid models work, that they can both create value and offer a better way of sharing it. I hope that I can inspire other entrepreneurs to adopt similar approaches.

SEABIRD'S CAPITAL OWNERSHIP



> "The only way to break free from the paradoxes inherent to capitalism and our current way of doing business is to bring our own value systems to bear on the behaviours we so often see in the workplace."

It's all about alignment

The vast majority of us claim to wish others well. So why does our behaviour in the workplace sometimes degenerate into verbal, psychological or even physical violence? **Why is it that some companies boast ambitious social and environmental policies yet fail to address their harmful cultures?** Why do the richest members of society find it so hard to share their wealth whilst those who have so much less are often more generous? Having done it myself, I know it's not easy! I think the hardest part is reconciling head with heart, reducing the gulf between inclusivity and exclusivity, between philanthropy and the economy. **If we want to transform our system and our businesses, it's high time we stopped thinking of for-profit and not-for-profit as two separate worlds.** Unfortunately, such attitudes remain prevalent within both the public and private sector.

GOVERNANCE ARCHITECTURE

FROM ANOTHER ANGLE

TACKLING COGNITIVE BIAS TO INFORM GOVERNANCE

BY **PROPHIL**, IN COLLABORATION WITH BERTRAND VALIORGUE[1]

It is tempting to lay the blame for the inadequate corporate response to the pressing issues we now face on the decision-makers. After all, they hold the power, so why aren't they doing anything? But looking for a scapegoat does not solve the underlying problem. It is not the good character of business leaders that is the issue here, but rather their ability to take good decisions (Sibony, 2019). In this article, we will explore how cognitive biases affect decision-making in corporate settings.

Global Compact and Accenture surveyed 1,000 CEOs for a joint study in 2016. Some 76% said they saw opportunities to contribute to the UN sustainable development goals (SDGs) through their core business. But in 2019, only 21% felt that business overall was actually doing so. There are various factors holding companies back from adopting game-changing business models. These include free-market neoliberalism, a lack of regulation, and entrenched habits such as short-termism and uncertainty avoidance (at individual, organizational and institutional levels alike) (Slawinsky et al., 2017). Moreover, **directors were not required to consider social and environmental issues until recently** – particularly in France, where this requirement was only introduced in 2019, under the PACTE Law. As a result, consultants are scrambling to find the right mix of candidates with the right training and skills to respond to the surge in demand.[2]

1. Bertrand Valiorgue is a professor of corporate governance and strategy at the IAE Clermont Auvergne school of management. His research focuses on the role of businesses within disadvantaged communities and how they can become a force for social and environmental good.

2. According to Ethics & Boards, 85% of European companies (Stoxx Europe 600) have not declared any board members with climate or environmental skills. In addition, it is very difficult to measure the extent to which corporate governance bodies take social and environmental issues into account. This explains why we see so few statistics and indicators, even within Environmental, Social and Governance (ESG) criteria.

In addition to these widely acknowledged factors, there is also a less obvious but equally insidious issue: cognitive bias. Cognitive biases operate at both individual and group levels, affecting decision-making processes and perpetuating corporate inaction, especially on climate matters.

> "Existing French and international governance standards and guidelines largely ignore the issue of cognitive biases on boards. They focus instead on composition (the number of directors and their qualifications), organization (multiple committees) and oversight."
>
> B. Valiorgue

Cognitive biases and climate inertia

There has been considerable research in the fields of psychology, cognitive sciences and management science into how cognitive biases influence decision-making. Over 200 different types of cognitive bias have been identified. Each one corresponds to a specific **distortion in how we apprehend a given situation or**

piece of information, making us prone to systematic errors of perception, assessment or interpretation. Researchers have established four broad types of bias that come into play in corporate decision-making on climate issues (the following definitions are taken from Mazutis & Eckardt, 2017[3]):

- **Perception biases, or the "what problem?" problem**: perception biases have their roots in our inability to conceptualize events and consequences that we have not yet experienced. Many company executives and directors find it hard to get to grips with the concept of planetary boundaries, for example. They do not have sufficient operational indicators and often still do not see climate disruption as having an immediate or direct impact on business. It does not help, of course, that the media underestimated its impact for so long. Perception biases often stem from how information is presented (potentially underplaying the gravity of the problem and the urgency of taking action[4]) and its availability (we tend to rely on immediate top-of-mind information rather than seeking out other points of view or new information).
- **Optimism biases, or the "we're great – we'll be OK" problem**: optimism biases relate to our tendency to be over-optimistic about the outcome of our actions and overconfident in our ability to deal with negative events. They can trick company executives and directors into believing they are doing enough already, and in any case more than the competition. Optimism biases are often based on the belief that technology and innovation will solve all our climate worries. This type of thinking impedes immediate action by focusing attention on R&D (or communications) to the detriment of any meaningful discussion of business models.
- **Relevance biases, or the "2 to 5 degrees in 30 years is no big deal" problem**: relevance biases correspond to our subjective understanding of how important a problem is, based on what we know or think we know. They can result in us minimizing how climate change will affect future operations, for example. They are primarily caused by our tendency to compare things to our "anchors" (such as a certain price or temperature). For example, temperatures naturally vary with the seasons. As a result, we have trouble grasping the magnitude of what a few degrees in global warming would mean. We thus tend to take decisions in light of predefined standards rather than based on the actual importance of the issue at hand.[5] And, of course, we prioritize small but immediate rewards over larger ones down the line. So quarterly results will be seen as more important than energy savings over several decades (especially given that the current decision-makers will no longer be in charge when those savings materialize). This makes it hard to effect far-reaching change: major transformation projects are often complex and contested, and offer only distant, uncertain benefits.
- **Volition biases, or the "it's not my problem" problem**: volition biases prevent individuals from assessing themselves as independent agents with control over particular actions, allowing them to pass responsibility on to others. Decision-makers tend to see it as the government's job to take action. Unless the government makes investing in transformational change a legal requirement, they worry that doing so could put them at a competitive disadvantage. Few companies dare to deviate from the norm.

3. For a more in-depth analysis, we recommend reading the full paper (see bibliography) on which we based the following section of this article.
4. For example, the term "global warming" elicits a weaker emotional response than "climate disruption" or "climate crisis". Similarly, talking about CO_2 alone can eclipse the dramatic loss of biodiversity.
5. Anchoring bias and framing bias often appear together. How we talk about climate change is a good example: we are often told that problems will arise "in the coming decades" or "approximately 30 years from now". These temporal anchors serve to lower the moral intensity of climate change, by increasing the distance between cause and effect, which in turn reduces the temporal immediacy of the issue in our minds.

HOW COGNITIVE BIASES PERPETUATE CLIMATE INACTION

Source: freely adapted from Mazutis & Eckardt, 2017

Group bias and the Abilene paradox

A married couple are sitting on a porch with the wife's parents on a sweltering afternoon in the small town of Coleman, Texas, around 53 miles from Abilene. The older man suddenly suggests they drive to Abilene for dinner out. His son-in-law thinks it is a terrible idea in that heat, but does not want to upset his wife, who rarely gets to spend time with her parents. Neither of the women appear to have any objections and so they all pile into an unairconditioned Buick and head off to Abilene. They eat a second-rate meal and return to Coleman disappointed and exhausted. It is only after they get back that they realize that none of them had really wanted to go. Each had simply assumed it was what the others wanted to do. (Harvey, 1996)

This famous anecdote from American sociologist Jerry Harvey illustrates how a group can end up agreeing on something that none of them were actually in favour of initially. These "group biases" are particularly prevalent in companies. They can discourage even the best-informed individuals from voicing their doubts, instead going along with things because they feel that their opinion is out of step with what they believe to be the group consensus. The same group effect also tends to amplify the majority view.

How to overcome cognitive biases

Cognitive biases are omnipresent. They are the natural result of psychological and biological human evolution. This makes it very hard for us as individuals to overcome them; **simply being aware of our biases does not prevent them from influencing us**. But although we cannot entirely free ourselves from bias, there are things we can do to help company executives take better-informed decisions.

To avoid perception biases, we need to **think about how we word and frame the information we present** to decision-makers. Ravasio (2020) suggests that "spelling out underlying assumptions is another good way to get a more accurate picture of reality." **Company executives and directors alike should be trained** on relevant environmental and social issues. Experts should be called in to inform directors both ahead of and at board meetings. Giving boards their own budgets would safeguard their independence in this respect.

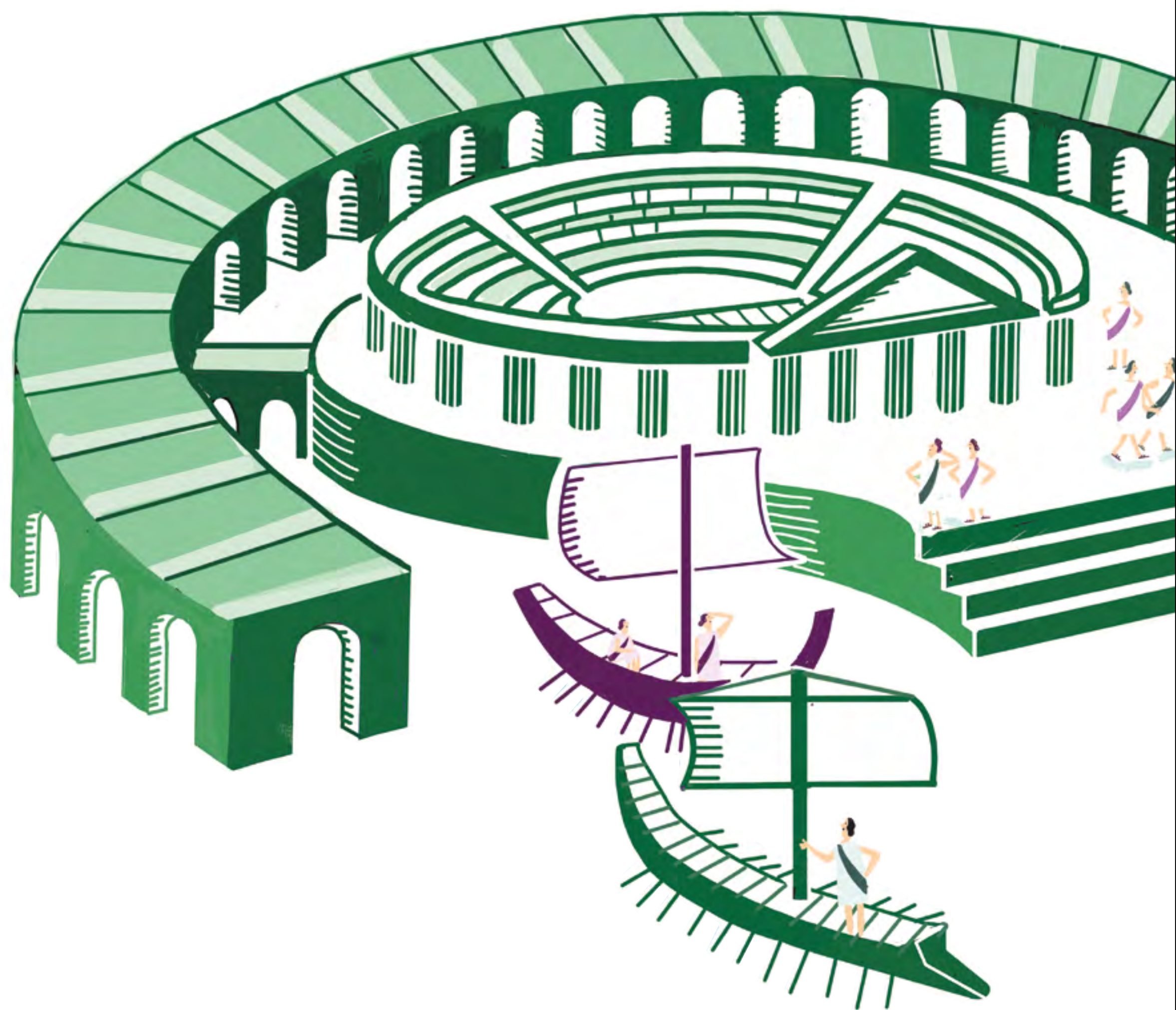
Mitigating optimism and relevance biases requires "brutal honesty" (Ravasio, 2020), showing that business-as-usual is objectively unsustainable. **Systematic risk mapping** based on recognized and exacting scientific standards (e.g. planetary boundaries, IPCC standards) can also be useful in this respect.

We can counter volition biases by systematically asking what the company would do if they alone were responsible for change (Ravasio, 2020). One interesting suggestion as regards governance is to **leave one board seat free, symbolizing the environment and future generations**. The idea is that this would force board members to consider these invisible stakeholders and their long-term interests.

> "Given the urgency of the situation and the ever-increasing number of calls to action, we have to prioritize a new "decision-making architecture"[6] as we rethink corporate governance. Company executives need to be made aware of how cognitive biases can disrupt the proper functioning of a board."
> B. Valiorgue

To conclude, cognitive biases prevent corporate governance bodies from operating as they should. They trap executives in their established views and perpetuate the illusion that solutions will miraculously emerge in the future. Overcoming cognitive biases needs to be made a priority governance issue, especially for boards. It is important not to go too far the other way, however – i.e. seeing cognitive biases everywhere and blaming them, after the fact, for any negative outcomes (Sibony, 2019). We need to **change the "decision-making architecture"**, introducing more collegiality and specific strategies to counter bias. In other words, we need to decide how to decide well (Sibony, 2019).

6. "Decision-making architecture" is a term coined by Olivier Sibony. The concept is based on the nudge theory, in which "choice architects" present choices to consumers in a certain way to elicit a desired response (whether intentionally or otherwise). Sibony suggests that, in designing corporate decision-making processes, executives act as "decision architects", nudging their companies in a certain direction.



PORTRAIT

RIVERSIMPLE

REWRITING THE RULES OF GOVERNANCE TO ALIGN INTERESTS

INTERVIEW WITH **HUGO SPOWERS**
FOUNDER AND MANAGING DIRECTOR

Riversimple's aim is to produce Europe's first affordable, hydrogen-powered eco-car and to deliver it as a fully bundled, cost-transparent service. Hugo Spowers has eschewed the mad dash for growth traditionally pursued by tech startups in favour of a new approach that permeates all aspects of the business. He wants to build a successful and resilient company that can thrive in the 21st century.

Bootstrapping

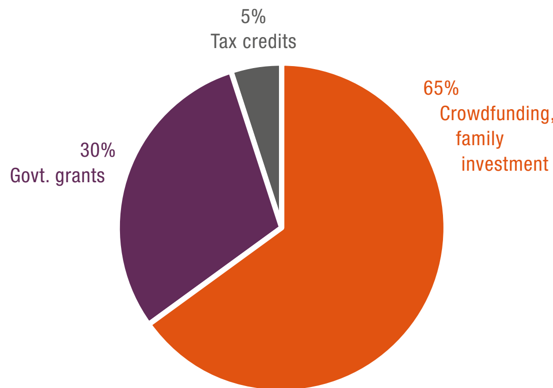
Riversimple's journey began in 1999, when Hugo Spowers left his job as an automotive engineer to enrol on an MBA. He did his final research project on the political and commercial barriers to developing the use of hydrogen (hydrogen fuel cell technology was already around at the time but not being used). "I decided to set up Riversimple when I realized that it would be easier to innovate from within the automotive industry rather than from the outside", he explains. "We had a blank sheet of paper, and no investment or industrial constraints. We changed everything: car design, materials, manufacturing strategy, business model… It was easier to design something fundamentally different than to tweak an existing model."

The idea behind Riversimple was a bit of a gamble, but little by little, the company took form. Over the past 20 years, it has raised almost €24 million – enough to develop four generations of its Rasa car (although conventional carmakers would spend about that much just to change a door!). What's more, it has achieved this without having to rely on venture capital. "It was impossible to align our interests", says Spowers. "VCs want a return on investment within five years, whereas we take a long-term approach. They expect a certain degree of control over the business but, like family offices, we prefer to look ahead and think about the next generation rather than our exit strategy." He feels that this different focus can be seen in Riversimple's governance model and the decisions the company makes.

> **"IT WAS IMPOSSIBLE TO ALIGN OUR INTERESTS. VCs WANT A RETURN ON INVESTMENT WITHIN FIVE YEARS, WHEREAS WE TAKE A LONG-TERM APPROACH."**

Following on from the first three prototypes, the fourth-generation Rasa is designed for the road and will be tested in Wales, with the support of the Monmouthshire County Council. Each car is currently hand-built, and at £170,000 per vehicle, the production cost is still too high. Volume production has been delayed by the Covid-19 pandemic but is set to commence in 2024 and will bring this cost down. As Spowers explains, "a Chinese engineer once said: 'You can have

FUNDING MODEL



it fast, cheap or good. Pick any two.' So you can have a good car either quickly or cheaply, but not both. We want to do it right, and it has to be done cheaply… So the time factor is what routinely slips!"

Whole system design

The Riversimple team firmly believes that building a successful and resilient business to thrive within the constraints of the 21st century demands a new approach. In everything they do, be it about the technology, the business model, or corporate governance, they are guided by the company's purpose: "to pursue, systematically, the elimination of the environmental impact of personal transport". Spowers says that he set up the business with sustainability as the principal driver: "I'm convinced that business has to make the change, rather than politicians. So I want Riversimple to succeed and to win sales. We don't want to charge a premium for our cars, they must be more profitable for the same price. We're not relying on people's conscience or eco-guilt to win customers: you can't penetrate the market significantly until you can answer to people's basic self-interest."

"I SET UP THE BUSINESS WITH SUSTAINABILITY AS THE PRINCIPAL DRIVER. I'M CONVINCED THAT BUSINESS HAS TO MAKE THE CHANGE, RATHER THAN POLITICIANS."

Spowers broke the mould with Riversimple. The traditional players in the automotive industry operate in a way that pits their interests directly against those of consumers, society and the environment. Their volume-based models rely on obsolescence and income from spare parts for profitability. These carmakers only invest in eco-design when the regulators leave them no choice – their business models give them no incentive to invest in becoming more efficient.

RIVERSIMPLE
IN FIGURES

- > €24 million raised
- > 30 employees
- > 4 generations of cars

Riversimple operates on an entirely different logic: it has aligned its interests with those of its stakeholders by opting to lease its cars instead of selling them. This "circular" ownership model generates long-term revenue streams and allows Riversimple to recover parts at end-of-life. Customers pay a monthly fee that is roughly equivalent to what they would pay for a "normal" car, but that covers all servicing, insurance and fuel costs in addition to the vehicle itself. When their contract expires, the car is re-leased to another client rather than being sold second-hand. So the final price factors in not just production costs, but also running costs and end-of-life value. "We are not building a product to sell, we are building revenue from an asset that should last as long as possible", says Spowers. "Decoupling your future revenue and profits from resource consumption is smart business thinking, especially in the 21st century."

These three factors (longer revenue streams, low running costs, high recovery value) offset the higher build cost: a groundbreaking business model that not only makes the Rasa competitive, but also delivers higher profit margins for Riversimple – at the same price to the customer.

The guiding principle behind this model is the goal of aligning Riversimple's interests with those of its stakeholders. Everyone benefits – including the company's suppliers, who now have an incentive to invest in efficiency and sustainability. Riversimple has introduced the product-as-service concept throughout its supply chain: instead of buying components, it purchases its suppliers' services, working openly with them at the development stage to achieve this alignment. "We don't expect this from our suppliers simply because it's better for us: it also generates more secure revenue streams and higher profit margins for them on each component they make and sell", explains Spowers.

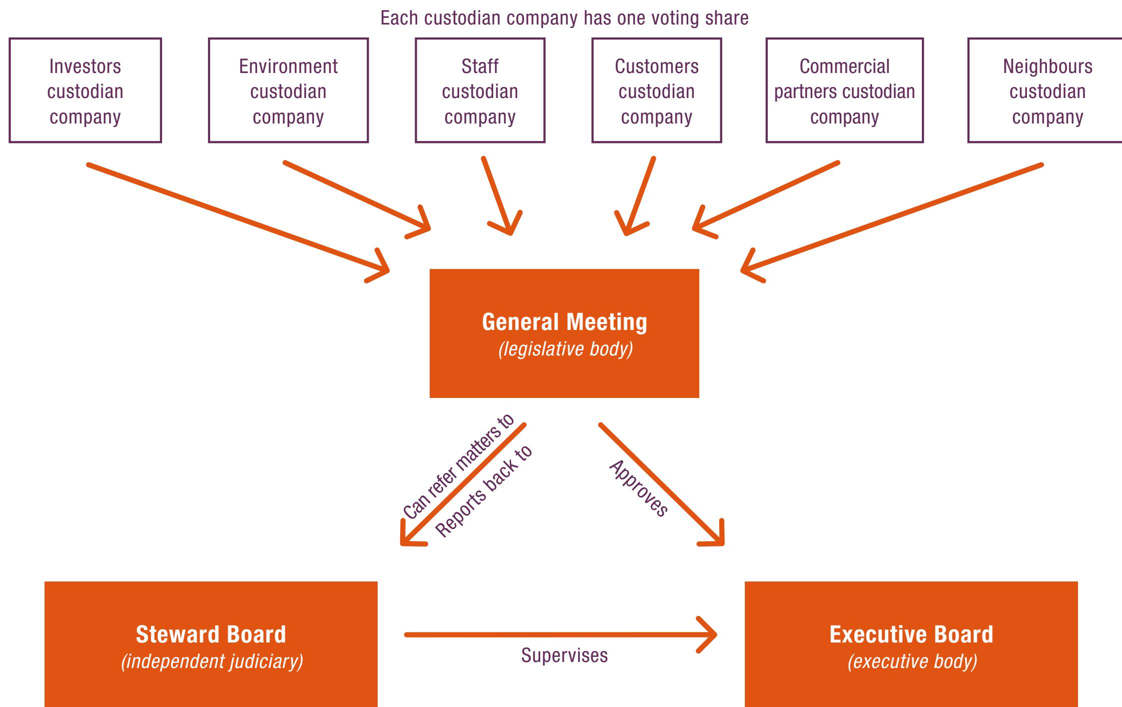
Aware that they might take some convincing, Spowers started with suppliers of new technologies (fuel cells, electric motors, supercapacitors), for which the market is still relatively small. They were wary to begin with: "they thought we were offloading the cost of capital onto them – they are the ones paying to build the fuel cells, and the service model means that we then pay them over a long period of time, which can create a cashflow problem." But in the end, Riversimple's alignment strategy has paid off: its suppliers now recognize that the service model is more profitable for them too and are shifting their own businesses over to this new way of working.

> **"WE ARE NOT BUILDING A PRODUCT TO SELL, WE ARE BUILDING REVENUE FROM AN ASSET THAT SHOULD LAST AS LONG AS POSSIBLE. DECOUPLING YOUR FUTURE REVENUE AND PROFITS FROM RESOURCE CONSUMPTION IS SMART BUSINESS THINKING, ESPECIALLY IN THE 21ST CENTURY."**

The "Stakeholder Guardian" model of governance

Spowers' goals of interest alignment and balanced distribution of power are also hardwired into Riversimple's governance. He has created a unique ownership and operating model within the standard corporate structure of general meeting, executive board and supervisory board (i.e. the Steward Board). "I don't think we could have developed the business we have if money had been the main driver", he says. "It's one of the reasons why I believe governance is so important."

Riversimple has six companies as its shareholders (its "guardians"), each representing one of Riversimple's stakeholder groups: investors, the environment, staff, customers, the supply chain and the wider community (referred to as "neighbours" and meaning all organizations that do not have a commercial relationship with the company but that are nonetheless affected by its activity). Each shareholder has one vote at the General Meetings, where Riversimple's strategy is approved and its management team appointed. There is no risk of any conflict of interests, since voting shares do not carry dividend rights.



"I DON'T THINK WE COULD HAVE DEVELOPED THE BUSINESS WE HAVE IF MONEY HAD BEEN THE MAIN DRIVER. IT'S ONE OF THE REASONS WHY I BELIEVE GOVERNANCE IS SO IMPORTANT."

The Executive Board is charged with protecting and balancing the six benefit streams the shareholders represent. The Steward Board attends all Executive Board meetings and General Meetings in a non-voting capacity and is responsible for auditing the Executive Board and monitoring its performance. It also organizes monthly discussions with the shareholders. If a shareholder feels that the alignment of interests is in jeopardy, they can raise the issue with the Steward Board, which will then look into it and report back.

"Our governance gives us the agility of a conventional company, but without the concentration of power with the chief executive or a majority shareholder", says Spowers.

This governance model is based on the principles of democracy, one of which is transparency. The company shares all information with its stakeholders, unless there is some commercial reason for restricting access. It is thanks to this unique democratic model that Riversimple has been able to take the time to build a company that, two decades in, shows such promise.

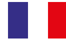
norsys GROUPE

PORTRAIT

NORSYS

MANAGING CHANGE: BIG IDEAS IN SMALL STEPS

INTERVIEW WITH **THOMAS BREUZARD**
PERMAENTERPRISE DIRECTOR



Founded by Sylvain Breuzard in 1994, norsys is a medium-sized company specializing in high-end IT services. Over the past twenty years, it has sought to achieve development based on overall performance, balancing people, planet and profit. Already a B-Corp and a mission-led company, norsys has now set its sights on becoming a "permaenterprise" (a concept devised by the founder himself, based on permaculture ethics). As Permaenterprise Director, his son Thomas is in charge of making this happen.

A leap from mission-led company to permaenterprise?

Sylvain Breuzard came up with the idea of measuring a company's "overall performance" back in the early 2000s when he was President of the *Centre des Jeunes Dirigeants* group for young business leaders. norsys soon became his innovation lab: he set up the corporate foundation in 2002, introduced carbon audits in 2007, and officialized the company's *raison d'être* and created its Ethics Board in 2018, before mission-led companies even existed under French law.

The company's commitments reflect those of its founder; in addition to co-founding *Réseau Etincelle*,[1] Sylvain Breuzard has been President of Greenpeace France since 2011. He hopes that his new permaenterprise model, inspired by the three indissociable permaculture ethics (see boxed text), will transform how the business is run and developed. He wants to take things a step further than mission-led company status. There are no specific criteria in terms of impact or products and services for mission-led companies under French law.[2] With the permaenterprise model, on the other hand, the company's *raison d'être* acts as a springboard to a more comprehensive approach to managing and evaluating the business.

NORSYS IN FIGURES

- > 2020 revenue: €46.2 million
- > 600 employees
- > 8 branches in France; 1 in Morocco

1. *Réseau Etincelle* is a French non-profit association founded in 2010 by a number of entrepreneurs from SMEs, major groups and corporate foundations. It helps young people who left school with few or no qualifications get into work, encouraging them to take an entrepreneurial approach towards their own futures.
2. Prophil's publications on mission-led companies (2017, 2018, 2019) proposed a much more ambitious definition than the one ultimately included in the PACTE Law. The idea was that the mission would prompt companies to rethink their business models and how they shared value, and serve as the basis for companies and their stakeholders to define new rules to make their commitments binding.

WHAT IS A PERMAENTERPRISE?

A permaenterprise is a business that:
– defines its *raison d'être* and manages its development based on **three indissociable ethics**: earth care, people care and fair shares;
– **uses key resources** (energy, raw materials, and human and financial resources) **fairly and in moderation**, seeking to regenerate wherever possible;
– is able to **involve its stakeholders** in all of its projects, so as to benefit from synergies;
– imposes **strict impact targets and indicators** to measure progress and maintain credibility, as part of a fully transparent approach.

Source: Breuzard, S. (2021), *La Permaentreprise. Un modèle viable pour un futur vivable, inspiré de la permaculture.* Paris, Editions Eyrolles, p.78.

The big difference with the permaenterprise model, says Breuzard, is that its three guiding ethics infuse everything the business does, at every level. "Before, we would consult each stakeholder individually and treat each impact as a separate issue. Now, we aim to make our stakeholders part of the process, so instead of acting 'for' them, we're acting 'with' them. For example, one of our goals is to regenerate employee energy. Working from home will be a big part of this, but we need to find a way to manage the associated risk of isolation. Also, our employees often have to work full-time at our clients' premises. So instead of defining bilateral policies with each stakeholder, we want to get everyone sitting down together – our employees, their spouses or partners, our clients, etc. – to come up with an approach that works for everyone." It is still too early to cite all the improvements this new model will bring, but norsys is hard at work implementing its permaenterprise ethics across the entire business, process by process.

The model centres in particular on the idea of regenerating resources – a key tenet of permaculture. But for most companies, this is tricky (see p. 83). As a business operating in an especially extractive and polluting industry, norsys is a good case in point. "Right now, I don't even know how we could regenerate the natural resources we use in our industry", says Thomas Breuzard. "Typically, 90% of a service business's carbon emissions will be Scope 3 emissions. norsys has no influence over IT hardware manufacturers, but we take action where we can on other things: employee commuting, eco-designed services, prudent management of IT inventory, and so on."

Change management: essential to the transition

The reaction from staff has been mixed. Around a quarter of the company's employees say they are proud to be part of this initiative and want to be actively involved. Half are in favour but prefer to stay on the sidelines for now, and the remaining quarter are more indifferent. If norsys is to become a true permaenterprise, it needs to get everyone on board – a considerable challenge for Breuzard. "It is common knowledge that people don't like change, especially at work. It's strange really, because when it comes to major shifts, we see that, on the whole, people are eager to get behind groundbreaking initiatives; these represent a source of pride. But of course everyone

has a different way of doing things, and this inevitably creates a certain amount of friction. For example, when I started down the path of my own personal ecological transition, I found it frustrating that things at norsys were not changing quite as quickly. I approach change management differently now. I have learnt to accept that things take time and that we need to proceed step by step, getting others involved along the way – especially since we've made such progress in terms of staff engagement. If I try to move too fast on something and face push-back, then the change process can end up taking three times as long."

> **"IT IS COMMON KNOWLEDGE THAT PEOPLE DON'T LIKE CHANGE, ESPECIALLY AT WORK."**

It is particularly important not to alienate employees in a company such as norsys, which operates in a sector prone to high staff turnover and a shortage of skilled candidates. Breuzard believes that the best strategy is to bring in certain clear, straightforward changes first, before tackling bigger projects that require more engagement. "I'm not surprised that our switch to [renewable energy provider] Enercoop is one of the changes most frequently praised by employees, because it was a change that made no demands on them", he says. "Rolling out eco-designed services, on the other hand, will have much more impact but will be much harder to do, because it requires us to foster a new mindset and train our employees to do things differently."

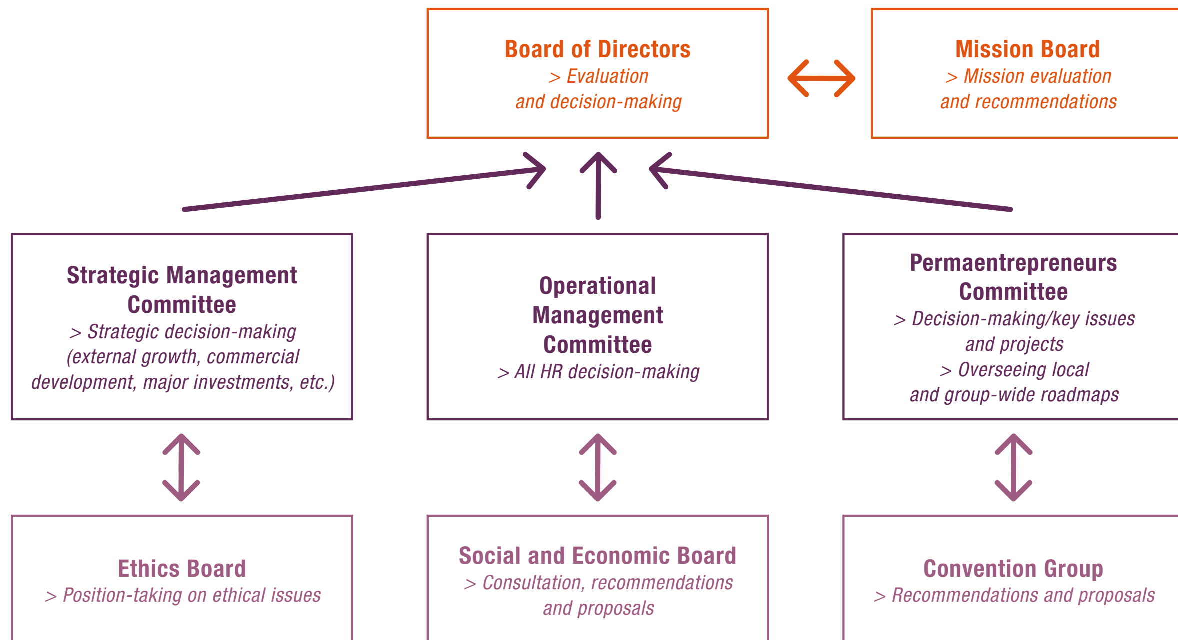
Towards informed democracy

The company is keen to get its staff more involved and give them a say in decisions about its future. To do this, it has introduced a process modelled on French president Macron's Citizens Convention. "Previously, we would come up with a certain number of projects after each permaenterprise audit (every two years), which we would then present to a group of employees. These projects could relate to our climate strategy, changes to our business processes, innovative approaches (such as banning air travel or Amazon purchases or boosting training in eco-design), etc.", explains Breuzard. "But we now want to take this a step further with our new Convention Group. The idea is to present and explain certain key issues to this group. Its members will then look into these issues further, becoming our in-house experts, if you like. They will come up with proposals, which we will then put to a vote. The level of support required for a proposal to get the green light will vary according to the extent of the changes involved. This is what we call informed democracy."

Once it is up and running, the Convention Group will take its place within norsys's organizational structure, alongside the Social and Economic Board and the Ethics Board, set up in 2018 to resolve any ethical conflicts. In the meantime, Breuzard is assisted by a Permaentrepreneurs Committee, comprising around ten employees. This Committee is tasked with putting forward proposals for how to achieve the company's transformation goals and apply its local and national roadmaps. Each norsys branch now also has its own committee of around five to ten employees responsible for managing projects and implementing roadmaps locally.

Not everything is decided collegially, however. Central management imposes certain targets for its branches, in terms of ecological and social transition. These targets carry the same weighting as financial KPIs in branch evaluations. The company has also developed an ethics tool to help sales teams assess how ethical a client's project is before committing to it. "It's basically an Excel file containing a few key questions on each topic", Breuzard explains. "Whilst it's not always easy to seek out the relevant information and to distinguish between genuine commitments and greenwashing, what this tool really does is raise awareness among our business engineers, cultivating an in-house culture more in step with our *raison d'être* and ethics."

NORSYS'S GOVERNANCE MODEL



"WHAT THIS TOOL REALLY DOES IS RAISE AWARENESS AMONG OUR BUSINESS ENGINEERS, CULTIVATING AN IN-HOUSE CULTURE MORE IN STEP WITH OUR *RAISON D'ÊTRE* AND ETHICS."

Another important aspect of the permaenterprise approach is limits. The company limits the number of billable days its employees work, for example, ensuring they have time for training or to get involved with the foundation or join in-house think-tanks. "As a general rule of thumb, an employee in our industry will be on assignment for around 220 days each year. At norsys, we aim to keep this down to around 205 days, leaving time for training, work with the foundation and so on. The company does, of course, take a certain financial hit as a result. But this policy is what saved us in 2020: we had this great ability to adapt to a sudden shock. Whereas the industry was down 4% over the year, we posted 2% growth. This is a good example of the kind of policy that makes our model sustainable and resilient – exactly the sort of thing that will help us achieve our goal of becoming a permaenterprise."

TO FIND OUT MORE:
www.permaentreprise.fr (in French)

AN ENTREPRENEUR'S TAKE

Nicolas Hennon

President of Acts and Facts

Formerly part of the management team at multimedia and home-appliance retailer Boulanger and Managing Director of the Kiabi Group, Nicolas Hennon's interest in a new way of doing business began with a passion for humanistic models. He then had an "ecological awakening" and has now left retail to work on promoting sustainable consumption through family investment firm Creadev.
He is also President of Acts and Facts, a non-profit association he co-founded to boost projects developed by committed employees looking to effect real change in partnership with their managers and shareholders.

Two "aha moments"

I have had two aha moments in my life that have totally changed the way I see the world and do things. The first was in 2011, shortly after I joined Kiabi's management team in Italy. I was gradually distancing myself from the popular mantra of "power, glory and money" by which I had lived for the previous decade or so, but there was still something in me that was holding me back from being exactly who I wanted to be. I also had some health problems around that time, and this forced me to come to terms with my physical vulnerability – to accept myself for who I was. It was in doing so that I found my new mantra: embrace change that brings value and happiness lovingly and with a smile. I started to think about what I wanted my life to be and the kind of manager I wanted to be… And that was when I decided to let go of the old way of doing things at Kiabi and to rethink everything, making people our focus.
My second aha moment was when I realized the magnitude of the ecological threat and how, as a company manager, I could do something about it. It was thanks to my wife. We were on holiday with friends in Scotland in the summer of 2018 and while on a coastal walk, I made some joke about how the distilleries were all at risk from global warming and rising sea levels. She soon wiped the smile off my face, pointing out that I actually had the power to do something about it and asking who I thought was going to act, if not me. And so some of my travel companions and I put our heads together and founded Acts and Facts as soon as we got home. That was actually the beginning of a tough period for me; the more I read and the more experts I spoke to about the ecological transition, the more uneasy I became. It is like Yann Arthus Bertrand says in *Legacy*: "I suffer the torment of those who know."

Taking on the establishment

This new awareness left me tearing my hair out trying to reconcile the planet's ecological imperatives with the inadequacies of our existing retail model and wider linear economy. We effectively all work on the same model as oil companies. A large part of an oil company's hard-won profits has to be ploughed back into extraction, which gets more and more expensive as they have to drill deeper and deeper down to get to the oil. All the while, renewable resources are right there for the taking... It seems like a lot of effort for not much gain.
A lot of twentieth-century companies find themselves stuck in a similar loop. Many reinvest part or even all of their profits (typically within their existing models) in the hope of gaining a few extra percentage points in profit and growth, at best allowing them to stay just ahead of inflation. At the same time, they face a constant battle to keep costs in check. An oft-cited rule of thumb is that your increase in costs should not be more than two-thirds of that in profit margin, despite the fact that margins are being squeezed by higher prices for raw materials and transportation. So you can see why I said we are stuck in the oil industry loop. Each year, we dig a little deeper to win market share, but the resulting profit gains do not adequately reflect the investments we made. This sort of growth at any price or misdirected growth is becoming an increasingly important strategic issue!

"The more I read and the more experts I spoke to about the ecological transition, the more uneasy I became. It is like Yann Arthus Bertrand says in *Legacy*: 'I suffer the torment of those who know'."

A new battle

When I left Kiabi, I received a number of CEO offers from other companies, but I turned them all down. I felt that my life path was taking me in a different direction, that I could have a real impact elsewhere. The idea of a new battle felt relevant, and I think more and more CEOs are starting to feel the same way. If I could have a do-over, I would spend more time communicating; not to convince others of the merits of change, but to get those who have the power to change things – shareholders, corporate leaders, even lawmakers (although that's another matter!) – to join me in making it happen. Major transformations involve both rational and irrational thinking. On the irrational side, there are our fears: fear of losing money, losing value. But it doesn't stop there. Behind every company, you have entrepreneurs, investors who have committed to the business, who feel responsible for their employees and for people's money. It is hard to convince them to put everything on the line to effect far-reaching change if they cannot see what that change will look like. It does not help that we do not yet have sufficiently mature forecasts of the economic, financial and environmental value creation these new circular models offer. No good can come of forcing someone to change in spite of their fears. The only way to combat irrational fears is by being present, listening, raising awareness and imparting knowledge. As for the rational side, risk-mapping has an important role to play. It can show how our current business models and assets are vulnerable to climate change (rising sea levels, desertification, resource scarcity, etc.). But more importantly, we need to find solutions. We need to come up with new circular business models that offer a different route to value creation, allowing us to relegate the old models to the past.

> "I am neither a revolutionary nor an activist. I'm more of an 'actionist': I believe our actions have the power to change society and the world."

Pulling together as a matter of urgency

Now that we can see how investing in the old model simply adds to a company's sleeping assets, the next step is to get everyone to do their bit for change. Shareholders could accept a dividend freeze; management teams could produce flat like-for-like[1] budgets over 12-24 months; employees could play their part in keeping costs down. If we can all find the energy, courage and capacity to invest in this transformation, we can make time and efficiency savings and, above all, come up with a better way of sharing value. When I look at what the world was capable of when Covid hit, it gives me hope, although I do fear we may have already passed the point of no return for climate change. We must start the process here and now, because far-reaching change takes time. Time to wake up to and understand the issues, develop a strategic plan, raise CAPEX and get the ball rolling. All this can take 12 to 18 months, perhaps even two years. And that is without taking into account the time each company still needs to reach maturity on these issues and phase out its existing products. We need to be operating differently by 2030 and it is already 2022!

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1. Like-for-like growth is an indicator widely used in retail to measure performance. It compares sales from two periods, based on the activity from the earlier period and stripping out the effects of any subsequent events that could have "artificially" boosted or weighed on sales since (acquisitions, new product or service ranges, etc.).

BUSINESS MODELS

VALUE PROPOSITION AND BUSINESS MODELS

ECOSYSTEM AND CO-OPERATION

02

REDIRECTING BUSINESS MODELS

The most complicated stage in our journey to post-growth will be transforming our business models – something that will affect not only companies but also their wider ecosystems.

To build a strong sustainable model, companies need to rethink their entire value proposition, from how they design their offering right through to how they market it (A).

Even then, a company can only do so much alone. Shifting to a regenerative economy and redirecting unsustainable activities will take co-operative ecosystem-thinking (B).

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Value Proposition and Business Models

FROM ANOTHER ANGLE

WHY AND HOW WE NEED TO CHANGE OUR BUSINESS MODELS

BY **CHRISTOPHE SEMPELS**

In this article, Christophe Sempels (for bio, see p. 20) analyzes the different stages involved in making our business models more sustainable.

What do we mean by "business model"?

A business model is all of an organization's processes for:

- **Creating value**: i.e. how it ensures its offering (goods, services, solutions, etc.) represents value. A business is said to create value when it offers its clients something beneficial or helps them eliminate a pain point.
- **Producing value**: i.e. how it makes what it offers. This is about allocating the right resources to the right activities and organizing the production process.
- **Distributing value**: i.e. how it gets its offering out to its clients (distribution and interaction channels, service areas).
- **Appropriating value**: i.e. how it promotes the added value of its offering and makes sure its clients know how to get optimum performance value from it.
- **Monetizing value**: i.e. how it generates revenue (contractual framework, payment model).
- **Sharing value**: i.e. how it apportions the resulting monetary value between its stakeholders, both internal and external, and the needs of its business.

Why volume-based models will soon be obsolete

Most business models are founded on volume-based thinking, designed to work within an economic system rooted in GDP growth. With these types of models, a business grows by selling more goods, services or solutions. A carmaker constantly strives to sell more cars, a water company more cubic metres of water, and a law firm more legal advice and representation.

Performance improvements in volume-based models mainly hang on economies of scale and productivity gains. The aim is to reduce unit production costs in order to bring down prices, thereby increasing the number of clients who can afford what the company has to offer, which in turn leads to more sales. **This gives a company no incentive to make its offering last longer or to devote R&D budgets to finding ways of reducing volume**. Doing so may allow them to increase their prices, but not usually by enough to make up for the associated losses in revenue. And so they often do the exact opposite, relying on planned obsolescence to generate revenue.

Volume-based models can work well for a company until its market reaches saturation point, i.e. until growth levels off or starts to slide backwards (as we can already see happening in various sectors and parts of the world[1]). They are founded on assumptions of abundant supplies of energy and low-cost resources (including human resources). As a result, **such models will soon become obsolete** from an economic, environmental and social standpoint. So what can we do about this? There are alternatives out there. Some focus on reducing negative impacts; others aim for carbon neutrality; others go further still, rethinking performance entirely or striving to regenerate socio-ecological systems.

1. Average annual growth in the EU15 countries (i.e. those for which statistics are available for the relevant period) was 5.3% between 1961 and 1970, dropping to 3.2% between 1971 and 1980, then to 2.5% between 1981 and 1990, 2.3% between 1991 and 2000, and just 1.1% between 2011 and 2016 (source: OECD). Whilst innovation can create certain pockets of higher growth, these are increasingly short-lived as markets reach saturation ever more quickly, mainly due to the intensifying effect of growth (see p. 20).

Reducing or eliminating negative impacts

The first and most important step in offsetting negative impacts is **to get them down to the irreducible minimum**. Companies have a wide array of tools at their disposal to help them achieve this: eco-design, eco-efficiency, circular economy principles, industrial and regional ecology, green technologies and "right-tech".[2] They can also look to science for guidance in this endeavour, adopting climate strategies built around science-based targets for example (such as greenhouse gas reduction targets in line with the IPCC's 1.5°C or 2°C scenarios).

With more and more companies proclaiming themselves "carbon-neutral", it is nonetheless important to point out the limits of this approach. **Carbon neutrality is only meaningful on a global scale**. At best, the most a company can say is that it is doing its bit. And there are really only two ways it can achieve this: getting its emissions down to the irreducible minimum and supporting anthropogenic carbon sink projects.[3] Preferably biological rather than technological sinks, given that the latter are more costly and energy-intensive and offer less certain results (ADEME, 2021). **But the planet only has so much capacity for biological sequestration** – no longer nearly enough to cover our current emissions levels. This leaves us with no alternative but to slash emissions.

Growth will in any case pose a problem. Even if all companies worldwide were to reduce emissions to levels compatible with our ecosystems' biocapacity, if they continue to pursue growth, their irreducible emissions will inevitably go up over time. This is why **offsetting residual negative impacts, especially in terms of CO_2, does not obviate the need for a major overhaul of our business models and our approach to growth.**

Rethinking performance dynamics

Changing our business model means changing everything about how we approach performance in the business world. It will therefore have a **systemic impact**. In particular, it will involve modifying income models and the associated contractual frameworks. More often than not, this will entail changes to the company's offering and how it produces and distributes its goods or services.

Each business model has its own dynamic in terms of economic and financial performance. A premium service model is driven by quality and customer experience, whereas a low-cost model focuses instead on keeping costs down wherever and however possible. These performance drivers dictate the model's basic premises and the company's vital interests. They are also the linchpin when it comes to making models more sustainable.

If a company wants to boost its systemic impact, it needs to shift to **a business model built around efficiency gains** (functional and co-operative economy models, service-based models, etc.). Efficiency reflects how a given result is achieved (i.e. the resources employed and the associated negative effects). For example, if medication B acts faster than medication A, has fewer side effects and is cheaper to produce, then it is more efficient. This is not to be confused with effectiveness, which takes into account only the result achieved, regardless of the resources required; any anti-fever medication that brings down your temperature is effective. So a given medication can be more effective than another without necessarily being more efficient.

In efficiency-based models, profitability derives wholly or at least in part from the company's capacity to generate efficiency gains (Sempels and Alzéal, 2020). Rather than simply selling something, the idea is to **charge for its use or, better still, for the service provided**. This involves a drastic shift in performance dynamics. For example, a company that sells phytosanitary products to farmers based on a volume model is constantly driven to sell more. As a result, it will struggle to implement environmental and social efficiency gains. This hobbles its ability to reduce its negative impacts on biodiversity, soil and human health. If, however, it is able to think outside the box, it might consider the possibility of selling a "protection solution". It could then charge by hectare of farmland protected, for example. Suddenly, its phytosanitary products become a cost for

2. "Right-tech" means using high-tech and low-tech solutions as most appropriate, rather than automatically going straight for high-tech.
3. Anthropogenic sinks are managed carbon sinks (such as cultivated land, managed forests, etc.).

the business rather than the source of its profits. And as it is in the company's best interests to keep costs down, this gives it an incentive to focus R&D on developing products that deliver the promised result as efficiently as possible. **By adapting its offer and its contractual framework, it recasts the underlying principles and performance dynamics of its business model.**

For another example of economic efficiency in practice, let us consider the case of an industrial washing machine manufacturer:

- The standard business model is based on selling washing machines at a unit price. The manufacturer has no incentive to optimize its machines' useful life (beyond the market average) or the number of machines the client requires. It cannot integrate circular-economy principles into this model: ownership of the machines transfers to the client so there is no way to guarantee end-of-life recovery.
- Switching to a rental model, whereby the client pays a fixed monthly fee for each machine, gives the manufacturer that incentive to optimize useful life. The longer a machine lasts, the more revenue it brings in. In addition, the manufacturer retains ownership, so it can integrate circular-economy principles for a more efficient use of resources. However, there is still no incentive for it to reduce the number of machines the client needs or to promote different user habits.
- If this rental model is coupled with a different way of billing – per wash cycle rather than per machine, for example – then we start to see a more fundamental change. The manufacturer now has a vested interest in optimizing the number of machines the client needs: fewer machines mean a better profit margin for it on the contract. For its part, the client has a vested interest in optimizing loads: a wash cycle will cost just as much even if the machine is only half-full. This new way of billing therefore influences user habits.
- A service-based model centring on results would take things further still. Rather than supplying washing machines, our original manufacturing company is now supplying an all-round laundry service, including all consumables, and bills by weight of items washed. With this model, a more efficient service would use less water, electricity and consumables, resulting in better profit margins.

When properly thought out and monetized, a company's business model can encourage stakeholders to optimize resource usage and seek out financial savings that can then be shared between the business and its clients. This creates a win-win situation: the company can boost its profit margins *and* bring down prices for its clients (something that is just not possible with traditional volume-based models).

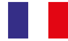
Whilst more efficient models do typically offer social and environmental benefits, they do not always go far enough, however, given the gravity of our current situation. **In many cases, value creation still requires resource and energy consumption (albeit to a lesser extent). Past a certain point, the company's growth will thus cancel out the gains achieved**. This raises the thorny issue of limiting growth and pursuing an ecological redirection of our activities (see p. 94).

PORTRAIT

LAMAZUNA

CAPPING GROWTH FOR MORE MEANINGFUL DEVELOPMENT

INTERVIEW WITH **LAETITIA VAN DE WALLE**
FOUNDER



Founded in 2010, Lamazuna is a pioneering brand for organic, vegan zero-waste household products made in France. Having spearheaded the market for these products, the company has now decided to cap its growth and focus instead on a societal project: its eco-site, designed to exemplify how we can produce and consume in a way that respects the living world.

Lamazuna has really taken off in the past few years. How does that make you feel?

Our rapid growth has taken us by surprise and has been quite overwhelming! I started Lamazuna with nothing more than my personal investment of €2,500 – no outside investors, no bank loans – so it took a long time to get things up and running. But we now have a team of 70, up from just 14 when we left Paris in July 2018!

As a result, we have had to make certain adjustments. We are more organized now and are back in the driving seat when it comes to our growth. For example, we are expanding our supermarket retail brand, The Green Emporium. We were initially against the idea of working with major supermarket retailers like Leclerc, Franprix and Monoprix. After all, they do not exactly reflect our values. But then, at a conference at which I was speaking, L'Oréal's head of marketing announced that they intended to bring out a range of solid shampoos within two years. I knew then that we had to get our products on the shelves too, so that we could show consumers what "good" zero waste looked like!

I want to make sure Lamazuna stays a close-knit team. To do this, I have decided to set a cap on our growth, limiting the team to 150 people. We expect to reach that size within two years. This limit also ties in with certain other business objectives: by the time our team hits the 150 mark, we aim to be carbon-neutral and self-sufficient in terms of both energy and food.

The challenge then will be to maintain economic growth within a changing market without actually expanding further. Competition is building now that zero waste has become more mainstream. But this is of course a good thing – the big corporate groups need to change too.

"TO MAKE SURE WE STAY A CLOSE-KNIT TEAM, I HAVE DECIDED TO SET A CAP ON OUR GROWTH, LIMITING THE TEAM TO 150 PEOPLE. WE EXPECT TO REACH THAT SIZE WITHIN TWO YEARS."

How has deciding to limit your growth affected your strategy?

One example would be our strategy in terms of international development. A few years ago, we had no problem with exporting as far afield as New Caledonia. As

pioneers of the zero-waste movement, we felt that the most important thing was to get the word out about alternatives to plastic. The idea was to foster a local market, so that we could then pull out and refocus our efforts on Europe. We have yet to reach that stage, however, and are still exporting to New Caledonia for now. If this is still the case when we reach our critical size, we will have to rethink things!

Our objective of carbon neutrality may force us to pull out from this market earlier than planned. We have spoken to our distributors, explaining that they should feel free to start working with a local brand instead of us. It is not always easy to stick to your principles on something like this in the face of tough competition and the ravages of Covid, but we are trying to stay true to our values.

We have also decided not to open any more Lamazuna shops. We prefer to sell through bulk stores, many of which are run by people who are extremely active in their local communities. These people have laid the groundwork, developing the local market, and we would much rather support them than compete with them.

To make sure we do not lose out financially as a result of this policy, we are investing in R&D and innovation. This will allow us to expand our product ranges and improve our formulations. We are also reviewing our entire value chain, sourcing locally and renewably wherever possible, and seeking alternatives to ingredients such as coconut oil. This has been a huge challenge, especially for our soaps, but we are proud to say that none of the ingredients in our soaps now come from more than 800km away! We have also launched research into an organic surfactant that can be made in France and used in our solid products. We hope to prompt regulatory changes in this respect. The European label, for example, currently allows the use of sulphates as foaming agents – something we have banned from our products. We fund this research primarily out of the profits from our ingredients importer, set up in partnership with the soap factory we work with.

LAMAZUNA IN FIGURES

- > 70 employees
- > 2020 revenue: €10 million
- > 70 million items of waste avoided since 2010
- > 1 eco-site under construction

As a smaller company with fewer resources, how will Lamazuna compete with the major cosmetics groups?

Even if the big cosmetics brands pour everything they have into developing the best possible products for both people and planet, they will still have a problem at their core. Their shareholding structures force them to focus on profit-maximization. We, on the other hand, focus on our values in all aspects of what we do, and this goes way beyond our products. Take our eco-site, due to open in spring 2022. Alongside our new energy-positive offices, we will have a permaculture kitchen garden, open to the general public, a cafeteria and a zero-waste micro-crèche. Better wellbeing at work will be our competitive advantage.

> **"WE FOCUS ON OUR VALUES IN ALL ASPECTS OF WHAT WE DO, AND THIS GOES WAY BEYOND OUR PRODUCTS."**

Each activity on our eco-site will be run as a separate legal entity with its own business model. The aim is to show that this way of operating is financially viable and can work within any company, no matter what they do – even if it's making tyres! I hope to show our customers and retailers that we are not here to capitalize on the zero-waste trend, but because we really want to make a difference. To help get this message across, we are very active on social media. We post lots of videos about the eco-site, explaining why we have gone for concrete walls or opted for rice straw insulation.

We have defined three mission objectives: (i) develop products and communications to help people learn about and switch to zero waste; (ii) encourage our employees

to share brilliant ideas; and (iii) create meaningful experiences by showing others what we are doing – this is the idea behind our eco-site. These objectives will be built into the profit-sharing agreement we are currently working on. In tying profit-sharing to the percentage of our products that are sold bulk, for example, bulk becomes a key mission for the whole company.

> **"I HOPE TO SHOW OUR CUSTOMERS AND RETAILERS THAT WE ARE NOT HERE TO CAPITALIZE ON THE ZERO-WASTE TREND, BUT BECAUSE WE REALLY WANT TO MAKE A DIFFERENCE."**

What is Lamazuna's policy on value-sharing?

We are in the process of introducing profit-sharing for our employees. We also have annual reviews for each employee with all of our managers. Our pay scale is based on the employee's experience and autonomy, meaning that someone in the warehouse can earn as much as someone on the communications or sales teams. And our bonus scheme applies across the board, not only to our sales staff!

We also address value-sharing through our pricing policy. We want to make zero waste available to all. So on 1 January 2018, we knocked 25% off the retail prices for our solid cosmetics. We had been selling our shampoos for €12.50, for example. Although they last a long time, this represented a significant outlay for many people. We did not want zero waste to be something only a privileged few could afford, so we brought the price down to €9.90. And we did the same thing for our toothbrushes and facial cleansers.

Our initial R&D costs are high, but once we have recouped these, we want to pass the benefit on to our customers. Our distributors were nervous about us doing this, because they felt it would be bad for our brand image, but in fact it has gone down really well with our customers!

And then there is the fact that I do not pay myself dividends. Whilst this may not be widely known, I do think it is perhaps the best illustration of my commitment to sharing value. I have held off on setting up an employee shareholding scheme, however. I don't want to put the weight of responsibility for the company on their shoulders!

> **"WE ALSO ADDRESS VALUE-SHARING THROUGH OUR PRICING POLICY. WE WANT TO MAKE ZERO WASTE AVAILABLE TO ALL."**

I have also thought a lot about what will happen once I am no longer at the helm. Without an alternative plan in place, a company like Lamazuna would likely get bought up by a big corporation. I would not want all my hard work to end up benefitting L'Oréal! So I have decided that when I am ready to step back from the business, I will transfer all of my shares to Bio Perennis, an endowment fund. That way, Lamazuna will remain independent. And with Bio Perennis as sole shareholder, our model and commitments will live on!

BIO PERENNIS: A MULTI-SHAREHOLDER ENDOWMENT FUND

Bio Perennis is a shareholder foundation set up in 2017 by a group of entrepreneurs looking for a way to keep their companies safe from acquisition by major industrial groups. It holds shares in various companies in the organic sector. Entrepreneurs can gift shares to the fund, thereby protecting their companies' independence, longevity and values. The foundation also supports research and training on agroecology and ways to preserve biodiversity. To find out more: www.bio-perennis.fr (in French)

> **"A business is not like a sack of potatoes you can simply trade on a market."**
> **Bio Perennis**

FROM ANOTHER ANGLE

MARKETING IN THE "ENTERPOCENE" EPOCH

BY **JEAN-MAXENCE GRANIER**

Jean-Maxence Granier, linguist, semiotician and university arts professor, is an expert in marketing and qualitative research. He is also the founder of Think-Out, a research and consulting firm specializing in media and brand analysis. In this article, he talks about how redirecting sales and marketing practices is key to influencing both supply and demand.

Marketing's planned obsolescence

The Anthropocene has been defined as the epoch in which human activity has left an indelible mark on the planet's ecosystem, particularly as a result of climate change. But we could equally have named this period **the "Enterpocene", based on the role that enterprises and the brands they promote have played in this process** (Granier, 2020). Companies produce goods in response to consumer demand. This creates markets, organized according to a field of knowledge and specific practices that we call marketing. **Marketing can be defined as the techniques that we employ within a competitive environment to connect a product or service with its price, a communications campaign, a distribution channel and a customer segment**. Developing the right techniques requires an understanding of the brand's customers and prospects. To help us gain this understanding and get products and services ready for market, we rely on various design, marketing and communications processes, as well as qualitative and quantitative tools.

In our modern-day society built on the premise of ever more buying and selling – acts that some have qualified as addictive – it is easy to see marketing as a coercive weapon. This can lead us to question whether it will survive in a world of strong sustainability. **Has marketing in fact become obsolete?**

The tyranny of the present

Marketing **analyzes current consumer behaviour**, giving it an inherently short-term focus. It uses technology to gather data and get an overview of market segments and consumer experiences and purchasing habits. This objective approach has one major downfall: it ties marketers to the present and offers little insight into intentions and developments over the medium to long term. Sustainability plays out over an entirely different timeframe, requiring us to look 20 or even 30 years ahead. But this does not fit with how our markets are structured: sales change with the seasons and profit is calculated each year. Even though marketers take into account how their targets are represented, their main focus is still on what they are actually doing. This limits the scope of this approach. What's more, it does not **resolve the eternal dilemma of whether to react to changing consumer demand or modify supply in a bid to influence that demand**.

With every new opinion poll showing that French consumers are concerned about environmental issues comes the same refrain: "they might say that, but their actions tell a different story." This widespread attitude among marketers cements behavioural marketing. And in reality, that is neither supply-side marketing (it simply follows existing behaviour rather than creating new demand) nor demand-side marketing (it discounts demand that has yet to be acted upon).

Is marketing meaningless?

Marketing does not set out to achieve good or evil ends. It merely aims to be effective. It uses influencing techniques, particularly in communications, to nudge consumers in a certain direction. It plays on our desire to emulate and our compulsive nature. As such, marketing not only responds to our needs but also creates new and sometimes artificial ones. It draws on our passions and narcissistic tendencies, pulling strings we did not even know we had. Just look at how the tobacco industry managed to depict a highly addictive and harmful substance as the epitome of modernity, glamour, freedom and adulthood for an entire century. **Marketing is above all else a tool; one that can be used to sell anything**, from the most polluting to the greenest of products. The same techniques are used to promote electric vehicles one day and huge SUVs with catastrophic carbon footprints the next. **Marketing has, of course, also done wonders for organic produce, the circular economy and all things green. But this has been more about pushing sales than about getting consumers to reconsider what their purchasing represents**.

Marketing's ability to influence could, however, be used to further the cause of ecological and social transition. What would it take? Marketers turning away from mass consumption marketing (increasingly seen as a form of manipulation), listening to the growing number of consumers who refuse to be pigeonholed, and learning about purchasing habits by talking to people rather than "spying" on them. This is how we could **make marketing a driver of positive change in business and society**. We do not have to throw out the baby with the bathwater; we simply need to sit down together and define what needs to be done differently. Because **even in a post-growth era, we will still have markets and marketing techniques.** If we are to change how we produce and consume, and break free from the marketing conundrum, what we need is a new platform via which companies and consumers can communicate; we need "neo-marketing".

From consumers to citizens

One of the biggest challenges for marketing will be getting used to **seeing consumers in a different light – as citizens, first and foremost**. If we take the example of the agri-food sector, we see that, on the whole, producers adapt products in response to changes in either demand (e.g. using more natural, healthier ingredients) or regulations (as with Nutri-Score labelling in a number of European countries). They tend to assume that consumers do not care much about the issues inherent to the sector (agricultural inputs, pollution, etc.). In the post-growth world, however, **consumers play a more active role**. They are no longer merely economic agents. They become stakeholders with a key part to play, conscious of the economic, human, social, environmental and even philosophical consequences of what and how they buy.

This new way of thinking about consumers calls for new practices. The existing observation-reaction approach gives way to co-development. Rather than analyzing present behaviour, co-development is about **working together to shape new behaviours**. To this end, existing marketing research strategies, focused on observation and discovery, can be repurposed for **public consultations.** These consultations are a way for companies to hear what citizens have to say, not just test the water for their latest innovations. And so the paradigm shifts from responding to a (supposed) need to **encouraging greater participation**. A company that sells bottled water might have previously focused on packaging and product innovations (adjusting bottle size, cutting back on plastics, introducing new flavoured waters, etc.). Public consultations could lead to a deeper discussion with its customers. Perhaps on the importance of saving water, recycling, or even a bottle return scheme to replace single-use bottles altogether.

Social media offers another, more spontaneous, channel for engaging with customers. Companies can use social media to build **communities committed to a long-term relationship with the brand**. They can then invite these communities to get involved with co-developing new offerings and even new needs, based on a discussion of all aspects. The long-term nature of this approach has proven effective in developing what has been termed "**conversational marketing**" – an alternative to traditional observation and survey techniques alone.

Companies also need to **transition from a small-steps mindset to one more open to radical innovation**. In focusing on maximizing utility for their customers, companies can get caught up in perfecting details. In addition to offering limited added value, this can divert attention from the desire for more far-reaching change. All companies want to offer the best possible product or service, but they must not ignore other factors in order to deliver this. The social and environmental consequences of each purchase are every bit as important as the comfort, utility and enjoyment the customer will derive from it. **Considering these issues forces companies not only to respond to genuine needs, but also to make sure that their responses are compatible with a wider set of parameters and constraints (such as planetary boundaries and social foundations)**.

From purchase to meaningful action

Fair pricing policies have their part to play too. **We must move on from the traditions of discounting and other commercial practices that can be damaging in the long run**. Sales and Black Friday promotions concentrate attention on the trading exchange between buyer and seller, pushing aside the production context. If we want to broaden consumer focus, we need to **raise awareness about pricing and the "real cost" of production**. Doing so will help consumers understand the impact of their purchase across the entire value chain, as well as the product's "true cost" (see p. 110).

We also need to rethink the act of purchasing itself, whether in brick-and-mortar settings or online. **Consumers should be fully informed of the impact their purchase will have in terms of public health, sustainability and social justice**. This does not have to mean forgoing pleasure, individuality, hedonism and utility. It is a question of finding the right balance between what consumers need, what they can afford and what society and the environment require. This means thinking not only of ourselves, but also of nature, primary producers, society, etc. – something we tend not to do in transactional purchasing.

To conclude, marketing is neither a good nor a bad thing. But current marketing practices are centred on the short term and over-simplify our transactions. They involve a certain degree of manipulation and prioritize the means over the end. Redirecting these practices is essential to transforming both supply and demand. It is how we will **rid ourselves of greenwashing and go from influence marketing to "mission" marketing**. In competitive environments, external regulation will also be needed (whether from governments or citizen-consumers, unions, political parties, religious groups, etc.) to keep marketing on the straight and narrow.

AN ENTREPRENEUR'S TAKE

Wolfgang Heckel

Founder of Heckel Engineering

A qualified engineer, Wolfgang Heckel spent five years in industrial process automation before deciding to set up his own company. Heckel Engineering specializes in making and installing equipment for the timber industry. The financial crisis of 2009 and his discovery of the Economy for the Common Good model prompted him to rethink his entire belief system and how he managed his business. After thirty years of being "the boss", he tells us about this sea change.

A financial crisis that triggered an identity crisis

It took a financial crisis to get me questioning what I believed in as a business owner. Up until then, I had operated on pretty much the same principles as everyone else: to me, success meant growth and profit maximization. I thought that was how a market economy worked, that growth was the source of all prosperity and that in pursuing personal gain, we created value for the wider community.

The crisis of 2009 really put a spanner in the works for my business and got me questioning these beliefs. Our main client cancelled all their orders and revenue plummeted 80%. I had always prided myself on communicating transparently and honestly with my business partners, cultivating amicable relations. But when the crisis hit, the market economy showed itself to be ultimately every man for himself.

I lost a lot of sleep, knowing that I was not going to be able to keep all my employees on. But when I broached the subject with them, it turned out that many of them saw redundancy as an opportunity to try something new. I ended up having to let half my people go (10 employees) in order to get the business back on an even keel. But I found that going back to being a smaller company made things easier to manage, and even that slowing things down a bit was not such a bad thing! My priorities had changed. Building a close-knit team and providing job satisfaction for my employees became most important to me. I suggested we switch to a more sociocratic[1] governance model and this cemented team spirit further. My workload eased and I started to do more things outside of the office. I became more political, getting involved in local politics and supporting reform movements such as *Attac*, and this filtered through into my personal life too.

Economy for the Common Good: a revelation

It was through my new outside activities that I first I heard about the Economy for the Common Good (ECG). Developed by economist Christian Felber, ECG is an open-access tool that provides a model for managing and evaluating business. It is designed to help us align our economic activity with the needs of society and the natural world. Using the Common Good Matrix, public and private organizations can assess their contribution to the common good in a range of areas (human dignity, solidarity and social justice, environmental sustainability, and transparency and co-determination). ECG also encourages organizations to take all their stakeholders into account, both internal and

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1. Sociocracy is a horizontal governance model in which decisions are taken based on self-determination and consent.

external. These include local and state authorities, future generations, animals and the environment.

We assumed that Heckel Engineering would score quite well on the Common Good Matrix, but in fact it showed us that we still had room for improvement across the board! Based on what we had learned, we defined a *raison d'être* for the company and reviewed some of our processes. For example, we decided that we would no longer work with clients who did not reflect our values. This even involved dropping certain existing clients.

Two years later, I co-founded our local ECG chapter in Bavaria. I hope to introduce more companies to the ECG model and build a strong local movement. We can have a much greater impact if we act together rather than individually.

We have to find a way to work within ecological boundaries, in harmony with our natural environment. As humans, we are programmed to co-operate and help one another, but I have never felt that our socio-economic system reflects this. If we could build on this essential aspect of our nature, then our interactions would be less conflictual and more respectful, and our personal and social satisfaction would be greatly enhanced.

Sadly, Heckel Engineering has not survived. I now work as an independent consultant, which gives me rather more freedom. Although it does mean that instead of me being the boss of my employees, it is now my clients who are the boss of me!

> **"Companies have to position themselves politically in order to effect change in the economy."**

ECOSYSTEM AND CO-OPERATION

FROM ANOTHER ANGLE

REGENERATIVE BUSINESS MODELS AND CO-OPERATIVE ECOSYSTEMS

BY **CHRISTOPHE SEMPELS**

In this article, Christophe Sempels (for bio, see p. 20) explains how regenerative models rely on co-operation and why we need more of them.

Towards regeneration of socio-ecological ecosystems

Regenerative economics is a relatively new field of research. As a result, there is still debate about exactly what its frame of reference should be. The term covers both **ecological and social regeneration**. Ecological regeneration seeks not only to **restore degraded ecosystems**, but also to **develop their capacity to self-renew**. It does this by reactivating the ecological processes that human activity has degraded or over-exploited. This involves forging **new alliances with nature** and developing ecological design and engineering practices **specific to the local environment**. But regeneration can also be social, intellectual, experiential or cultural. In these spheres, it means improving social justice, enhancing our capacity to learn and adapt, boosting solidarity and social cohesion, and promoting prosocial values.

In a strong sustainability approach, **ecological, social and economic systems are not replaceable or interchangeable** – a strong social fabric or solid economy cannot make up for a degraded environment. **Each system complements and is dependent on the other two**. No society can prosper for long when its ecosystems are degraded. Likewise, no ecosystem can regenerate itself within a society that does not provide for its population's basic needs. With ecological and social systems so inherently intertwined and interdependent, the distinction between ecological regeneration and social regeneration is an artificial one. It is more helpful to talk about **regenerating socio-ecological systems**.

Regenerative business models: a utopian dream?

Unlike models focused on efficiency gains, where the aim is to reduce negative impacts (and potentially offset irreducible ones, so as to achieve net neutrality), **regenerative models actually produce a net positive impact**. The more the business sells, the stronger its positive externalities become.

Regenerative models broadly fall into two categories, according to the nature of the company in question. On the one hand, there are **companies whose activities directly involve the non-human living world** (such as agricultural and aquacultural operators, biobased materials businesses, etc.). On the other, there are **those whose activities do not** (such as foundries, hauliers or companies that make aluminium packaging). Each category will approach regeneration in a different way.

The first category can convert to more regenerative practices. For example, a farm can shift from traditional agriculture to agroecology or agroforestry. All of its ecosystems (soil, biodiversity, water, etc.) would gradually recover their original qualities and functions, with knock-on positive effects for farmworker and consumer health, produce quality, working conditions, local quality of life, etc.

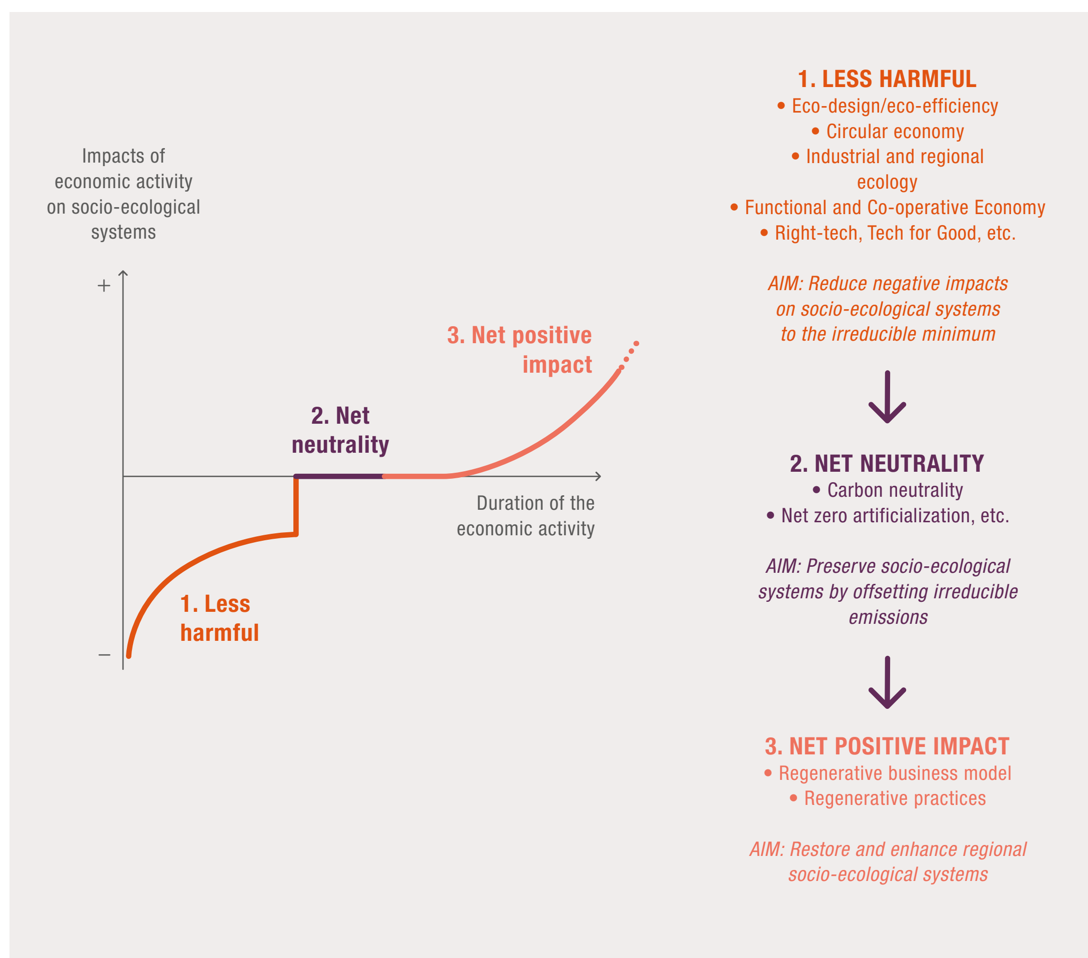
For the second category of companies, a regenerative model requires a different approach. Thinking about the living world may help them improve certain processes or aspects of what they do, but **they cannot usually make their business regenerative**. I gave the example above of a company that makes aluminium packaging.

A company such as this can reformulate its chemical strippers and coatings to make them less toxic, thereby improving workplace safety. It can install a phyto-purification system for its wastewater. It can plant a green roof to improve insulation and offer a relaxing space for employee regeneration. It can decide to use biobased materials wherever possible. But despite the resulting environmental and social efficiency gains, it will still not be regenerative.

The only way for such companies to neutralize their negative impacts and actually produce a positive effect on their ecosystems is to co-operate with others, aiming for regeneration over a combined, wider scope. To achieve this, they need not just new business models but a new way of connecting and collaborating with one another. As we will see in this article, this entails revisiting typical corporate interactions and even the very notion of value chains.

The value chain: an outdated concept?

A value chain is a way of organizing companies within each separate industry. Within the chain, business flows from upstream to downstream. Value chains have traditionally been **sequential and linear, starting with suppliers (upstream) and ending with clients (downstream)**. Generally speaking, each entity within the chain puts its own interests first, defending them as best it can. Its ability to do so depends on its size and available resources and the strength of its position within the chain. **As a result, the monetary value generated**



Source: Christophe Sempels (2021)

is not distributed fairly throughout the chain based on each company's added value. Instead, the lion's share ends up with those that wield the most power, in accordance with harsh market forces. This explains why so many companies, particularly smaller ones, feel that they are not getting fairly paid for their products or services, or struggle to monetize* the non-material value they bring (such as improved environmental quality, local production, a particular style, etc.).

What's more, **when each company is looking out for number one, this weighs on the whole chain.** It is as if every cell in the human body were to start fighting one another in an effort to get ahead instead of working together. This is in fact precisely what cancer cells do! Operating in this way generates more negative externalities. Take the industrial agri-food sector, for example, which puts immense pressure on farmers. But all of this changes when we switch to a business model integrating regenerative practices; the transition requires us to re-examine the existing balance of power as we move away from the traditional value chain set-up.

From value chain to co-operative ecosystem

Co-operative ecosystems form part of the Functional and Co-operative Economy (FCE) approach. The idea is that, in pivoting towards service-based solutions, companies develop new, more co-operative practices. This involves all of their stakeholders, but especially their business partners. Let's take the example of a company that sells heaters. Under an FCE model, our company might transition from selling heaters to providing a comprehensive and more energy-efficient thermal solution. The heaters themselves are no longer its sole concern: building insulation, hygrometry regulation[1] and ventilation all become equally important. It also needs to get a clear picture of its clients' behaviour and use habits; these things affect the temperature at which people feel comfortable and thus their energy consumption.

The above example is what we call an **integrated solution**. Due to the wider scope of such solutions, few companies can deliver them alone. They nearly always have to partner up with others to assemble the full range of expertise required. Sometimes, they may find partners within their own group, but they might also have to look further afield. The success of the endeavour and the associated efficiency gains hinge on how well the partners work together and share resources (especially information). This is what drives profitability in such arrangements. And so we shift from the pursuit of individual interests governed by the balance of power to the **pursuit of a single shared interest**. Each entity's efforts boost those of its partners; each entity's constraints become a shared problem, to which a shared solution needs to be found. At this point, the value chain has morphed into a co-operative ecosystem. Working as an ecosystem is all about **recognizing that creating added value for clients requires a team effort**.

This has far-reaching consequences for how value is distributed between partners, but also clients. As mentioned above, in traditional value chains, this is dictated by market forces and the resulting balance of power. Within a co-operative ecosystem, however, **the ecosystem's own governance framework will define how value is to be distributed**. This requires a transparent and co-operative process early on to establish how the entities within that ecosystem wish to measure and apportion value.

The role of co-operative ecosystems in sustainability

We have seen that reducing negative impacts requires new business models and, above all, new ways of working together. This need is even more evident when aiming for neutrality or, better still, regeneration of socio-ecological systems. Because **sustainability is not something a company can do alone**. I mentioned earlier in this report that carbon neutrality has to be considered on a global scale. This is just one example of why sustainability has to be a team effort. **For it to work, things need to change not only within the company, but for its wider environment too**. Consequently, part of implementing a regenerative model is getting the company's entire network thinking about how they relate to one another and to their socio-ecological system(s) (Hahn and Tampe, 2020).

1. Hygrometry measures the level of humidity in the air.

This does not allow for individual companies prioritizing their own needs and fencing themselves off from their environment. Those that do will struggle to apply the philosophy of regeneration.

The ideological foundation of regenerative business is **co-evolution: a company works together with its peers to transform the socio-ecological systems within which they operate, the aim being to make them viable and resilient. This requires adaptive management**, to ensure responsiveness to systemic change, upheavals, risks, stress and opportunities. It also requires a spirit of co-operation between entities and a shared governance framework. All things that feature prominently in co-operative ecosystems but that are notably absent from traditional value chains.

We can see how this works in practice through the example of Guayaki. Guayaki sells organic, fair-trade mate (an energizing drink with proven health benefits). It has developed a regenerative business model focused on reforestation of the Atlantic rainforest, some 95% of which was felled between 1900 and 2000. In the late 90s, Guayaki set itself several targets: create 1,000 jobs by 2020 and restore 200,000 acres of rainforest by 2020 and 2 million acres by 2030. It has exceeded both targets for 2020. Instead of clearing land for plantations, Guayaki works with indigenous communities to grow mate in the shade beneath the forest canopy. As well as preserving the mate's organoleptic qualities, this also makes the rainforest a source of income for those communities, reducing the appeal of logging. The company has helped more than 1,100 indigenous families buy land, thereby gaining financial independence. These families then become stewards of that land, ensuring its protection. Guayaki's agricultural protocol actively contributes to reforestation: a native tree is planted for every mate sapling. As well as saving the forest for future generations, this practice results in the capture of over 970,600 MT CO_2 each year. Guayaki champions co-operation, partnering with sugar cane producers, packaging manufacturers, hauliers, logistics companies, NGOs, research centres and certification bodies. It even works with US non-profits to offer jobs to the formerly incarcerated. Thanks to this co-operative ecosystem, Guayaki can pay its growers well above the market rate (it buys mate at between $1.8 and $3, as opposed to the industry average of $0.75), without sacrificing its own development. This impressive success has not distracted its CEO from his initial focus on regenerative business, however. At the company's 2019 general meeting, aware that unchecked growth was almost bound to generate increasingly problematic negative externalities, he raised the subject of whether pursuing further growth was still the right call.

All this may sound worlds away from how most of us currently do business. Nonetheless, it is what is needed if we are to aspire to what Kate Raworth (2017) refers to as the "safe and just space". This is the space in her doughnut above the social foundation (i.e. where everyone enjoys life's essentials) but beneath the environmental ceiling (i.e. within planetary boundaries). Regenerating resources is no easy task; it is only through a team effort (and regulations) that we can hope to get there.

PORTRAIT

FLEURS D'ICI / WETRADELOCAL

ENCOURAGING ECOSYSTEM-THINKING FOR SECTOR-WIDE CHANGE

INTERVIEW WITH **HORTENSE HARANG**
CO-FOUNDER OF FLEURS D'ICI AND WETRADELOCAL

Fleurs d'ici wants to save French flower farming and convert value chains to ecosystem-thinking. The French startup is now scaling up and branching out into new sectors. We explore its unique development model, which allows for short-term growth alongside the steady cultivation of resilient local networks.

Fleurs d'ici: the first step towards broader change

Fifty years ago, France had ten times as many flower farmers as it has today. Hortense Harang and Chloé Rossignol founded Fleurs d'ici in 2017 with the goal of reviving the sector. They saw how the rise of the global supply chain and the resulting boom in e-commerce and low-cost imports had hit the entire industry, not just growers. Inspired by the success of the Slow Flower Movement, they decided to start their own ethical flower business in France. Their digital platform, *WeTradeLocal.io*, brings together local growers, florists and delivery services.

FLEURS D'ICI
IN FIGURES

- > 2020 revenue: €6 million
- > 25 employees

"We developed an allocation algorithm, similar to the one Uber uses", explains Harang. "When a client places an order, the algorithm puts together a local value chain. For example, an order from a retirement home in Lyon will get passed on to a local artisan florist who can then order the seasonal flowers they need from a local grower via the platform. We even handle first- and last-mile logistics. We could have done all this without the algorithm, but it would have meant a massive Excel file and endless phone calls!"

This first foray into re-localization has proven highly successful. The traditional supply chain is inefficient, resulting in significant wastage. Fleur d'ici's model eliminates this wastage and the associated financial losses. "We realized that flower farmers had very little visibility as regards future sales and would end up having to throw away up to 50% of what they grew. On top of this, there was generally another 30% wastage at florists, and the resulting cost was being passed on to customers", says Harang. "We set up standing orders with our clients and, with the data we have gathered since we started business, we can now forecast demand. So there's less need to keep stock on hand and incur the inevitable wastage,

and our clients don't have to assume the associated cost. Everyone within our supply chain can focus on the added value they bring: farmers get to spend more time in their fields instead of distributing their flowers; florists don't have to worry about handling deliveries or the administrative side of things." Fleurs d'ici does not charge local businesses to sign up to its platform, instead taking a commission on their sales. It works on the basis of standing orders (80% B2B, 20% B2C), thereby offering its partners a steady income stream. Partners are not locked in for a minimum term and there are no barriers to entry or exclusivity clauses. This is a model that upends the traditional client-supplier power dynamics for a win-win set-up.

Fleurs d'ici is well on its way to succeeding in its mission to "save French flower farming". More and more farmers are looking to get into flower farming, drawn by the commercial opportunities in the sector. Flowers offer good productivity per square metre as compared to monocultures of grains or potatoes, for example, making conversion or polyculture an appealing option even for smaller farms. Flowers are good for soil and biodiversity too, although their impact in this respect has yet to be measured. Spurred on by their success, Harang and Rossignol are now looking to extend *WeTradeLocal.io* to other agricultural sectors.

Transforming value chains with ecosystem-thinking

The co-founders of Fleurs d'ici have decided to branch out into catering: a sector dominated by an industrial production system and subject to considerable constraints in terms of optimization and concentration. The traditional model is built around a central processing facility. The same ingredients come in and the same food goes out, over and over again. This is the exact opposite of local production, which by definition is spread out and non-standardized.

To get around this issue, Harang and Rossignol have found a way to harmonize production without a central processing facility. "We realized that the best approach was to use existing production facilities that are already established locally throughout France, namely artisanal producers", says Harang. "They are facing stiff competition from the pure players and are looking for new sources of business. Nobody thought of using them before because the big industrial operators want to be able to impose their own processing and standardization without paying more. Until recently, that made using artisanal producers impossible. But now that we have tech that can manage vast quantities of data, we can separate production from information. With the latest digital tools, we can produce the same product at multiple different sites, with real-time remote access to all the information we need for our quality and traceability processes. And because we have put together the whole value chain ourselves, we have great visibility over the entire process, from seed to vase or, in this case, farm to fork. The data we get from this allows us to optimize both economically and ecologically, limiting wastage and making improvements at all stages."

The WeTradeLocal team advises farmers, artisan producers and industrial operators on how to adjust their practices to fit with this new model, Harang explains. "With the Egalim Act,[1] catering buyers are going to have to make some changes. But because they have been following standardized practices for so long at this point, they don't know where to start. After decades of working with big industrial suppliers, clients can end up with all sorts of unnecessary technical requirements in their specifications. For example, the specifications might stipulate that yoghurts need to come in 85g pots. If a local producer only offers 80g or 90g pots, then they get rejected. We go over our clients' quality standards together point by point, working out what it is they really need. It is exactly the same as what we did with flowers. When we asked our clients why they felt they needed orchids, they said it was because they wanted an elegant floral piece for their lobby. So it turns out what they actually needed was elegant flowers, not necessarily orchids."

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1. The Egalim Act became French law in 2020. It includes a wide range of measures for mass catering, such as zero plastic, measures to address food wastage, requirements to offer more varied sources of protein, vegetarian options and more organic and local produce, and so on.

WeTradeLocal works hand-in-hand with farmers and artisans, helping them make changes one step at a time, taking into account their temporality and specific constraints. Some of them have had bad experiences with industrial groups in the past. Harang gives the example of a flower farm in Paimpol that had agreed to supply a group of German traders with 200,000 hydrangea flowerheads a year. "Their resilience took a hit, both ecologically – because they had to switch to monoculture – and economically. After a while, the client negotiated the price down, knowing full well that the grower had no choice but to accept: they would have had difficulty shifting such significant volumes of a single variety other than through a wholesaler."

Fleurs d'ici is not directly involved in the farming, processing or logistics. This allows it to act as a trusted third party, re-establishing a spirit of co-operation over competition.

Scaling up multi-local: mission impossible?

Harang and Rossignol's ultimate goal might seem somewhat paradoxical. They want to play in the big leagues with Amazon, becoming a major local trade partner, without compromising on their model of supporting progressive, resilient development. They needed to raise €5.5 million to get started, but the unusual nature of their goal meant that they were not an obvious fit for either venture capital or impact investment funds. "It was hard to find investors who were aligned with our development and impact goals", says Harang. "We found ourselves in this no-man's land somewhere between philanthropy and short-termist finance. Traditional VC funds expect exponential growth right out of the starting blocks. That just wasn't compatible with our desire to build a solid, long-term business. As for the impact investment world, it was still very much focused on local-scale projects and was unfamiliar with technological models. We had to seek out more 'patient' and tech-savvy investors. Funds whose own investors were on-board with a gentler but more secure and sustainable rate of return. This led us to 2050 and BNP Paribas Développement (a fund that invests BNP's own resources and does not therefore need a particularly short-term return)."

"IT WAS HARD TO FIND INVESTORS WHO WERE ALIGNED WITH OUR DEVELOPMENT AND IMPACT GOALS. WE FOUND OURSELVES IN THIS NO-MAN'S LAND SOMEWHERE BETWEEN PHILANTHROPY AND SHORT-TERMIST FINANCE."

Given that those in the flower sector – and indeed farmers and local artisans more generally – are suffering, Fleurs d'ici's goal of strong growth as soon as possible makes sense. "If we are going to save them, we have to find a way for them to make money", explains Harang. "So we have always pursued growth, with a view to bringing in revenue quickly. Revenue for us means revenue for them. In the end, our growth has been comparable to that of a more traditional startup, because we are satisfying a genuine need. Our clients come to us because they can't find what they are looking for elsewhere. There is a real market opportunity here, and we intend to seize it ethically, ensuring that our profits serve a purpose rather than representing a purpose in themselves."

For Harang, the crux of the problem is that traditional finance is incompatible with the new generation of "post-capitalist" companies. "How we share value is both part of the problem and the solution", she says. "In models like ours, we make sure that everyone gets paid fairly, based on the value of their work. This is the value that matters – not the value of capital. But not everyone in the business world is ready to hear that."

Opensource politics
l'expérience démocratique

PORTRAIT

OPEN SOURCE POLITICS

THE COMMON GOOD IN BUSINESS MODELS: CO-OPERATION OVER COMPETITION

INTERVIEW WITH **VALENTIN CHAPUT**
CO-FOUNDER OF OPEN SOURCE POLITICS AND MEMBER OF THE DECIDIM COMMUNITY

A civic-tech pioneer, Open Source Politics works with both public bodies and private organizations on citizen participation initiatives. Beyond the platform itself, Open Source Politics is a real-life example of what can be achieved with open-source tools and a business model founded on the commons.

A business model inspired by the "commons"

Open Source Politics is one of France's civic-tech pioneers. Civic tech strives to revitalize democracy using digital tools such as citizen participation platforms. While others battle it out for market share in this growth sector, Open Source Politics has held on to its position among the sector's leaders without compromising on its core ethical values. These values are grounded in the idea of the commons (see boxed text opposite).

Governments cannot tackle major issues such as climate change, biodiversity loss and depletion of fossil fuels alone. It will take a collective effort to build resilient societies. The concept of the commons can help us achieve this – especially since, as economist Gaël Giraud has pointed out, "the bulk of our problems are now shared" (Giraud, 2016). Based on polycentric resource management, this concept represents a way for companies to play their part.

Open Source Politics has taken a different path from many of its competitors. Instead of developing a proprietary platform, the company, as its name suggests, works exclusively with open-source programs.[1] This means programs that are available to all, without discrimination or copyright. It is a model that guarantees transparency

1. Open source is a concept that first emerged in IT circles in the late 1990s. The Open Source Initiative (OSI) provides the following definition: "Open-source software is made by many people and distributed under an OSD-compliant license which grants all the rights to use, study, change and share the software in modified and unmodified form." Its main principles are source code accessibility, free redistribution (no royalties or licence fees), non-discrimination, and non-restriction of other products, programs or technologies.

OPEN SOURCE POLITICS IN FIGURES

> 2020 revenue: €800K
> 25 employees
> 120 clients

DECIDIM IN FIGURES

> 250 platforms in operation
> 30 partner organizations

(public source code, traceable development history) and data protection. Open Source Politics does not sell licences, user data or even its own capital. Its business model is in fact similar to that of a consultancy firm: it sells technical services (configuration assistance) and related support. It tested various platforms in its early days, before opting in 2017 to use Decidim – a platform designed as a commons.

Decidim: a digital commons

Decidim's roots go back to 2011 and the anti-austerity 15-M movement in Spain. This is where the first prototypes for participatory democracy tools came from. When citizens' coalitions won local elections in a number of Spanish cities in 2016, they joined forces to develop a shared platform. After several test runs, the Barcelona authorities launched the Decidim project, based on the "digital commons" model. This model comprises three pillars: (i) the platform itself (the resource), (ii) a community with wide-ranging interests (non-profits, researchers, citizens, companies, local authorities, etc.), and (iii) governance rules setting out how the community should manage the resource.

The Barcelona authorities remained in charge of the Decidim project for the first few years. But then in 2019, they set up an independent non-profit association as part of a move towards a more collective process. This has ensured the platform's longevity. Some thirty organizations (including ten companies) now finance developments, and around fifty developers are involved. The community has expanded to encompass citizens as well as both public and private stakeholders. Their different interests, coupled with their technical and financial contributions, have secured the project's future. Open Source Politics is an active member of this community. It has been involved in around one third of the platform's deployments, working with a range of public and private institutions worldwide, including the European Commission (which used Decidim as part of its Conference on the Future of Europe). Each time the program is adapted for a new client, the improvements are shared with the entire community.

THE "COMMONS"

The concept of the "commons" derives from that of *res communis* in Roman law (i.e. something that belongs to everyone – as opposed to *res nullius*, something that belongs to no-one). More recently, it has become better known since 2009, when economist Elinor Ostrom was awarded the Nobel Prize in Economics for her work on the subject. Ostrom revisited established notions of ownership, based on the idea of non-excludable and rivalrous "common goods" – one of the types of goods defined by Samuelson (1954). The ecologist Garrett Hardin (1968) saw a problem with this common ownership, however. He believed that the economic strategy of rational beings meant that unrestricted access to resources would inevitably lead to their overuse and depletion. He termed this the "tragedy of the commons".

Ostrom defines the commons as coherent, integrated systems made up of a resource, a community and a set of organizational rules based on a shared goal and a single structure. All sorts of things can be commons. The term crops up in relation to land and materials (forests, fossil fuels, etc.) and information (knowledge, software, etc.), but also culture, health, neighbourhoods, infrastructure, and so on. A commons is ultimately defined more by how it is managed than by what it is. This is what differentiates the commons from public goods; a commons is effectively a public good that requires some form of action to maintain its quality and that gets stakeholders involved alongside public authorities and financial/non-financial contributors as co-designers, co-producers and co-managers (Leyronas and Bambridge, 2018).

"Anyone can take Decidim and adapt it, proposing changes via our collaborative platform", explains Chaput. "Once posted, all proposals are then filtered before potentially being integrated into the program. Once we have made the updates, the community tests them out and we then make them available to everyone as part of the next version. This is how Decidim evolves over time: transparently and democratically, thanks to our community. With each

update, we explain what has changed, who was involved, what the context was, who financed it, and so on."

From competition to collaboration

All sorts of companies, including a number of other civic-tech operators, are now specializing in the Decidim platform. It is no longer just the tech companies that were involved in its initial development. "Instead of viewing these other civic-tech companies as our competitors, we have always seen their involvement as a positive thing", says Chaput.

Civic tech has been booming in recent years, thanks to renewed demand from private operators. For Chaput, this influx of new operators represents an opportunity to make the platform more competitive and to place the Decidim community as a whole on a firmer footing in the face of competition from proprietary platforms. The latter operate according to more traditional digital economy models. With such models, says Chaput, "it's a race to raise funds (typically between 2 and 10 million euros). The first to get there – the winner, so to speak – takes all, dominating the market. This can encourage all sorts of negative behaviours, as we have seen with social networks."

Opting to collaborate with the competition has in fact been good for commercial development: Open Source Politics has a number of subcontracting arrangements with other companies in the community. "This creates a virtuous, self-balancing ecosystem, where no one person triumphs over another", explains Chaput.

The fact that the Decidim software is open-source is a unique selling point for Open Source Politics. Clients can continue to use the platform even if, for any reason, they can no longer work with Open Source Politics. They can simply appoint another operator to take over on support services. Given that the set-up costs can be relatively high, this is a significant advantage.

"INSTEAD OF VIEWING OTHER CIVIC-TECH COMPANIES AS OUR COMPETITORS, WE HAVE ALWAYS SEEN THEIR INVOLVEMENT AS A POSITIVE THING."

Open source and the commons: the way forward?

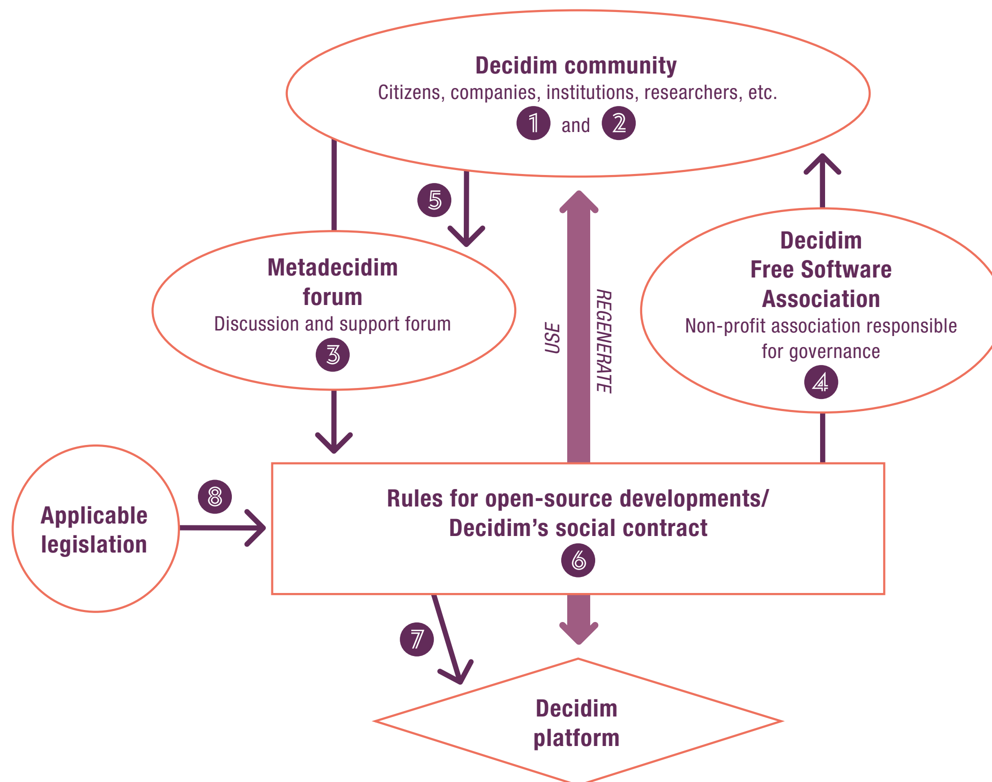
Open source certainly seems to offer a virtuous model, but there is one potential pitfall: the risk of free-riders. Certain parties could simply take advantage of others' contributions to the platform's development without contributing themselves. Open Source Politics acknowledges this risk; by definition, open source means that the platform is available to all. But Chaput considers the risk to be nonetheless relatively limited, given that digital tools are always evolving. "Any free-riders will soon be outpaced by those who are genuinely contributing and who will gain in visibility, know-how and relevance as a result", he explains.

The Decidim community has also come up with a set of rules designed to guard against misuse. Under these rules – termed a "social contract" – parties that do not respect Decidim's ethics will be blacklisted within the community. The contract represents an ethical commitment more than anything else. "We drew up the social contract to protect the community's shared interests. The model that emerged reflects once again this idea of common goods, as opposed to purely public or private goods", explains Chaput.

The co-founder of Open Source Politics sees a wide range of applications for the commons model, extending well beyond the digital sector. But he specifies that it only works when the three stakeholder groups (public, private and citizen stakeholders) are aligned and there is a political will for change. "Even the best entrepreneurs can't make a project work without some sort of funding. Citizens can't make an idea reality without political support or solvent operators to help them. And nothing can happen without engagement from public stakeholders. We really need this alignment, and it has to be collective, in the best sense of the term. It is about making a societal choice."

TO FIND OUT MORE:
www.decidim.org

THE PRINCIPLES OF THE COMMONS AS APPLIED TO DECIDIM



EIGHT PRINCIPLES FOR GOVERNING A COMMONS (OSTROM, 1990)

① **Clearly-defined object for the community and its members**: the community revolves around Decidim, an open-source platform for participatory democracy. Individuals and organizations alike can contribute to the community as administrators (organizing consultations) or users (taking part in consultations).

② **Multiple layers of nested units (local, national, international)**: the Decidim community began in Barcelona but has now spread much further afield. Various configurations are possible at different levels within this community.

③ **Users involved in updating the rules**: users can suggest improvements to the platform or its rules through the metadecidim forum.

④ **Monitoring by a supervisory body accountable to users**: in February 2019, the community set up the Decidim Free Software Association. The Association can temporarily or permanently ban members that do not respect the community's values. Minutes from all of the Association's meetings are available online.

⑤ **Easy-to-access conflict resolution mechanisms**: when there is a problem, members can seek help via the metadecidim forum or take part in one of the assemblies organized by the community. If need be, the Decidim Free Software Association may also get involved.

⑥ **Graduated rules imposing sanctions for violations**: the Decidim community has drafted a "social contract" setting out the rules for using and making changes to the platform.

⑦ **Congruence between the resource and the rules**: the "social contract" was prepared by the community and is regularly updated. It covers matters that are important to the community and relevant to the Decidim platform. These include transparency, traceability, integrity, equal treatment of proposals for improvements, etc.

⑧ **Governmental authorities recognize its right to self-govern**: Decidim is covered by the AGPL licence. With this free licence, anyone can modify the platform's source code provided they publish their modifications under the same licence. The aim is to keep a record of all modifications so that users and future developers can select the version best suited to their purposes.

WHAT THE EXPERTS SAY

"Ecological redirection: learning to give up the unsustainable"

INTERVIEW WITH **DIEGO LANDIVAR** – ORIGENS MEDIA LAB

Diego Landivar holds a PhD in development economics and is a research lecturer at ESC Clermont Business School. He is also co-founder and Director of Origens Media Lab, an inter-disciplinary research centre set up to study the Anthropocene epoch. The Origens Media Lab team is working on what they call "closure engineering". Essentially, the concept involves developing protocols for giving up unsustainable activities, as well as new business models to help organizations with their "ecological redirection".

Where did this idea of ecological redirection come from?

For several years, Alexandre Monnin, Emmanuel Bonnet and I had been looking at ecology through the lens of reconnecting with nature and the living world ("connectionist ecology", if you will). But we now advocate a de-connectionist approach, directly focused on the "technosphere".

Geologists use the term technosphere to refer to everything man-made: infrastructure, utilities networks, concrete and steel constructions, etc. The technosphere is already five times the size of the biosphere. Dismantling it has become an ecological imperative, but it will not be an easy task. In addition to the technical complexity involved, it will be extremely costly. Energy transition activists have already broached the subject but, for us, energy transition alone is no longer enough. We need to go further if we are to effect meaningful change. We must bring the technosphere back down to earth,[1] realigning it with planetary boundaries.

And this is where **ecological redirection** comes in. The term is based on the work of Australian design theorist Tony Fry. The basic principle underpinning this idea of ecological redirection is that sustainable development, CSR and transition have all become obsolete concepts. They no longer cut it in light of the latest scientific data and the severity of our climate and ecological plight. Designed during the Holocene epoch[2] as a way to keep the situation from spiralling out of control, these concepts are based on the assumption that the ecological crisis is just that: a crisis. Something we can recover from with some clever engineering and adaptation.

Redirection requires us to ask what our economic and organizational systems are meant to do. This means accepting that some things will have to go, that we will have to make tough choices if we are to align our projects with planetary boundaries.

It is about turning decision-making and closing into art forms. **Rather than trying to design a new, more environmentally compatible future, the most pressing need to our minds is casting off the most damaging aspects of how we currently live our lives. We develop rational and democratic protocols to help us do this.**

1. To use Bruno Latour's expression from his book, *Down to Earth: Politics in the New Climatic Regime* (2018).

2. The Holocene and the Anthropocene are geological epochs. The Holocene began around 10,000 years ago with the end of the last glacial period. Many researchers posit that the Industrial Revolution ushered in a new geological epoch: the Anthropocene (the name deriving from the Greek for human being: *anthropo*). For them, humankind has become the main cause of geological and climate-related changes in this epoch – changes responsible, in particular, for the mass extinction of living organisms.

Origens is working with a number of public and private organizations on closure engineering. How open are they to the idea of giving up their old ways?

It is still early days. A lot of people see how their companies might be part of the problem and are squarely in favour of ecological redirection. But our current managerial, organizational and strategic approaches rarely give space to alternative world visions. As part of our survey of CEOs grappling with ecological breakdown, the VP of a major French corporation told us that he felt the only way forward was to ration the resources available to industry. He suggested State-managed oil quotas as one possibility. So you see, there are people who have explored alternatives, but they are still hugely outnumbered on company boards.

To help them make their voices heard, we have developed a whole new lexical and syntactical system that we hope will catch on in the business world. Entrepreneurs love a new term or concept. Just look at how often they talk about disruption, resilience and so on. There is a new buzzword every few months. What we need is not more empty buzzwords, but a coherent, well-thought-out way of talking about new ideas. And so we started coming up with these new terms, new grammatical structures. This, for us, is how we will train the spotlight on the issues surrounding the Anthropocene epoch. IPCC researchers have been trying to do this for the past 20 years, but their scientific approach is not getting through to people. We, on the other hand, use terms like de-innovation, dislocation, de-instatement, de-scaling and closure engineering. **Concepts such as sustainable development and ecological transition have had little effect on dominant thinking, so we are giving radically different language a go.**

Covid forced companies to accept that they were going to have to give certain things up. We are at a critical juncture in terms of both public health and the environment; business as usual is no longer an option. It is becoming clear to business leaders that oil, metals and other natural resources will eventually run out. They have come to see that neglecting to put redirection policies in place before that happens could jeopardize their very existence. **Early adopters of redirectionist policies will reap the greatest benefits from them!**

Redirection or redeployment is not about closing one activity to start up another or tearing things down to spark innovation, as with creative destruction. Nor is our aim to support neo-liberal closures on obscure competitivity grounds. No, it is about stepping back from ecologically unsound activities and providing appropriate support and alternative livelihoods for the people who depend on them. **Because this is where the real tension lies: with the thousands of people who make a living from activities or technologies that are incompatible with planetary boundaries and will inevitably have to be phased out.**

Can you tell us how you go about creating your protocols for giving these things up?

First, we map the dependence and attachments associated with what we call these "zombie technologies", i.e. technologies that are dead in the water from an ecological standpoint but from which people still make a living. These include smartphones, blockchain technology and private pools, for example. **So the first step when preparing such a protocol is to look at how people depend on these things, what their attachments to them are. This can encompass working practices, economic dependence, cultural attachments, etc.**

For example, we are working with the public authorities in a region that faces critical water scarcity. They have asked us to develop a protocol to encourage the local population to give up their private pools. First, we mapped all the economic, technical and logistical forms of dependence on this sector. Then we analyzed whether it was the pools themselves that people were

attached to or rather what they offered, i.e. the ability to go for a swim or take a refreshing dip. Mapping attachment points us in the right direction when considering our options for redeployment, by drawing our attention to the activity's attributes rather than its inherent technical features. In this case, our mapping served as a way to explain that replacing existing pools with greener models was not the way forward (this would not resolve the associated climate issues). It showed that, instead, we had to find other ways for people to swim, cool off and be around water. And so the exercise became about coming up with alternative activities and forms of appropriation and governance – and accepting that private pools had to go.

We performed the same exercise for a client looking for a protocol for stepping back from factory automation. We are helping them develop strategies to redirect projects that are already in motion despite the lack of any form of strategic, technical, ecological or social rationale or stability.

Ecological redirection calls for dismantling vast swathes of the economy. To do this, we need indicators, metrics and accounting methods for closures. Not to make sure we maintain capitals at all costs, but to help us adapt our structures to planetary boundaries!

Learning how to step back

"The Renunciation Fresco" is the name given to a hands-on workshop developed by Diego Landivar, Victor Ecrement and Origens Media Lab. The aim is to get groups brainstorming on the activities they might need to give up in order to respect planetary boundaries. Participants describe an activity from many different angles, highlighting the complex nature of the process. They then come up with proposals for either closing or redeploying the activity. In April 2021, the team made this methodology available as an open-source tool.

To find out more:
www.lafresquedurenoncement.xyz (in French)

Do you think closure engineering will take off over the next few years? Does it represent the future for our economy?

Absolutely. Closure engineering is going to become huge in the next few years, as more and more things collapse under the pressure of limited funding and materials and exorbitant maintenance costs. Take the example of the oil industry in Alberta. Micro-wells are already sitting idle, less than ten years after they were built. Their operators don't know what to do with them. There is a whole industry to be created around dismantling and clean-up operations. Ruin represents a significant economic opportunity!

We also need to accept that we will never be able to entirely reconcile ecological and economic imperatives. One of the CEOs we surveyed – the head of a major investment fund – told me that financial optimization for him now meant, first and foremost, de-growth. He explained that, in the event of a total systemic collapse brought on by our failure to adapt business to the Anthropocene epoch, we stand to lose much more than with a more controlled, planned "de-profitability" approach. He even estimated that losses could be as much as a thousand times higher.

Closure engineering generates new jobs that require new skills. Our "Strategy and Design for the Anthropocene" Masters is designed specifically to develop these skills. Taking the Anthropocene epoch as their starting point, students learn how to apply the principles of ecological redirection. Our decision to focus the course on this new approach reflects our position that green growth (i.e. without resource depletion), sustainable development and CSR (i.e. offsetting) are all now obsolete concepts.

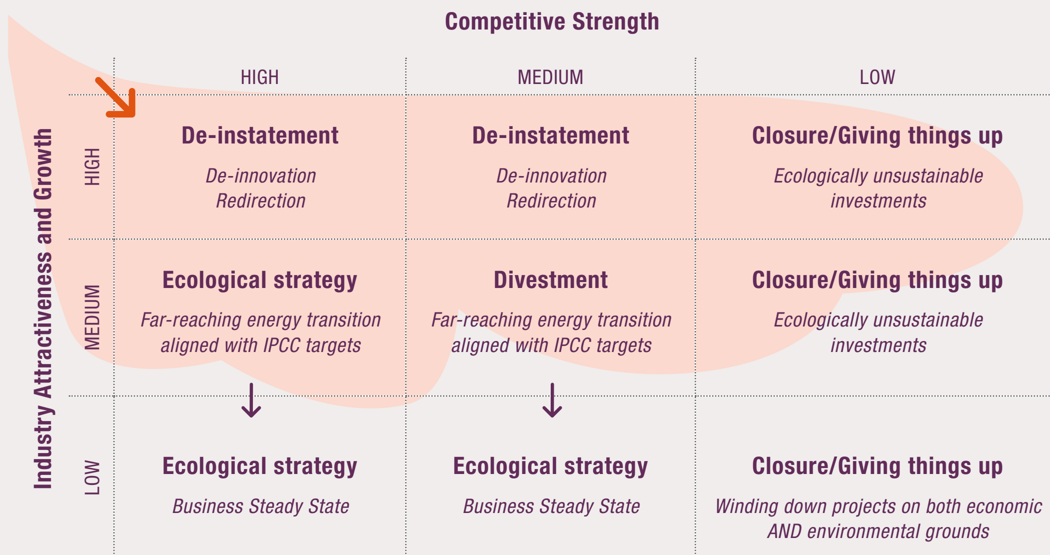
What does a company compatible with a non-obsolete future vision look like, to your mind? What sort of business model does it have?

There are plenty of ecological natives out there. By that I mean companies that set up their business

models to be compatible with planetary boundaries from the get-go. The bigger challenge is converting those that have been operating on the basis of an incompatible model – that is much harder to do!

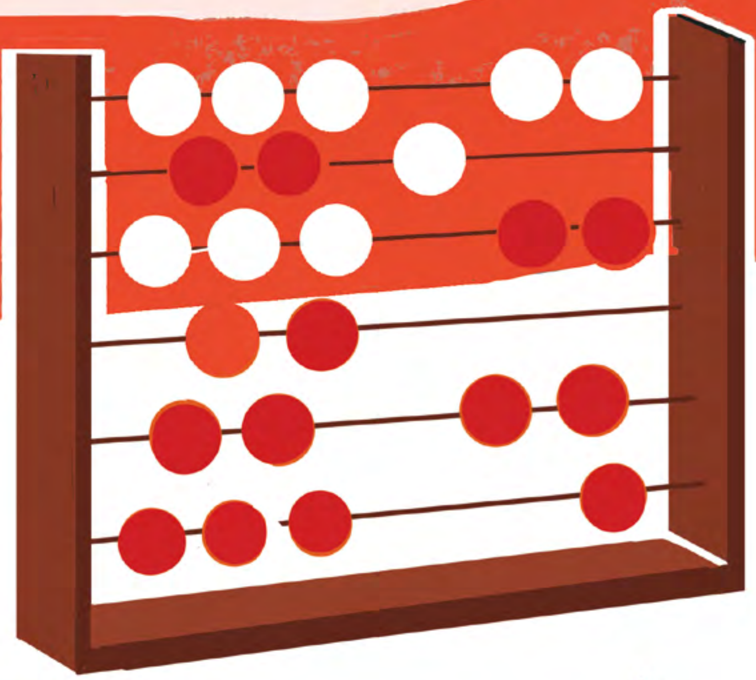
We have chosen to take up this challenge using the GE-McKinsey Matrix, revisited *à la* Origens Media Lab. In its standard form, this well-known strategy tool maintains that a company needs to have a competitive position within a growth industry. Anthropocene business models need to shed this logic, eschewing market dominance, large-scale operations and the associated reliance on global supply chains. If a company is buying in things that are produced halfway round the world, its model can never be compatible with planetary boundaries. Breaking free from the global supply chain is basically a way of breaking free from the entire growth paradigm!

THE GE-MCKINSEY MATRIX AS REVISITED BY ORIGENS MEDIA LAB



Industry Attractiveness and Growth \ Competitive Strength	HIGH	MEDIUM	LOW
HIGH	**De-instatement** *De-innovation* *Redirection*	**De-instatement** *De-innovation* *Redirection*	**Closure/Giving things up** *Ecologically unsustainable investments*
MEDIUM	**Ecological strategy** *Far-reaching energy transition aligned with IPCC targets* ↓	**Divestment** *Far-reaching energy transition aligned with IPCC targets* ↓	**Closure/Giving things up** *Ecologically unsustainable investments*
LOW	**Ecological strategy** *Business Steady State*	**Ecological strategy** *Business Steady State*	**Closure/Giving things up** *Winding down projects on both economic AND environmental grounds*

ASSESSMENT AND ACCOUNTING



03

MEASURING WHAT REALLY COUNTS

What is the use of rethinking how we create and share value if our accounting tools focus solely on financial performance and fail to reflect our endeavours?

We must waste no time in crafting new "accounting languages" capable of putting non-financial aspects at the heart of our business models. Some companies are already trialling alternative accounting methods (A).

But we must also look beyond accounting methods to consider other factors: IT systems, management control processes and the assignments we define for accounting professionals. How far are we really willing to go in integrating non-financial considerations into how we assess performance? This question has been the cause of much debate within and between standard setters, all of whom are keen to impose their own vision for the future of business (B).

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NEW ACCOUNTING LANGUAGES

FROM ANOTHER ANGLE

THE LIMITS OF FINANCIAL ACCOUNTING AND THE CASE FOR SUSTAINABILITY ACCOUNTING

BY **NICOLAS ANTHEAUME**

Nicolas Antheaume is a professor in management sciences at the IAE Nantes School of Management and an associate professor within Audencia's Integrated Multi-Capital Performance Research Centre. He has been working with engineering science researchers on sustainability accounting for over twenty years. In this article, he explains why traditional accounting tools, techniques and standards are not up to the task of tackling modern-day societal and environmental challenges.

A potted history of accounting

Accounting has become a universal language. We use it to work out and show a company's situation and to ensure accountability. **If we look back at its history, we see that accounting techniques have in fact often evolved to facilitate societal developments.** Even before coins or the written word, before we had the techniques we now have for counting and calculating, we had a primitive accounting tool. Clay tablets or pebbles were used to identify, count and assign a value to objects (Ezzamel and Hoskin, 2002). This allowed us to develop agriculture and the social structures that came with it. Accounting likewise played a role in a number of other key societal transformations: the emergence of monastic orders and the development of trade credit in Europe, maritime expeditions and colonization, the separation of corporate ownership from management, the introduction of corporation tax, economic globalization, etc.

Over the years, accounting has also reflected and corroborated how human society thinks about the economy and natural resources. Before the Industrial Revolution, agriculture represented our only economic activity. This made measuring agricultural yields crucial; the physiocratic economists of the time saw land as the only resource capable of generating renewable wealth (Giraudeau, 2017). The Industrial Revolution changed all of this. Whereas our output had previously been dictated by how much we and our beasts of burden could work, or by the elements (wind and water), new sources of energy freed us from these limits. Around the same time, economic science was likewise dispensing with nature's restrictions. In 1829, French economist Jean-Baptiste Say wrote that "natural resources are infinite; if they weren't, we would not obtain them freely. Since they can be neither multiplied nor exhausted, they cannot be the object of economic sciences." Based on this thinking, the only value assigned to natural resources in post-Industrial Revolution accounting was that of the cost and work involved in extracting them.

From the second half of the 20th century, the rise of global trade and direct investment began to eclipse the effects of the Industrial Revolution. Major corporations run by professional managers became the norm. This separation of managers from owners gave rise to potential for conflicts of interest (Jensen and Meckling, 1976). As a result, the idea that managers should be accountable to their employers, i.e. the business's investors, took hold (Friedman, 1970). Accounting was a way to even up the information imbalance between managers and investors, giving the latter the knowledge needed to assess a company's revenue potential. **International accounting standards were therefore designed first and foremost with investors in mind** (Burlaud, 2019). This shifted the emphasis of accounting:

it now focuses on what a company "has", i.e. the resources it can use to generate future revenue. As a result, we record not only the extraction cost for a company's natural resources but also their market value. International financial reporting standards offer various methods for calculating such value.[1]

Should financial aspects still be front and centre?

Historically rooted as it is in finance, traditional accounting is a poor guide on sustainability. At best, it shows the financial consequences of certain obligations, but it suffers from several major limitations:

First, accounting as we know it looks only at financial information, or information that could have a financial impact. The emphasis is still on accountability towards company owners; impacts on ecosystems or other parties are not taken into account. Moreover, financial accounting is performed for each company individually. As such, it offers no insight into a product or service's life cycle from materials extraction through to end-of-life. It gives corporate decision-makers nothing to go on as regards the economic, ecological or social impact their decisions will have on suppliers, clients or society as a whole.

Second, although the law requires companies to record environmental expenses, clean-up costs and provisions for remedial work or future obligations, such figures give no indication of what they are doing to ensure they stay within planetary boundaries. The law does not currently address the issue of fossil fuel depletion, for example; companies are not legally required to invest in renewable energies, let alone slash energy consumption or pursue adaptation strategies. It is not the job of accounting professionals to correct this, going beyond what the law requires of them.

And lastly, the amount a company spends is entirely unrelated to how effective it is in reducing its impacts. Imagine, for example, two production sites belonging to two equivalent competitors (same size, industry sector, sales, operating expenses, etc.) in two different countries. Both sites stand on the banks of a river – a biodiverse watercourse home to rare and fragile ecosystems for the first; a highly polluted watercourse for the second. Both companies spend the same amount on protecting their environments, but the money goes further for the first company, due to lower labour costs in its country. As a result, it is able to build a water treatment plant twice the size of that of its competitor. This first company can therefore treat a higher percentage of its effluent for the same cost. Yet its effluent still has a much greater environmental impact than that of the second company. This is due to the fragile nature of its environment (as compared to the already polluted river into which the second company discharges its effluent). There is no correlation between the sums the companies devote to environmental protection and their outcomes in terms of reducing impacts and remaining within planetary boundaries. If we want to compare their outcomes on effluent, we must look at the physical data. This involves assessing each company's facilities and geographic surroundings, as well as the type and volume of effluent produced. None of which can be done with financial accounting.

Discussions are ongoing in certain circles as to how accounting standards could be adjusted to integrate non-financial data, among other things, but standard setters are so far proving resistant to change (Audencia's Integrated Multi-Capital Performance Research Centre, 2020). Today's financial accounting is still largely governed by the standards introduced in response to emerging globalization and direct investment. The concepts of externalities and polluter-pays have been added, but could be taken further. As environmental resources become scarcer, their value to a company goes up. But that increase in value bears no relation to how critical the resource in question is to compliance with planetary boundaries. Say a company owns a virgin forest and decides to protect it. With financial accounting, this decision will actually reduce the value of that forest in the company's books, since protecting it means the company can no longer exploit it for profit.

1. For example, IAS 41 on agriculture or IFRS 6 on exploration for and evaluation of mineral resources, but also the principles set out under IFRS 13 on fair value measurements or IFRIC 3 on emission rights.

It is clear, therefore, that financial accounting alone is not up to the task of measuring the overall value a company either creates or destroys. Since the 1970s, various alternative accounting models have been proposed to address this. If these new models are to gain widespread recognition, however, they need to serve the same purpose as the clay tablets mentioned at the beginning of this article: they need to form the basis of a new type of accounting. One that will show companies how they can contribute to respecting social foundations and planetary boundaries. Sustainability accounting should therefore help us build a fairer and more sustainable society as a whole.

Combining legal and accounting developments for more radical change

History has shown how important accounting techniques have been in major societal changes over the years. We now need to harness their transformative powers once more. To enhance the effects of doing so, we should couple this with meaningful change in the law. The European Green Deal adopts this approach. It includes strategies for biodiversity and food systems (farm to fork), as well as circular economy, zero pollution and climate action plans. This is of course on top of the targets and deadlines imposed under existing legislation on water, air and chemicals.

Provided these initiatives do not get watered down, they can serve as a framework for new accounting standards. Such standards should both equip companies to meet the targets imposed and measure the extent to which they succeed in doing so. With new forms of accounting, companies could review the ramifications of the choices before them, and decide accordingly. They could actively choose to contribute towards respecting social foundations and planetary boundaries – the pillars of a safe and just economy. We need accounting to work out and show a company's situation and to ensure accountability. Without it, we have little way of knowing whether a company has complied with its legal obligations and upheld its associated quantifiable commitments. And we need these legal obligations too. Without them, sustainability accounting will never become mainstream.

FROM ANOTHER ANGLE

WHAT DO MULTI-CAPITAL ACCOUNTING MODELS TELL US?

BY **SOUÂD TAÏBI**

Souâd Taïbi is an Assistant Professor in Audencia's Finance Department. She has also written a thesis on operationalizing the concept of strong sustainability in multi-capital accounting. In this article, she reviews the main differences between the various models currently available and outlines their limits.

Two contrasting approaches to accounting for environmental impacts

Some companies pay scant heed to the environmental impact of what they do. For them, compliance with the strict minimum regulatory requirements is already a burden. Others, however, have actively developed methods to measure and report on their environmental impacts. The approaches of this second group broadly fall into one of two categories (Schaltegger et al., 1996):

- The more conservative option is the **outside-in approach**. This entails looking at how outside pressures affect the company. These can include environmental risks or regulatory pressure, for example. The TCFD (Task Force on Climate-Related Financial Disclosures) subscribes to this approach, encouraging companies to assess, mitigate and report on their financial risks related to climate change.
- An **inside-out approach** does the opposite, looking at how the company's activities affect the environment. In most cases, this means internalizing externalities, based on the "polluter-pays" principle.[1]

How we define externalities is key in inside-out approaches. In defining them as the negative consequences of one party's business activity that affect other parties but are not reflected in financial terms, we influence and restrict how they are quantified. As a result, save for a few rare exceptions, **inside-out models bring all of the varied and complex facets of our world back to a financial equation**. The first inside-out models emerged in the late 1990s but many more have since followed.[2] New regulatory requirements for non-financial reporting coupled with a general awakening to looming environmental challenges (especially climate challenges) have spurred many to action. Most of the new reporting models have been developed and tested by major corporations and their financial consultants. They have therefore been designed both *for* business and *by* business. Only more recently have developments started to emerge from academic circles.

While new tools continue to appear, there has been a concerted push since late 2020 for a single model to standardize reporting. The Transparent Project, funded by the European Union and headed up by the Value Balancing Alliance, is part of this push. A group of multinational companies, the Value Balancing Alliance hopes to standardize non-financial reporting using a method that translates environmental and social impacts into financial data based on the associated value creation or destruction.

Most existing multi-capital accounting tools are based on an inside-out approach. They can be grouped into three main branches (see chart, p. 108):

1. The "polluter-pays" principle is a legal and economic principle enshrined in French law under Section L. 110-1 of the French Environment Code, which stipulates that: "The polluter shall bear the costs of all pollution prevention, reduction and control measures".

2. The first report from Audencia's Integrated Multi-Capital Performance Research Centre (2020) identifies some thirty such models.

- **The Full Cost Accounting branch** accounts for environmental externalities. These are generally negative and will reduce a company's global performance in these models. A typical example of this is Kering's Environmental Profit & Loss (EP&L) Statements.
- **The Sustainability Assessment Models branch** aims not only to report on negative environmental externalities but also to highlight positive impacts, both economic (value-sharing) and social (training, health insurance, etc.). This is the thinking behind KPMG's True Value tool.
- **The third and most recent branch to emerge is the Integrated Accounting branch.** Integrated accounting incorporates nature and society directly into a company's balance sheet and income statement. New expense, depreciation and debt lines are included to record negative effects, alongside new revenue lines for positive effects. The figures represent the monetary value assigned to the company's impacts on people and the environment or the sums devoted to addressing those impacts. A 2020 Capitals Coalition report ("Improving Nature's Visibility in Financial Accounting") reviews four methods at varying stages of maturity within this branch. Another example is the Harvard Business School's Impact-Weighted Accounts.

A multitude of ways to translate impacts into figures

Multi-capital tools encompassing environmental aspects are generally presented as sustainable development tools. But do they all really guide companies towards more sustainable practices? To answer this question, we need to break down how they work and delve more deeply into how a company's impacts are calculated in each case.

Broadly speaking, a multi-capital accounting tool is a way to show the environmental, social and economic consequences of a company's business in physical or monetary terms.

All such tools involve a four-step process:

1 Defining the scope in the first stage determines the breadth and goals of the assessment. These may be:

- Assessing a project: the construction of a new offshore platform for BP, for example (Baxter et al., 2004). BP trialled a new method for measuring the "negative" environmental impacts and "positive" social impacts of oil drilling.
- Assessing a business activity: the impacts of tourism in Cyprus for tour operator TUI (PwC and The Travel Foundation, 2015).
- Assessing a business's full operational scope: Fermes d'Avenir's trial of the CARE method in 2017 as a way of promoting agroecology.

- Assessing an entire supply chain: Kering's EP&L statements, designed to improve risk identification and guide strategies to reduce the associated environmental impacts.

② **The second stage is about defining which environmental and/or social consequences to assess.** A company may decide to monitor flow data (for greenhouse gas emissions, water consumption or waste generation, for example). In other cases, impact data might be more appropriate (for watercourse pollution, health concerns, air pollution or number of days' sick leave). The number and type of consequences selected, as well as how they are selected, says something about what the company hopes to achieve. Matters of materiality* and goals come into play here. If a company restricts its assessment to those issues that are financially material or of interest to its external stakeholders, the results will be of limited use in helping it reduce its impacts. Monitoring wide-ranging environmental and social consequences is what will enable managers to take more conscious decisions about how to make their companies more sustainable.

③ **The third stage – data collection – is the most time-consuming. How data are collected determines how accurate and representative they will be.** Methods vary from measuring environmental consequences (such as emissions or pollution levels in wastewater) directly through to relying on environmentally extended input-output tables. These tables compile impact data on companies with a certain market capitalization or from a certain industry sector or geographic area.[3] The environmental life cycle assessment method falls somewhere in the middle, drawing on both data specific to the company and generic impact data.

The same applies when it comes to social data, although the tools themselves differ. Some look at data specific to the company (training hours, remuneration, etc.), whereas others rely on more generic data (healthcare costs or the minimum wage in a particular country, for example). Social data collection throws up some of the main obstacles to the further development of multi-capital models at the present time: data are not immediately available; data collection is costly; existing IT systems are not set up to collect multi-capital data. Social life cycle assessment is one way of obtaining the relevant data, and is particularly suited to assessments of entire value chains, but its complexity puts most companies off.[4]

④ **The final stage is monetization.** In the vast majority of cases, this is done by evaluating the cost to society[5] of the company's environmental and social impacts.[6] But the exact details can vary significantly from one company to the next. One option for greenhouse gas emissions, for example, is to look at the carbon tax paid, but this can equate to anything from €10 to €120 per tCO2e. Most companies do specify the value per ton, but you usually have to read the accompanying notes to find this information and there is rarely any debate as to the merits of using this metric in the first place. Where such market data are not available, values are often assigned based on scientific surveys of willingness to pay. The problem with this is that these surveys are specific to a given cohort, time and place. They are unlikely to accurately reflect the company's own context. Moreover, the surveys used may not even be particularly recent. At best, the company might correct figures for inflation and currency parity, but many issues will still remain.

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3. The Exiobase database, for example, compiles data on emissions and resource extractions.

4. One group of companies has nonetheless developed a method for product life cycle assessment.

5. "Cost to society" means the cost individuals or governments associate with these impacts.

6. BSO Origin's Full Cost Accounting and the CARE method are rare exceptions. They look at the cost of reducing or remediating environmental impacts.

To monetize or not to monetize, that is the (ethical) question

Monetization is not just a matter of methodology; it forces us to reconsider our relationship to nature and the living world (Maris, 2014). Attributing a monetary value to the "services" that nature provides can skew how we think about non-financial considerations, reducing them to a set of resources to be managed. It encourages us to treat nature as an object like any other – something to be maximized – rather than appreciating it as a diverse environment of which we, as humans, form part (Gudynas, 2014). Nonetheless, there is ever more interest in monetizing non-financial resources, especially nature and biodiversity. Some researchers warn that we are "financializing" the non-financial (Gibassier and Arjaliès, 2020), i.e. taking the forces that govern the world of finance (return on investment, performance, speculation, etc.) and attempting to use them to promote resource conservation. They are not alone – many within academic, institutional and activist circles are speaking out against this trend. The fear is that it could in fact threaten the protection of our ecosystems.

What is the future for multi-capital models?

Multi-capital accounting at present offers little comparability. The presentation of results varies from method to method: from dashboards or "sustainability assessment model signatures" to balance sheets and income statements. Moreover, each company's scope, as well as its approach to collecting and monetizing data, will be different.

The **lack of context for results** provided by existing models represents another major limitation (see article on p. 30). Without some frame of reference, even multi-capital models give little meaningful clue as to whether a company is sustainable. The results show only whether it has made progress in the areas assessed, not whether this is sufficient to make it sustainable. One solution could be to integrate a comparison to planetary boundaries (Rockström et al., 2015), sustainability principles or the UN's Sustainable Development Goals. Some recent models do attempt to address this issue (Lamberton (2000), Taïbi (2019), LIFTS model – see article on p. 118), but they are few and far between. These are **analogous models**, combining notions of capitals, principles and limits in an imitation of financial statements, without monetizing impact. The aim is to assess the extent to which a company's activities contribute towards a global sustainable development goal. The models proposed by Lamberton and Taïbi went no further than an initial trial in each case, however. When impacts were compared to certain external limits, whether planetary or regulatory, these methods showed the companies assessed to have fallen short of what was needed for sustainable development (particularly from an environmental standpoint). This naturally limited their ability to use the results obtained to burnish their image with their stakeholders. But is this not precisely the wake-up call that is needed to prompt a pivot towards a more desirable, sustainable future for all?

THE THREE MAIN BRANCHES OF MULTI-CAPITAL ACCOUNTING TOOLS

	Basic principle	Impact on the company's financial statements?
Full Cost Accounting	Profit + Cost of environmental externalities (generally negative) = **REDUCED PROFIT**	NO It is a tool that is complementary to financial management but not integrated with it
Sustainability Assessment Models	Profit + Costs/benefits of environmental, economic and social externalities = **NET VALUE CREATED**	NO It is a tool that is complementary to financial management but not integrated with it
Integrated Accounting Tools	**Income statement:** • Provisions for the cost of maintaining natural and human capitals • Revenue for positive effects **Balance sheet:** • Assets: natural and human capitals • Liabilities: debt equal to the cost of maintaining these capitals	YES Non-financial capitals converted to monetary value and integrated within the company's financial statements

WHAT ABOUT THE OTHER TYPES OF NON-FINANCIAL ACCOUNTING: CARBON ACCOUNTING, WATER ACCOUNTING, ETC.?

Recent years have seen the emergence of a whole host of non-financial accounting models: water accounting, biodiversity accounting, carbon accounting, etc.
In that these methods tend to focus on just one type of capital, they were not included in this review of multi-capital models. It is worth noting, however, that many companies have now adopted carbon accounting (for which various methods are available). This is often seen as a simpler option than multi-capital models, still considered a bit too experimental by some. Ynsect[1] is of this view: "Current research on multi-capital accounting is really interesting but it is hard to see how we could put the associated models into practice. For carbon, on the other hand, the tools are already out there. This is why we chose to go with

How are results reported?	Trials	Examples
Pivot tables showing impact/level in the value chain, charts showing expenses and revenues for each activity and life cycle stage, etc.	A first wave of trials took place in the 1990s and 2000s, followed by a separate second wave in the 2010s	• Kering has drawn up an Environmental Profit & Loss Statement (EP&L) each year since 2010 • Novo Nordisk drew up an Environmental Profit & Loss Statement (EP&L) in 2014
"Sustainability signatures", mapping of positive and negative impacts by value, calculation of comprehensive value, etc.	300 trials worldwide according to the Value Balancing Alliance	• Eosta's True Cost Accounting For Food Farming & Finance from 2017 • KPMG's True Value tool
New lines added to the company's income statement and balance sheet for social and environmental capitals, comparison between financial and non-financial income statements, etc.	Not many companies have yet trialled these tools; of those that have, very few have communicated on how they went about it	• The CARE model developed by Prof. J. Richard • Harvard Business School's Impact-Weighted Accounts

Freely adapted from the report produced by Audencia's Integrated Multi-Capital Performance Research Centre ("What connections are there between financial and non-financial accounting?", 2020)

a combination of Net Zero Initiative accounting and consequential life cycle assessment (C-LCA[2]) for our climate and biodiversity strategy. With C-LCA, we can determine a budget for greenhouse gas emissions and then draw up accounts that show us where we need to take action to achieve carbon neutrality", says Jean-Gabriel Levon, Ynsect's Co-founder.

1. Ynsect is a French company that specializes in breeding and processing insects. Using the Net Zero Initiative framework (developed by Carbone 4), it carries out carbon accounting, allocating a specific budget to its CO2e emissions.
2. Consequential life cycle assessment (C-LCA) looks at the environmental impact of changes in a product's life cycle.

eosta
where ecology meets economy

PORTRAIT

EOSTA

TRUE COST ACCOUNTING FOR FOOD, FARMING AND FINANCE

INTERVIEW WITH **VOLKERT ENGELSMAN**
CEO

Eosta is a Dutch distributor of organic tropical fruit and vegetables. Working with over a thousand growers worldwide, it leads the field in Europe. In 2017, it trialled "true cost accounting" as a way to report on the social, environmental and economic costs and benefits of fair and organic farming as compared to conventional farming.

Creating an activist company

In 1990, surfing the wave of global enthusiasm for sustainable development, Volkert Engelsman and Willem van Wijk set up Eosta to import and distribute organically grown and fairly traded fresh tropical produce. Having previously worked at US-based commodities trading company Cargill, Engelsman had seen what goes on in international agricultural markets and was keen to develop an alternative model: "For the big supermarket retailers, the story behind the product and its impact on people and planet don't count. The less you know, the easier it is to make a profit. We wanted to make the opposite our driving principle, working instead towards a fairer distribution of value and a new way of defining profit."

To inform consumers about how and where their produce is grown and the impact it has on both society and the planet, Eosta launched its Nature & More initiative in 2004. Nature & More is a "Trace & Tell" system where shoppers can go online to learn about the grower and their organic and sustainable practices. Three years later, Eosta co-founded Soil & More Impacts, an agronomic consulting firm to provide growers with practical advice to help them conserve and rebuild fertile farmland.

Monetizing impact: the logical next step

In 2017, working in partnership with EY and Soil & More Impacts, Eosta ran a true cost accounting pilot project. The aim was to compare the relative economic, social and environmental costs of organic and conventional farming.[1]

"We've been talking about the cost of externalities for decades, but now it's about being able to monetize that cost, put a euro value on it. While it's not possible to do this in all cases, we can put a value on things like climate, water, soil and so on. We didn't especially want to write

1. The comparison was carried out for a range of different crop types: Argentinian apples, Dutch tomatoes and South African grapes, to mention just a few. In most cases, Eosta's teams assessed the relative impacts for growers pursuing both organic and conventional farming.

EOSTA IN FIGURES

- 2020 revenue: €100 million
- 120 employees

HOW TRUE COST ACCOUNTING WORKS

True Cost Accounting, or TCA, is a reporting method developed in 2017 by financial audit and consultancy firm EY and Soil & More Impacts, a Dutch company founded to conserve and rebuild fertile soils worldwide.

It aims to shine a light on the "hidden effects" of farming (such as its impact on climate, water quality and soil erosion). By helping consumers, companies, investors and politicians make informed decisions, TCA supports ethical and environmentally conscious businesses.

There are several stages in a TCA assessment:

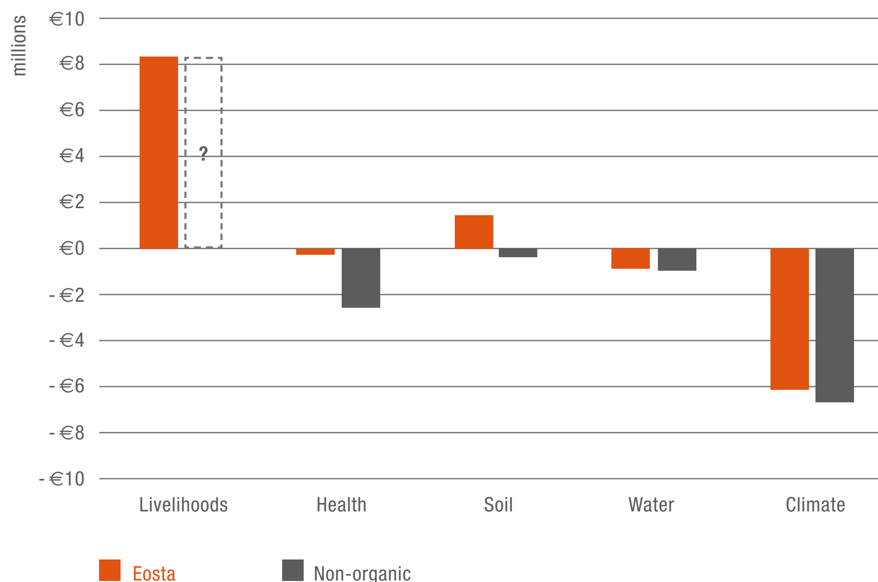
- **Defining who and what the assessment should cover**: ideally, a company's impact should be measured across its entire value chain.
- **Measuring the economic, social and environmental impacts of producing each additional unit**: tools include the Greenhouse Gas Protocol, the ClimWat database and associated CropWat program developed by the Food and Agriculture Organization of the United Nations (FAO) to calculate water requirements, and the sustainability indicators included in the Global Reporting Initiative (GRI) Standards.
- **Monetizing these impacts**: the FAO's Sustainability Assessment for Food and Agricultural Systems (SAFA) guidelines, the Natural Capital Coalition and the World Business Council for Sustainable Development (WBCSD) all provide accepted valuation methods.

The results of this assessment highlight the economic, social and environmental costs and benefits of farming. They are typically presented as a profit and loss (P&L) statement[I] and/or a waterfall chart. Note that the TCA method does not affect how a company's financial statements are prepared.

I. A profit and loss statement is a standard method used by listed companies to calculate the costs and benefits of their business.

EOSTA VS NON-ORGANIC COMPANY P&L ACCOUNT FOR 2015

In 2015, the benefits of soil conservation for Eosta's growers were valued at around €1.5 million, whereas soil erosion at non-organic farms ran up a cost of around €0.5 million.



Source: 2017 TCA-FFF report

a scientific report on the concept, but we did want to apply it to our supply chains."

Eosta priced the economic, social and environmental costs and benefits of a number of its products (apples, lemons, etc.), based on 2015 data drawn from multiple points in its value chain (input manufacturers, growers, wholesalers, distributors, consumers). It focused on the following five impact areas:[2]

- **Livelihoods:** the socio-economic impact of Eosta's activities on its stakeholders, including its employees, shareholders and the Dutch State (employee remuneration, net profits, rent, depreciation, profit-sharing). When preparing its TCA report in 2017, Eosta had insufficient data available on its Livelihoods impact at farm level and so had to skip this aspect.
- **Health:** the impact of pesticides on consumer health and farm worker safety.
- **Climate:** greenhouse gas emissions (CO_2, CH_4 and N_2O – Scope 3) and carbon sequestration at both input manufacturer and farm level as well as for Eosta itself.
- **Water:** water use and pollution at farm level. Note that Eosta did not have sufficiently reliable data to include water scarcity.
- **Soil:** soil erosion at farm level. Soil fertility was not included due to the lack of consensus on how to measure and value it.

A monetary value was then attached to each of these impacts, using a range of recognized KPIs (see boxed text on how TCA works). This gave a cost that could then be presented as a profit and loss account and compared to that of a conventional agricultural business.

The conclusions drawn from this pilot are encouraging for Eosta: the true benefit of organic farming's economic, social and environmental impacts surpasses that of a non-organic approach.

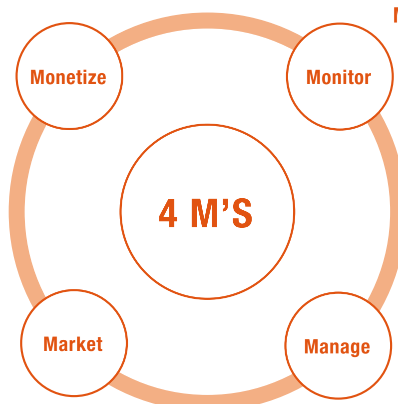
2. Certain other impact areas had to be left out due to insufficient data. For example, Eosta had originally hoped to include biodiversity as a sixth impact area, but was unable to do so.

EOSTA'S PHILOSOPHY: THE FOUR 'M'S

Eosta's philosophy is guided by four key principles, which it translates into operational objectives:

Monetize: Eosta calculates the "true cost" of its products' environmental and social impacts using the accounting tool developed by EY and Soil & More Impacts.

Market: Eosta informs consumers about the social and environmental benefits of responsible, organic farming.



Monitor: Eosta measures the social, economic and environmental performance of each of its products using both quantitative and qualitative metrics. The results are then audited according to a set of KPIs (Key Performance Indicators) in line with the GRI Standards.

Manage: these results show Eosta where there might be room for improvement in sustainability practices. Soil & More Impacts, Eosta's agronomic consulting subsidiary, is on hand to help make any necessary adjustments at farm level, for example.

Methodological bias and next steps

Eosta makes no secret of the fact that it ran into a few obstacles when implementing this TCA approach. As with certain other non-financial assessments, one of the main issues was the lack of reliable and comparable data: "A great deal of data is often collected at farm level (…), but not all of it is useful for TCA purposes. It is important to develop material, fit-for-purpose KPIs to reduce the amount of data collected and allow for the development of a concrete and harmonized approach to TCA" (2017 TCA-FFF report).

As a result, certain impacts could not be adequately assessed. Biodiversity is a case in point: this impact area had to be left out owing to a lack of time, resources and data. Work is already underway on a most robust methodology to help strengthen agri-food value chains.[3]

"Our next challenge is a co-creation exercise with other stakeholders to find a common denominator that other companies can also apply. And then we need to persuade our financial auditors (EY and PwC) to include these new indicators in their protocols so that we can scale it up. We need to prototype the 'new normal' in our food systems. It's all about personal health, social health, and environmental health", says Engelsman.

3. On the back of this TCA pilot, the Global Alliance for the Future of Food asked Soil & More Impacts and TMG Think Tank for Sustainability to prepare an inventory of the various TCA methodologies in use. Their inventory report was published in July 2020.

OUR ACADEMIC EXPERT'S ANALYSIS

When analysing Eosta's methodology, it is important to bear in mind what the company was trying to achieve: it wanted to be able to compare its own organic produce to conventionally farmed non-organic produce. And the results indeed provide a comparison of the relative environmental impacts of organic and conventional fruit farming. But the assessment does have certain limitations:

- For conventional farming, only the environmental impact is assessed – the method neglects its social impact. Given that data were collected from producers pursuing both organic and conventional farming, it would have been better to extend the scope to include social impacts.

- Worker and consumer health is viewed solely through the lens of pesticide effects. But there are of course other factors that affect health, such as fine particulate emissions from the logistics side of the business, for example.

- The report focuses on the environmental issues directly connected with agricultural output: soil condition, water consumption and greenhouse gas emissions. Knock-on environmental effects (air pollution, water pollution) were not taken into account.

- Monetization masks the physical data and therefore does not suffice to fully illustrate the differences between organic and conventional farming.

- No reference is made to the planet's natural limits: as a result, it is hard to tell how sustainable the business is.

To sum up, the environmental assessment methods used are certainly interesting, but with a few adjustments, they could offer an even better comparison between Eosta's produce and conventionally farmed alternatives. That said, Eosta is very clear about the limitations of its assessment and what its next steps should be.

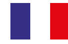
ARECO Le goût de la fraîcheur XYLEO VOTRE REFERENCE BOIS

PORTRAIT

ARECO AND XYLEO

TRIALLING THE "CARE" MODEL

INTERVIEWS WITH **MICHEL GSCHWIND** (CO-FOUNDER AND PARTNER, ARECO) AND **CHARLOTTE DAEFFLER** (CO-FOUNDER AND PARTNER, XYLEO)



In the French town of Grasse, known as the world's perfume capital, a group of entrepreneurs are working together to advance the region's ecological and social transition. Two of the companies involved are ARECO and XYLEO. Having discovered the functional and co-operative economy approach, they were keen to test out a new type of sustainable accounting: the CARE model.

ARECO

Michel Gschwind founded ARECO in 1998 further to the discovery of a new technology: nebulization. Nebulization makes it possible to convert a liquid into a fine mist. The technology has proved popular with supermarkets, where it is used to keep fruit and vegetables fresh and tasty for longer, reducing food wastage.

ARECO is committed to the cause of food transition and also campaigns against planned obsolescence. The company is in the process of recasting its business model to integrate the principles of a functional and co-operative economy. This has seen it switch to a service model, based on subscriptions, rentals and lifetime warranties for its equipment.

ARECO IN FIGURES

- 2020 revenue: €15.5 million
- 135 employees
- 15 CSR awards since 2011

XYLEO IN FIGURES

- 2020 revenue: €1.7 million
- 15 employees
- 60 construction projects in 2020
- 10 training courses funded for employees in 2020

XYLEO

Charlotte and Yannick Daeffler founded their structural woodworking company, XYLEO, in 2014. Under traditional volume-based models in the construction industry, more projects equate to higher profits. As a result, resource scarcity is an inevitable consequence of business success. But XYLEO's founders were convinced there was a better way of doing things. XYLEO takes a local-market-focused approach based on eco-design and eco-construction. This is rare in an industry where downwards pressure on prices tends to push environmental concerns aside.

Motivation: drawing attention to ecological and social commitments

The CARE model offered the ARECO and XYLEO teams a way to highlight their commitments to ecological and social transition. Neither company had previously done any non-financial reporting, and both were eager to show their stakeholders what they were doing to preserve natural and human resources.

Daeffler (XYLEO): We decided to give CARE a go as a way of communicating with our stakeholders using a common language. It's not always easy to explain our approach to people who don't share our sustainable development concerns. But everyone understands

THE "CARE" METHOD
COMPREHENSIVE ACCOUNTING IN RESPECT OF ECOLOGY

Jacques Richard, an emeritus professor and former accountant, first came up with the CARE method in 2012. He has since passed the baton on to Alexandre Rambaud, a researcher, university lecturer and co-director of the Ecological Accounting Chair.

The CARE method is built on the premise that the notion of financial solvency (i.e. a company's capacity to settle its liabilities by selling off its assets) can be extended to express environmental and social solvency. It considers natural and human capitals – like financial capital – as something concrete to be preserved. As such, they can be reflected in the company's accounts. Another key concept in CARE accounting is strong sustainability, which ordains that the various types of capital are non-substitutable.

There are several steps involved in implementing the CARE method:

- **Identifying the relevant natural and human capitals:** the company works with its stakeholders to define the capitals it uses in its operations. Note that this is limited to the company's own operations – its extended scope is not taken into account.
- **Setting preservation levels:** the stakeholders define acceptable levels (thresholds) for each capital, using scientific metrics (such as the Science-Based Targets for greenhouse gas emissions, for example).
- **Working out how to preserve the capitals, and how long it will take:** the company outlines scenarios in which its operations respect the thresholds defined in the previous step. It then looks at how its existing operations differ from these scenarios and what it needs to do to close the gap (i.e. its preservation actions).
- **Evaluating the cost of its preservation actions:** the company records an accounting entry for depreciation to reflect the resulting capital depletion.
- **Producing integrated accounts:** human and natural capitals are recorded as liabilities on the balance sheet, at their preservation cost. They represent an "ecological and social debt" for the company. The company's use of these capitals is recorded on the assets side. The profit shown on the income statement thus reflects what will be left once all capitals degraded by the company's activity have been restored.

The CARE method originated in academic circles and its operational development is still a work in progress. The accounting firm Compta Durable® has tested it out with some 25 companies of varying sizes from different sectors. The Fermes d'Avenir network is so far the only organization to have publicly disclosed the results from its trial. This makes it hard to assess how the method's theoretical principles actually apply in practice. Our interviews with XYLEO and ARECO focus more on their impressions of the approach (what they were hoping to get out of it, what they struggled with, what it showed them) after their nine-month trials during the Covid-19 pandemic. Their initial feedback suggests the need for a longer, more comprehensive trial.

figures; they give us a basis for discussions with our suppliers, clients, bankers and employees.

Gschwind (ARECO): We wanted to be able to measure non-financial capitals. We wanted to show our clients, suppliers and bankers that, in addition to delivering financially, we are committed to sustainable development. With existing models, there is no real way of measuring this or comparing our efforts to those of others in the industry. CARE was a way for us to highlight what we are doing in this respect.

Difficulties in measuring non-financial capitals

This initial trial focused on just two capitals: atmospheric capital and human capital. Both companies found this frustrating. They would have liked to have been able to measure their respective key resources: forest capital for XYLEO, water capital for ARECO. But as they found out, certain capitals are easier to measure than others…

Gschwind (ARECO): Defining the capitals to preserve and the associated indicators was challenging. The model did not allow us to take into account the benefits we offer our clients (in terms of reducing food wastage and so on), which is where we actually have the greatest impact. If we had been able to account for this, our positive impact would have been much greater, which would have reduced our liability in terms of maintenance costs accordingly.

Defining the indicators for human capital was relatively straightforward. There was our employee turnover rate, and the living wage – something that was already covered in our employee satisfaction surveys. But we were lacking data to measure natural capital. We had a carbon footprint assessment for our building, for example, but it was not up-to-date. It would have been interesting to take things further, looking at how human and environmental capitals are connected, but unfortunately we did not do this.

Daeffler (XYLEO): We were disappointed not to be able to measure forest capital, given that we work with wood. But that said, human capital is really important in our industry too. Construction jobs are physically demanding yet often poorly paid. Keeping our employees safe and healthy is part of our corporate responsibility. If an employee starts out in their career in perfect health, it is not OK for them to find themselves out on their ear and unemployable some years later due to health issues. One of our carpenter foremen developed back and knee problems and ended up unable to do his job, at just 40 years old. Instead of letting him go, we helped him put together his application for disabled worker status and then found an adult education course that will give him a vocational carpentry diploma. This qualification will reflect his considerable skills in site design, preparation and supervision. With the CARE method, we were able to account for the cost of maintaining and developing this employee's skills (training, medical support, helping him with his career change, etc.). We would not have been able to show any of that in standard corporate accounting. This is what is called "tertiary prevention" in the CARE model – repairing damage caused by exposure to risk. But what we really need is more "primary prevention" – managing or eliminating risk factors in the first place.

WHAT A CFO HAS TO SAY: THE ISSUE OF INSUFFICIENT NON-FINANCIAL DATA

"The problem is that, when you work in a financial role, you live by standards. If we want to be able to monitor sustainability accounting KPIs, we need to integrate them into our ERP* tools, but French accounting standards do not currently allow us to do that. Until that changes, we can neither publish our results nor compare our performance to that of others. As things stand, we have no checks and balances, no auditing; our banker has little interest in our non-financial figures. To make this a viable accounting method, we need standards, scoring and scientific rules."
Cécile Brunie, CFO, ARECO

* ERP (Enterprise Resource Planning) is a type of management software designed to provide day-to-day monitoring of all of a company's operational processes: accounting management, sales and commercial management, inventory management, etc.

Greater awareness of the company's impact

At the end of their nine-month trials (which unfortunately coincided with Covid lockdowns), Gschwind and Daeffler both concluded that there was still quite a bit of work to be done to adapt the CARE model to business realities. Nonetheless, they each said it had made them more aware of their company's impacts.

Gschwind (ARECO): The exercise showed us the negative impacts of some things we were doing. For example, it confirmed the importance of cutting out unnecessary travel for our technicians and reducing the impact of their essential travel. Being presented with this information can prompt change; if our impact in this respect reaches an unacceptable level, we will have to adjust how we work to reduce it further.

Daeffler (XYLEO): The main thing we got out of the CARE trial was a better understanding of the capitals affected by our company. We learned that human capital is a very broad concept; it encompasses regular training, personal development, psychosocial awareness, lifelong learning, a living wage, and a whole lot more. The CARE model showed us how to go about improving our impact on both human and natural capitals.

OUR ACADEMIC EXPERT'S ANALYSIS

As XYLEO and ARECO found out, accounts prepared using the CARE method are not self-explanatory. To understand what you are looking at, you need detailed notes explaining the underlying data and methodology, specifically:

- **The definition of the capitals and associated indicators:** "atmosphere" capital for XYLEO and ARECO, for example, referred to the effects of their greenhouse gas emissions on global warming. But the term could just as easily refer to fine-particulate emissions or atmospheric acidification as a result of logistics operations.
- **The target level for preservation of capitals:** having defined its capitals, the company sets a target level for each one. Planetary boundaries might typically form the basis for this, but there are no specific recommendations in this respect. The CARE method sets out the theoretical aim of promoting the sustainability of capitals, but gives companies little guidance on how to actually do this.
- **The measurement scope:** the CARE method looks at each company individually. It only takes into account the impacts of the company's own operations. The impact of the rest of its value chain (from suppliers right through to how the company's clients use its products) is not measured. As a result, any impacts that are transferred[I] will not be recorded.
- **The measurement methods used and preservation actions implemented:** the CARE method requires some sort of social and environmental management system capable of monitoring the preservation of capitals. There is little mention of this in the documentation, however. Likewise, the documentation does not suggest any specific preservation actions, given that they will vary from one company to the next, based on how each has defined its capitals.
- **The capital's actual condition:** CARE accounting reflects a company's commitment to preserving capitals by showing how much it spends on doing so. But monitoring the amount spent is not the same as monitoring the condition of the capital itself. In the absence of physical data, it is impossible to tell how well a capital has been preserved on the basis of CARE accounts alone. And as with all of the methods reviewed, the absence of any form of standardization makes it impossible to compare performance between companies. Even if two companies were to define the same target level for the same capital, comparisons based on the cost of the actions implemented alone could be misleading. Just because one company has spent more than another does not necessarily mean that it has preserved its capitals any better. It could in fact indicate that its production processes were more harmful to start off with, or that the actions it implemented were less effective.

To conclude, the CARE method offers integrated accounting designed to promote the sustainability of natural and human resources based on the premise of non-substitutability. For the results to be meaningful, companies need a management system capable of monitoring the actual condition of capitals.

I. In certain cases, environmental impacts may be transferred from one point to another in the value chain rather than eliminated. For example, in switching to a local supplier, a company can reduce transit time and the associated greenhouse gas emissions attributed to it. But if its new supplier sources products from further afield than its previous one, or uses air freight, then that would in fact push up greenhouse gas emissions over the value chain as a whole.

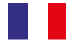
NEPSEN
ECONERGETICIENS ENGAGES

PORTRAIT

NEPSEN

TRIALLING THE "LIFTS" MODEL

INTERVIEW WITH **ALEXANDRE SEVENET** (PRESIDENT)
AND **MATHILDE MARTELLY** (CHIEF FINANCIAL OFFICER)



Consulting and engineering firm NEPSEN has been helping companies and local authorities adopt greener practices for more than forty years. As the Group prepared to merge into a single mission-led company, it decided to trial the LIFTS model. This multi-capital accounting model is based on the concepts of planetary boundaries and social foundations.

Committed responsible energy specialists

The origins of the NEPSEN Group go back to Alexandre Sevenet's acquisition of a building design consultancy firm in 2006. He went on to set up and acquire various other companies, forming the NEPSEN Group. The Group specializes in responsible energy use and ecological transition, and now has fifteen independent members across France. Its three business lines are:

- **Consulting:** devising and implementing sustainable development strategies for companies and regions;
- **Engineering:** designing and executing industrial, construction and energy projects that respect the environment and promote responsible energy use;
- **Services:** providing professional training and developing digital tools and innovative initiatives to support operators in their ecological transition.

NEPSEN's commitment to the energy and ecological transition has always been at the very heart of what it does. It enshrined its *raison d'être* in its by-laws before the French PACTE Law was even enacted and has also obtained ESUS accreditation (for solidarity-based social-purpose enterprises) for two of its subsidiaries. In 2021, the Group is merging into a single entity and NEPSEN is taking this opportunity to go one step further, becoming a mission-led company. It has defined its mission as "implementing projects capable of significantly reducing the energy and environmental footprint of our existing buildings in a lasting manner, pursuing a realistic and humanistic approach".

Motivation: getting a handle on integrated performance

In 2020, Alexandre Sevenet and Mathilde Martelly decided to sign the Group up for a trial of a new multi-capital accounting method. The method in question – the LIFTS method – had been devised by Audencia's Integrated Multi-Capital Performance Research Centre. The Group was in the process of becoming a mission-led company, as part of a general reorganization. Sevenet and Martelly hoped that the integrated performance results from the trial would confirm the relevance of the mission they had defined for their new company. "Our main objective was to develop a set of indicators that we could then monitor,

NEPSEN IN FIGURES

- > Revenue: €11 million
- > 130 employees
- > 15 entities in France

THE "LIFTS" MODEL
LIMITS AND FOUNDATIONS TOWARD SUSTAINABILITY

Audencia's Integrated Multi-Capital Performance Research Centre presented its LIFTS model in 2021. The aim is to provide companies with insight into their social and environmental impacts and help them identify what they can do to become more sustainable. So far, three SMEs have trialled the model.

Its four basic pillars are as follows:

- **Planetary boundaries* and social foundations***: a budget based on physical indicators (tCO2e, hours, etc.) is allocated to each of the planetary boundaries (natural capital) and social foundations (social capital). The company can then measure its performance in respect of the capitals affected by its activity:
  > The planetary boundaries represent an "environmental budget ceiling" that must not be exceeded.
  > The social foundations represent a "social budget floor" to be achieved.
- **Non-compensation of capitals**: performance is calculated and analyzed separately for each of the boundaries and foundations. Performance in one area cannot be offset against that in another.
- **Extended corporate responsibility**: the company's impacts on natural and social capitals are studied over five or six different areas:
  > Operations: the company's activities, including those outsourced to other parts of the supply chain.
  > Supply chain: its suppliers' activities.
  > Products and services: all externalities of the products and services the company sells.
  > Society: the company's societal externalities (health issues associated with the products it sells, for example) and impact on communities.
  > Business model: before any accounting work takes place, analyzing the company's business model can show where certain changes could make a big difference.
- **Integrated physical flow accounting**: alongside its financial accounting, the company presents physical flow accounting for its natural and social capitals:
  > **A non-financial balance sheet** presents the total assets, inventory and debts at the end of the financial period, showing a net income/loss for that period. This corresponds to the difference between the budget allocated to the boundary or foundation in question (i.e. the minimum or maximum limit) and the proportion of that budget used.
  > **A non-financial income statement** likewise presents a net income/loss, together with total revenues and expenses.

Using physical indicators, this non-financial accounting allows companies to monitor their impact on their social and environmental capitals. It shows where changes are needed in order to avoid overshooting the budgets allocated for planetary boundaries and social foundations.

The results can be reported in various ways: visually (with graphs, etc.) or using physical indicators or monetary values. They can then be shared with all of the company's stakeholders (bankers, process engineers, employees' children, etc.).

This combination of traditional financial and non-financial accounting gives an overview of the company's **integrated performance**.

to get an overview of the company's integrated performance", explains Sevenet. "We had not done a whole lot of measuring in the past, even as regards our financial performance. We don't have a management control department that produces regular reports for us, for example. This is why we are reorganizing: we want to implement monitoring to make sure we are actually doing what we set out to do, economically, socially and environmentally speaking."
"We had to make sure we were headed in the right direction", adds Martelly. "We need to be able to monitor planetary and employee wellbeing at all times. Our employees and clients have high expectations of us; we must lead by example."

The trial

The NEPSEN Group trialled the LIFTS model for six months over its 2019 financial year. This involved a three-stage process to assess its social and environmental performance:

- **Analyzing the business model:** the first step was to identify the planetary boundaries and social foundations most affected by NEPSEN's business, selecting an indicator for each of them. In NEPSEN's case, the boundaries and foundations studied were:[1]
  - > *Climate change*: energy transition represents the Group's core business. As recommended by the French government agency for ecological transition (ADEME) and the Greenhouse Gas Protocol, the associated indicator was kilograms of CO_2 equivalent (CO2e) emitted.
  - > *Income and work*: the ability of NEPSEN's employees to access housing, food, energy and water is dependent on their income. The associated indicator was the number of employees paid above the living wage.[2]
  - > *Education*: the Group is committed to providing training and skills development for its employees and to educating its clients on energy transition matters. The associated indicator was the number of hours' training dispensed. The number of hours awarded to French employees under the "personal training account" scheme prior to its latest reform (i.e. 24 hours per full-time equivalent each year) was used as a benchmark. In the absence of data from NEPSEN's suppliers, this foundation was measured for NEPSEN employees only.
- **Preparing non-financial accounting:** the physical flows monitored for each of the indicators were translated into accounting or non-accounting entries. There was no way of recording non-accounting data in the

1. For this first trial, the Research Centre selected these three boundaries and foundations based on the immediate availability of data (see boxed text: "Our academic expert's analysis").
2. Living wages vary from country to country, and sometimes even between regions or cities within a country (a living wage in London is higher than elsewhere in the United Kingdom, for example). According to the website wageindicator.org, full-time employees on the minimum wage in France earn above the living wage.

SAMPLE NON-FINANCIAL BALANCE SHEET AND INCOME STATEMENT FOR CLIMATE CHANGE[1]

NON-FINANCIAL BALANCE SHEET

ASSETS Climate change	FY2019 (tCO2e)
CO2e Inventory	0
CO2e TOTAL ASSETS	0

LIABILITIES Climate change	FY2019 (tCO2e)
CO2e Net income/loss	-16
CO2e Debt	16
CO2e TOTAL LIABILITIES	0

NON-FINANCIAL INCOME STATEMENT

PROFIT & LOSS Climate change	FY2019 (tCO2e)
CO2e Revenues	387
CO2e Operations	-313
CO2e Supply chain	-89
CO2e Services	0
CO2e Expenses	-403
CO2e Net income/loss	-16

Source: Audencia's Integrated Multi-Capital Performance Research Centre, 2021

In the example above, the budget allocated to this boundary (recorded under Revenues on the income statement) was 387 metric tons of CO2e, calculated using the Science-Based Targets. According to the company's carbon footprint assessment, its actual emissions (recorded under Expenses) amounted to 403 metric tons of CO2e. This results in a debt of 16 metric tons of CO2e.

1. The amounts shown are for illustrative purposes only; NEPSEN's real figures are confidential.

Group's general ledger, so these entries were recorded using a separate tool (Access). A specific ledger showing all lines was then prepared for each indicator, with entries based on physical flows.

- **Reporting the results via a non-financial balance sheet and income statement (see example opposite for "climate change").**

The results showed that the NEPSEN Group:
- Had a slight debt in terms of metric tons of CO_2e;
- Paid its employees more than the living wage for France;
- Supported staff employability – the number of hours' training exceeded the minimum required.

The results from this trial were encouraging for the NEPSEN Group. The only boundary it overshot was climate change, where it had a slight debt.

Results and food for thought: towards a 360-degree vision of the company

Certain indicators still require further consolidation and data were not available for the entire NEPSEN value chain. As a result, this initial trial did not cover all aspects of NEPSEN's activities. Nonetheless, Martelly says that the exercise raised awareness of the impact of the Group's activities and what still needs to be done. "This accounting method is a way for us to get a comprehensive overview of our impact. This is important not only for our employees but for all of our stakeholders." The results from this trial will feed into NEPSEN's reorganization of its management control processes, guiding its decisions on how to define and monitor social and environmental indicators to review integrated performance more effectively. "The next challenge will be implementing this new accounting model", says Martelly. "We don't want to have to ask our project managers to collect a whole load of data. They already have their hands full with the operational side of the business, ensuring our clients get the service they have come to expect. That naturally has to remain their priority. Hopefully, we will be able to automate quite a lot of the data entry and monitoring, using our Enterprise Resource Planning system."

OUR ACADEMIC EXPERT'S ANALYSIS

NEPSEN is one of three pioneering companies to have trialled our LIFTS model. In each case, we limited our analysis in this first trial to three indicators. We selected those that were easiest to calculate and for which data were available to the company. All nine planetary boundaries and twelve social foundations are, of course, essential to resilient companies and a resilient planet, however. We continue to work on this; our goal is to expand the model to include all boundaries and foundations in future.

Determining the budgets is a key part of measuring sustainability. This can be challenging for planetary boundaries that are not yet quantified, such as chemical pollution, for example. Once an overall budget has been set, there are various ways in which it can be allocated. The only consensus thus far is for carbon budgets, where it is generally agreed that the Science-Based Targets are the best option. Allocating the budget for each indicator between a company's different subsidiaries, brands, projects and products also requires careful consideration. This is vital, as a company's environmental and social performance can only be assessed by contextualization, i.e. by determining specific boundaries and foundations.

NEPSEN's feedback confirmed the need for an IT system capable of recording all economic, social and environmental data. Such a system would also address the issues of data collection that often arise in CSR reporting.

Lastly, we suggest revisiting the concept of economic performance (often left out of multi-capital accounting methods), with a view to showing genuine triple-capital performance.

BEYOND ACCOUNTING

WHAT THE EXPERTS SAY

"Reconfiguring corporate IT systems"

INTERVIEW WITH **GUILLAUME LITVAK**

Guillaume Litvak, Chief Audit Executive for French supermarket retailer Carrefour, believes that IT systems will be pivotal in transforming how we run our companies and carry out accounting. He demonstrates the interest of pursuing developments to enhance reporting, oversight and auditing of non-financial performance for major corporate groups.

How are major corporate groups let down by their IT systems when it comes to non-financial data?

Our IT systems currently offer better capabilities for financial data than they do for non-financial data. They have advanced functions to trace and monitor all financial flows and this is what we need for non-financial flows too. It would make things much more professional – something I believe is important. And so I was delighted with Carrefour's recent decision to combine all financial and non-financial data within a single accounting tool. The Group's financial management auditors now approve both sets of information. This is great; it effectively makes them non-financial management auditors too. Strict, precise rules remain a must, of course, to make sure we are objective when interpreting our non-financial scope, targets and so on.

The same lag can be seen when it comes to oversight. We are gradually moving towards the financial model, with annual and quarterly non-financial reporting now commonplace. Sooner or later, we will adopt monthly reporting. This is important, because if we want to spot any red flags as soon as possible, oversight of non-financial performance has to be part of our day-to-day business routine. In supermarket retailing, we have the NPS (Net Promoter Score), for example. As customers leave the store, we ask whether they would recommend Carrefour, and we then monitor the resulting score for each country on a daily basis. We need to start doing similar things for non-financial performance too; we need real-time oversight.

And then there's auditing. Auditing is crucial in business, but when we compare financial and non-financial auditing budgets, we see a major imbalance. At some point, we will have to spend more on non-financial auditing. If auditors are to expand the scope of their work, we need to give them the resources to do so. For example, when we talk about deforestation and beef cattle in Brazil, we rely on traceability data on farms. This raises all sorts of questions: how exactly do we derive data from our geomonitoring[1] tool? How are they consolidated? What is our goal here? We need to start thinking at this level of detail and extend the role of auditors to encompass these aspects.

How can we adapt IT systems for non-financial data? What are the stumbling blocks?

I think we need to start by documenting their current architecture with a view to understanding information flows and how each indicator is compiled. We also need to be clear on who is responsible for what in terms of processing non-financial data. For example, we recently audited the new procurement rules we introduced at Carrefour to promote the food transition. We looked at the rules as written, on the one hand, and as understood and applied, on the other, and found differences between the two. This led us to recommend rewriting the rules to ensure they could be easily understood at all levels in the company. It is important to think about your readers if you want your

1. Geomonitoring tools provide certain spatial (geotechnical, geodesic, hydrogeological, geophysical, etc.) data on a given area.

document to be understood. **When it comes to non-financial risk management, we need to make sure that everyone is clear on the three lines of defence: who manages these risks on a day-to-day basis (first line of defence), who monitors them (second line of defence) and who audits them (third line of defence).**

I think there are three main stumbling blocks to this. First, there are the budget constraints: improving IT systems and data monitoring tools will cost money. Second, there are our attitudes: getting people on board will be key. Social media can help with this, by showing how much consumers care about things like reducing packaging, for example. And third, there is the absence of a shared framework. We need clear definitions and specific, transparent, standardized targets for non-financial data to ensure comparability.

How can internal auditing help when integrating non-financial data into our IT systems?

I believe that all internal audit plans should cover non-financial performance. Focusing all of your audit resources on financial matters just doesn't make sense to me. A group's external auditors already monitor and audit these aspects, so it would seem logical to devote at least part of your audit resources to other equally strategic matters that may not benefit from the same level of external monitoring. By this I mean things like cyber concerns, quality, supply chains and, of course, non-financial performance.

Back when I was Head of Internal Control at a media and entertainment group, I included CSR within the internal audit plan for 2017-2018. This raised quite a few eyebrows and various people told me that CSR matters were "non-priority". But I was looking at the recent scorings[2] and could see that investors were starting to take an interest in these things, that customers cared about CSR even back then. Now, it is something that all stakeholders expect of us, particularly as a supermarket retailer: every week, NGOs and customers raise issues, asking why we still use plastic packaging and so on. Carrefour has taken this on board and strives to be a leader when it comes to these things. There is a real desire for positive change within the group, as demonstrated by the extremely strict procurement rules that now guide our operations. Sometimes this might mean sacrificing short-term growth, but that is just what you have to do if you want to make these things a priority.

I also feel that, as internal auditors, we can make a difference. Our reports will be read by country directors and the Board. As auditors, we are independent: there is nobody telling us what to do. This is an advantage, but it also requires us to be highly professional and objective in our work if we are to remain legitimate, produce high-quality reports and grab the attention of the highest levels of management. We get to explain our audit reports to Boards, making abstract subjects tangible. And once something is tangible, that is when we can make recommendations for real progress.

2. Credit scoring is an indicator used in financial analysis to reflect the risk of a company becoming insolvent or going bankrupt.

FROM ANOTHER ANGLE

THE RISE OF THE CHIEF VALUE OFFICER

BY **DELPHINE GIBASSIER**

A recognized expert in accounting and non-financial auditing, Delphine Gibassier is Director of Audencia's Integrated Multi-Capital Performance Research Centre and Academic Director of the Chief Value Officer Executive MBA. In this article, she considers how the role of Chief Financial Officer (CFO) is expanding, and reflects on the rise of Chief Value Officers.

The CFO's changing role

In recent years, the CFO's remit has expanded to include non-financial matters – a development that has been the subject of much debate. It is true that, **in a resource-scarce world, CFOs can no longer afford to think only in financial terms**. The International Integrated Reporting Council (IIRC) suggested as much back in 2013 when it released its Integrated Reporting Framework, which encouraged companies to pay equal attention to all capitals: financial, natural, social and human. Today, **it is the financial markets themselves that are prompting CFOs to consider issues such as climate change, biodiversity loss and, more generally, their company's impacts in terms of sustainability.** The Climate Action 100+ investor-led initiative,[1] for example, calls upon the world's 100 largest greenhouse gas emitters to take action to cut emissions, improve governance and strengthen climate-related financial disclosures. This is clearly what we need. The International Energy Agency puts the necessary investment in climate change mitigation and adaptation across all sectors at around $1 trillion each year up until 2030 (IEA, 2015). As for global manageable assets at risk due to climate change by the end of the century, their value has been estimated at between $4.2 trillion and $43 trillion, depending on how well we succeed in keeping global warming in check (TCFD, 2017).

Professional bodies likewise want to see change. In France, the National Auditing Body (CNCC), National Association of CFOs and Management Controllers (DFCG), National Institute of Internal Auditors and Controllers (IFACI) and College of Sustainable Development Directors (C3D) recently wrote a joint op-ed in which they said it was time to "audit companies' social and environmental value" (Pivard et al., 2020). These bodies see **reporting to stakeholders on all capitals as part of the job for accounting professionals**. Many CFOs share this view. One of them is Gregor Alexander, CFO of British energy company SSE, who wrote on his blog in 2017 that "the CFO is at the centre of a change that is happening within business. Corporate responsibility is no longer the philanthropic side-line that is a million miles away from the core business, it is now an essential part of the CFO's toolkit."

From Sustainability CFO to Chief Value Officer

Demand for change is coming from within companies too. The idea of the Sustainability CFO is taking hold (Danone appointed theirs in 2009). **A Sustainability CFO is a CFO responsible exclusively for the company's non-financial performance**. Bridging the gap between traditional CFOs and sustainable development departments, their main job is to **monitor and report on what the company is doing in terms of sustainable development**.

Sustainability CFOs are professional accountants responsible for identifying, collecting, estimating, analyzing and disclosing physical and monetary data relating to non-financial topics. This includes (among other things) assessing the company's carbon footprint and social impact and how well it manages its stakeholders and preserves biodiversity. Accordingly, a Sustainability CFO:

1. The Climate Action 100+ initiative represents over 370 investors, who between them hold assets worth close to $35 trillion. Its aim is to get major corporations to reduce their greenhouse gas emissions.

- is involved in decision-making, acting as a "business partner" to the company;
- becomes the first port of call for investors, auditors and other stakeholders looking for information on non-financial performance;
- lends greater credibility to the company's sustainability reporting.

In 2016, Mervyn King and Jill Atkins wrote a book that gave birth to a whole new job. Their book and the job share the same title: Chief Value Officer. **Whereas a Sustainability CFO is solely concerned with non-financial matters, a CVO works on both financial and non-financial topics.** Tilley and Dancey (2019) write that "the CVO role must ensure that all relevant aspects of value creation and destruction are accounted for and communicated to boards, management, and external stakeholders. To achieve this, the CVO will require deep knowledge and insights about the business to inform discussions on purpose, values and strategy, risks and opportunities, the business model, and relevant resources or capitals that the business depends on or affects." Heeding this advice, CFOs are broadening their horizons, keen to get a 360-degree view of how their companies create value and protect financial, natural, social and human capitals.

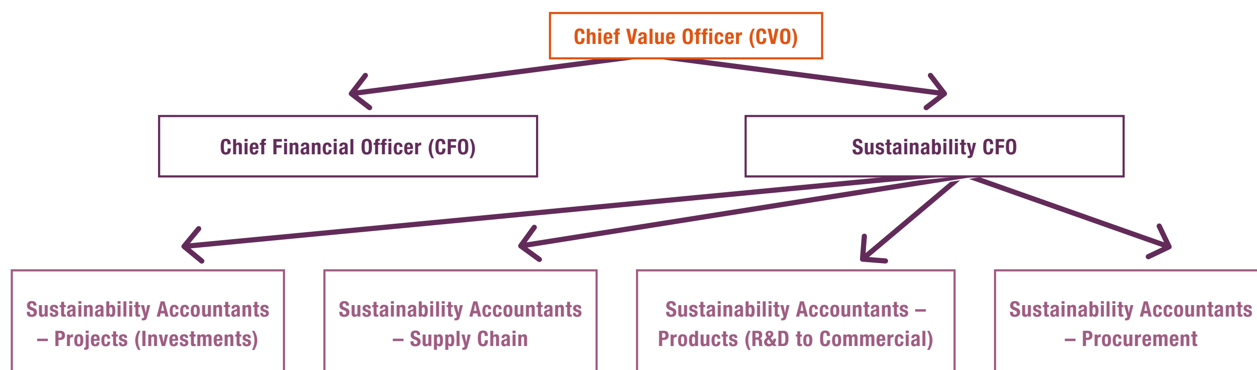
Pipe dream or realistic goal?

Sustainability CFOs, CVOs and the teams they head up are gaining in visibility, particularly in major corporate groups. Ørsted, a Danish wind energy company, has a team of four full-time employees dedicated to environmental, social and governance (ESG) accounting. UK-based energy company SSE had a full-time sustainability accountant in-house for several years. Unilever has had a Sustainability CFO since 2013, tasked with developing a better understanding of sustainability issues in finance, integrating them into financial reports and establishing best practices.

Nonetheless, these professions are still in their infancy and face considerable challenges. To start off with, we lack reliable global accounting and reporting standards covering all aspects of sustainable development. The standards war being waged between the Anglo-Saxon world and Europe has at least shone a spotlight on this issue internationally, prompting a sharp uptick in investment in the field (see article on p. 130). More reliable and comparable data on value creation are also needed, and this in turn requires **powerful IT systems**.[2] Lastly, we need to develop proper training for these roles. **Courses that cover both the financial and non-financial skills required are currently few and far between**. Sustainability CFOs and CVOs are often learning on the job. Professional bodies will also need to adapt their certifications to allow for multi-capital approaches. But despite all this, the integration of non-financial data into financial accounts is gathering pace. Sooner or later, all CFOs will have to accept the rise of the Chief Value Officer.

2. To this end, management software firm SAP recently announced the launch of its carbon emissions accounting system to address climate change.

POTENTIAL RECONFIGURATION OF AN ACCOUNTING AND FINANCE DEPARTMENT



Source: Gibassier, Arjalies and Granier, 2018

WHAT THE EXPERTS SAY

"New horizons for accounting professionals"

INTERVIEW WITH **JACQUES DE SAINT-FRONT** AND **HERVÉ GBEGO**

Accounting professionals have a key role to play in transforming how we conduct and assess business. Accountants, CFOs and auditors alike will need to learn new skills, expanding their horizons to encompass the living world so as to support companies in their ecological and social transition. Hervé Gbego and Jacques de Saint-Front are both keen to see accounting professionals take on this role.

Hervé Gbego is an accountant and auditor specializing in CSR and the digital transition. In 2011, he founded Compta Durable®, a sustainability accounting firm now part of the SFC Group. Compta Durable® has been particularly instrumental in promoting the CARE model (Comprehensive Accounting in Respect of Ecology – see article on p. 114) developed by Professor Richard in 2012.

A qualified accountant and auditor, Jacques de Saint-Front devised the "universal accounting" model, under which traditional financial accounting methods are extended to include sustainability data. His firm – Cabinet de Saint-Front – specializes in CSR auditing and consultancy and assists companies wishing to adopt universal accounting.

A few figures

– **82%** of CFOs and financial controllers surveyed by the DFCG (French association of CFOs and financial controllers) felt that finance departments should be more involved in CSR matters
– **Only 36%** of them felt that finance departments were already involved in CSR matters (DFCG-OEC white paper on CSR, 2021)

What role can accounting professionals play in promoting ecological and social transition in business?

Gbego: All accounting professionals have a role to play in helping companies better understand and assess sustainability issues. Based on my experience, I am convinced that there is a need for outside experts to lend credibility to corporate initiatives, assessing whether the company has achieved what it set out to do. In other words, a need for someone who can give profitability meaning.

Accountants can be part of this. It is easy to forget that, in addition to reporting on a company's figures, they also support executives in their day-to-day management and advise on strategic matters. As such, they can be part of the change, by doing what they do best: reporting. But reporting on non-financial as well as financial matters. In empowering accountants to conduct corporate CSR audits, the French Grenelle II Law confirmed this expansion of their remit. Broader reporting is gradually becoming part of what accountants do for their clients.

De Saint-Front: As a society, we are becoming increasingly demanding in terms of non-financial matters. We want to see reporting and progress, especially on the environment. Accounting

professionals – particularly auditors – need to adapt to take the demands of all stakeholders into account (shareholders, employees, suppliers, clients, bankers, insurers, civil society, etc.).

With extensive training (typically eight years), sector-specific experience and strict audit rules, auditors act as trusted third parties for all stakeholders. We now need to develop the same level of trust in auditors when it comes to non-financial reporting.

What do accounting professionals stand to lose if they do not embrace this change?

De Saint-Front: If they refuse to venture outside their comfort zone, accounting professionals will be forever limited to finance, auditing, and consulting on accounting, legal and tax issues. As stakeholders increasingly look beyond these matters, auditors that fail to follow suit will gradually forfeit their claim to be independent experts in the company's business. Their credibility with executives will likewise be eroded, as they will no longer be seen as capable of offering a big-picture view.

In short, if they stick to a purely financial role, accounting professionals will find themselves limited as to what they have to offer.

Gbego: It is also worth noting that if we resist change, we will become less appealing as employers. We want to offer our staff interesting opportunities for career development and attract promising new candidates.[1] CSR can be a powerful tool in this respect; it adds a sense of societal worth to what we do.[2]

1. "For quite some time now, we have seen waning interest in careers as accountants among younger generations. They tend to have a somewhat negative view of the profession and can often earn more in an equivalent-level in-house position. This raises concerns about who will take over once the current generation retires, particularly since the average age for accountants is already over fifty"(Institut Sofos, 2021).

2. A study conducted by accounting firm Denjean & Associés in 2020 found that around 35% of the 215 finance students and recent graduates surveyed could not see themselves working for an employer that did not have a strong CSR policy.

An evolving market for accounting professionals

The market for accounting professionals in France has changed considerably in the past few years. In 2019, the PACTE Law raised the thresholds above which companies are required to appoint a statutory auditor. They now only need to do so if they satisfy at least two of the following three criteria: balance sheet total in excess of €4 million; turnover in excess of €8 million; staff headcount in excess of 50. This has deprived auditors of a significant chunk of their work. The CNCC (the French auditors' association) estimated that the PACTE Law resulted in around 153,000 fewer audit contracts – shrinking the audit market by more than two thirds (Option Finance, 2019).

Other laws have established that accounting professionals can now branch out into social and environmental oversight. In 2010, for example, Section 225 of the Grenelle II Law authorized auditors and accountants benefiting from the COFRAC's "independent third-party body" accreditation to certify non-financial reports. In 2019, Section 22 of the PACTE Law added that accountants could "perform any studies or work of a statistical, economic, administrative, financial, environmental or digital nature, provided this remains ancillary to their main activity." Non-financial reporting thus offers an opportunity for accounting professionals to diversify and get in on a new market currently dominated by the Big Four (PwC, Deloitte, KPMG, EY).

Companies are increasingly calling upon independent third-party bodies, especially to audit mission compliance. As a result, accounting professionals are taking on more non-financial work – a trend that looks set to continue. They have already acquired a certain legitimacy in this field (Chapellier et al., 2016), helped by the recent legislative developments. Proper training on sustainability issues for accounting professionals will thus be a crucial factor in determining how well we monitor and audit corporate non-financial reporting.

How can we get accounting professionals more clued up about non-financial matters?

Gbego: It's simple! It's all about training. As accountants, we need to gain a better understanding of the ins and outs of the ecological transition and sustainable development goals. We need to learn about carbon footprint assessments, CSR reporting, sustainable finance, ESG matters, and so on. We already know how to report to shareholders and equity partners, but we now need to learn how to report to all of a company's stakeholders on a wide range of non-financial issues. And this, of course, requires a certain familiarity with those issues. We don't need to become experts in biodiversity ourselves, but we do need to learn how to connect with that world.

De Saint-Front: You wouldn't expect an auditor to jump into their first financial audit without proper training. The same goes for non-financial reporting. It touches on a wide range of complex subjects and often involves analyzing and summarizing qualitative data. This requires specific skills – skills we need to be teaching to students at undergraduate and even postgraduate level and maintaining through continuing professional development. Short one- or two-week courses are of limited use; they can teach us how to read the data but not necessarily how to present them to others – something that is key in non-financial auditing. We can no longer treat CSR as an add-on subject or a separate module; it needs to be a common theme throughout our training.

FROM ANOTHER ANGLE

THE STANDARDS WARS AND STATE OF PLAY WITHIN EUROPE AND INTERNATIONALLY

BY **PROPHIL**

Accounting is a hot topic these days in discussions surrounding corporate responsibility. Kering, Olam and Novo Nordisk are among the major corporations to have turned their attention to the issue. But we need reliable non-financial data before we can extend accounting to social and environmental matters. Public and private institutions are battling it out behind the scenes to see whose standards will prevail internationally. We talk to Philippe Peuch-Lestrade, Strategic Senior Executive at the IIRC,[1] and Patrick de Cambourg, President of the ANC.[2]

The need for non-financial standards

Since 2005, financial accounting for listed European companies has been regulated by the IFRS (International Financial Reporting Standards), introduced to supplement the IAS (International Accounting Standards), which date from 1973. Issued by standard setter IASB (the International Accounting Standards Board), the IFRS are internationally recognized[3] and used in over 160 countries.

When it comes to non-financial data, however, the picture is very different. The field is still unregulated. In 2019, Patrick de Cambourg submitted a report to French Finance Minister Bruno Le Maire on non-financial corporate reporting standards within Europe and further afield. He wrote in the introduction as follows: "**There is currently real momentum surrounding corporate extra-financial information but this expresses itself as part of a proliferation of initiatives which lack both coordination and consistency.** [...] Whilst the momentum we are witnessing is very real, it is still delicate as extra-financial data remains broadly incomplete and cannot be easily compared as it comes up short in terms of quality."

In the absence of a non-financial equivalent of the IFRS, a number of bodies have suggested their own versions (GRI, SASB, CDSB, CDP, etc.[4]), each of which comes with its own integrated performance indicators. Choosing the "right" framework is, for the time being, left to the discretion of each company. Some even combine several frameworks or come up with their own indicators. Schneider Electric, for example, pulls together standards from four different sources: the GRI, the United Nations Global Compact, the IIRC's International Integrated Reporting Framework, and ISO 26 000.[5] But how can we compare performance between companies when they have so many different reporting frameworks to choose from? The various standard setters are all hoping to be the ones to come up with the answer to that question.

1. Set up in 2010, the IIRC (International Integrated Reporting Council) is an international not-for-profit coalition whose members include companies, investors, representatives of the accounting profession, NGOs and standard setters. Its goal is to foster a global dynamic in favour of integrated corporate reporting.
2. The ANC (*Autorité des normes comptables*) is the French accounting standard setter. Its remit includes assisting in the preparation of International Financial Reporting Standards (IFRS).
3. A few countries have nonetheless opted against adoption. The United States, for example, still prefers the US GAAP (United States Generally Accepted Accounting Principles).
4. Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), Climate Disclosure Standards Board (CDSB), Climate Disclosure Project (CDP).
5. Source: Schneider Electric's 2020-2021 Sustainability Report.

Competition heating up between standard setters

There is consensus within economic and political circles on the need for non-financial reporting standards. Less so as regards who should be in charge of setting them, however. **The issue has fanned the flames of competition between public and private institutions, with each side keen to get in on the action** (see diagram on p. 134).

Among private standard setters, two international bodies lead the field: the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB). The GRI is an NGO founded in 1997 by the CERES (Coalition of Environmentally Responsible Economies – a group of investors, companies and organizations committed to sustainable development) and the UN Environment Programme. It was set up specifically to develop benchmark standards for corporate sustainability reporting. Its operating budget for 2019 was around €9 million.[6] Two thirds of its funding comes from reporting and training services and membership dues; the remaining third is provided by government agencies and corporate foundations.[7] In 2016, the GRI published a set of 36 sustainability reporting standards and began to officially refer to itself as a standard setter. Its standards are thought to be the most widely used worldwide.[8]

The SASB was set up in 2011 by former consultant Jean Rogers. A US not-for-profit, the SASB likewise considers itself a standard setter for non-financial reporting. It waited until 2018 before bringing out its first sector-based sustainability standards, but they have proven popular since. According to the SASB's own figures, over 600 companies used its standards in 2021, 42% of which were US-based.[9] Its 2019 operating budget was over $9 million, mostly from private funding.[10] Major contributors (contributing between $1 million and $2 million) include Bloomberg Philanthropies, the Big Four[11] and foundations such as the Rockefeller Foundation.

Public institutions are also keen to get in on the action. In particular, the European Commission is working on its own international non-financial reporting standards. In 2020, it mandated a project task force from the EFRAG (European Financial Reporting Advisory Group),[12] headed up by de Cambourg, to undertake the associated preparatory work. The task force's members include representatives of listed European companies, SMEs, financial institutions and civil society, as well as academics. With this multi-stakeholder task force, the EU hopes to show that it can achieve political consensus and lead the way on sustainability and non-financial reporting standards. As de Cambourg wrote in his 2019 report to Bruno Le Maire: "Europe can be the 'land of choice' for extra-financial reporting. [...] The proposed goal is an important part of a forward-looking European identity. Achieving it would also be a competitive advantage for Europe and its businesses, particularly as it would enable them to build a more inclusive, robust and sustainable economy, with an eye to taking full advantage of ongoing development transitions and attracting investors looking to provide long-term financing. [...] The private sector plays a crucial role in designing extra-financial reporting frameworks, but this nevertheless requires dialogue with public authorities to avoid the subsequent risk of 'endogamy'".

A war of opposing political views and values

Everyone does now seem to agree on one thing: non-financial reporting should not modify financial accounting; rather, it should exist alongside it. This is why the term "extra-financial" is also used, "extra" indicating "additional to". Philippe Peuch-Lestrade says that

6. Source: The GRI's financial statements (2019).
7. Source: Report by Patrick de Cambourg (2019).
8. A survey conducted by KPMG in 2020 found that 96% of the world's 250 largest companies produce sustainability reports and that, of these, 73% use the GRI Standards.
9. Source: SASB website.
10. Source: SASB Annual Report (2019).
11. The term "Big Four" refers to the four biggest audit and consultancy firms worldwide: KPMG, Ernst and Young (EY), Pricewaterhouse-Coopers (PwC) and Deloitte.
12. Set up in 2001 with help from the European Commission, the EFRAG (European Financial Reporting Advisory Group) is a private not-for-profit association that provides input on new IFRS. Its members include European bodies (Accountancy Europe, Business Europe, European Banking Federation, etc.) as well as national bodies (*Autorité des normes comptables, Deutsches Rechnungslegungs Standards Committee e.V., Organismo Italiano di Contabilità*, etc.).

we should not "play around with traditional accounting. This is not to say that there is no room for improvement, but financial accounting does have the merit of being straightforward: there is no value judgement involved. We must not corrupt its virtues; instead, we should develop something separate yet complementary." He nonetheless emphasizes that non-financial standards should be every bit as strict and consistent as the IFRS.

The format of non-financial reporting is thus not the issue. Where public and private standard setters clash is over content. Which indicators are the most important? At what level should the associated thresholds be set? Their answers to these questions reveal the intractable divisions between the two sides.

The "Anglo-Saxon" position defended by the SASB (and now the Value Reporting Foundation[13]) largely reflects the interests of its private contributors. Investors in the US are taking an increasing interest in environmental issues – the Biden administration has made climate change one of its top priorities and BlackRock CEO Larry Fink stressed the importance of non-financial reporting in his annual Letter to CEOs in 2021.[14] The SASB Standards were drawn up with these investors in mind and embrace the concept of "financial materiality*". This entails reporting to investors on the economic – as well as, now, environmental and social – risks that could affect a company's performance and resilience. More and more companies are adopting the SASB Standards, often in response to demand from investors for more in-depth risk analysis.[15] In addition, certain other private-sector entities have a vested interest in supporting the SASB Standards: the Big Four and data providers such as Bloomberg all stand to gain from a growing market for non-financial reporting.[16]

The GRI, on the other hand, takes a broader multi-stakeholder approach as regards non-financial information. These two opposing approaches can also be seen in how each body produced its standards. The GRI sought to include representatives from all stakeholder groups (on the committee set up to oversee the process, as well as on its Board and in working groups). Conversely, the SASB limited its consultations to "interested party stakeholders" (i.e. investors, corporate professionals) and "subject matter experts" (Gibassier, 2018).

As a result, the GRI's KPIs cover not only risks to the company (financial materiality), but also the risks that the company itself poses to the economy, the environment and society (double materiality). This is the approach recommended by the EFRAG in its report from February 2021, in which it emphasized the need to "adopt guidelines in order to be clear and unambiguous in [the] application of the double materiality concept."[17] De Cambourg adds that an "inclusive view", which takes into account the interests of all stakeholders, is a key factor in the European approach. For those who subscribe to this approach, non-financial reporting is about informing all stakeholders on how the company's activities affect their environment and everyday life.

Are public standard setters fighting a losing battle?

Both sides in the standards race are forging strategic alliances to cement their international presence in the field. In September 2020, the main non-financial standard setters (SASB, GRI, IIRC, CDP[18],

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13. In November 2020, the SASB and the IIRC joined forces to create the Value Reporting Foundation (a not-for-profit organization). The Value Reporting Foundation offers a comprehensive suite of resources for corporate reporting that includes the Integrated Thinking Principles, the Integrated Reporting Framework and the SASB Standards.

14. "Assessing sustainability risks requires that investors have access to consistent, high-quality, and material public information. This is why last year, we asked all companies to report in alignment with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and the Sustainability Accounting Standards Board (SASB), which covers a broader set of material sustainability factors", Larry Fink's 2021 Letter to CEOs.

15. "SASB was tailored originally to appeal to companies which were being pressured to do sustainability reporting but were terrified of doing the full monty of GRI", Julie Gorte, Senior Vice-President for Sustainable Investing at Impax Asset Management (*Financial Times*, 2019).

16. "The Big Four accounting firms give us money because at the end of the day they know, ultimately, if companies start reporting then they are going to have the assurance business", Madelyn Antoncic, former CEO of the SASB Foundation (*Financial Times*, 2019).

17. Source: Final report from the EFRAG (2021).

18. The CDP, formerly the Carbon Disclosure Project, is an NGO set up in 2000 to encourage public and private operators to report on their environmental impacts.

CDSB[19]) agreed that it was in their interests to work together. A few months later, the SASB and the IIRC took this institutional co-operation a step further, merging to become the Value Reporting Foundation, a new body tasked with producing integrated reporting standards. This broad institutional coalition also has the support of the IASB. Having produced the IFRS, the IASB is already the leading financial standard setter is now looking to add "non-financial" to its résumé.[20] The Value Reporting Foundation has adopted the SASB's Anglo-Saxon approach, working hand-in-hand with influential investor networks and private-sector operators. This has distanced it from the GRI, despite their announced intention of working together.

With such a strong coalition between private standard setters, you could be forgiven for thinking that the European Union might be fighting a losing battle. But the European project does have political backers, and this could tip the balance in its favour. As a public authority, the European Commission has the power to impose non-financial reporting on companies. It has in fact already done so, introducing its Non-Financial Reporting Directive (NFRD) in 2014, followed (and replaced) by the Corporate Sustainability Reporting Directive (CSRD) in 2021. The latter integrated many of the EFRAG's recommendations. For de Cambourg, "political support adds considerable weight to these initiatives. With the CSRD, the EU is imposing standardized non-financial reporting for all major companies across its 27 Member States. This has never been done before on such a scale." The EFRAG and the GRI have joined forces with a view to delivering the standards required to achieve this, signing a landmark statement of co-operation in July 2021.

With alliances on both sides, the race really is too close to call. The recent co-operation is a welcome development; producing a stringent, widely accepted framework will take a team effort. Peuch-Lestrade calls for it to go further: "**We need a shared global language for financial and non-financial accounting. The EFRAG's report is a valuable contribution towards this and should serve as the basis for international discussions, particularly as it espouses a more 'European' approach encompassing humanist aspects.**"

De Cambourg adds that "Europe cannot cut itself off from the rest of the world. If we are to produce quality non-financial data, we must try to work together across borders. We can learn from what is being done elsewhere and make our own contribution towards global efforts. Improving non-financial data is essential – you cannot have good public policies or good private strategies without good data."

This is in fact a battle about the role we want companies to play in the 21st century. As with accounting standards before them, non-financial reporting standards will define new social, societal and environmental indicators. Indicators that will guide asset managers in their investment decisions. These indicators and the weightings assigned to them will reflect how we view corporate responsibility, how we expect companies to contribute to the real economy, society and the environment. This makes selecting them a highly political exercise.

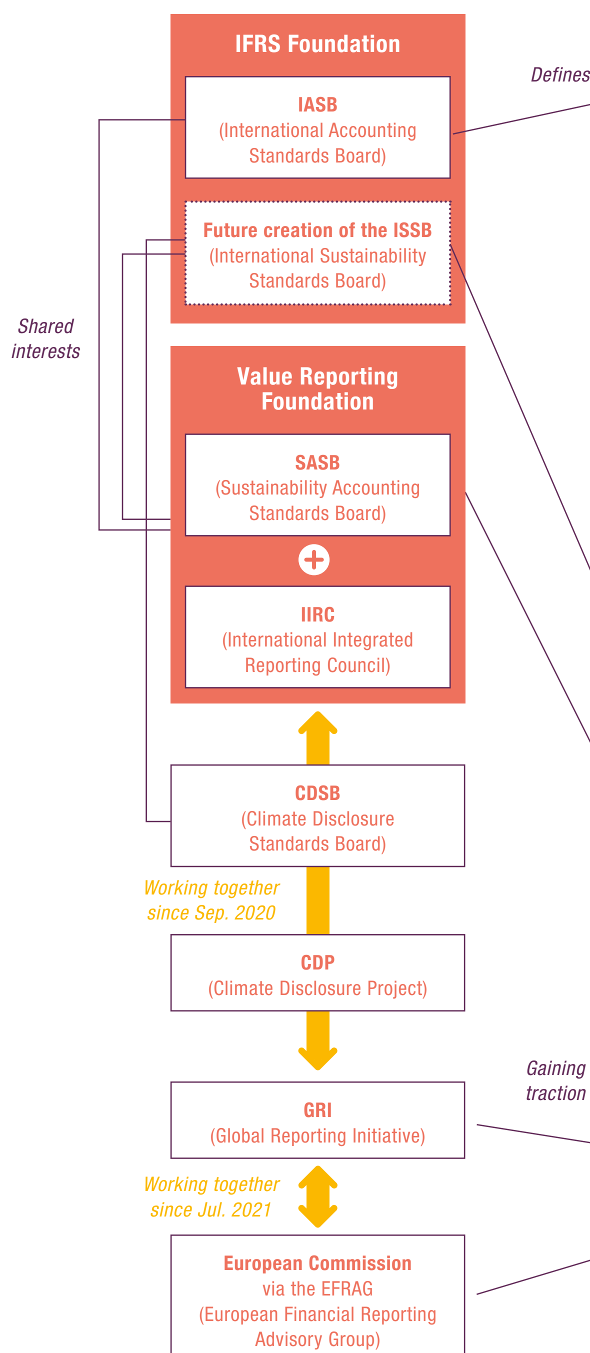
19. Founded in 2007, the Climate Disclosure Standards Board (CDSB) is a not-for-profit organization that aims to produce a framework for corporate environmental and climate reporting.

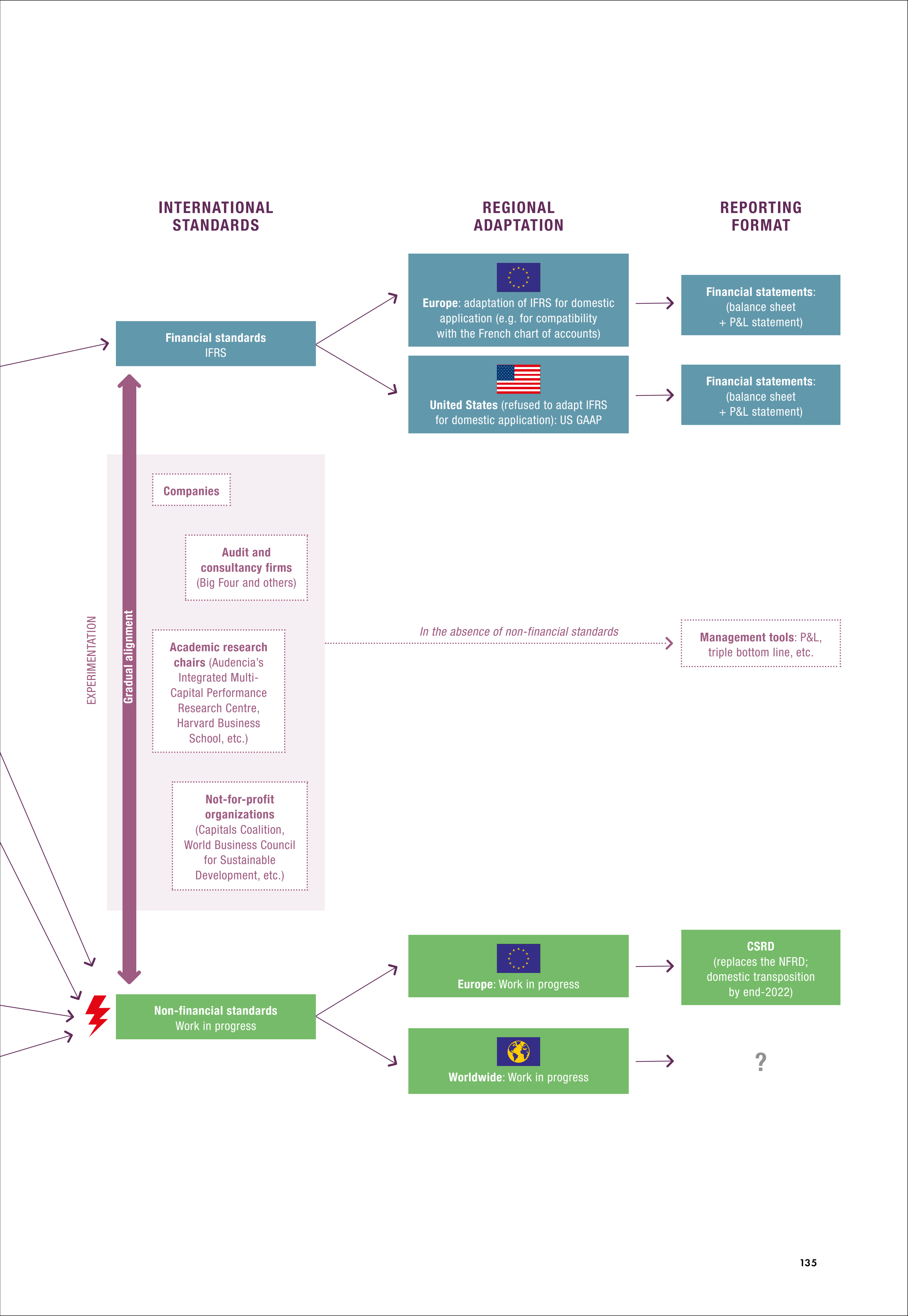
20. In October 2019, the IFRS Foundation (the IASB's supervisory body) launched a consultation with its stakeholders to assess the role it could play in standardizing sustainability reporting internationally. At the time of writing, the foundation is in the process of setting up a new governance body, the International Sustainability Standards Board (ISSB), tasked with developing and approving a set of international non-financial standards.

THE MAIN NON-FINANCIAL STANDARD SETTERS

When it comes to non-financial reporting standards, a variety of parties have thrown their hats into the ring. But which stand the best chances of prevailing? As discussed in the previous article, some organizations (such as the GRI) rely on inclusive, participatory, multi-stakeholder decision-making processes to confer legitimacy on their endeavours (Gibassier, 2018). Others (such as the SASB) have taken a different tack, claiming legitimacy on the basis of the expertise afforded by prominent figures on their governance bodies and the quality of their standard-setting processes. The diagram on these two pages indicates the main parties in the arena and their various strategic alliances.

It should be noted, however, that this is a fast-moving environment. New players continue to emerge (such as the future ISSB) and alliances are fluid, as are the political positions of some organizations. The CDP is a case in point: the official Anglo-Saxon branch (CDP Worldwide) appears to have sided with the IFRS Foundation, whilst the European branch (CDP Europe) is collaborating on the EU's CSRD initiative. The diagram sets out the state of play as at the time of writing. This will no doubt evolve as events unfold.




INTERNATIONAL STANDARDS
REGIONAL ADAPTATION
REPORTING FORMAT
Financial standards IFRS
Europe: adaptation of IFRS for domestic application (e.g. for compatibility with the French chart of accounts)
United States (refused to adapt IFRS for domestic application): US GAAP
Financial statements: (balance sheet + P&L statement)
Financial statements: (balance sheet + P&L statement)
EXPERIMENTATION
Gradual alignment
Companies
Audit and consultancy firms (Big Four and others)
Academic research chairs (Audencia's Integrated Multi-Capital Performance Research Centre, Harvard Business School, etc.)
Not-for-profit organizations (Capitals Coalition, World Business Council for Sustainable Development, etc.)
In the absence of non-financial standards
Management tools: P&L, triple bottom line, etc.
Non-financial standards Work in progress
Europe: Work in progress
Worldwide: Work in progress
CSRD (replaces the NFRD; domestic transposition by end-2022)
?

CONCLUSION

LIVING: THAT IMMENSE LIMIT

BY **GENEVIÈVE FERONE-CREUZET**
PARTNER AT PROPHIL

Committing to post-growth is not asking the impossible. Most of the building blocks are already within our grasp. But it does call for us to shift our perspective, accepting that the world we once knew – with its stable climate, abundant energy sources and seemingly infinite capacity to absorb consumption – is gone forever.

The advent of a new, fully sustainable economy necessarily requires companies to change radically. We must break away from innovation for the sake of it in favour of smart innovation, redirect certain activities and take a bold stance, challenging the supremacy of economic growth. None of this is beyond us. It will not be the first time companies have had to reinvent themselves: disruptive technologies, new consumer habits and political risks have all triggered similar sea-changes in the past. And let's not forget that this new era, with its new paradigm, also brings with it new opportunities. Companies that take the full measure of the risks we face and the urgent need to adapt will do much better than those that bury their heads in the sand. Practices previously adopted only by the most virtuous companies will soon become compulsory.

It is time we plucked up our courage and erased all trace of the traditional route to "entrepreneurial success" – a goal that is no longer suited to our current circumstances. We must revisit how we think about and do business, following in the footsteps of the pioneers featured in this study, all of whom have adopted new approaches, whether in governance, business models or accounting. Companies encapsulate both the challenges and hopes inherent in this emerging new world. They each represent their own little kingdom, sometimes wielding more power and influence than national governments. They have a huge responsibility, but legal and regulatory changes can provide support and help spread the burden. Regulating social and environmental reporting, developing as strict a framework as possible, will be crucial. Political choices will underlie the reporting criteria and metrics adopted, which will define our new ideals, not just for companies but for the global economy.

Decarbonizing the economy must top the list of priorities as we tackle climate change, but we should not lose sight of humanity's place within the fabric of the living world. As the Covid pandemic has taught us, living and surviving are not the same thing. Living is not just about satisfying our basic biological needs, but is bound up with notions of what makes us a society or even a civilization. It encompasses the right to live with dignity, accepting our share of risk and luck and enjoying opportunities and the expectation of growing up in a safe, healthy environment. Life that is reduced to survival on a ravaged planet beset by inequality and injustice is no life at all. The French poet René Char wrote of living as "that immense limit", a phrase that lends itself equally well to the post-growth paradigm. So let's find a way to live without robbing our children of their future.

GLOSSARY

Accounting: a discipline that records all of a company's transactions, expenses and revenue, with a view to assessing its financial situation. All such information is recorded in the company's financial statements, which comprise the profit and loss statement (showing the company's profitability over the period), the balance sheet (equating to a snapshot of the company's assets and liabilities), and the notes (giving further information on the figures from the profit and loss statement and balance sheet).

Business model: an organization's framework of processes for creating, producing, distributing, appropriating, monetizing and sharing value.

Capital: a stock of assets or human, natural or economic resources necessary to a production process.

Circular economy: an economic model that focuses on limiting resource consumption as far as possible (raw materials, water, energy) by optimizing the product's lifespan and end-of-life re-use or materials recycling by design. Life cycle assessment (LCA) is a key tool for the circular economy.

Commons: a resource of limited and potentially even insufficient quantity (making it "rivalrous"). It is nonetheless available to all, and its use cannot be restricted to only certain people (making it "non-excludable"). Examples of commons include the trees in a forest, fish stocks or drinking water. Economist Elinor Ostrom (2009) proposed a new definition, emphasizing the co-operative structures that surround a commons. Under her definition, a commons is a shared resource, managed by a community and subject to a set of organizational rules (see p. 91).

Co-opetition: a neologism formed by combining the terms "co-operation" and "competition". A strategy where competing businesses co-operate with a view to sharing their resources and pooling certain costs (R&D, distribution, etc.). Co-opetition can be either vertical (as when two competing businesses form a client-supplier relationship to develop an activity within their market) or horizontal (when they co-operate to develop an activity related to their market).

Economic growth: an increase, over an extended period of time, in a country's production of goods and services, measured by GDP volume (excluding pricing effects).

Efficiency: denotes how a given result is achieved, ideally with minimal means and negative effects. Efficiency is different from effectiveness, which denotes only the capacity to achieve a given result, regardless of the means employed.

Externality: a side-effect of an operator's activity on its surrounding environment, not covered by any form of financial consideration. Negative externalities are the collateral damage caused by the activity (e.g. a company's CO_2 emissions), whereas positive externalities are its benefits to an unrelated third party (e.g. medical progress facilitated by a company making its innovative work public).

Functional economy: an economic model that focuses on monetizing the use, rather than sale, of a product or service. For example, a carmaker might shift from selling cars to selling integrated mobility solutions, which could include various means of transport. The functional economy is often cited in tandem with the co-operative economy, in which economic operators (companies, local authorities) within the same region pool certain resources.

Governance: all rules, procedures and practices governing decision-making within a company, defined according to the distribution of rights and obligations between the company's stakeholders (shareholders, executives, employees, etc.) and to their interactions within the decision-making bodies (management board, board of directors, supervisory board, etc.).

Materiality: what designates certain factors as being essential to assessing an organization's performance. The Global Reporting Initiative (GRI) defines material topics as: "topics that reflect a reporting organization's significant economic, environmental, and social impacts, or that substantively influence the assessments and decisions of stakeholders."

Mission-led company: a company that has defined an extended corporate purpose in its by-laws encompassing societal issues, that has adapted its business model and that works with its stakeholders on developing new binding mission and governance rules. In France, mission-led companies were introduced under the PACTE Law of 2019. Similar legal structures exist elsewhere too, such as in the United States or Italy.

Monetization: conversion of social and environmental data expressed in non-monetary values into something that can be measured by monetary value.

Negative commons: as defined by Alexandre Monnet and Lionel Maurel (2021), negative commons "refer to 'resources', material or immaterial, that are 'negative', such as waste, abandoned nuclear power plants, polluted soils or some toxic or contested cultural legacies (colonialists' rights, for example)" that call for collective management.

Open source: a concept that emerged in the late 1990s in the IT field. OSI (Open Source Initiative) defines open-source software as being software that anyone can access, use, modify and share (whether in its original or modified form).

Planetary boundaries: defined by a team of researchers led by Johan Rockström, the planetary boundaries represent an ecological ceiling we must stay below if we are to ensure humanity's prosperity. They are based on nine biophysical processes, all of which interdependently regulate our planet's stability: climate change, biodiversity loss, disruption to biogeochemical nitrogen and phosphorous cycles, land-use change, ocean acidification, freshwater use, stratospheric ozone depletion, atmospheric aerosol loading, introduction of novel entities in the biosphere.

Safe and just space: concept developed by British economist Kate Raworth (2017), referring to a space in which humanity can thrive and develop, balanced between a "social foundation" (respecting basic social needs) and an "environmental ceiling" (remaining within planetary boundaries).

Shareholder foundation: a foundation or similar structure that holds all or part of a company's capital and voting rights. Its mission is two-fold: both philanthropic – supporting general-interest projects, especially through dividend payments – and economic – acting as shareholder, especially by exercising its voting rights.

Social foundation: basic needs that should be available to all. Twelve such needs have been identified: sufficient food; drinking water; decent sanitation; access to energy; access to clean cooking facilities; decent housing; access to education; access to health care; a minimum level of income; decent work; access to information; access to social support. In addition, respecting the social foundation means meeting these needs without undermining gender equality, social equity, political representation, peace or justice (Raworth, 2017).

Strong sustainability: a conception of sustainability in which "technical" capital (i.e. that created by mankind) is not entirely substitutable for other capitals, particularly "human" or "natural" capitals, which complement one another (unlike in weak sustainability, which allows for substitutability). Consequently, all capital stocks – but especially non-renewable resources – must be maintained above a critical threshold. This threshold can be defined by reference to planetary boundaries or to more local limits.

Sustainable development: development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland Report, 1987). The concept covers all aspects of development: economic, social and environmental.

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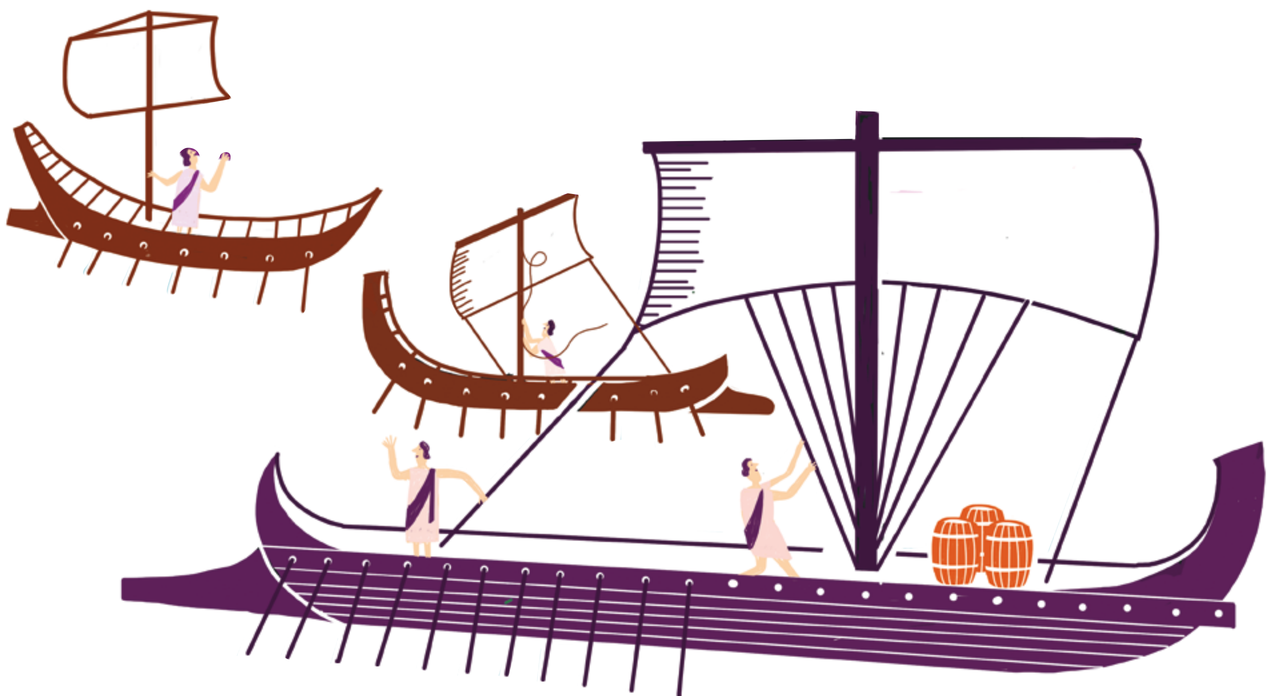

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AFIR

AFIR (*Association Familiale d'Investisseurs Responsables*) is the Leclercq family office. The Leclercq family founded and remains the principal shareholder of French sports retailer Decathlon. In addition to holding a stake in Decathlon's capital, AFIR also invests in and actively supports other companies in the fields of education, renewable energies and product reuse. In 2020, it was one of the founding members of the *Résilience* project (a national consortium of companies in the social and solidarity sector working together to rebuild the French textile industry). AFIR is also a staunch supporter of Time For The Planet (an initiative dedicated to global action against greenhouse gases).

Compagnie Nationale des Commissaires aux Comptes (CNCC)

The *Compagnie nationale des commissaires aux comptes* (CNCC) is the French professional body for auditors and a recognized public-benefit entity. It plays an active role in supporting audit professionals, liaising with the public authorities and regulators and coordinating a regional network.
The CNCC counts 11,900 registered individual members throughout France. Its role encompasses technical, ethical and institutional matters, including providing guidance and support regarding developments in the industry.

norsys

norsys is a digital services company founded by Sylvain Breuzard in 1994. With eight branches in France and one in Marrakesh, it has around 600 employees. norsys pioneered the integrated performance approach as a way for it to balance people, planet and profit. Blending business with the general interest, norsys first became a certified B-Corp before adopting mission-led company status. It has also devised and adopted its very own business model – the "permaenterprise" model – a new alternative for companies working towards positive change in the world.

SeaBird Impact

An insurance consultancy firm set up in 2005, SeaBird believes that business has a role to play in shaping a more sustainable and inclusive version of capitalism. The firm operates within a corporate ecosystem reconciling traditional business with philanthropy – an approach it hopes to see others emulate.
Its shareholder foundation, SeaBird Impact, currently holds 23% of the Group's capital. The foundation's mission is to promote and develop social and environmental initiatives within the insurance sector. It has already launched two programmes:

- the Positive Externalities programme aims to help insurers identify and build on the positive social and environmental impacts of their products;
- the Equal Opportunities programme is about helping people from diverse neighbourhoods and social and cultural backgrounds get their first job in the insurance sector.

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