



# PROGRESS LAND

*Navigating through fields of progress*

2022 FORESIGHT REPORT

# Progress

*/ˈprɒʊgrɛs/* noun

Derived from the Latin word *progressus* meaning “forward movement, advance (to a better place)”.

Progress suggests a collective march towards improvement. Societies are propelled forward by the linear promise of progress. However, the definition of improvement has some degree of subjectivity and can depend on individual evaluation: one vision of progress can be opposed to – or differ widely from – another.

# You are now entering Progressland

Foresight. It's a tool that can help us navigate times of crises and uncertainty by going beyond immediate issues. But foresight is also a mindset that invites us to constantly project ourselves into possible futures. Imagining desirable horizons based on divergent ideas of progress is precisely the purpose of this publication.

Over the following pages, you will gain a bird's-eye view of contrasting visions of progress. There is so much to consider, as you journey through the different regions of Progressland. Explore how *purpose* has become ever more essential for future companies in the Corporate Valley. Imagine what a net-zero routine will mean for your daily life in the Transition Gardens. Delve into the question of social media and social fragmentation in Hashtag County. Assess whether the current crisis has brought a silver lining to Mind Health Town.

At AXA, we believe insurance is a force for progress. Our own purpose, *Act for human progress by protecting what matters*, places this essential force right at its heart.

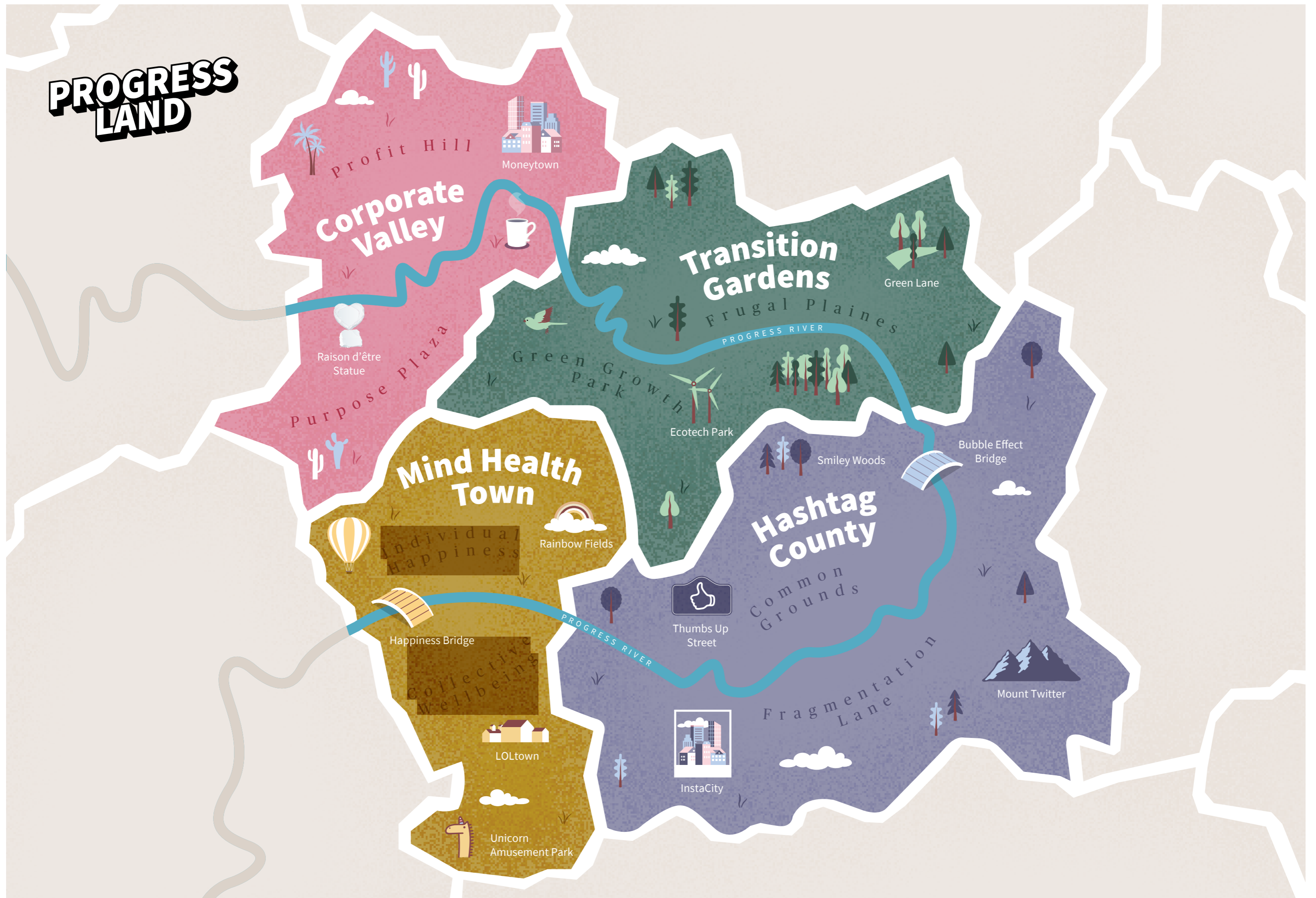
As a responsible company, we must have a well-established understanding of what progress means to us. Our vision of progress echoes the ideal of social justice and it is embodied in the concrete commitments we take, such as promoting inclusive insurance for vulnerable populations or achieving carbon neutrality by 2025. *Human progress* aims to safeguard collective and individual well-being by encompassing a foresight-by-design-approach. We conceived Progressland to encourage collective thinking around the question of progress and, ultimately, stimulate action to build a sustainable future.

## Enjoy the ride!

**Ulrike Decoene**  
AXA Group Chief Communication, Brand and Sustainability Officer



# PROGRESS LAND





# THE DISTRICTS

P.10

## District 1 Corporate Valley



What will the company of the future look like?

- P. 3 Foreword
- P. 8 Progress, a lens to the future

- P. 12 8 areas of conflict
- P. 14 Corporate fiction: 3 visions of enterprise
- P. 19 Meet the expert: The 10 commandments for tomorrow's business

P.20

## District 2 Transition Gardens

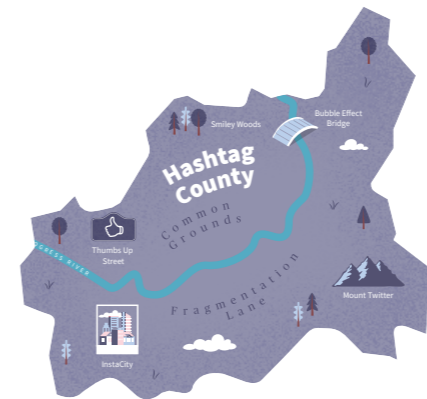


What will a net-zero future look like?

- P. 22 Scenario 1: Green Growth
- P. 24 Scenario 2: Degrowth
- P. 26 Debates and controversies
- P. 28 Meet the expert: The importance of (science) fiction to turn the page

P.30

## District 3 Hashtag County



Parallel trajectories: social mediation or social fragmentation?

- P. 32 A (very) brief history of social media
- P. 34 2025 foresight scenarios: A world adrift vs a peaceful coexistence
- P. 36 Meet the expert: Understanding social fragmentation
- P. 38 Global companies are no longer immune to social fragmentation

P.40

## District 4 Mind Health Town



Is "mind health" the new indicator of society's wellbeing?

- P. 42 The COVID crisis: A paradigm shift
- P. 44 Bursting the GDP bubble
- P. 48 A matrix to navigate the future concepts of progress
- P. 52 Acknowledgments



# Progress, a lens into the future

The pandemic and the ongoing recovery provide a watershed moment to consider multiple visions of progress.

Tensions in coping with and recovering from the current COVID-19 crisis have contributed to debates around the “right” path towards a better world. In particular, the role of technology in facing the health crisis has fuelled discussion on its impact on society. Combined with personal protective equipment, tech-powered data-gathering and analysis have helped to trace and contain the virus. mRNA vaccines were boosted by new technologies, with positive spill-over effects into other branches of medicine where they were initially scheduled to deliver. At the same time, the pervasive role of technologies strained the relations between individual, society, and state. With widespread use of health/vaccine passes in many countries, there appeared conflicting reactions to the way personal data was used and shared for the sake of health prevention. Compared with Asia, where state-monitoring is more widely accepted, the Western world is showing a stronger stance on the values of privacy and respect of personal freedoms. When health passports were introduced to authorize access to a wide array of activities, demonstrations broke out in almost every European Member State<sup>1</sup>. Torn between the need to protect themselves and the community, and fears about the growth in surveillance, health passports triggered a legitimate question about the future role of technology in individuals’ lives and the protection of personal data.

## MEASURING PROGRESS

Society’s response to the pandemic has highlighted the issue of how progress could be better quantified. Many countries that scored highly on traditional indicators, such as GDP, often struggled to deal with the pandemic. They experienced severe public health issues, increased inequalities – especially through the loss of purchasing power of middle classes<sup>2</sup>– and stark divergence between the interests and opinions of different groups: anti-vaxxers vs pro-vaxxers, the at-risk vs the healthy and even youth vs. senior citizens. The notion that *economic performance equals progress*, which had already been widely debated, was amplified by the pandemic, while the correlation between corporate profit and social progress was further called into question.

The pandemic also raised the idea of “the world after” – one where the real questions would take center stage in lieu of short-term policymaking, with a focus on the planet and its health, and its relationship with human health. The question of the impact of human activities on the environment and a

growing acknowledgment of the challenges of the world’s finite resources, have contributed to a new approach where progress is no longer associated with endless economic growth. Properly measuring growth and economic performance require new indicators that better consider environmental footprint, social impact, and individual well-being. The United States, for example, despite being the world’s leading economy, was not among the best-performing nations in terms of combating COVID-19. Other features, from access to public health to a strong territorial cohesion, proved more significant in a health and societal crisis. The US is also home to some of the world’s highest rates in homelessness, carbon footprint, and income inequality, despite the highest level of GDP. Finland, over forty positions lower in the global GDP rank, has one of the lowest rates of infant mortality, homelessness, and the highest proportions of satisfied workers. Finnish people are also the happiest people in the world for the fourth consecutive year<sup>3</sup>. Likewise, the way in which corporate performance is monitored is undergoing scrutiny and has strengthened the drive towards the incorporation of extra-financial dimensions – even from a regulatory standpoint. In Europe, large companies are required to provide their ESG performance, and this trend is set to continue. Starting with non-binding recommendations, the Taskforce on Climate-Related Financial Disclosure (TCFD) has produced guidelines for more effective climate-related disclosures since 2017. Following the same model, the Taskforce on Nature-related Financial Disclosure (TNFD) has started developing advice for biodiversity and natural capital protection. These initiatives are inducing an adaptation of companies’ strategies with initiatives that seek to improve their environmental and social impact.

## THE HEALTH OF SOCIETY

Civic engagement, life satisfaction, and work-life balance were notions once relevant on a personal basis only. Now, they have been considered in pioneering “measurements” and indexes that aim to fully portray a population’s wellbeing. Mind health in particular is at the top of the agenda. It refers to the overall health related to the mind. Disregarding mind health translates into major costs to society with some evaluations of its overall economic impact amounting to 4% of global GDP<sup>4</sup>. Moreover, when mind health problems are left untreated, they can have long-term impacts. This is particularly true for younger generations, who seem to be the most harshly affected by the

repercussions of the pandemic. Drawing on the 2022 edition of the AXA “Being Mind Healthy”<sup>5</sup>, young people are now more uncertain (and anxious) about their career prospects, which might influence their job choice criteria. Social restrictions and home lockdowns have exacerbated the challenges of the so-called “digital generation”, bringing recurring episodes of burnout and stress online. Finally, “eco-anxiety” could also have severe repercussions on social cohesion and stability, especially among young people. Distress about the consequences of climate change is making young people lose faith in the future. They fear that humanity is doomed and they feel betrayed by governments and previous generations, which they blame for failing to respond adequately<sup>6</sup>. The notion of progress is evolving towards a more encompassing evaluation of our society. Global institutions, such as the World Bank and the OECD, are increasingly developing indicators spanning socioeconomics, health, and education. In revisiting their definitions of growth, they are addressing quality of life in addition to macroeconomic indicators. The OECD’s “Better Life Index” evaluates a range of non-financial dimensions, namely education, health status, job quality, and subjective well-being. Novel measurements of progress will determine how we deal with the challenges brought about by “the world after”, characterized more than ever by inter-connected, complex, and multidimensional crises with a global impact.

## CONFLICTING VISIONS OF PROGRESS

Alongside the need to develop new indicators and methodologies that better capture people’s wellbeing, the pandemic and the ongoing recovery provide a watershed moment that points to conflicting visions of progress. While the crisis triggered an acceleration of the discussion around “green growth”<sup>7</sup>, others argue that degrowth is the only way out of a climate disaster. Implying a drastic reduction in global consumption and production patterns, some claim it is the only way to ensure the future for mankind and the planet. At the moment, there appears to be no one-size-fits-all solution for understanding, defining, and encompassing progress. This matters, because we are at a moment where our ability to evaluate and capture different visions of progress – and the manner in which we decide to do so – will determine the future of our societies. ●



<sup>1</sup> Since October 2021, Italy has authorized the entry to workplaces upon the presentation of the health pass, and the Berlin’s region even constrained it to the vaccinated people.

<sup>2</sup> Hunkar, D. (2017) “What is the Elephant Chart?”

<sup>3</sup> J. F. Helliwell, et al (2021), “World Happiness Report 2021”

<sup>4</sup> OECD (2021). *A New Benchmark for Mental Health Systems: Tackling the Social and Economic Costs of Mental Ill-Health*

<sup>5</sup> AXA (2022). “Being Mind Healthy”

<sup>6</sup> Marks, E. et al (2021). “Young People’s Voices on Climate Anxiety, Government Betrayal and Moral Injury: A Global Phenomenon”

<sup>7</sup> Green growth implies “fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies” (OECD)

# What will the company of the future look like?

In the next few decades, global challenges such as the effects of climate change and pandemics are likely to manifest more frequently and intensely, leading to recurrent crises. Issues that are redefining companies today – such as the trade-off between profit and purpose, technology as an organizing principle or as a tool, and humans as capital or as resources – will become more prevalent.

# 4 things to know before entering

## 1 The figure

# 93%

**of corporate employees under 30**

agree that the more their companies become **socially and environmentally responsible**, the more motivated and loyal they will be as employees and customers<sup>1</sup>.

## 2 The expert



### Chloé Luchs-Tassé

Co-founder of the Plurality University Network. She helps organizations explore the future of businesses.

See her interview page 19.

## 3 The word

# “Purpose”

Measuring how purpose is linked to better financial performance is notoriously hard to assess<sup>2</sup>. However, a Harvard study<sup>3</sup> found that a strong sense of purpose will only result in business success when combined with clear direction from management. Better performance is largely driven by the influence of middle management and professional staff, who have strong beliefs in the purpose of their organization – and the clarity about how to take the company forward.

## 4 The read



### Global Trends 2040: A more contested world

Published by the National Intelligence Council of the US every four years, this global analysis investigates foresight scenarios produced strike-through geopolitical experts from the global North. In the coming years and decades, they envision a world that will face more intense and cascading global challenges. These challenges will repeatedly test the resilience and adaptability of tomorrow's companies.

<sup>1</sup> “Radically Better Future: The Next Gen Reckoning Report” (2020)  
<sup>2</sup> “The purpose Gap”, PwC (2020)  
<sup>3</sup> “Corporate Purpose and Financial Performance” (2016) ; HBR (2016)  
“The Type of Purpose That Makes Companies More Profitable” by George Serafeim and Claudine Gartenberg

PROGRESS RIVER





# 8 areas of conflict that will influence the transformation of companies


Being a corporate decision-maker is becoming increasingly challenging. Companies face several issues related to business models, governance, and structure. These issues will become more contentious with stronger tension between (seemingly) opposing factors.

**1**



Companies must **strike a balance between profit and purpose**. A company can no longer ignore the ecological and social impact of its activities and is under pressure to re-organize towards more positive and less harmful impacts. However, this can oppose the company's financial objectives of maximizing growth, profit, and shareholder value.

**2**



Companies will also face the question of **integration versus fragmentation**. While the extended or fragmented corporation is a highly valued model, in constant development and powered by digital tools, it can also be fragile in times of great instability. The integrated company potentially has better control over its choices but can prove to be less nimble and the size of past investments can be an obstacle to evolution. The choice is between agility and resilience.

**3**



Do you favour **vertical or participative management**? Organizations are becoming flatter and operations are increasingly carried out by project teams, partly in response to the demand for autonomy and flexibility. However, many large, efficient companies remain hierarchical. Some large enterprises and/or networks are trying to harness the best of both approaches, creating hybrid organizations with varying forms of management.

**4**




**Localization and globalization?** The trend towards the globalization of value chains is well established and has led to significant gains in productivity and responsiveness. However, its ecological, social, and territorial effects are being challenged. The prospect of a more uncertain world and ecological challenges invite us to reconsider the potential of a relocation of productive functions.

**5**



Technology is an important source of conflict. Do companies see digital as **a tool or an organizing principle**? If digital transformation is placed at the heart of the value production system, this will greatly alter the company's technology choices, especially when compared to competitors.

**6**




Should human resources be treated as a **resource or capital asset**? On one end of the spectrum is the organization that prioritizes the evolution, commitment, and loyalty of its staff and the human collective; on the other is the organization that considers people to be one factor in production among others and that emphasizes the formalization of tasks and substitutability.

**7**



**Formality and informality**. The formalization of processes and organizations diverge from those of agility, flexibility, trust, autonomy and self-organization, which may also value informal or even unproductive time.

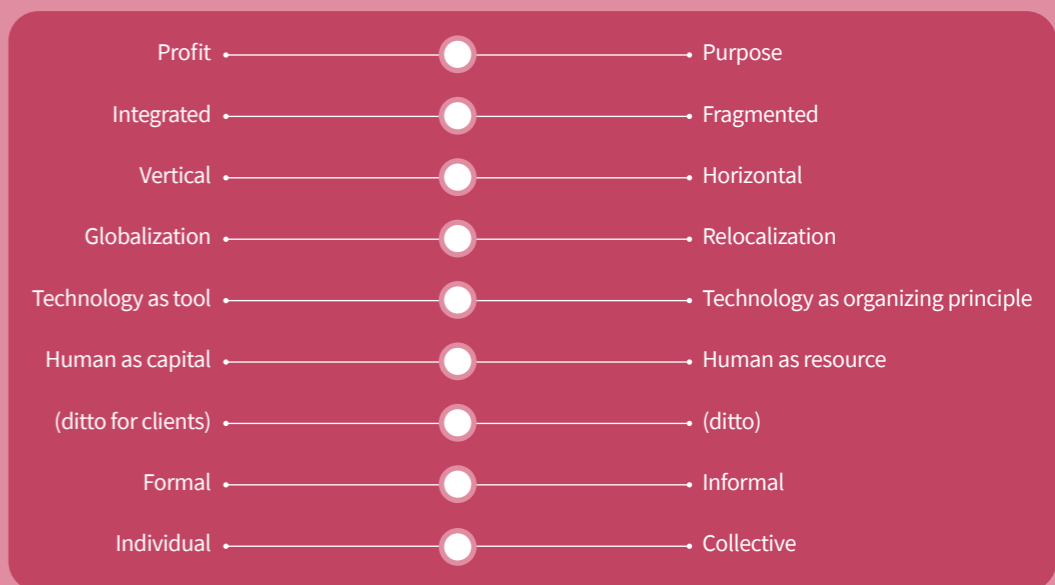
**8**



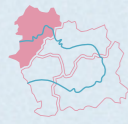
**The individual vs. the collective**. The choice between personalization, individualization (of careers, remuneration), a call or aspiration to autonomy, initiative, commitment, and self-realisation – and the pressure of organizational logic, the need to belong, the aspiration to collective work, and the need to redefine collectives with which to discuss or negotiate is an additional conflict that the future enterprise will have to debate and settle.

**TENSION DASHBOARD**

These conflicting areas serve as a guiding compass to best define the mission, governance, and business model of a company. Although this dashboard over-simplifies what is a complex organization, it highlights some of the key tensions that will be driving changes in the companies of tomorrow. How would you position your dream company in the tension dashboard?







# Corporate fiction: 3 visions of enterprise

The world in which companies operate will be profoundly marked by climate change and by the unsustainable nature of inequalities at the level of societies, the planet, and within companies.

Meet three imaginary companies within the fields of health, the environment, and the fight against inequalities, to envision the future challenges workers and companies will face, along with societies.

## R'HEALTH

R'Health enjoys a leadership position in the care market for elderly people who want to benefit from residual activity until the end of their lives. The company offers 'restorative' packages for the over-70s, which combine work and relaxation in space.

### THE STORY SO FAR

R'Health was founded in 2025 by a French entrepreneur named Rosine Rémini during the collapse of healthcare institutions, in the aftermath of the SARS-23 pandemic. Her initiative to refit disused passenger trains into mobile health clinics was an instant commercial success, leading to extensive investment and multiple contracts with governments around the world.

To meet the growing demand for end-of-life services, these Health Trains soon expanded into Health Ships and then Health Shuttles, which provide remote care and assisted living for the elderly in space. R'Health became a pioneer in the field of AI, building a community of R'bots, celebrated for their empathetic treatment of customers. In 2030, Rémini was named the second most influential female on Earth by Time Magazine, behind UN Secretary-General Greta Thunberg.

The next decade has proved more challenging for R'Health. Internal tensions due to poor working conditions in space and labour disputes between humans and R'bots have damaged the company's reputation. Time ran a headline in 2040 asking "Is this the end for La Femme Fatale?" R'Health is now looking to retro its governance, inspired by best practice from the 1960s.

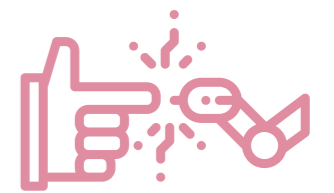
### CEO BIO

The daughter of a train driver, Rosine Rémini had tried during the 2010s to turn France's surplus of disused passenger trains into high-class, mobile entertainment venues. Her plans failed. Facing bankruptcy, she pivoted to healthcare with the arrival of SARS-23. The rest is history.

### A WORD FROM THE CEO

“ We believe in equal rights for all intelligent beings. A true meritocracy, we always choose the best employee for each role. In recent years, with the advances in AI, many of our R'bots have outperformed their human colleagues, gaining promotion as a result. That's only fair. ” *Rosine Rémini*

### WORKFORCE



**100,000 Humans**  
**40,000 R'bots**

### CUSTOMER TESTIMONIAL

“ I signed up my mother to R'Health as soon as she turned 75. She was reluctant to leave her house, but she grew to like the R'bots. The mental stimulation of working in later life was so good for her. And it certainly made my life easier. I know my children will do the same to me. ”

### Positioning on the variables of "conflicting areas"







**equal**

PROGRESS RIVER

# DRIVE TO THRIVE

Defined as a “dismantler of inequalities,” its job is to detect inequalities within an organization and find solutions. To do so, it has built a set of indicators validated by law, and it can demand that companies host its consultants until they reach a low threshold score.

Drive To Thrive unites communities with the same altruistic goals, reaching out to other companies or public actors in a dynamic of circular cooperation. By feeding off this shared energy, it becomes a self-propelling movement. But if it stops, then it lacks the centralised power base to restart.

### THE STORY SO FAR

By 2040, purpose has replaced profit as the bottom line. Companies can go morally bankrupt if they run out of goodwill. Instead of credit agencies that monitor fiscal health, a new subsector of industry has emerged to police the ethical performance of corporations. And the watchdogs have sharp teeth.

Equal! is one such observer. Describing its own purpose as ‘dismantling inequality’, Equal! has teams of inspectors who root out inequalities within organizations and then offer solutions to help ‘clients’ address their shortcomings. Equal! has built a set of indicators, known as the eQuality Score, which are protected in law. Companies can even be forced to host Equal! consultants until they reach a low threshold.

Yet, there are concerns around Equal!’s ethical conduct. This partly stems from the fearsome reputation of its founder, Miranda Priceless, who nobody has seen for many years. Has she been replaced by artificial intelligence?

### CUSTOMER TESTIMONIAL

“My friends don’t know I work at Equal! People think we exploit inequality for profit. They say we’re hypocrites, not guardians of equality. After all, we’re the ones who set the scoring system. Why allow companies to score highly when we get a cut of the RTEs? At least the salary is good.”

### A WORD FROM THE CEO

“Listen up. This is Miranda Priceless speaking, your esteemed leader. You may have read the baseless accusations about Equal! becoming one of the richest companies in the world. Our goal has always been to make our industry disappear, and not to build and control a market that maximizes our profits. Without us, businesses would still be living in the 2020s! Right, that’s it. Back to work. Now!”

### WORKFORCE

**20,000 Globally**

**Equal Careers**  
@EqualCareers

Failed the military? Rejected by the police? Then become a haranguer for Equal! We need you to dismantle corporate inequality from the inside. Be paid to denounce company executives and publicly shame your colleagues. Must be good at lecturing and moralizing. Salary based on results. #letsgetequal

7:14 pm - Apr. 24<sup>th</sup> 2040

### Positioning on the variables of “conflicting areas”



### THE STORY SO FAR

By the 2030s, big business had recognized that leading climate mitigation wasn’t enough. They now had to lead together. From this surge in collaboration rose Drive to Thrive, a coalition that united major companies across a broad range of sectors. By pooling their expertise, the collective carried out consulting and adaptation services with a positive environmental impact.

The parent companies ran the initiative on a decentralized model, maximizing the use of mobile teams that worked on temporary missions. This strategic fragmentation allowed Drive to Thrive to move quickly and parachute the right people in and out of situations where they were needed most.

It really worked too. But by 2040, the lack of governance had allowed companies to withdraw, one by one. Now, Drive to Thrive is faced with an existential challenge. Does it collapse without its corporate pillars? Or can it develop new economic models that will ensure its survival as an autonomous collective?

### CULTURAL INSIGHT

Drive To Thrive was created from goodwill. For the people who work there, the projects are the most rewarding of their careers, sharing insights with fellow experts from widely different backgrounds. But can it survive on goodwill alone? Or is it a challenge like climate change too big to decentralize?

### A WORD FROM THE CEO

“Why did Tesla withdraw from Drive To Thrive? To be honest, the coalition was already running out of steam. With our partners, we’d funded it for several years, but it couldn’t find a way to generate sufficient income. Our consultants loved the three-month sabbaticals, but their impact hardly justified the expense. Was it ever truly decentralized? Come on. Is anything truly decentralized?”

### WORKFORCE

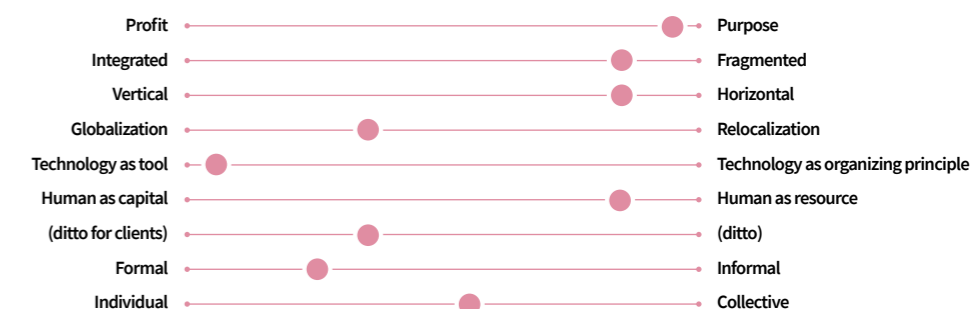
**10 administrators, 100s of freelance consultants**

**Drive to Thrive**  
@drivetothrive

This is just the start! Our social credit system invites you to perform finance actions that improve the common good, funding a new market dedicated to equality and human development. Environmental altcoins allow you to buy certified products at a fair price. We’re free from the Matrix at last!

3:56 pm - Nov. 12<sup>th</sup> 2042

### Positioning on the variables of “conflicting areas”







## What can we learn from these fictional companies?

Inspired by the Emerging Enterprise project<sup>1</sup>, the three fictional companies help understand possible futures to which organizations could be exposed, offering possible evolutions of the health, environmental and social inclusion sectors. Two main ideas emerge from this exercise of futures projection.

### #1

#### Purpose comes first

For all three firms, purpose becomes a defining aspect and should be accompanied by new extra-financial indexes, measuring what happens inside and outside these companies – equality, diversity, and well-being, but also the business model. This model remove also implies a new design for corporate governance, one that involves all stakeholders, including employees. However, setting purpose as a guiding principle can impose structural limits on business activities if it is not fully reflected in all the organization's dimensions, at the risk of creating expectations that will ultimately destabilize it.

### #2

#### The hierarchical model under pressure

Future companies will share the characteristic of offering a new social contract that changes the ways companies and societies operate. For societies, this leads to a disconnect between work and income, a gap that could be filled by “universal basic income” or the idea of “social credits” earned based on people’s social activities for the “common good”. There is also a disconnect between employer and career. What if employees could carry their rights and networks with them from company to company like entrepreneurs?

#### What changes for companies?

Alongside greater freedom for employees, there would be coexistence between humans and robots. Legislating and taxing the work performed by robots could be a possible way of guaranteeing the coexistence of high-tech and low-tech modes, in which automation is used to enhance human work rather than compete against it.

<sup>1</sup> AXA was one of the six major companies contributing to the project conducted by the Plurality University. The particular focus was on combining “classical” forward-looking aspects and using imagination and fiction.” <https://www.plurality-university.org/projects/lentreprise-qui-vient>.

# The 10 commandments for tomorrow's business

**Chloé Luchs-Tassé**  
Plurality university co-director

The Plurality University Network is a global organization that connects artists, designers, utopians, activists and anyone else with an insatiable appetite to reimagine the future.

**Chloé Luchs-Tassé**, its co-director, shares her “watch-outs” for the companies of tomorrow.

#### 4. GO 50-50 OR GO UNDER

Diversity will be a business imperative. If your company is not 50% equal, in representation, salary and opportunities, then it will lose its licence to operate in the eyes of customers. It's worth putting equity into equity.

#### 1. RETHINK PERFORMANCE

What if the criteria to measure your performance went beyond euros and dollars? How would you fare? In the future, the social and environmental footprint of a company, and its impact on biodiversity, for instance, will prove just as important. Be warned!

#### 5. WORK-AS-YOU-WANT

High-performing talent expect flexible models that allow them to take full advantage of their role. That means hybrid working structures, with less hierarchy and more trust. Get used to remote working and four-day weeks.

#### 8. ...BUT AUTONOMY IS GOLDEN

After years of globalization, we will see a return to more localized value chains, driven by ecological and social concerns. The COVID-19 pandemic has also highlighted the fragility of over-extended supply chains.

#### 2. REBOOT GOVERNANCE

If social impact mattered more than profit, then stakeholders would call the shots, not shareholders. The AGM (Annual Governance Medley) would be a listening (rather than reporting) event, with customers and third parties taking center stage.

#### 6. I'M A BELIEVER!

There will be no more workers, just passionate people. The individual must be genuinely excited about the company's actions and willing to be involved in decisions. This personal investment will reflect in the company results.

#### 9. SOCIETY SAYS NO

Businesses need to look beyond economic growth as the primary machinery of a successful society. Global challenges such as social well-being and ecological regeneration require a more open-minded approach, inspired by post-growth models.

#### 3. PULL DOWN THE WALLS

New challenges call for new expertise, which often originates from cross-pollination and collaboration. In the face of complexity, companies will need to source skills outside the organization to complement and energize those within.

#### 7. AUTOMATION ISN'T EVERYTHING...

Artificial intelligence should be used as a tool to enrich human work, not replace it. In the future, it's not hard to imagine a legislative framework that preserves the right of a coexistence between both humans and robots, giving humans the choice to be replaceable, not the opposite.

#### 10. PLAN FOR THE UNPLANNABLE

Two years ago, who could have predicted the seismic impact of COVID-19 worldwide? The reality is that the future will be shaped by new and surprising crises. Businesses must prioritize organizational agility to respond faster than competitors.



# What will a net-zero future look like?

We know the world must achieve carbon neutrality by 2050 to avoid the very worst impacts of climate change. But the path to progress is far less clear. Will success be determined by technology or frugality? Green growth or degrowth? Or can these two contrasting visions of the future be combined and work together? We must experiment and dream, like never before, say the experts. There's no time to lose.

Continue through Progressland to reach your own conclusions.



## 1 The figure

**3** The number of Earths we will need in 2050 to sustain our current ways of living, based on the planet's total capacity to provide renewable and non-renewable resources to humanity<sup>1</sup>.

## 3 The (future) expert

### Kim Stanley Robinson

Sci-fi writer author. In his latest book, *The Ministry for the Future* (2020), a grim future for global warming is depicted, but it still gives readers hope that collective action can avoid a worst-case scenario and counteract the consequences of climate change. *Read his interview page 28.*

## 2 The concept

### “Net zero”

Today's guiding principle of climate mitigation. It implies both cutting and offsetting greenhouse gas emissions (GHG) through **carbon dioxide removal** (CDR) techniques from reforestation to industrial processes for carbon capture and storage.

## 4 The cost

### 75 US\$

The price per ton of carbon by 2030, recommended by the International Monetary Fund, if the world is to attain Net Zero by 2050<sup>2</sup>. The cost is now around 3-60\$, but large emitters like Brazil or India still have no price on it. Carbon pricing is a major incentive to encourage polluters to reduce their usage, and a group of climate experts has also proposed a more drastic increase to 100-250 USD.

<sup>1</sup> Source: OnePlanetNetwork

<sup>2</sup> IMF Climate Note 2021/005, “Not Yet on Track to Net Zero – The Urgent Need for Greater Ambition and Policy Action to Achieve Paris Temperature Goals”

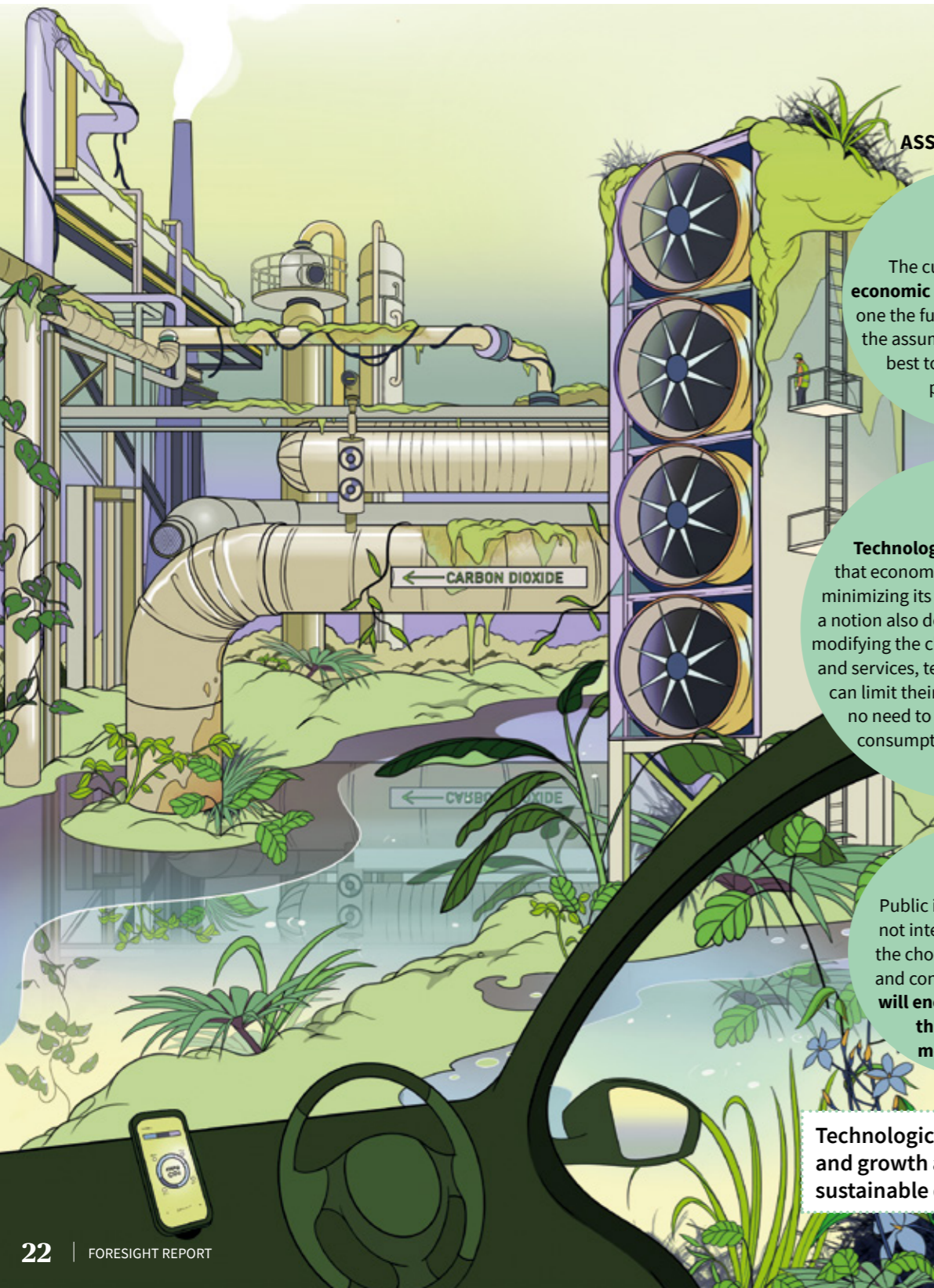
<sup>3</sup> “Carbon needs to cost at least \$100/tonne now to reach net zero by 2050: Reuters poll”



# Scenario 1 Green Growth

Premise: decarbonize and digitalize are the watchwords. Governments are ready to implement a transformative plan for our economies based on market mechanisms and guided by the faith that technology can repair the past.

Economic growth and environmental protection can work together to form a virtuous circle of change. Technology can help natural assets provide the resources and environmental services on which our wellbeing relies<sup>3</sup>, while minimizing pollution and environmental impacts, such as global warming. Green is the Mantra.



## 3 MAJOR ASSUMPTIONS<sup>4</sup>

**1** The current model of **economic growth** remains the one the future is built on with the assumption that it is the best to achieve global prosperity.

**2** **Technology is key** in ensuring that economic growth occurs while minimizing its environmental impact – a notion also defined as decoupling. By modifying the characteristics of products and services, technological innovations can limit their carbon footprint, with no need to substantially reduce consumption and production globally.

**3** Public institutions shall not intervene directly in the choices of producers and consumers, but they **will encourage choices through price mechanisms**.

Technological innovations and growth are key enablers of sustainable development.

# 10 innovations to watch for in this scenario

From the most likely to the most ambitious.  
How would everyday life change in a tech-driven green growth?

**1 Biofuels**  
Renewable bioenergy is produced by any kind of fuel (or biomass) derived from plant or animal matter – traditionally wood or dung, and more recently biogas (e.g., methane), biodiesel (e.g., sunflower seeds), ethanol (e.g., sugarcane), methanol and butanol.

**2 Electric cars**  
Seen as the engine of green growth, battery-powered vehicles run on electricity rather than petroleum and diesel. While its numbers have snowballed in recent years, e-mobility still faces challenges around battery sustainability, range, infrastructure, and cost.

**3 Rain gardens and bioswales**  
Shallow basins and channels, planted with vegetation, intercept water runoff during flash flooding, and act as a natural filtration system for polluted stormwater. As well as boosting diversity, these super soakers can reduce ambient air and water temperature in urban areas.

**4 Vertical farming**  
The world's population is set to reach 10 billion. Indoor farming, thanks to the artificial control of temperature, light, humidity, and gases makes food and medicine production highly reliable and efficient, while using less and less CO<sub>2</sub>.

**5 Green hydrogen**  
This alternative to fossil fuel energy is produced by electrolyzing water (using renewable electricity) to create oxygen and hydrogen. Huge investment is channelled into the development of H<sub>2</sub>-powered vehicles, ships, planes and trains.

**6 Cool pavements**  
Heat island effects in built-up areas are caused when sunlight is absorbed and reemitted by dark materials such as concrete and tarmac. Cool pavements are treated with material that reflects solar rays, reducing air temperature and potential warming of stormwater.

**7 CO<sub>2</sub> tracking app**  
Smartphone apps help the user discover new ways and take daily steps to mitigate their personal impact on climate change. As with a fitness app, users can track and measure their carbon footprint, set goals and share progress with fellow users.

**8 Carbon capture technologies**  
Carbon dioxide (CO<sub>2</sub>) from fuel combustion or industrial processes is captured before it reaches the atmosphere. The greenhouse gas is then used to create products or services, or stored permanently deep underground in geological formations.

**9 Solar radiation management**  
What if we could lower the temperature of the planet by reflecting a small amount of sunlight back out into space? Solar geoengineering, by injecting aerosols into the atmosphere, could keep warming below 2°C, if emissions cuts and carbon removal prove insufficient<sup>5</sup>.

**10 Refreeze the Arctic?**  
The polar icecaps are melting at an alarming rate, raising and warming sea levels across the globe. By engineering cloud cover during the summer months, the Arctic could retain snow cover all year round and create ice cover to protect the Arctic Sea.

<sup>3</sup> "Green growth and sustainable development" - OECD  
<sup>4</sup> Éluclid David Cayla : « Ni croissance verte, ni décroissance ! » (elucid.media)  
<sup>5</sup> "What is SRM? - The DEGREES Initiative" (srmgi.org)





## Scenario 2

# Degrowth

Premise: betting everything on technology is risky, not to say a headlong rush into the unknown. Decoupling cannot happen. Lifestyles must be changed, and drastically.

Innovation is not considered sufficient for saving the planet from the massive effects of climate change. To reduce environmental pressure and bring the economy back into balance with the living world, we must find ways to reduce our current consumption and production patterns, while reducing inequalities and improving human wellbeing.<sup>6</sup>



### 3 MAJOR ASSUMPTIONS<sup>7</sup>

**1** GDP alone is not enough to mirror societal wellbeing, as the negative effects of the CO<sub>2</sub> emitted or the loss in natural assets are systematically excluded.

**2** The Earth's resources cannot indefinitely sustain the current level of population growth. A decrease in our global consumption must be accepted.

**3** To accompany this degrowth, states will play a major role. The economic system must be transformed with social measures to prevent upheavals from income reductions, and to safeguard the most fragile households and countries.

While environmental strategies such as fostering renewable energy and restoring soils and biodiversity are envisaged, degrowth theorists claim that an overall reduction in energy use is mandatory.<sup>8</sup>

## 10 behavioural changes to watch for in this scenario

From the most feasible to the most disruptive. How would our lives change in a frugal economy?

**1 Restrict car ownership / carpooling**  
Car ownership is highly restricted, with exceptions granted only to those with urgent needs (e.g., workplace too far, mobility constraints). Carpooling, ridesharing, and even hitchhiking are supported by government finance, especially in rural areas.

**2 Control waste-to-production ratio**  
Citizens are encouraged to reduce waste, especially plastics. The next step is to ban the use of plastics, monitor waste and penalize those whose households exceed their thresholds.

**3 Lower room temperatures**  
Turning down the thermostat in both workplaces and homes by just half a degree in winter would save considerable costs and reduce greenhouse gases. Lower temperatures can also promote healthier living, increase productivity, and improve sleep.

**4 15-minute city concept**  
Urban designers reformat cities to ensure the maximum amount of walking and biking, with necessary destinations (work, recreation, subsistence etc) all situated within a 15-minute stroll or ride. Non-walking routes in cities are 'phased out' by legislation or habit.

**5 Downsize towns**  
Governments incentivize urban populations to inhabit smaller-scale towns to reduce the pressure on fast-growing cities. Smaller towns could diminish traffic and pollution, grow employment and community cohesion, and improve mental health.

**6 Auto-production and communalization**  
Vegetable gardens are incentivized to encourage people to produce their own products. Yet this is not confined to rural areas. Cities too are equipped with common gardens where citizens can exchange products (and tips!) for how to grow the finest vegetables.

**7 Repair and reuse**  
To end the buy-use-dispose culture – characterized by fast fashion – citizens are compelled to repair, swap and reuse where possible. By manufacturing appliances such as washing machines with 'low tech', owners could fix rather than throw.

**8 Carbon credit cards**  
Paired with a smartphone, these cards show maximum personal carbon allowances – a monthly carbon 'budget' – which is debited when users pay for fuel, food, or consumer goods. If they max out the card, then they are unable to shop until the next month.

**9 Red meat rationing**  
Farming of cattle, sheep and pigs is recognized as a major producer of greenhouse gases, compared to white meat, fish or plants. By limiting consumption at the point of sale – typically in supermarkets – populations could see health benefits too.

**10 Harness the pandemic**  
Many 'impossible changes' gathered traction during the COVID-19 lockdowns. Repairing and swapping made a come-back, offices lay dormant, air travel ceased, people bought local, veganism skyrocketed. And guess what – emissions fell considerably...

<sup>6</sup> Kallis, G. (2018). *What is degrowth?* In *Degrowth* (pp. 1–14). Agenda Publishing.

<sup>7</sup> Servigne, P. and Stevens, R. (2015). « Comment tout peut s'effondrer. Petit manuel de collapsologie à l'usage des générations présentes ». They claim that today the minimal threshold of energy supply to our societies is a range between 12:1 and 13:1 (for one unit of energy invested, you collect 12 or 13). With an average ERoEI declining for fossil fuels, and an ERoEI not above 12:1 for most renewable energies, we're too close to this threshold.

<sup>8</sup> Based on the theories of Elinor Ostrom (Nobel Prize winner in Economics) on communities and resource management.





# Debates and controversies

## Can technologies alone tackle the environmental challenges?

**Not really.**

We won't get to net zero without a combination of new technologies, individual behavioral change, and state intervention. **Emerging technologies**, with AI at the vanguard, undeniably offer transformational tools:

- Electrolysis technology is boosting green hydrogen development, as a solution to the renewables gap
- AI to watchdog agricultural production and manage environmental health
- Smart urban mobility can monitor and control emissions

- Blockchain can raise transparency of supply chains
- Enhanced weather and disaster prediction and response

**Behavioral change** too will be a major contributor to reduce GHG emissions. Three-quarters of the emission reductions for net-zero will come from infrastructure development, such as a shift away from air travel to high-speed railways. This puts the responsibility on **states** for investment. The rest comes from adopting **voluntary changes** in energy saving habits, mainly in homes. Still, alone, they barely contribute to the net-zero path (less than - 5% of emissions). Only when coupled with low-carbon technologies, will they reach more than - 35% of CO<sub>2</sub> emissions.

## Isn't the environmental footprint of technology used to boost green growth too high?

**It's a fair point.**

The environmental **footprint of services** is highly underestimated. Despite being less nature-intensive than industrial goods, they still have material requirements and environmental repercussions. They require massive infrastructure to run, and maintenance is highly energy intensive. Data centers too require increasingly large amounts of electricity.

Yet, defenders of green growth supporters argue that the global thrust to society electrification goes hand-in-hand with **decarbonization**. Emerging technologies are indispensable to increase the efficiency of energy grids, to boost their scale up globally, and to improve their storage.

## Can renewables really replace fossil fuels by 2050? **It's possible.**

In its predictions<sup>15</sup> for the total share of electricity generated by direct and indirect renewables and other low carbon sources in 2050, the International Energy Agency estimates that fossil fuel will power less than 20% of building and industry heat, and less than 10% of road transportation<sup>16</sup>.

Yet Team Degrowth will counter by saying that the power of renewable energy is not comparable to fossil fuels. Given the decline of hydrocarbons, as observed by major providers (US, China, and Middle East), only an overall reduction in fuel consumption will balance supply with demand. Investments in new technology may yet prove their improvement, with exponential outcomes pending in the next 30 years.

## Aren't these theories only applicable in the Global North?

**It's difficult to say.**

The decoupling longed for by the green growth camp is claimed to externalize the environmental **impact from high- to low-consumption countries**, enabled by international trade<sup>17</sup>. This was evident with the EU carbon market mechanism (ETS), which favored delocalization. This practice, however, will be restricted with an ad-hoc carbon tax for imported goods.

A slowed-down economy is also said to be detrimental for lower incomes first. If global markets are descaled, exporting countries in the **Global South could be the first to suffer**. Nonetheless, a planned degrowth in the North is expected to create space for Southern economies to shift away from their enforced role as exporters of cheap labour and raw materials, and to focus on sovereignty, self-sufficiency, and human well-being<sup>18</sup>.

## Can green growth “leave no one behind”?

**Yes... but.**

The EU Commission presents green growth as a strategy to **boost local employment** through **green jobs** that's among the fastest growing and the most resilient<sup>19</sup>. Research on AI applied to the environmental objectives showed that, alongside reduced GHG emissions, these technologies can boost global GDP<sup>20</sup>.

Yet **global inequalities** may persist in how new technologies will be developed – both across and within countries. On one side, Europe, East Asia, and North America can get the most out of new technologies, given their large skilled workforces and existing strengths in this sector. On the other, the green model relies on innovations that are not

necessarily inclusive such as Electric Vehicles (EVs) and not affordable to all. This could also entail a decrease in living standards. The “Yellow Vests” movement in France was a striking representation of this mismatch between green policies' ambitions and the social tolls of their applications.

Technological innovations thus may not be enough to drive change. Public institutions will be increasingly challenged on the social responsibility for this transition. This will bring back the role of the State, whether through public-private partnerships or redistribution mechanisms making this model more affordable to the greatest number.

## Is degrowth possible in practice?

**To some extent.**

Degrowth is based on **sufficiency** and implies a **reduction of the absolute levels of consumption and addresses overconsumption in rich countries** to stay within the limits of the Earth's carrying capacity. For example, by:

- Driving fewer kilometers
- Betting on low technologies, which imply less energy consumption and can be more affordable
- Substituting and fulfilling needs: shifting to public transport from a private car, to a plant-based diet, or replacing clothes washing by airing clothes.
- Adjusting consumption to meet needs: lowering room temperatures and reducing apartment size in relation to the number of inhabitants.

While some might question the need to limit individual choices, as it undermines our accustomed freedoms as consumers, it might be a necessary step to reduce the total environmental footprint globally and gradually.

## Does the degrowth imply less poverty?

**Yes in theory, but challenging in practice.**

The degrowth relies on an alternative economic model in which the State and/or self-organized communities would collectively manage natural resources by taking them out of the market to make our ecological footprint compatible with the planet's limits. This would mean dividing our level of consumption and production by three – both in terms of GDP and average individual income. This would amount to organizing a considerable impoverishment in terms of purchasing power.

Degrowth advocates plead for targeted measures on the most polluting activities.

But how?

The reduction of consumption can be organized by raising prices. But this would be socially unjust. It can be organized by quantitative restrictions, but in this case it will be seen as an attack on freedom.

<sup>13</sup> International Energy Agency (2021). “Net Zero by 2050. A Roadmap for Global Energy”.

<sup>14</sup> Parrick, T. et al. (2019). “Decoupling Debunked. Evidence and arguments against green growth as a sole strategy for sustainability”, The European Environmental Bureau, pp. 42-46

<sup>15</sup> This includes nuclear power, facilities equipped with carbon capture, utilization and storage, low-carbon hydrogen, and hydrogen-based fuels.

<sup>16</sup> International Energy Agency (2021). *ibid.* Please see in Annex fig. 1.12 on the share of energy power predicted by the IEA (2021).

<sup>17</sup> Parrick, T. et al. (2019). *Ibid.* Decoupling debunked – Evidence and arguments against green growth as a sole strategy for sustainability - EEB - The European Environmental Bureau, pp. 53-55.

<sup>18</sup> Heckel, D. (2020). “Degrowth and the global South” in What does degrowth mean? A few points of clarification (tandfonline.com)

<sup>19</sup> The environmental economy in the EU-28 generated EUR 746 billions of output and EUR 303 billions of value added in 2016. These trends in employment and value added in the environmental economy indicate considerably faster growth than that of the overall economy and of gross domestic product (GDP). Moreover, according to the World Employment and Social Outlook 2018: Greening with Jobs, action to limit global warming to 2 degrees Celsius will result in sufficient job creation to more than offset job losses of 6 million elsewhere.

<sup>20</sup> The 2018 **Microsoft-PwC report** estimated that using AI for environmental applications could boost global GDP by between 3.1 and 4.4%, while reducing greenhouse gas emissions anywhere from 1.5 to 4% by 2030 compared to a “business as usual” scenario.

<sup>21</sup> Bihouix, P. (2014). “L'Age de low tech - Vers une civilization techniquement soutenable”, Seuil (2014).





# The importance of (science) fiction to turn the page

For tomorrow to be different from today, the future is about creativity and reinvention. As society is challenged to recalibrate lifestyles and economies, a science fiction writer and an entrepreneur tell us why they believe in the power of imagination.

## Interview

### See the present from the future with Kim Stanley Robinson

Kim Stanley Robinson is an American writer of science fiction. Many of his novels and stories have ecological, cultural, and political themes. *The Ministry for the Future* (2020), despite depicting a grim future for climate change, also gives readers hope if we all take collective action to avoid a worst-case scenario. He tells us more about it.



“The major challenges are actually small in comparison to the enormity of damages that will strike civilization”

#### Where does your interest for utopian science fiction come from?

**Kim Stanley Robinson (KSR):** I had a happy childhood in a beach community in southern California, and as an adult I've realized that this could be either a precursor to a more general good society or just a pocket enclave of privilege, depending on what happens in the time to come. This made me interested in utopia as a form of political activism.

#### Do you think science fiction and utopias have the power to bring about real-life change?

**KSR:** For sure. If one reads a novel set in a society that runs better than ours, it can inspire and also give one practical ideas for present action. Utopias have done this before: Edward Bellamy for the Progressive era, HG Wells for post-War modernization.

#### Do you think it is important to see the world through very long-term lenses?

**KSR:** What's important is to see the present from a future perspective — in other words, the utopian novel happens in the future, and from that imagined viewpoint the reader looks back at now and realizes that things

have to change, and can change, and will change. So, we might as well make them good changes.

#### In your recent novel, you imagine the Ministry for the Future. What would be its measures to combat climate change?

**KSR:** All the central banks on Earth would team up to support the creation of money to pay for the work of extremely rapid decarbonization of our technologies, which is necessary, although not sufficient; we also need to protect habitat for wild creatures, combat inequality between rich and poor, and so on. The major challenges are actually small in comparison to the enormity of damages that will strike civilization if we don't deal with the challenges now.

#### Finally, what is your own vision of progress?

**KSR:** Progress would be no more poor or parasitic rich; everyone (including all the animals and plants) living at adequacy and capable of fulfilment. In other words, sustainable justice. Future generations will no doubt refine this vision of progress, as they have since we evolved into human beings.

## Interview

### Prototyping alternative futures with Antoine Brachet

Associate Director of Bluenove, a hybrid technology and consulting company, Antoine Brachet designs and leads collective intelligence systems. His objective is to create positive scenarios to transform organizations... and the world! Discover Bright Mirror...



#### What is Bright Mirror?

**Antoine Brachet:** It's a project that takes the opposite view of the Netflix series *Black Mirror*. This series, which is an international success, presents us with a particularly pessimistic, even dark technological future. With Bright Mirror, we want to draw people and organizations into a desirable and optimistic future!

The Bright Mirror sessions take the form of workshops in which participants play the role of spectators, authors and actors to encourage the collaborative prototyping of positive solutions.

Participants are presented with a theme, such as ecological transition. The session starts with an optimistic statement: "25 September 2030, I look out of the window and I'm surprised by...". This leads into a participatory writing process, with each group writing a piece of in-depth fiction. They then finetune characters and dialogue, before the participants become actors and play the story back to the audience. The aim is not to mandate solutions, but to seed ideas by stimulating collective intelligence.

#### Is the environment an important subject in your scenarios and stories?

**AB:** Absolutely. At this stage, we have built nearly 3,000 stories and a large proportion of them are infused with environmental issues. It could be direct themes such as the circular economy, ecological transition, biodiversity or the oceans, or other wider themes such as the transport of the future or education. Issues associated with nature and the environment always

bubble up to the surface. In our stories, we imagine scenarios for the future of the environment and we tell them through the likely implications for our lifestyles.

#### Why do environmental issues lend themselves so easily to these predictive exercises?

**AB:** The environment is a complex subject that facilitates debate, naturally encouraging consensus, contradiction, and controversy. We are interested in overcoming contradictions and depolarizing oppositions, to center on controversies. This was the case recently in a project on land use planning, which raised the issue of densification versus urban sprawl. As soon as we touch on environmental issues, there is always controversy.

#### How do you move from your scenarios to action? From utopia to reality?

**AB:** The texts and stories that we build in our workshops give rise to concepts. These concepts are then proposed to experts and internal teams in organizations (companies, large administrations, etc.). They then have the opportunity to reflect on the practical application of these concepts through a methodology that we are currently developing.

Starting from the fictional prototypes imagined during our workshops, the idea is to categorize and combine possibilities (cognitive, material, economic, etc.) with the nature of the collective (individual, group, territory, etc.). By mixing them, we gain a concrete starting point for developing solutions.

“All of these ideas are synonymous with progress, providing a framework for discerning what it means for society to move forward”

#### What is your own vision of progress?

**AB:** Progress is another controversial subject. My personal opinion is that our understanding of progress entered a form of apathy, as it was too closely pinned to W. W. Rostow's growth model for economic development<sup>22</sup>. I like to think we're now breaking out of this lethargy. We need to prioritize an individual dimension, something which is prominent in our debates on citizenship, solidarity, and social links. All of these ideas are synonymous with progress, providing a framework for discerning what it means for society to move forward. The Bright Mirror reveals many of these other paths to progress. We need to experiment with utopia and look through a positive prism to make other futures happen!

<sup>22</sup> "Rostow's stages of growth", Wikipedia



# Parallel trajectories: social mediation or social fragmentation?

Social media is both a symptom and a driver of society's condition. It's a mirror and a mouthpiece. Anyone with a device and internet connection can find a platform to share, argue, sell or reject.

Social movements, such as #BlackLivesMatter, #MeToo and #FridaysforFuture, have built vast followships around the world, which would have proved impossible without the reach of Facebook, Twitter, YouTube and more.

Politicians have risen and fallen on the same channels. Individuals (and cats too) have found fame and notoriety overnight, their names (and grumpy faces) suddenly familiar with people in a hundred different countries.

Mass mobilizations are synonymous with dissension. They often highlight and widen the fractures in societies. But social media also brings people together. Every day, literally billions of messages circulate the globe, sending love, smiles and pet memes. During the pandemic, the instant proximity of social media cut through the isolation. The wheels of business turn on social media.

Will society become more inclusive or fragmented? Should we feel optimistic? Or brace for turbulence? Either way, every twist and turn will be captured, echoed and influenced by social media. Paddle down Progress River to discover the best and worst-case scenarios.

PROGRESS RIVER



## 1 The figure

4.4 billion

The number of people who will be using social media by 2025.

That's half the world population.

## 2 The expert



**Dominique Cardon**

Professor of sociology at Sciences Po Paris where he directs the Medialab. His work focuses on the uses of the Internet and the transformations of the digital public space.

See his interview p.37

## 3 The verb

“To cancel”

The modern culture of boycotting and withdrawing support from public figures whose words and actions are considered socially objectionable or offensive. The movement is especially visible online.

## 4 The word

“Filter bubble”

A situation where news that we dislike or disagree with are automatically filtered out by social media algorithms, narrowing our perspective and knowledge.





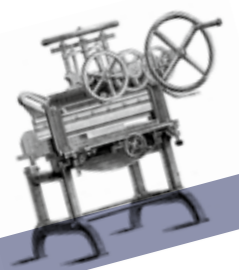
SS RIVER

# 2400BC to 2030: A (very) brief history of social media



## First class?

The first courier service is credited to the Egyptian pharaohs, over 4,000 years ago. They were also the first to use pigeon post. The Persians reportedly created the first postal system in 550BC, swiftly followed by the empires of India, Rome, China and Mongolia.



## Hello, technology

For many centuries, messages passed by boat, horsepower and hand-to-hand. The invention of the printing press in 1436 opened the door to widespread publishing, with political pamphlets and satirical posters spreading dissension, propaganda and scandal, as well as news and information.

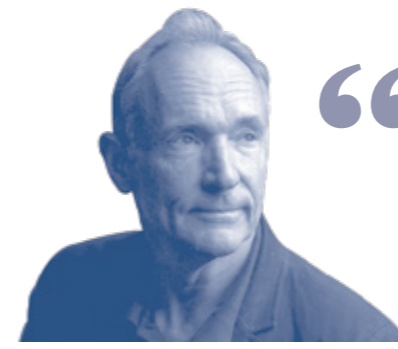


In 1792, the telegraph began sending short messages over long distances, almost immediately. The telephone (1890), radio (1891) and television (1927) really set media free. By the 1940s, the first supercomputers were processing data, followed by early forms of internet and even email in the 1960s. The world was about to get a whole lot smaller.



## You've got mail

Tim Berners-Lee launched the World Wide Web in 1989, just as home computers were becoming commonplace. In 1997, Six Degrees offered the first site for sharing your profile with friends, and social media was officially born. Blogging led to the creation of networking sites like MySpace and LinkedIn and photo-sharing sites like Photobucket and Flickr, before YouTube (2005), Twitter and Facebook (both 2006) began growing into the giants we know today. Whenever a niche emerged, a Spotify, Instagram, Tik-Tok or Pinterest would take root.



“ We've lost control of our personal data and that data is being weaponized against us. The power to access news and information from around the globe is being manipulated by malicious actors. Online harassment is rampant, and governments are increasingly censoring information online – or shutting down the internet altogether. And yet, as we approach nearly 30 years of the WWW, we still have much to celebrate. The web has transformed our lives. It has allowed billions across the globe to connect, communicate and create.”

Tim Berners-Lee, Web inventor



## Growing pains

In the last decade, social media has shown its power to shift opinion, unite people around a common interest or goal, and expose fault lines in society. For example, in the US, the traditional divisions of conservative and liberal political feeling were fuelled by social media's unique ability to disseminate rumor and #fakenews. Facebook found itself accused of influencing elections. Government control of online access gave rise to the term 'splinternet'.



## Hashtag mania

The #BlackLivesMatter movement spread rapidly to denounce acts of racial segregation and discrimination against black Americans, finding an audience around the world. #FridaysForFuture became a global phenomenon after a 15-year-old Greta Thunberg went on a school strike to protest against climate inactivity. #MeToo gave people the courage to speak out against sexual assault and prejudice.

## Either with us, or against

As social media plucked at the fabric of society, some threads were inevitably pulled loose. Born in US universities in the mid-2010s, Cancel Culture pours oxygen onto the flames of public denunciation. Minorities who have suffered the consequences of both symbolic violence and physical discrimination will see canceling of individual and group voices as a form of activism and civic engagement. Mob rule and trolling, stirred up by algorithms, have caused toxic scenes on social media that have spilled out into the real world.



## The future is #written

The pandemic has accelerated a digital world in which billions of people rely on social media to shape their views and attitudes. Will this lead to a more open or closed society? [Turn the page to find out]







The year is 2025. In a post-pandemic world, social media has become a daily staple for two-thirds of the world's nine billion people. The rise of the metaverse means that half the planet spends at least two hours every day in online and/or virtual realms. Is social media a cause of social fragmentation, intensified by cancel culture-like mechanisms? Or, on the contrary, has a reverse movement brought about peaceful coexistence? You be the judge. Two scenarios are at play...

## Scenario 1

# A WORLD ADrift

This follows a trajectory characterized by growing polarization.

### A 5-step manual for fragmentation

People grow increasingly active in voicing their opinions and believe that not only is it their right to speak up but also is it the most effective way of making a change. They view the public sphere as **brave spaces**, where the goal is to search for knowledge and collective discussion, at the discomfort of some.

1

Social media companies, having developed more powerful recommendation algorithms, are reinforcing the “**echo chamber effect**”, trapping users in a ecosystem of like-minded people.

2

The unwillingness of people to listen to the other side, combined with increased polarization make many susceptible to emotionally charged opinions.

3

As it has become the norm to share and retweet about complicated social issues that are condensed in one sentence, one MinuteVideo, or one photo, people stop trying to foster meaningful dialogues that could bring concrete changes, and instead, feel satisfied by appearing politically **woke** (alert to prejudice and discrimination).

4

Discussions become succinct, encouraging all-or-nothing stances, and societies become increasingly fragmented.

5

### IN THIS WORLD

- Political propagandas of both democratic and authoritarian states and different parties within countries flood into public spaces and social media outlets, further deepening divide within societies.
- Citizens become increasingly active in calling out and holding ruling parties, companies, and individuals accountable in issues like economy, environment, equality...
- Resignations and dismissals in both public and private entities are frequent due to exposures and public pressure, making it difficult to adopt long-term plans. The fear of being canceled and the **chilling effect**, leads to a ‘spiral of silence’, where no action is taken because the cost of retaliation is too high.
- The promise of the metaverse and Web3 as a ‘fresh start’ where people can bring their best selves to a virtual world has quickly descended into an arena for segregation, trolling and cyber hate crime.
- Call-out culture becomes a norm: canceled individuals and companies find it impossible to rebuild their career and image, once their profiles are blacklisted onto a blockchain register of shame.
- Groups with different ideologies rarely meet with each other due to Filter Bubble effect and different opinion groups have their own social media outlets, companies, schools and even neighbourhoods, further exacerbating fragmentation.

## Scenario 2

# Peaceful coexistence

When world leaders and citizens realize the importance of overcoming differences and finding common ground.

### A 5-step manual for compromise

Devastated by the latest tragic events, many initiatives encouraging dialogue and reconciliation were created to foster communication and understanding among different members of the society.

1

People now treat the public sphere as **safe spaces**, where everyone is guaranteed self-expression and exploration of ideas without prejudice or judgments.

2

Although people are never afraid to share their ideas, they do so in a respectable way and are always willing to listen to people from the opposite spectrum.

3

Social media companies, having been forced by regulators to realize the ethical implications of recommendation algorithms, hold joint initiatives with local governments and grassroots organizations to educate users on the importance of diversity and freedom on the Internet – and the negative consequences of the “**echo chamber**” and “**filter bubble**” effects.

4

Most importantly, people resort to active exchanges to better understand each other and make compromises rather than launching online wars.

5

### IN THIS WORLD

- Citizen engagement in politics becomes more active and usually end in a peaceful manner through periodic exchanges organized by both the civil society and local governments with different interest groups.
- Fact-check algorithms are embedded in all Internet platforms and regulatory agencies have set up rules to ensure the transparency and ethical implications of algorithms.
- Big Tech companies ask for users’ explicit consent before using recommendation algorithms, but initiatives like Gener8 (which allows people to earn rewards from their own data) encourage users to choose whether they want to share personal information with service providers.
- It is part of the national curriculum to educate children on how to share and take controversial opinions. Politicians conduct fact checks and take an active part in making sure that speeches are delivered in a rational manner. Companies also hold mandatory workshops encouraging benevolence when sharing opinions in public.
- The ‘next generation’ of gamers, brought up in virtual worlds, take ownership of the Metaverse and ensure it is an open, fair and considerate environment where differences are encouraged and hatred is rejected by mass collaboration.
- Activism is oriented towards the next generation, dialogue, and raising awareness of societal issues. People are less afraid to voice their opinions, even those that might be considered controversial, because different sides of the spectrum will listen and educate them over their own biases.





# Know the enemy: to cancel social fragmentation, we need to first understand it

## IS THIS A 21<sup>ST</sup> CENTURY THING?

Societies have named and shamed outsiders – and much worse besides – since the dawn of civilization. Whether public stocks, tarring and feathering, shaved heads or satirical plays, the notion of visibly punishing somebody for thinking differently to the status quo has long been deemed beneficial for community health.

According to the researcher Jean-Eric Branaa, the practice of public denunciation has been present and widely accepted in the United States, with its origins in “Wanted” posters depicted in the Wild West and observed in historical episodes like McCarthyism in the middle of the 20<sup>th</sup>

Century. Guilty until proved innocent is drowned out by mob justice.

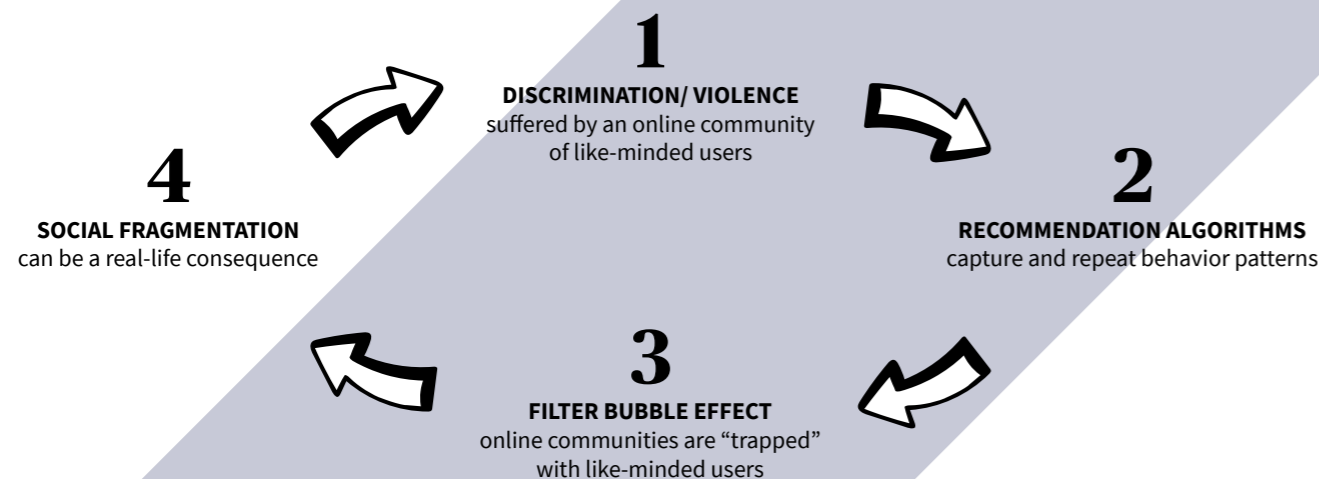
## IS SOCIAL FRAGMENTATION THE FAULT OF SOCIAL MEDIA PLATFORMS?

The spread of information is enhanced by social media platforms’ business models and mechanisms. With a business hinging on advertising revenue models, ads are generated through users’ online activity – and social media encourages the sharing of like-minded content. Recommendation algorithms play a central role in this model: users are shown targeted ads and like-minded content from other users, comforting people in their own world views and

leading to explosive eventual confrontation with divergent opinions.

Cultural minorities find digital platforms a thriving and comfortable space. A recent *Pew Research Center* poll shows how these online platforms are an essential political avenue for minorities. Around 60% of Black and Hispanic communities in the US believe they need social media to either find others who share views on important issues; or to have a space to express their political opinions or get involved in social causes. These minorities would not necessarily find the same safe space for self-expression in the ‘real world’.

## Online social polarization: a chain of events



## Interview

### Dominique Cardon, French sociologist and Internet specialist

The sociologist and director of the Médialab at Sciences-Po gives his diagnosis of the links between social networks and the fragmentation of our societies.



“ A Twitter controversy is not a true reflection of society. ”

#### Has the polarization of public debates increased over the years?

**Dominic Cardon:** I think polarization was much stronger in the 1950s and 1960s, especially on ideological issues. Today, we see a succession of conflicts that come partly from the import of culture wars. This is typically the case around debates about culture and identity. But this does not necessarily mean that polarization is stronger. Rather, the perception of polarization is increasing!

#### So how do we explain the evolution of this perception?

**DC:** Through networks such as Twitter, we see the polarization of debates that are different from real life, involving intellectuals, politicians and journalists who are not representative of the population, but who have a high publication frequency on divisive subjects around identity, culture, ideology...

This situation produces an effect well known to psycho-sociologists: the “spiral of silence”. More nuanced people are less likely to express their opinions and are no longer willing to discuss their political views on public spaces. The debate descends into a struggle for influence between ideologues on opposite sides. Traditional media is therefore essential for defusing the explosiveness of social media.

#### Do you agree with the “filter bubble” and “echo chamber” phenomena, associated with social media?

**DC:** In my opinion, the idea of a “filter bubble” is quite false, as is the claim that algorithms have caused the polarization of society. Thanks to digital technology, we now have much greater access to information than ever

before. Polemical and radical people are usually very well informed about their opponents’ views. In my opinion, no one is more aware of vaccine investigations than an anti-vaxxer! The filter bubble is actually based on a fiction linked to contemporary individualist ideology where the individual would be a free, autonomous, independent subject, with no attachments. He would then make decisions by his full personal consciousness, without any external influence.

#### Our report presents two scenarios for the future: peaceful coexistence or a world adrift. Which do you think is more likely?

**DC:** I am a rather optimistic person, so I would opt for the reinstallation of a more benevolent society, which will also be a more educated society. We must avoid these educational gaps that result in income divides and generate immense tensions.





# Wise up. Global companies are no longer immune to social fragmentation

Social media has breached the ivory towers of big business. Today, a global corporate footprint implies acknowledging societal challenges and contributing to their broad discussion. In other words, you're better off in the conversation, than outside with your ear to the door.

## INTERNALLY

### DIVERSITY AND INCLUSION: INTERNAL COHESION AT RISK?

Societal issues can enter the office through social media, blurring the lines between professional and personal lives. Cultural diversity and divergent political thinking can be the source of social tension instead of fruitful exchange. Companies are especially exposed to a structural tension between what relates to the individual and the collective.

### HUMAN RESOURCES: RETHINKING FREEDOM OF SPEECH

The scrutiny on self-expression can also be interpreted as a threat to freedom of speech at the workplace. Employers must promote a corporate culture that maintains cohesion while encouraging free expression of opinions and ideas. Dedicated safe spaces and brave spaces will help find a balance.

## EXTERNALLY

### CORPORATE RESPONSIBILITY: SHARED VALUE

Online activism has become a powerful tool to express growing societal expectations from the public and private sectors. The key lies in creating economic value in a way that also creates value for society by addressing its needs and challenges. The idea, also known as shared value, is about reconnecting company success with social progress.

### BRAND & POLITICS: A COMPELLING CASE?

Companies are now expected to take stands on societal issues, and at times even advocate for causes defended by their customers. Brand activism can be a strong asset to attract and retain customers and employees, but it can also backfire, as it is impossible to satisfy all market segments and stakeholders at the same time.

### REPUTATION: THE RISK OF DISINFORMATION ATTACKS

Disinformation campaigns can heighten reputational risks for businesses. With few legal protections, these issues can rapidly get out of control, making customers and employees believe in false allegations.

### RESPONSIBLE INVESTMENT: SHAREHOLDER ACTIVISM AND ESG-DRIVEN INVESTMENTS

Responsible investment prioritising Environmental, Social and Governance (ESG) standards are necessary strategies for public and private companies alike. Shareholder activism means that companies must scrutinize internal practices and align them with more internal diversity or environmental concerns.

## 3 new fictional services to deal with increased polarization

AXA has been working with design students from the ISCOM school to imagine new fictional services to help people facing social scrutiny in the age of increased social media use. Here are three of them.

### Idea #1



#### What if we helped SMEs to navigate social media

Small and Medium Enterprise owners can face a hard journey with zero or little support when handling accounting, sales, administration – let alone how to use social media to manage their reputation and attract customers.

AXA Consensus provides a support service for SMEs owners through a dedicated app.

- The app presents advisers and experts with guidance on how to approach controversial subjects.
- The service also gives access to a dedicated hotline to evaluate public posts on social media and avoid risks to the company's reputation and image.

### Idea #2



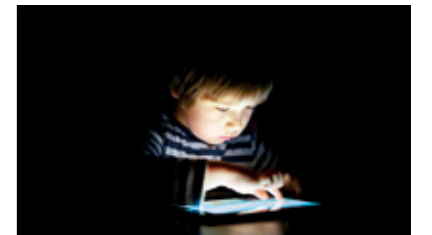
#### What if we could provide space to speak freely

How can employers guarantee open dialogue at the workplace? Furthermore, how can employers help their employees find comfort and relief when in stressful situations?

The Express Yourself Room, based on the concept of a Fury Room intends to provide this safe space for employees: a soundproof space destined for self-expression.

- Proposed physical therapy: meditation, stretching and karaoke.
- Proposed listening & sharing: with an HR specialist, with a psychologist or with another colleague.
- Proposed tech solutions: virtual reality headsets for an immersive experience, boosting sensations and emotions for the user.

### Idea #3



#### What if we could better protect children and teenagers online

The Internet, and especially social media, is still an uncharted and unregulated territory. Children and teenagers are among the most vulnerable public exposed to this space. One of the most threatening consequences for this age group is cyberbullying.

AX-SHIELD is a new solution that's designed to accompany parents and teens on their safe journey online.

- Through special monitoring and counseling, our diverse experts will signal whenever a threatening behavior is observed online.
- In case a threatening situation takes place, appropriate counseling is offered throughout the journey.



# Is “mind health” the new indicator of society's wellbeing?

PROGRESS RIVER

Mental health is a growing concern in many societies – with fears of a ‘mental health pandemic’ caused by the traumas of COVID-19. Yet, there could be a silver lining, given psychological issues are now discussed more openly. What is the way forward, especially for young people, who feel anxious and overlooked? What if individual happiness replaced GDP as a barometer of national or even corporate success? Or could such fundamental shifts have unexpected consequences? Complete your journey through Progressland to find out.



## 1 Figures

**1** out of **5** people in the world today will experience a mental health condition in any given year<sup>1</sup>.

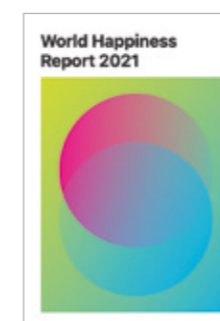
More than **4%** of global GDP is the economic cost of mental ill-health. This includes investment in the mental health system, and the costs of lower employment and lower productivity.<sup>2</sup>

## 2 The concept

### “Eco-anxiety”

The effects of climate change on mind health. This is a growing form of ‘pre-traumatic stress’ related to the distress of life-altering changes to the environment and one’s immediate home. Young people are the most exposed<sup>3</sup> to eco-anxiety, illustrating the diverse range of triggers that can affect mind health.

## 3 The read



**The 2021 World Happiness Report**  
A picture of the past year to understand the 2020’s disruptions and developments in global mind health and wellbeing. Results compare age cohorts, gender, and national performances, where COVID-19 served as a major external factor.

## 4 The word

### “Mind health”

Although the term “mental health” should really capture the full spectrum from good health to severe illness, it tends to carry negative connotations. “Mind health” achieves this broader perspective, referring not only to medical conditions but also the holistic sense of wellbeing related to the mind. It’s more inclusive and helps fight the stigma around this pervasive issue.

<sup>1</sup> 2020 Foresight Report on Mental Health

<sup>2</sup> OECD: A New Benchmark for Mental Health Systems: Tackling the Social and Economic Costs of Mental Ill-Health

<sup>3</sup> Marks, Elizabeth and Hickman, Caroline and Pihkala, Panu and Clayton, Susan and Lewandowski, Eric R. and Mayall, Elouise E. and Wray, Britt and Mellor, Catriona and van Susteren, Lise, *Young People’s Voices on Climate Anxiety, Government Betrayal and Moral Injury: A Global Phenomenon*. Available at SSRN.





# The COVID crisis: A paradigm shift for measuring happiness in our societies

In terms of mind health, the global pandemic brought dark clouds for millions of people, especially the most vulnerable groups in society, such as women, the youth, and poorer households. However, there was a silver lining, as mind health became a mainstream conversation, paving the way to more qualitative indicators into the measurement of societal wellbeing.



PROGRESS RIVER

While the sudden lockdowns, personal tragedies, severe travel restrictions and economic crisis had an immediate and unprecedented impact on people's mind health, the long-term effects of COVID-19 are impossible to gauge. On the one hand, the pandemic worsened an already worrying scenario, affecting the most vulnerable groups (women, young and poor people) in society. Yet it also brought mind health into the global consciousness, helping to combat stigmatization and taboo at a far faster rate than believed possible. This accelerated awareness will prove invaluable in tackling the consequences, which risk skyrocketing without due care<sup>4</sup>. Indeed, fear of stigma is estimated to deter two-thirds of people with mind health issues from seeking effective help.

### FOCUS ON MIND HEALTH IN THE WORKPLACE

The 2021 World Happiness Report (WHR) highlighted the severe disruption in people's lives, caused by unemployment and inactivity, emphasizing the key differences between male and female workers. For middle-aged male breadwinners, in particular, the enforced (and unexpected) time away from work had a significant negative effect on men's happiness. That said, the WHR also found out that in times of recession, the reduced social stigma associated with job loss does help to soften the blow.

Moreover, the pandemic is already reshaping individuals' outlook on job satisfaction, especially in work-life balance, with a growing demand for flexibility and fulfilment. Millions of workers are quitting their salaried roles in what has been defined as the "Great Resignation", a cause for huge social concern and upheaval in the US and Europe<sup>5</sup>.

### A FOCUS ON YOUTH

Younger generations were among the most harshly hit by the reduced social contact, remote working, and home studying. As the section of society most likely to lose their jobs,

according to the 2022 edition of the AXA Mind Health Study<sup>6</sup>, they are now more uncertain (and anxious) about their career prospects. The WHR found that young people now care less about purpose when looking for a job, prioritizing financial stability instead, typical of many crisis cycles. This may be a temporary blip, until economies rebound, yet there could well be psychological repercussions in the long term.

Unsurprisingly, the youth are the most likely group to suffer from a debilitating mind health condition. In the AXA Mind Health Study, over 55% of young people now fall into the two worst categories of mental wellbeing. Alongside a work-life imbalance, depression and eating disorders, young people suffer from several new neuroses such as "eco-anxiety". Indeed, two out of three are said to be "very or extremely worried" about climate change, and 84% were at least moderately worried. This feeling has everyday repercussions in the short term and will cause long-term erosion of trust in institutions and society, including enterprises.

### GLOBAL EFFORTS INCREASING

Thanks to these large-scale phenomena, mind health has been gathering more attention worldwide. In its 2021 communiqué, the G7 forum stressed that "the pandemic has left no one untouched, impacting not only physical health but also mental health and social wellbeing"<sup>7</sup>. New Zealand has emerged as a pioneer by introducing an explicit reference to the "physical and mental health" of its citizens to fully grasp the nation's wellbeing.

Mind health, which more broadly includes parameters like life satisfaction, is growing in prominence as an indicator for life quality. How long before the post-crisis world looks beyond Gross Domestic Product (GDP) towards better measurements for wellbeing? In a pandemic, certainly, other considerations such as access to public health and national cohesion have proved to be major factors rather than "wealth" alone.

<sup>4</sup> OECD, *ibid.*

<sup>5</sup> *Who Is Driving the Great Resignation?*

<sup>6</sup> AXA (2022). "Being Mind Healthy"

<sup>7</sup> *Carbis Bay G7 Summit Communiqué - final-13.06.21*





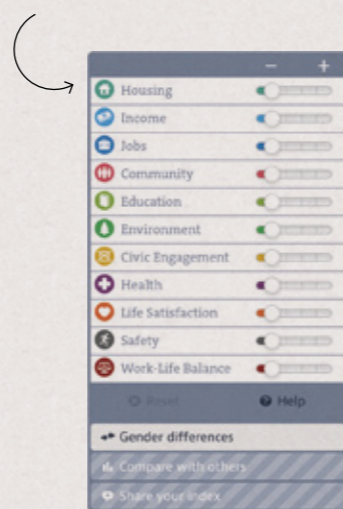
# Bursting the GDP bubble... Which indicators would better measure life and happiness?

Global institutions, such as the World Bank and the OECD, have already challenged the use of GDP, trialling instead new sets of dimensions, such as wellbeing, inclusion, and sustainability to grade a nation's strength. The way we measure long-term progress would also change. Discover some GDP alternatives here.



## 1. Institutional efforts

"There is more to life than the cold numbers of GDP and economic statistics". This is how the **OECD** introduces its **Better Life Index**, which is based on 11 topics – housing, income, jobs, community, education, environment, civic engagement, health, life satisfaction, safety, and work-life balance – all identified as essential in providing a good quality of life for citizens.



The **World Bank's Human Capital Index** provides a new definition of human capital by quantifying the contribution of health and education to the productivity of the next generation of workers. Countries can use this index to assess how much income they are losing because of human capital gaps, and how much faster they can turn these losses into gains.

## 2. Corporations can make the difference

The corporate world too has been pushed to go beyond profit and to enhance their extra-financial performance.

Sustainability indexes enable investors to value the companies' environmental and social responsibility. Instead of merely questioning criteria such as interest, security, and availability, the corporate world started wondering: "where does this investment head to?" and "what am I supporting *really* with my money?"<sup>8</sup>. As a side note, evidence shows that sustainable companies attract more attention in the financial markets and lead to an increase in the percentage of shares held by long-term investors<sup>9</sup>.

ESG performance is becoming increasingly mandatory for companies – and more strictly regulated. Since 2017, the Task

Force on Climate-Related Financial Disclosure (TCFD) has been developing recommendations for more effective climate-related disclosures. And on EU soil, it is now mandatory for companies with over 500 employees to disclose environmental and social information each year. To identify climate-friendly activities, a precise standard-setting criteria (the Taxonomy) was inaugurated, which will also inspire one for social objectives too.

Very soon, all companies will need to undergo these evaluations, which will be made more transparent. EU authorities will also require companies to "tag" the reported information, to enhance its digital readability at a European level. Emerging trends for the future should call for more transparency from companies, combined with a data-driven evidence approach.

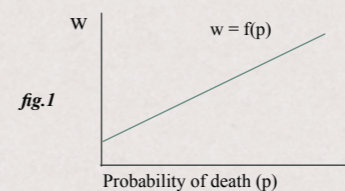
<sup>8</sup> "What is Sustainability Index Used For?" (2019)

<sup>9</sup> "Do investors actually value sustainability indices? Replication, development, and new evidence on CSR visibility" (2019)



## 3. Live well – and long

Based on the assumption that people want to live well and live long, the World Happiness Report presents a matrix that can combine wellbeing and length of life to fully grasp the path towards human progress, while comparing the performance of different countries. This approach is named **WELLBY** (Well-Being-Year) and refers to individual wellbeing experienced over one year.



Future happiness becomes a mathematical equation:

fig.2

$$\sum_{i,t} WELLBY_{it} (1-\delta)^t$$

(i is the individual, t is the number of years ahead; well-being is measured on a scale of 0-10; as the future is uncertain;  $\delta$  represents a pure time discount rate).

Progress represents an improvement in the WELLBY score among present and future generations.





## 4. The “mind health” revolution

As part of AXA’s mission to help people become the best version of themselves, the firm has devised an index that allows individuals to gauge their status in life. The newly released index looks beyond traditional indicators of wealth, such as money, property, salary etc

### The AXA Mind Health Index tracks mental wellbeing based on:

- **Wellbeing Outcomes:** How satisfied people feel with their life and their experience of positive and negative emotions.
- **Positive Actions:** From how we eat, sleep and connect with others. Our lifestyle influences how we think, feel and act. The beliefs we hold about ourselves and the future also influence our wellbeing.
- **Wellbeing Modifiers:** There are some things that we have less control over but we know they can have an impact on our mental wellbeing; we refer to these as wellbeing modifiers. They include how we connect with others, the health care system and mental health conditions.

### Along with scored factors, the Index also explores unscored factors that include:

- Mental health in the workplace
- Parenting
- Opinions/COVID-19
- Wellbeing (specific)

### The combination of these factors results in four categories to track mind health:

- **Struggling:** absence of wellbeing in most areas, associated with emotional distress and psychological impairment
- **Languishing:** absence of positive wellbeing, characterized by lack of motivation and struggle to focus
- **Getting by:** presenting wellbeing but not in all areas
- **Flourishing:** pinnacle of mind health (score over 74%)



## 5. Scoring: the dystopian view?

Measuring our individual happiness sounds like a good way of gauging the overall socioeconomic health of a community or nation. But what if that concept was taken too far? What if your individual happiness score – or other such metrics – could be used to evaluate our actual or potential contribution to society? Could they then determine the rights and liberties we enjoy as a citizen?

Unsurprisingly, science-fiction writers have investigated that dystopian scenario. Their conclusions are chilling.

For example, the hit series Black Mirror invented a world where people can use eye implants and smartphones to rate each other from one to five stars for every interaction they have – whether with a service provider or even a friend. This has a direct impact on that person’s privileges and standing: the higher your overall rating, the better your standard of living.

In his novel “Down and out in the Magic Kingdom”, Canadian author Cory Doctorow creates a parallel universe in which reputation replaces money as the dominant currency. People rely on their Whuffie – a social standing rating – that gives access to transport, medical care,

accommodation, etc. The more likes they get from their social network, the richer they become in real terms. Needless-to-state, the Magic Kingdom doesn’t have a happy ever after.

Is this so fanciful? Businesses today live and die by their ratings from independent review websites. Employees in call centers and at service desks beseech customers to leave them a good score in surveys, as it directly affects their commission, while also acting as their job’s lifeline. Sci-fi writers test the limits of such feedback loops. Surely this could spill out into our personal lives, creating winners and losers.

You have successfully explored the districts of Progressland. Now **turn the page** to redeem your compass for navigating these different visions of progress.



# A Matrix to Navigate concepts in the Future of Progress

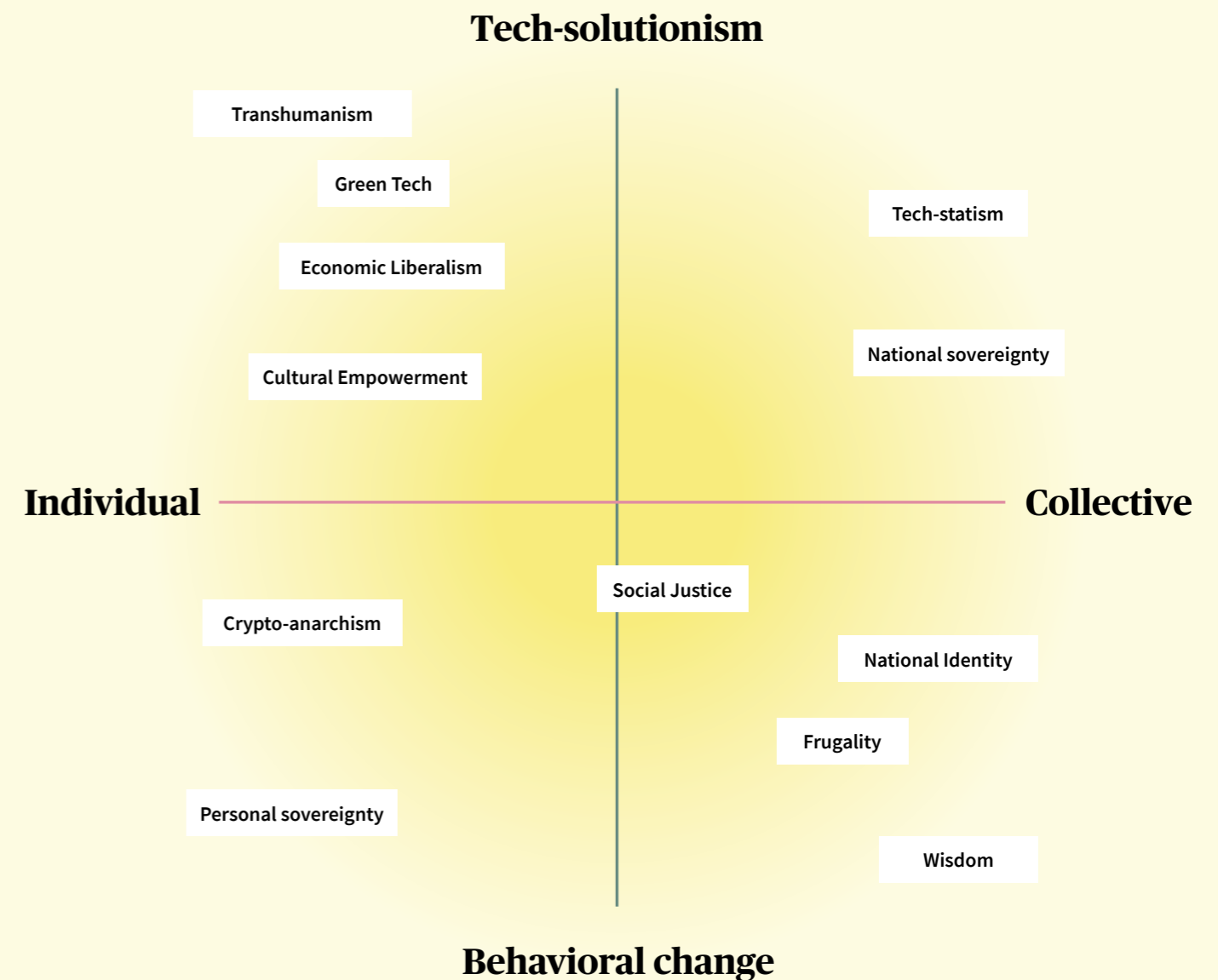
As the experiences in the several districts of Progressland showed, the path towards a common vision of progress is far from being linear. In fact, several ideas of progress exist - sometimes as extremes to one another, or very often as complementary to existing ones. Some represent existing theories that still find their ground in our times, while others are evolving in the contemporary world, or are fuelled by emerging events.

To navigate and explore this plurality of existing ideas of progress, we need both tools to describe these visions and data to understand their dynamics - especially in relation to their historical and cultural contexts.

THE MATRIX<sup>1</sup> CAN THUS HELP TO MAP OUT THE FUTURE IDEAS ON PROGRESS:

The **x-axis** suggests the dimension or the sphere of influence where the visions of progress float around. They've been identified around two poles: **individual** (through their actions or role in society) and **collectivity** (perceived as a whole actor).

The **y-axis** refers to the approaches, or even the practical tools, that can enable these visions: **technologies** (seen as the powerful enablers of mankind evolution) and **human beings' capacities and behaviours**.



<sup>1</sup> This matrix was part of a collaboration between the AXA Foresight Team and the Global Center for the Future.



## Concepts of progress

**Social Justice:** A long-standing concept, towards a better distribution of resources. Over the last 30 years, it has been highly contested, modified, influenced by movements willing to break the barriers for social mobility, and demanding the creation of safety nets.

**Cultural Empowerment:** A theory that builds on social justice movements, where local politics play a major role in promoting respect for cultural diversity and identity. Identity subjects such as race, gender, sex, colonialism, and social class have often been labeled as “woke” or “radical” for – according to critics – further dividing society. Rooted in the 1960s’ civil right movements in the US, being “woke” implies to “stay alert to injustices” and has been revisited over the last few years.

**Economic Liberalism:** Based on principles of personal liberty, private property, and limited government interference, this theory relies on a model of supply and demand, production, and consumption that would be in the best interest of all.

**Wisdom:** A philosophical theory based on moral and philosophical ideals in any sphere of decision making (politics, economics, etc.)

**National Sovereignty:** The supreme, absolute, and uncontrollable power by which an independent state is governed, which determines its independence, together with the right and power of regulating its internal affairs, without foreign interference.

**Individualism:** The moral stance, with roots in political and moral philosophy, that emphasizes the intrinsic worth of the individual. It advocates that interests of the individual should achieve precedence over the state or a social group, while opposing external interference upon one's own interests by society or institutions such as the government.

**Personal Sovereignty:** Also known as self-ownership or individual sovereignty, it is the concept of property of one's own person, expressed as the moral or natural right of a person to have bodily integrity and be the exclusive controller of one's own body and life. It is a central idea in several political philosophies that

emphasize individualism, such as libertarianism, liberalism, and anarchism. It can encompass the idea of digital privacy.

**Transhumanism:** A “techno progressive” socio-political and intellectual movement based on the belief that humankind is in its beta version. It advocates for the use of technology to transform the human organism radically, with the ultimate goal of becoming “posthuman”. To this end, transhumanists focus on and encourage the use of new and emerging technologies, such as genetic engineering and brain-machine interfaces.

**Tech-statism:** A model based on the need to undergo a massive mass surveillance through technologies, justified by the need of national security as the only goal of the state.

**Green Tech:** An umbrella concept that runs from policy making to economic theories, based on the use of technology and science to reduce human impacts on the natural environment. It believes in the power of technological innovations to decouple economic growth and environmental pressure, thus heading towards properly sustainable development.

**Frugality:** A frugal economy strives to create more economic, social, and ecological value while optimizing the use of all available resources. It rejects the need for constant innovation and technological advances, considered as the drivers of climate disasters. It propels an economic model with reduced patterns in consumption and production, centered on a society more prone to collective solidarity.

**National Identity:** It is the sense of a nation perceived as a cohesive whole, made up of distinctive traditions, culture, and language. It can also be viewed in psychological terms as “an awareness of difference”, a “feeling and recognition of ‘we’ and ‘they’”.

**Crypto anarchism:** Also known as cyber anarchism, it is a political ideology which focuses on protection of privacy, political freedom and economic freedom to defend humanity against surveillance of computer network communications.

## Dynamics and relationships

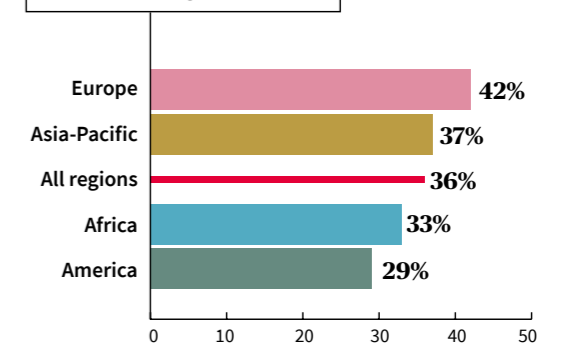
Some concepts of progress are rooted in the past, such as economic liberalism, or social justice theories but are nonetheless, part of the contemporary debate. Others are more grounded in the modern world, with current dynamics that trigger new visions.

These visions are not static – they evolve and interact, adapting to the evolutions of society. Instead of considering them in silos, some visions of progress can be conceived together while others are radically opposed and thus incompatible.

Geography and culture also play a role in the development of the different views on progress. The 2020 AXA Future Risks<sup>1</sup> Report indicates a substantial level of heterogeneity across continents on how technology, globalization, and even the path towards progress is perceived.

When asked to balance the risks and opportunities presented by technological innovations, Europeans and Americans tend to agree overall that they have the power to solve rather than create risks. Nevertheless, there are clear differences of approach within European states, with the most positive outlook in Germany and almost half of French respondents being concerned about their potential risks. When it comes to sharing personal data for community causes, European citizens seem less trustful. While recent research on the

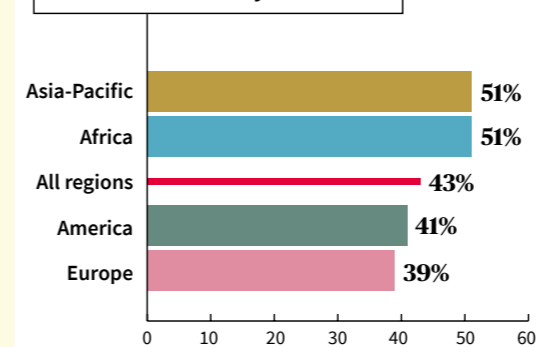
**Our societies can progress without taking any risks**



use of artificial intelligence to tackle climate change shows that most Europeans agree on the importance of individual efforts to reduce their carbon footprint<sup>2</sup>, many are reluctant to share personal data for this aim – with Germans being the most reluctant.

A different picture emerges in Africa and Asia. Excluding Japan, Asia showed more caution around the opportunities of technology. In Hong Kong, for example, almost six people out of ten are concerned about their risks. In Africa, the idea of progress through innovation technology is still often associated with problems more than solutions. In Morocco, half of the respondents saw tech as an issue more than a way forward as did 49% or Nigerian respondents. All the same, when asked about the effects of globalization, Africans had most faith in its positive outcomes. The highest level of trust appeared in Nigeria, where four respondents out of five were optimistic about its impacts. The US and China followed suit, with over 70 percent thinking positively about globalization. Japan stood out as the most skeptical with 67% of respondents considering as a major source of risk. European states seem to agree: almost half of the EU's population fear the rise of globalization, especially in regard to social consequences<sup>3</sup>.

**Technological advances create more risks than they solve**



<sup>1</sup> The AXA 2020 Future Risk Report

<sup>2</sup> Vodafone Institute for Society and Communications. 2020. “Digitising Europe Pulse —Tackling Climate Change: A Survey of 13 EU Countries”.

<sup>3</sup> All data come from the AXA 2020 Future Risk Report. The Future Risk survey was conducted by IPSOS for AXA and Eurasia Group. It targeted two groups – a community of experts (+2,600 from 53 countries in all continents) and a sample from the general population (19,000 people in 15 countries, with quotas applied to gender, age, occupation, region, and market size)



# Acknowledgements

**The Foresight Team greatly appreciates and thanks all our AXA colleagues who have contributed to this project:**

The *Culture, Inclusion & Diversity* team for their precious insights into the future of work: Sophie Furtak, Marta Chavent, Ondine Lupinetti, Kirsty Leivers and Karima Silvent. The *Emerging Risks* team and the *Security Strategy & Awareness* team for their expertise in the future of social media. Rowena Mabilangan and the *European Markets* team for their insights into the future of mind health. Cyrille Magetto along with his students from the *Ecole Supérieure de Communication et Publicité* (ISCOM) for their creativity in exploring the future.

**A special thanks to our external partners and experts for their expertise and creativity:**

The *Plurality University Network*: Daniel Kaplan, Chloé Luchs-Tassé, Ingrid Kandelman and Philippe Hagmann. The *Global Center for the Future*: François Miquet-Marty, Dominique Cardon, Kim Stanley Robinson, Antoine Brachet and Chloé Luchs-Tassé. We would also like to thank Janelle Barone for her illustrations.

## About the AXA Foresight Team

Insurance is built on future potential events. Its success is based on understanding and anticipating them through the best possible vision of tomorrow. This is the role of Group Foresight: to help provide a lens into possible futures by identifying emerging trends for the years ahead and helping society to better navigate uncertain times. Examining long-term transformations and their related challenges allows us to explore the ways in which our societies may be affected in the future and what role insurance might play in a fast-changing world.

The AXA Foresight team's work focuses on three main pillars. Its analysis is also supported by the expertise brought by the AXA Research Fund's community of researchers.

**The 2022 Foresight Report is the achievement of the AXA Group Foresight Team:**

Olivier Desbiey, Gabriela Andrea Hermosilla Gonçalves, and Rachele De Angelis with contribution from Carrie Ai Guan, Titouan Bordas and great support from the AXA Research Fund colleagues and Marie Bogataj.



ENVIRONMENT & CLIMATE CHANGE



HEALTH



SOCIO-ECONOMICS AND TECHNOLOGY

**Design, Artwork & Text Edition :** bearideas  
**Photo credits :** Getty Images, Unsplash, Janelle Barone, Seignette Lafontan

## Other explorations

Every year, the AXA Group's Foresight publishes its annual exploration report, gathering innovative perspectives and shedding light on the societal transformations relevant to our business. The report contributes to AXA's thought leadership efforts while catalyzing debates with key audiences, such as think tanks, academics, business leaders and foresight experts.



**2040 Exploring Society's Future Challenges**

Based on a scenario of what the world might look like in 2040, this report highlights long-term trends shaping the society of tomorrow. It raises questions on climate change, growing need for social protection and data-driven health focusing on their possible outcomes from an insurance perspective.



**Future of Mind Health and Well-being**

A pioneering study on one of the major health challenges of the next decade. This report investigates issues of mental health across one's lifespan, understanding if and how technology can support diagnosis and treatment. It seeks to explore the influence of both environmental and socio-economic factors on overall well-being by 2030.



**Powering Fast Forward Thinking**

AXA's first foresight report gathering a compilation of twenty medium-term trends – from "slashers" to "affective computing" – likely to shape society by 2025. This trend book provides a unique overview of signals to be aware of in the insurance industry's key areas.







[www.axa.com](http://www.axa.com)

