A new economy

Exploring the root causes of the polycrisis and the principles to unlock a sustainable future

EY
Building a better working world

CONTENTS

FOREWORD

Dr. Matthew Bell
EY Global Climate Change and Sustainability Services Leader

Anastasia Roussou
EY Global New Economy Unit Head of Research

Despite the growing platform for sustainability in recent years – seen in numerous international treaties, pledges and coalitions – it's easy to look at our collective global progress on environmental, social and economic indicators and feel uneasy about the pace and scale of progress, and the possibility that we are locking ourselves into an unappealing future.

Corporate sustainability has come a long way over the past few years. Sustainability and the sustainability function more generally – once relegated to compliance, volunteering and corporate affairs – is now firmly in the C-suite, and the management of sustainability risks, opportunities and impacts is more strategic than ever before. But despite positive momentum, efforts thus far are not working – at least, not quickly enough. Ultimately, we are still trying to retrofit sustainability into a system that is unsustainable by design. **But what if we could reimagine the economy as we know it? What if we could aim toward truly regenerative principles and move away from short-termism? Could we then make the adjustments necessary to live within planetary limits?**

These are precisely the sorts of questions that the New Economy Unit (NEU) – a newly formed research and insights team within the EY Global Climate Change and Sustainability Services practice – has been set up to explore. Building on the momentum of the Enough review[1] and the Antithesis project, the NEU's purpose is to reimagine corporate sustainability for a new, regenerative economy, and this review is its first project. Synthesizing a wealth of deep thinking and research from philosophers, think tanks, academia, NGOs and other organizations, this review sets the necessary foundations for transcending the challenges our economy faces today.

Transitioning to a new economy is a generational effort that everyone needs to be part of, and our hope is that adding our voice to the growing movement for change can help bridge the gap between new economic thinking and business action. To that end, we will continue to collaborate, co-create and share knowledge with leaders that helps them to reframe their and our collective futures.

We hope this work resonates with you, and we invite you to share your reactions, thoughts and ideas for action with the team at **neweconomyunit@uk.ey.com**.

About the New Economy Unit

The New Economy Unit (NEU) is a research and insights team within the EY Global Climate Change and Sustainability Services (CCaSS) practice. The NEU focuses on the long-term, systemic shifts toward a new, regenerative economy.

We recognize that the scale of the challenge is beyond the remit of a single company and requires collective effort to address. We want to engage, share ideas and co-create with others doing research in this space, and with anyone who's interested in bringing about a more equitable and livable future.

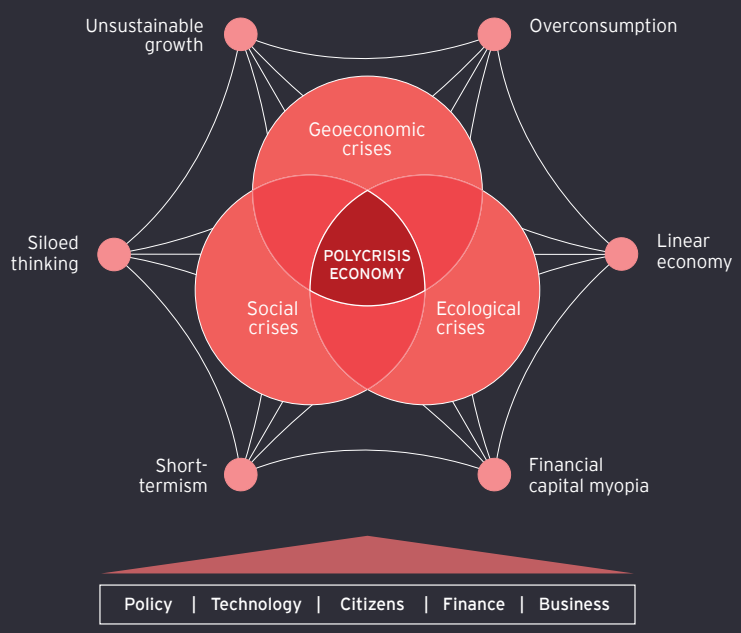
EXECUTIVE SUMMARY

Many indicators would show that we are living in a world today that is better than at any point in our human history, and certainly since the start of the industrial revolution. Health, education rates, longevity and economic progress have all shown startling improvements over the past century. Despite this, our world today faces multiple social, environmental, and even economic tipping points. Perhaps, then, it warrants an investigation into the factors supporting these positive and negative global drivers.

To highlight the challenges business and society face today, we now know that we have made insufficient progress to mitigate climate change, and we have already transgressed six of the nine planetary boundaries essential to regulating the stability and resilience of Earth's life-sustaining systems.

Inequality, too, is on the rise globally, and we have seen stagnation or reversal of progress in areas, such as wellbeing, poverty and unemployment. Individually, these would be cause enough for concern; but coupled with increased geopolitical polarization, the advent of multiple active wars, and the acute shocks felt from the COVID-19 pandemic and the energy crisis, there have been numerous calls from science and academia, economics and business, warning that our economy is facing a "polycrisis."

While the current global economic system has yielded undeniable societal dividends, cracks in its foundations are becoming increasingly apparent. These cracks reveal that the crises we face, and the inadequacy of attempts to avoid or address them, are inevitable consequences of **interconnected systemic flaws**:



1 Unsustainable growth

In the pursuit of growth, the global economy has allowed unacceptable environmental trade-offs, ignored important drivers of social wellbeing, and fed an ever-widening wealth and power gap.

2 Overconsumption

The narrow fixation on national and corporate growth has catalyzed huge overconsumption in high-income communities, with societies living well beyond their ecological means.

3 Linear economy

Driven by a continued reliance on primary materials, significant allowance of wastage, and the perpetuation of classic models of production and consumption, the global economy is based on largely linear systems, with worsening environmental and social consequences.

4 Financial capital myopia

The global economy continues to overvalue financial aspects and fails to value much else, disincentivizing the pursuit of businesses and economies that operate within planetary boundaries, and perpetuating trade-offs between sustainability and financial targets.

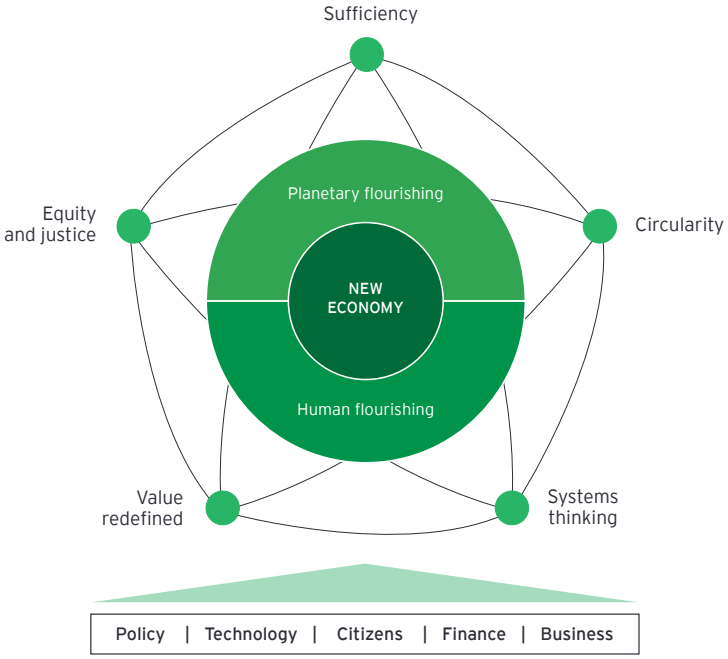
5 Short-termism

The focus on the short term is supported by policy and business planning cycles and amplified by cognitive factors influencing perceptions on long-term issues, leading to delays in taking transformative action.

6 Siloed thinking

Despite knowledge sharing, open collaboration and systems thinking being critical to address today's crises, we continue to approach complex and interlinked issues in silos, thereby missing opportunities to identify transformational leverage points.

All of this paints a dire diagnosis of a patient that's sick and getting worse, yet we still see cause for optimism in the growing movement for economic transformation. Seemingly organized under many different frameworks (e.g., Doughnut Economics, Beyond GDP, ecological economics, degrowth and regenerative economics), these concepts share the common vision of an economy founded on human and planetary flourishing. We suggest they also point to five guiding principles, foundational to accelerating the transition toward this goal:



1 Sufficiency: enough for a good life, within planetary boundaries

Sufficiency is a powerful lever for bringing planetary systems back within a safe operating space, by promoting both sustainable types and sustainable levels of production and consumption, so that everyone, everywhere, has enough to meet essential needs and enjoy a good quality of life within ecological limits.

2 Circularity: aligning production and consumption with nature

Circularity is key to addressing climate change, nature decline, pollution, waste and resource scarcity. Beyond economic, environmental and social co-benefits, turning linear systems into loops presents huge opportunities for transformational innovation.

3 Systems thinking: joining the dots to catalyze systems change

The economy is made up of complex systems, which, in turn, operate within the "system of systems" that is nature. Understanding the relationships, dynamics and causal links within and between systems is key to creating positive tipping points and feedback loops.

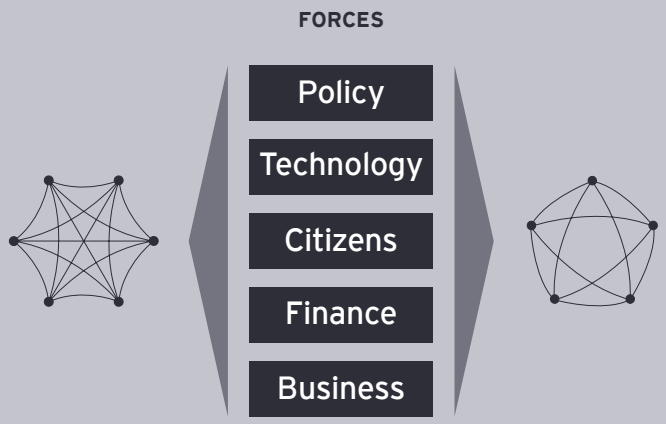
4 Value redefined: putting human and planetary flourishing at the heart of value creation

Redefining value requires expanding our view beyond financial returns and monetary measures, embracing a multicapital model of value, which recognizes the multiple dimensions of a thriving economy and society. Critical to this reframing is enhancing our understanding of what drives prosperity and mainstreaming metrics linked to planetary and social thresholds.

5 Equity and justice: achieving shared and lasting prosperity for all

Our economy is fraught with inequality, and achieving the transitions needed will likely be disruptive. The flourishing we're striving for must be shared fairly, now and in the future, leaving no one behind.

We sit at a critical inflection point with two future economic systems in view – one deeply entrenched, the other slowly emerging, and both likely to continue vying for dominance. Across multiple economic forces, we see both **reasons for concern and reasons for optimism**, underscoring that neither future is a given. These all have huge roles to play in either perpetuating business-as-usual or helping accelerate the transition to a new state.



1 Policy

While signs of fatigue and fragmentation weaken international cooperation on sustainability, strong regional leadership and new coalitions are also helping new economic thinking to increasingly find its way into political discourse.

2 Technology

While over-optimism around technology's potential to resolve the crises we face risks drawing attention and resources away from systemic interventions, properly governed technology, built with sustainability at its core, also holds tremendous transformational potential.

3 Citizens

While global population increase and an expanding middle class increase demand for resources, rising activism and the growing popularity of lower-impact lifestyles suggest that a reshaping of societal values and consumption habits is also unfolding.

4 Finance

While sustainable finance and carbon markets continue to struggle with issues of scale and credibility, and the Sustainable Development Goals (SDGs) financing gap continues to rise, there are nonetheless positive signs of greater volumes of traditional finance being directed toward sustainability and of innovation providing new routes to finance.

5 Business

While demands for growth and short-term financial returns continue to make it hard for incumbents to invest in business model transformation, recognition is growing of the need to transcend incrementalism, and innovators exemplifying new economy principles are increasingly emerging to challenge traditional paradigms.

Our decisions and actions today will determine whether these forces end up perpetuating the inertia of the current system or building momentum behind the transition to a new economy. While this transition will inevitably be disorderly, and will require long-term collaborative effort, it is necessary, desirable and already underway. So, the questions that we must all ask ourselves are:

Which future do we wish to gift to future generations? And what is our role in bringing it about?

WHY IS THIS IMPORTANT FOR BUSINESS?

From life-saving medicine to global mobility, to digital technologies, to the rise to prominence of renewable forms of energy; market-based approaches, supported by the right incentives – and disincentives – have been key in driving innovation and widespread adoption of solutions towards social and environmental prosperity. We believe that the role of markets is equally important in addressing the challenges we face environmentally, socially, and – importantly – economically. Unlocking innovation from capital markets is critical to enable us to achieve the systems changes necessary to create a regenerative economy. In fact, the transition will not be possible without them.

Beyond contributing to realizing a more just and livable future for all, in many regards this is also about the survival and long-term success of capital markets. Where markets fail to address the externalities that put broader economies at risk, they leave themselves open to the risks of a disorderly transition by virtue of regulation; bottom-up consumer demand; ecological, social or geoeconomic disruption; or a combination of all of these.

Conversely, we believe that achieving the shifts outlined in this review will lead to better outcomes not only for society and the environment, but also for business. While the path to a new economy is unlikely to be without disruption, businesses – and the economy as a whole – would develop the tools and approaches to respond to and mitigate impacts. Indeed, we describe the future as radical in the foreword of this document, but as you will note, the new economy principles we propose in the second part are also well-ordered, peaceful, and non-disruptive.

We recognize that most (if not all) businesses today would find their business models not only misaligned but, in many cases, even in conflict with these principles. After all, it is a given that a business cannot be truly sustainable in an unsustainable system. Achieving the changes needed will require a fundamental transformation of our global economy and therefore businesses and markets themselves.

Organizations that position themselves at the forefront of this transformation will not only effectively manage risks but also significantly outperform their peers, leveraging opportunities to tap into new markets and innovate across products and services; ensuring they survive and thrive in a future that looks radically different than the present.

Our hope is that Chief Sustainability Officers (CSOs), other business leaders and modern sustainability professionals will find this review especially useful in navigating inevitable disruption, acting upon the urgency of transformation toward sustainable business models and catalyzing efforts to drive systemic change within and beyond their organizations.

This is not to ignore the vital roles of policy (as a top-down force), citizens (as a bottom-up force), and finance and technology (as key enablers of transformation) — indeed, absent the right conditions, businesses choosing to do the right thing could be penalized in the short-term versus peers who lag behind. The ways in which these forces can all help or hinder the transition is the focus of the final section of this review. It is, however, to recognize the unique position that business occupies as a connecting node between all these system actors, and as a critical link between policy and real economy action.

ABOUT THIS REVIEW

This review synthesizes a vast body of knowledge developed by organizations and leading thinkers. As you read, you will note references and nods to seminal work, including Doughnut Economics, the planetary boundaries framework, the Wellbeing Economy Alliance, Earth4All, Forum for the Future, and the Capital Institute, among others. These individuals and groups have been at the forefront of the growing movement for economic system transformation and have been influential in the development of this review and the NEU's philosophy more broadly.

In exploring this rich tapestry of knowledge and research, we have sought to weave together these strands of wisdom into a narrative that is accessible for businesses — arguably the most economically powerful and environmentally impactful bloc on the planet, whose actions are therefore essential to realizing a regenerative future.

As you delve into the depths of this review, the implication that the current global economic system, unchanged, is hardwired to lead toward collapse may be challenging. Our intent is not to call anyone out; it's to call everyone in. We urge you to suspend judgement, to lean into any dissonance you may feel and to take the time to reflect deeply on the questions it poses for you. As you explore this document, we invite you to examine and reflect on the evidence that our current course is leading us astray, question the assumptions that hold the current systems in place, and consider different ways of seeing and being.

The nature of the challenges we face today means that it takes time to uncover and explore the symptoms and the root causes that stand in the way of addressing the crises we face today. But reading on, you will find that it does not stop at articulating what we should be leaving behind; it also presents what we should be moving toward — the principles for a new economy, supported by promising examples that change is not only possible but also underway. If you'd prefer to cut straight to the chase or generally read this document in a nonlinear fashion, please do.

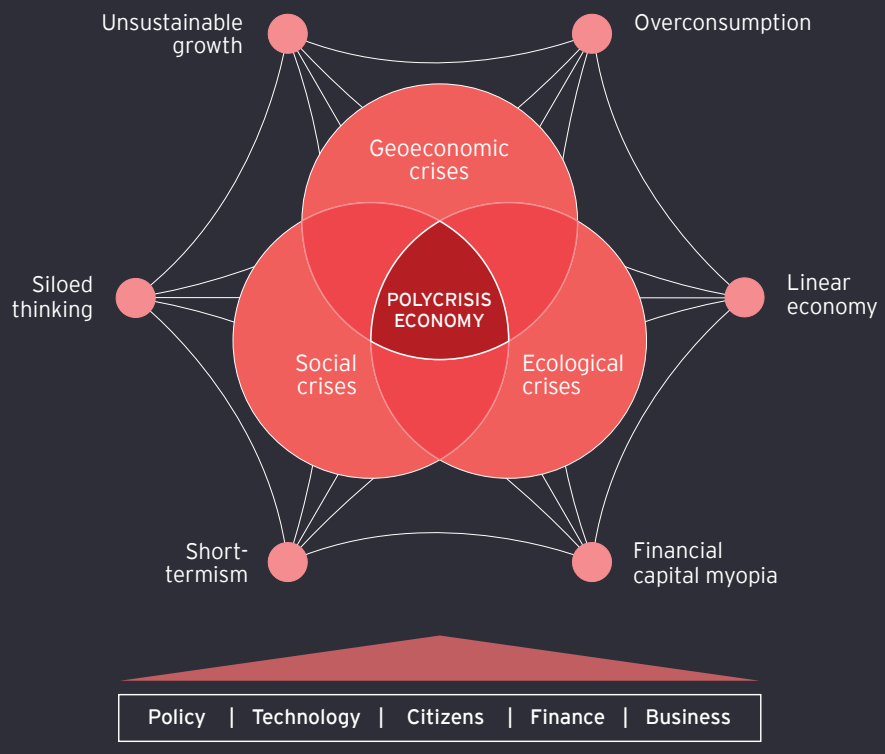
A GLOBAL ECONOMIC SYSTEM IN POLYCRISIS

It has been over eight years since the SDGs were agreed upon, and despite hopeful momentum, scientists are warning that the Earth has now entered uncharted territory.[2] Insufficient progress is being made to mitigate climate change, and we have already transgressed six of the nine planetary boundaries essential to regulating the stability and resilience of the Earth's life-sustaining systems.[3] Inequality, too, is on the rise globally,[4] and we have seen a stagnation or reversal of progress in areas such as wellbeing, poverty and unemployment.[5]

Individually, these would be cause enough for concern, but with increased geopolitical polarization and the advent of multiple active wars – and following the acute shocks felt from the COVID-19 pandemic and the energy crisis – it's hard to deny that we have entered a "polycrisis" as defined by The Cascade Institute:

"A global polycrisis occurs when crises in multiple global systems become causally entangled in ways that significantly degrade humanity's prospects. These interacting crises produce harms greater than the sum of those the crises would produce in isolation, were their host systems not so deeply interconnected."[6]

"A global polycrisis occurs when crises in multiple global systems become causally entangled in ways that significantly degrade humanity's prospects. These interacting crises produce harms greater than the sum of those the crises would produce in isolation, were their host systems not so deeply interconnected.



ECOLOGICAL CRISES

IN BRIEF

Human activity is having a catastrophic effect on the natural world, pushing the Earth's ecosystems into uncharted territory. Nine planetary boundaries define the safe operating space for safeguarding the stability and resilience of ecosystems, and we've already transgressed six of them, including in relation to climate change and biodiversity loss. Despite all the pledges from governments and businesses, real-world action continues to fall well short of what's needed. Without urgent, large-scale transformation, it's not a matter of if, but when, we'll reach the point of ecological collapse.

We are well into the Anthropocene, an epoch defined by the dominance of human activity in shaping the state and dynamics of the Earth's ecological systems.

We've transgressed six of the nine planetary boundaries that define the safe operating space for safeguarding the stability and resilience of ecosystems, driving us toward – and beyond – critical tipping points. We've entered uncharted territory, increasing the risk of negative tipping points and feedback loops that trigger abrupt and irreversible change with consequences multiple times worse than the floods, heatwaves and wildfires we've seen in recent years.[7]

Planetary health continues to deteriorate at an alarming pace. Since record-keeping began over a century ago, the world has already warmed by 1.2°C,[8] and we're on course for 2.5°C–2.9°C warming this century.[9] The past 10 years are the 10 hottest on record[10] and, with climate change accelerating quicker than most predicted, the 1.5°C threshold could be crossed sooner than anticipated when the Paris Agreement was struck. Human activity has altered over 70% of land[11] and 80% of oceans[12] from their natural states, causing wild animal populations to decline at a rate not seen for millions of years.[13] Over 140 million tons of plastic have accumulated in aquatic environments – equivalent to the US and Europe dumping all their plastic waste exclusively in oceans, rivers and lakes for a full year.[14] [15]

Despite pledges from governments and businesses, real-world action continues to fall short. For example, limiting the average global temperature rise to 1.5°C above pre-industrial levels requires reducing global greenhouse gas (GHG) emissions by 43% against a 2019 baseline. Yet emissions continue to rise and are due to drop by only 2% by 2030 based on current national commitments, which countries are already off track to meet.[25] [26] [27]

For every year that passes without meaningful progress, the interplay between climate change and biodiversity loss intensifies; the economic, natural and human costs of mitigation and adaptation rise exponentially; and the window of opportunity to secure an equitable, livable future closes ever further shut. **At this rate, without urgent, large-scale transformation, it's not a matter of if, but when, we'll reach the point of ecological collapse.**

WHERE WE ARE		WHERE WE ARE HEADED	
1.2°C	current warming[16] with the past 10 years the 10 hottest on record[17]	**2.5°–2.9°C**	warming this century based on current national commitments[18]
69%	drop in wild animal populations since 1970[19]	**30%**	of species at risk of extinction[20]
1/10	of global population exposed to unprecedented heat[21]	**1/3**	of global population exposed to unprecedented heat[22]
1.8%	of GDP lost due to climate change in 2022[23]	**Over 10%**	of GDP at risk due to climate change, annually[24]

SOCIAL CRISES

IN BRIEF

Progress toward the SDGs is insufficient and, in some cases, regressing, with billions of people still lacking access to essential goods and services. Inequality is deepening, both between and within countries, which is widening the chasm between the have-lots and have-nots, breeding distrust in our social institutions and weakening our social fabric. Climate change and nature decline further exacerbate existing social crises, not least because they disproportionately affect low-income and marginalized communities. Aside from direct impacts, climate-induced mass migration threatens to further strain the already delicate social cohesion in many countries.

Our current global economic system has certainly yielded undeniable social prosperity dividends. As a global population, we are on average richer in terms of income, more employed and more educated; we live longer, have better health outcomes, and have greater access to education and employment opportunities than ever before.[28] **However, these benefits are not equitably distributed.** Hundreds of millions – if not billions – of people continue to go without affordable access to many of life's necessities, including safely managed drinking water[29] and sanitation,[30] and clean, reliable energy.[31] And worldwide, workers are seeing their average real wages fall, while the richest individuals and corporations continue to grow their wealth.[32]

Past the halfway point for reaching the SDGs, progress on 50% of targets is weak or insufficient; and for 30% of targets, progress has either stalled or regressed.[33] At the current rate, come 2030, some 84 million children will still be out of school, and a further 300 million will leave school unable to read and write. Six hundred and sixty million people will still be without electricity, and close to two billion people will remain reliant on unsafe, polluting fuels for cooking.[34] And about 700 million people – 9% of the global population – are expected to be living below the extreme poverty line of less than US$2.15 a day.[35]

Inequality is deepening too. The COVID-19 pandemic has precipitated the largest increase in between-country inequality in three decades, and within-country inequality has also risen sharply,[36] widening the chasm between the have-lots and have-nots. The resulting deep sense of inequity and injustice is increasing distrust in our social institutions and weakening our social fabric.[37] Compounded by other factors, including the cost-of-living crisis, a loneliness epidemic and the mental health challenges these create, discord and disillusionment sew increasing polarization, and – accelerated by news and social media – create an environment for radical ideologies to spread.[38]

Despite having contributed the least to the climate emergency, vulnerable, low-income communities in the Global South will feel its impacts the most.[39] **Displacement, mass migration and conflict seem increasingly likely, further straining the already delicate social cohesion in many countries.**

Progress on 50% of SDG targets is weak or insufficient, and for 30% of targets, progress has either stalled or regressed.[40]

Income inequality has risen in most advanced economies and major emerging economies, which together account for about 2/3 of the world's population and 85% of global GDP.[41]

Only 20% of respondents to the latest Edelman Trust Barometer would live near, or work with, someone who disagreed with their point of view, and only 30% would help them in need.[42]

1 in 8
people worldwide suffer from mental health issues[43]

30%-35%
of young people surveyed in 45 countries have taken time off work due to stress[44]

20%-34%
of older people in China, India, the US, Europe and Latin America are lonely[45]

GEOECONOMIC CRISES

IN BRIEF

The world is experiencing a steady stream of health, economic and geopolitical crises, exposing both how vulnerable the global economy is to shocks and the stark unevenness of communities' resilience and capacity to recover. Ecological decline threatens to add to the already record numbers of people fleeing conflict and hardship, and a cocktail of acute shocks, chronic issues and underlying socioeconomic challenges intensifies the risk of discord, conflict and polarization. Just when multilateral effort is most needed, these rising tensions threaten to divert financial resources and political will away from the urgent action required.

From the Ebola, Zika and COVID-19 outbreaks, to the global financial and European debt crises, to the war in Ukraine, the decades-long conflicts and humanitarian crises in the Middle East and North Africa, and tensions in the South China Sea, **the world is experiencing a steady stream of health, economic and geopolitical crises**.

These crises have exposed not only how vulnerable the global economy is to shocks, but also the stark unevenness of communities' resilience and capacity to recover. For example, in relation to COVID-19, vast disparities in the quality of medical facilities and availability of vaccines contributed to a death toll four times higher in lower-income countries than rich ones,[46] and the bottom 40% of earners globally have been slower to recover from the pandemic than the top 60%.[47]

It's also clear that geoeconomic, social and environmental crises are intersecting in ways that further intensify risks and impacts. Loss and degradation of natural habitats increase humans' risk of exposure to new zoonotic diseases, for instance. Extreme weather events disproportionately affect low-income communities, who tend to live in more vulnerable areas, and have fewer resources to mitigate and recover from impacts when disaster strikes. And climate change-induced displacement and migration threaten to add to the already record numbers of people fleeing conflict and hardship. In 2022, about one in every 250 people was a refugee.[48]

A cocktail of acute shocks (e.g., price shocks in energy and food) and chronic issues (e.g., precarious employment and the rising cost of living) compounds underlying socioeconomic challenges and intensifies the risk of discord, conflict and polarization. This is reflected in the 2024 World Economic Forum (WEF) Global Risks Report, where "societal polarization" and the "interstate armed conflict" rank as the third and fifth most severe risks over the next two years, respectively.[49]

Precisely when multilateral commitment and collaboration are most needed to respond systemically to this interconnected web of crises, rising geoeconomic tensions threaten to divert financial resources and political will away from the urgent action required.

4x
COVID-19-related death toll is 4 times higher in lower-income countries compared to richer ones[50]

30%
More than 30% of new diseases reported since 1960 can be attributed to land-use change[51]

376 million
People were forcibly displaced by natural disasters and ecological threats since 2008, with 1.2 billion people projected by 2050[52]

5th
Interstate armed conflict ranked as the fifth most severe risk in the 2024 WEF Global Risks Report over the next two years[53]

DEEPLY ENTRENCHED SYSTEMIC FLAWS

Jarring as they are, these crises — and the ineffectiveness of current attempts to avoid or deal with them — are symptoms of wider flaws in our pursuit of a vibrant economy, as viewed through the lens of current societal norms. These flaws are deeply entrenched and threaded throughout the structures of the global economy. Combined with active resistance from those who benefit most from the status quo, they create inertia and complexity that make it hard to escape their gravitational pull.

The benefits that the modern, growth-fueled economy has provided mean it's become almost sacrilegious to question the social and environmental costs of those gains. While we revere innovation at every other level — no product, service or business model would be considered impossible to surpass — we accept the present system despite its failings, and struggle to imagine an alternative that would better provide for human and planetary flourishing.

Yet that is exactly what is now required. While the present system has yielded undeniable societal dividends, the cracks in its foundations are becoming ever more apparent. Exploring, understanding and accepting these root causes of the polycrisis, and how they are perpetuating an unsustainable system, is essential to contextualizing the principles and practices of a new economy.

“Exploring, understanding and accepting these root causes of the polycrisis, and how they are perpetuating an unsustainable system, is essential to contextualizing the principles and practices of a new economy.

UNSUSTAIN-ABLE GROWTH

IN BRIEF

GDP continues to be the primary driver for decision-making and the key measure for policy success. Yet, while useful as a measure of economic activity, it was never intended as a proxy for wellbeing, and it fails to serve as an accurate indicator of social progress. Indeed, because the fruits of economic growth have been, and continue to be, unevenly distributed, inequality is rising, not falling. And while growth has fueled improvements in standards of living, ever-greater demands on energy and resources mean this is coming at a terrible ecological cost.

Humanity will soon face the challenge of meeting the needs of 10 billion people on a planet already beyond its carrying capacity. While it is argued that it is possible to decouple GDP growth from our ecological footprint, this is not happening at a sufficient pace or scale, raising questions about whether the global economy can continue to grow indefinitely.

Ever since its adoption as a key indicator of economic recovery, post-World War II, the relentless pursuit of GDP growth has dominated global policy. Over the past 50 years, the global population has doubled, while the economy, powered by technological innovation, has more than quadrupled in size.[54]

Conventional wisdom holds that GDP growth is essential to widespread wellbeing. **Yet, while GDP growth has been a key driver of social progress over the past several decades, the exploitation of natural resources required to power that growth and the resulting wastes have resulted in catastrophic ecological costs.**

Right now, no country is meeting the basic needs of its citizens at a globally sustainable level of resource use.[55] With the global population projected to be 20% larger by 2050,[56] humanity faces the challenge of meeting the wellbeing needs of 10 billion people on a planet that is already beyond its capacity.

Despite the urgency of the environmental crisis, GDP growth continues to be the primary policy driver and the key measure of policy success. Despite the majority of GDP being moderately or highly dependent on nature and ecosystem services,[57] economic incentives prioritize growth over, and even to the detriment of, environmental protection and restoration.

> “Right now, no country is meeting the basic needs of all its citizens within the means of the planet.

Consider the concept of endless growth in biological terms. Our bodies don't grow indefinitely and, if our cells do, it's profoundly abnormal (we call it cancer). Looking through a living systems lens, an end to physical growth is natural. Growth in size and mass is crucial for survival in the early stages of life, but once an organism reaches maturity, the emphasis shifts from quantitative growth to more **qualitative** development – an ongoing process of adaptation to thrive in balance with surrounding systems.

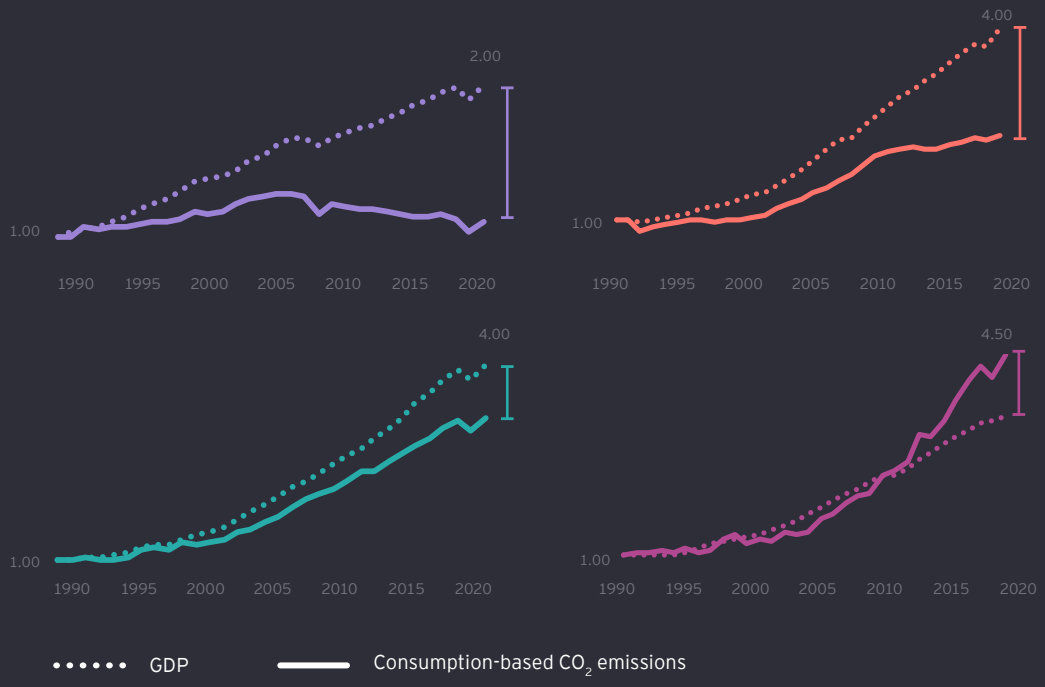
When ecological collapse is looming, and when GDP growth and environmental degradation are closely correlated, how can this continue indefinitely?

Enter "decoupling" – the concept that GDP growth can continue on the basis that technological innovation and the "greening" of consumption can break that correlation with environmental harms. Unsurprisingly, it's an idea that has taken center stage in policy and business sustainability narratives over recent years. But while decoupling is undoubtedly key to reducing our ecological footprint, a growing body of research casts doubt on whether decoupling **alone** can reduce energy and material throughput at the pace and scale required to meet Paris Agreement targets.[58]

Decoupling is not happening at the pace or scale needed to mitigate ecological crises

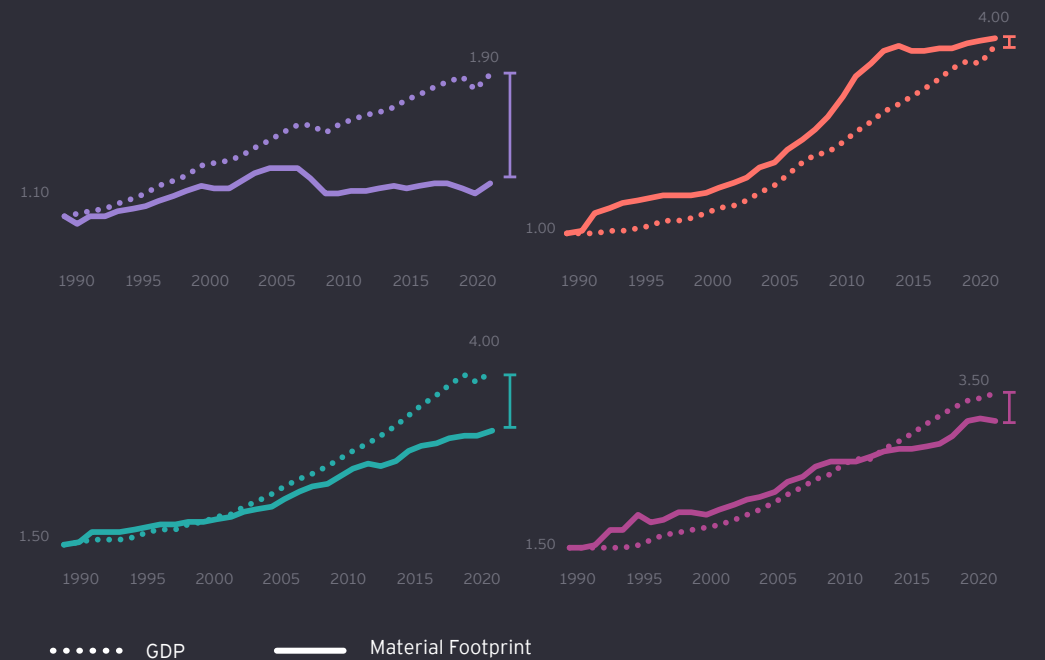
> Consumption-based CO_2 emissions and GDP 1990-2021

While there is evidence of progress in decoupling GHG emissions from GDP, a reduction of absolute consumption-based emissions is noted only in high-income countries, which only account for one-third of global emissions;[62] and at a rate that does not align with meeting the goals of the Paris Agreement. In other countries, absolute consumption-based emissions continue to increase. As a result, global emissions are still growing but at a slower rate than GDP (i.e., "relative decoupling").



> Global GDP and Material Footprint 1990-2021

A similar trend is noted for material footprint, which has been steadily increasing globally at a rate tracking – until recent years – quite closely to the GDP growth rate.[59 60 61]



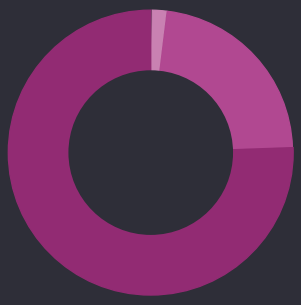
High-income countries
Upper-middle-income countries
Lower-middle-income countries
Low-income countries

The notion that GDP growth is essential to widespread wellbeing has been challenged for far longer. In 1968, Robert F. Kennedy famously criticized GDP as measuring "everything except that which makes life worthwhile,"[63] and three decades before him, Simon Kuznets (the Nobel Prize laureate credited with its development) asserted that, "The welfare of a nation can scarcely be inferred from a measurement of national income as defined by GDP."[64]

Alongside its blinkers on environmental externalities, research shows that, above US$15,000 per capita, GDP fails to serve as an accurate indicator of social progress.[65] Moreover, without due consideration for where the proceeds of growth flow, income and wealth inequality are growing too. Today, the richest 10% of the global population takes home 52% of global income (at an average of US$122,100 per year), whereas the poorest half makes 8.5% of it (at an average of US$3,920).[66] Wealth inequality is even more pronounced, with the poorest half owning a mere 2% of all wealth compared with 76% owned by the richest 10% (38% by the richest 1% alone).[67]

Even without environmental and societal trade-offs, the reality is that economic growth itself is slowing, particularly in high-income countries. When redoubling efforts to stimulate growth risks leading to the further erosion of social and environmental protections, it's time to change direction – from the maintenance of an economy that needs to grow, whether or not it helps all to thrive, to transitioning to an economy that helps us all to thrive, whether or not it grows.[68]

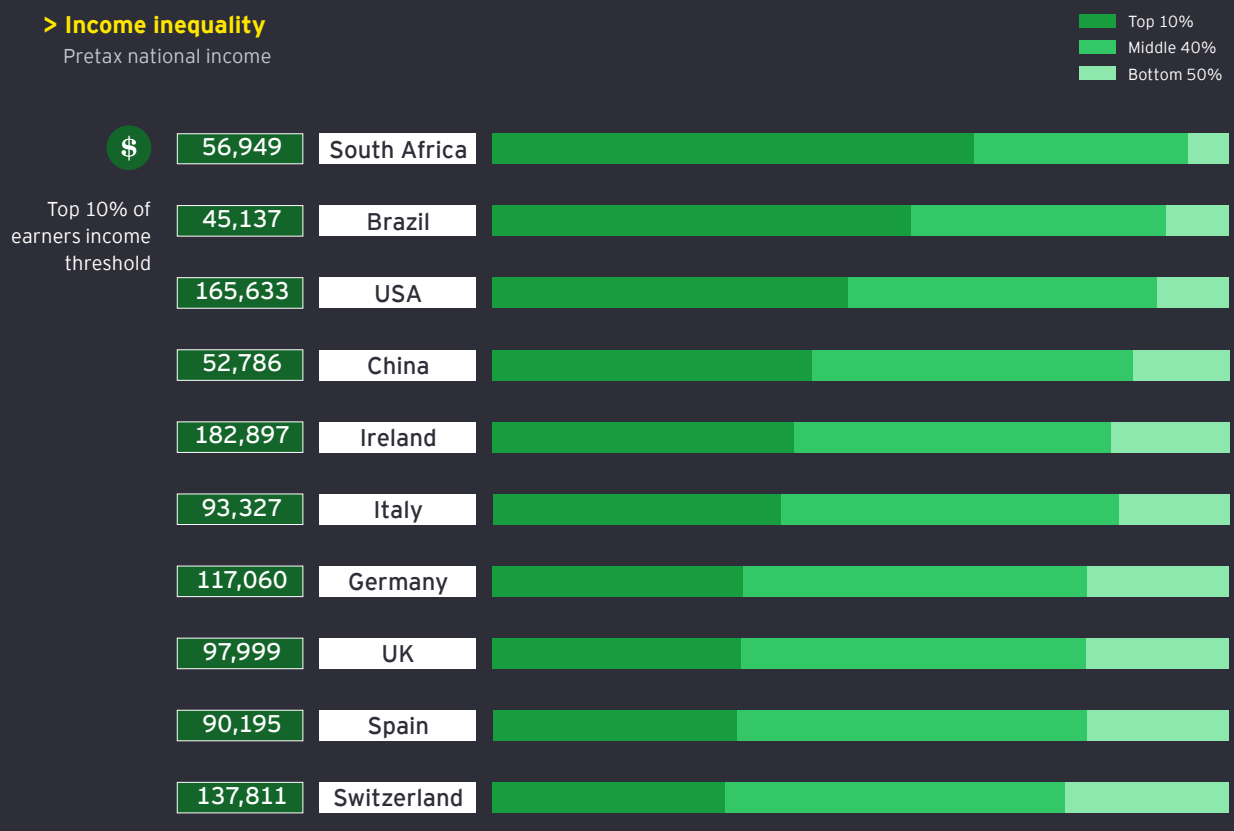
> Wealth inequality



Share of wealth held by the richest 10%, middle 40% and bottom 50%[69]

> Income inequality

Pretax national income



Share of income held by top 10%, middle 40% and bottom 50% of earners[70]

OVER-CONSUMPTION

IN BRIEF

Humanity is increasingly living beyond its ecological means. Based on current patterns, we'd need two Earths by 2030 and three by 2050 to meet our needs without incurring an ecological deficit. But these headline figures don't paint the full picture. Behind them lies a story of vast overconsumption among the wealthiest in society, while the poorest struggle to meet their basic needs.

While individual responsibility for consumption habits is key, businesses' role in perpetuating a continuous cycle of consumerism, through the creation of insatiable wants, cannot be overlooked. Nor can the insufficiency of efforts centered on efficiency, which, thanks to the "rebound effect," can lead to more demand on, and consumption of, resources, not less.

For most of human history, the comparatively slow pace at which goods were manufactured meant that we consumed goods in relative moderation. The post-World War II period, however, saw a step-change in mass production capability, and with it, both the means and the motive to drive an explosion of consumption.

Particularly in high-income countries, this surge has meant that we're increasingly living well beyond our ecological means. Consumption was identified as a key driver of environmental degradation at least as far back as the 1992 Earth Summit. Yet despite decades of multilateral commitments to sustainability since, global material consumption per capita has increased by nearly 40%,[72] and the stock of natural capital per capita has declined by a similar percentage.[73]

As a global population, current per capita consumption (12.3 tons per person) exceeds the sustainable threshold by 150%[74] and based on current patterns, we'd need two Earths to meet our resource needs by 2030[75] and three by 2050.[76] But such headline global figures don't tell the full story, masking huge variations in consumption across high- and low-income communities.

A 2018 study found that the water crises in many cities around the world were being driven as much by the overconsumption of the rich — to fill swimming pools, water gardens and clean cars — as by climate change or overpopulation. In Cape Town, South Africa, for example, the richest citizens used 50 times more water than the poorest, leaving the poorest without enough water to meet their basic needs.[71]

1.7 Earths
To meet our current consumption needs[77]

3.3 Earths
If everybody consumed at the same rate as people in Organisation for Economic Co-operation and Development (OECD) and EU countries[78]

5.5 Earths
If everybody consumed at the same rate as people in Canada, Luxembourg and the United States[79]

Observable, for example, in simultaneous crises of obesity and malnutrition, excessive, non-essential consumption by the more affluent co-exists with underconsumption among the poorest members of society. As the growing middle and upper classes overspend on the empty calories of luxuries that have no bearing on their happiness or wellbeing,[80] we are wasting much of the food and materials that we produce and extract, while billions lack access to basic provisions.[81]

While individual responsibility is certainly key, it's impossible to overlook the central role of business in creating insatiable wants. The ubiquity and convenience of e-commerce, personalization and recommendation algorithms encourage people to buy items they didn't know they wanted and do not need. Flash sales and limited-time deals create a sense of urgency, and fast shipping offers instant gratification. Influencers, celebrity endorsers, and planned or perceived obsolescence play on people's fear of missing out on being part of the latest trend. All (and more) contribute to a continuous cycle of consumerism.

Reflected in growing regulatory efforts to curb it, greenwashing has become increasingly sophisticated[82] as organizations seek to project an image of sustainability as a means to sell even more product. Even where steps to reduce product footprints are genuine, efficiency improvements may nonetheless lead to increases in consumption. This is thanks to Jevon's Paradox (also known as the "rebound effect"), whereby efficiency improvements may reduce the resources needed for any one use, but the accompanying falling cost of use ends up increasing overall demand.

> We are wasting much of the food and materials that we produce and extract, and billions lack access to basic provisions.

1.3 billion tons

Every year, one-third (about 1.3 billion tons) of all food produced is wasted[83]

400%

The US population is 60% larger than it was in 1970, but consumer spending is up 400% (adjusted for inflation)[84]

4x

The global e-commerce retail market quadrupled in size between 2014 and 2021[85]

LINEAR ECONOMY

IN BRIEF

Continued overconsumption of resources and overproduction of waste are consequences of a system stuck in a linear "take-make-waste" model. Extraction and processing of materials are already key drivers of water scarcity, biodiversity loss, GHG emissions and air pollution. And excessive extraction of finite resources (and of renewable resources at rates faster than nature can regenerate them) is ushering in an era of scarcity.

Without significant breakthroughs in circularity, we're likely to face increasing competition for basic resources, such as food, water and critical minerals. This race for resources is expected to be underscored by price volatility, supply chain instability and potential human rights violations that all intensify tensions in areas already susceptible to conflict, water scarcity and food insecurity.

Continued overconsumption of resources and overproduction of waste are consequences of a system that remains largely stuck in a linear "take-make-waste" model, where most products are destined to be simply thrown away.

Currently, only 7.2% of all material inputs into the global economy comes from secondary materials that have been recovered and reused, down from 9.1% in 2018 and 8.6% in 2020.[86 87] Underscoring that progress on circularity remains woefully inadequate and has even gone into reverse; the result is that we remain on a path where humanity's ecological footprint continues to outstrip nature's regenerative capacity.

Global resource extraction has more than tripled since the 1970s, and at current rates of consumption, it's expected to double again by 2060.[88] Material consumption is a solid proxy for environmental damage, with material handling and use driving 90% of water stress and biodiversity loss, and 70% of global greenhouse gas emissions.[89] And with over 90% of materials used only once, waste volumes are also increasing. Around 15% of resources extracted end up in the atmosphere as emissions and a third ends up as waste, much of which is not managed in an environmentally safe way.[90]

Compare your phone, electronics, clothes, even your car to those of generations past. Outdated as they may be, many of these products would still meet their basic functions today, decades after their manufacture, while their contemporary counterparts have a considerably shorter shelf life. Reusable bottles were the norm for beverages before single-use plastics replaced them as the more economically attractive option. Repairing items that had lost part of their function used to be the norm, whereas, today, replacing them is often seen as easier.

Global resource extraction has more than tripled since the 1970s and is expected to double again by 2060.[95]

> Material inputs into the economy

43%	Nonmetallic minerals (primarily for stock build-up, including buildings, infrastructure, roads)
25%	Biomass, including food and feed, natural fibers and timber
15.5%	Fossil fuels
9.4%	Metallic minerals
7.2%	Secondary materials[96]

Excessive extraction of finite resources (and of renewable resources at rates faster than nature can regenerate them) is also ushering in an era of scarcity, increasing competition for basic resources, such as food and water, as well as critical minerals.

The scale and complexity of the scarcity challenge are perhaps best illustrated in the context of the energy transition, where supplies of critical minerals, such as cobalt, nickel and lithium, are essential to accelerating the scale-up of clean energy infrastructure. For example, around 30 times more lithium, nickel and other key minerals are expected to be required in the electric car industry by 2040 compared to current supply to meet Paris Agreement goals.[91] **Meanwhile, under current production patterns, we could see lithium shortages as early as 2025, with supply and demand mismatches already evident for several other minerals.**[92]

These challenges are compounded by concerns arising from the geographical concentration of transition minerals, more than half of which are located on or near Indigenous people's lands.[93] These include risks of the violation of land and water rights, as well as health threats, water pollution and other human rights concerns.

In sum, without significant breakthroughs in circularity, we're likely to face a race for resources, underscored by price volatility, supply chain instability and potential human rights violations that all intensify tensions in areas already susceptible to conflict, water scarcity and food insecurity.[94]

> Global demand for critical raw materials set to rise significantly*

	27 Co Cobalt	29 Cu Copper	3 Li Lithium	28 Ni Nickel	60 Nd Neodymium
Rate of increase					
2030	1.4-2.2x	1.2-1.4x	2.4-5.5x	1.3-2.0x	1.5-2.0x
2050	2.1-3.1x	1.4-1.6x	4.6-10.1x	1.7-2.2x	1.9-2.5x

* (2022 baseline)[97]

FINANCIAL CAPITAL MYOPIA

IN BRIEF

The global economy continues to systematically overvalue short-term financial performance and returns while undervaluing stocks and flows of other vital capitals (e.g., natural, human, social). Leading us to systemically discount the value of anything that doesn't have a price attached, we've arguably lost sight of what value really means.

Even when attempting to integrate other forms of capital into our thinking, this is often limited to what can be translated into monetary terms. Coupled with little obvious reward to businesses or investors for internalizing nonfinancial value, this means that social and environmental costs and benefits are typically only internalized if this improves short-term financial performance.

In turn, this tends to emphasize incremental improvement to established strategies and activities that offer little in the way of innovation or significant sustainability benefits. Worse, conflicting signals from regulators and the market may lead businesses and investors to do no more than the minimum required to maintain their social license to operate.

Today's global economic system tends to focus on what can be measured in monetary terms, using market-based metrics. This leads to overemphasizing and excessively rewarding financial capital growth while simultaneously undervaluing and underrewarding the preservation and growth of other forms of capital (e.g., natural, human, social and relationship).

Such is the grip of financial capital myopia that we've arguably lost sight of what value really means. **Value is defined by price, rather than the other way around, meaning we systematically discount anything that doesn't have a price attached** – such as the contribution of unpaid caregiving to economic welfare, or the environmental costs of policy and business decisions.[99]

Even where efforts are made to internalize these "externalities," this tends to be by expressing social and environmental value in monetary terms (e.g., the social cost of carbon). While this may seem sensible and practical, the idea that the best way to incentivize focus on nonfinancial value is to attach a financial value to it is deeply paradoxical.

When we look at things through a purely financial lens, we're often not seeing the full picture. For example, **we typically think of poverty as a lack of income, but people living in poverty face multiple deprivations**, including lack of access to safe drinking water, nutritious food, and decent health care, housing and education. Measured against the international poverty line of US$2.15 per day, around 720 million people globally are living in extreme poverty today. But use a more holistic measure, such as the Multidimensional Poverty Index, and that number almost doubles to 1.2 billion.[98]

Unless this heightened awareness becomes a stepping stone toward a deeper understanding of our dependencies and impacts on nature, such approaches will likely continue to struggle beyond estimations of instrumental utility. How, for example, do you assign a dollar figure to **intrinsic** and **relational** value (e.g., the sound and beauty of a river, or the cultural and spiritual meaning of Indigenous lands)? Even assuming you could, is that the right approach?

In any event, the current system offers little obvious reward to businesses or investors for internalizing nonfinancial value — other than mitigating risk or harnessing opportunities that benefit the bottom line.

Worse still, conflicting signals from regulators and the market can reinforce the perceived conflict between strong sustainability action and financial returns, resulting in efforts being limited to incremental improvements on established strategies and activities, offering little in the way of innovation or significant sustainability benefits.

Undoubtedly, the past few years have seen sustainability-related information increasingly incorporated in the formulation of investment strategies, with asset owners and asset managers expecting well-run companies to consider sustainability matters in their decision-making and seeking to better align their portfolios with sustainability objectives (perhaps best evidenced by the boom in net zero financial sector initiatives, such as those under the Glasgow Financial Alliance for Net Zero.[100] However, this sustainability-inclined investor sentiment co-exists with pressure to deliver strong shareholder returns in the short-term, posing a barrier to lower or slower return-on-investment initiatives. Similarly, conflicting signals can be seen in the policy field where, the growing politicization of sustainability breeds an uncertain long-term outlook for businesses and investors alike. In the US, for example, clean energy investment incentives in the Inflation Reduction Act coexist with rising anti-ESG sentiment, with over 300 anti-ESG bills introduced since 2021.[101]

As we confront these conflicting narratives reinforcing financial capital myopia, the path forward necessitates a paradigm shift — one where our notion of value itself, but also how we create, distribute and measure it get redefined to extend beyond the balance sheet and better reflect the contribution to broader environmental and social prosperity.

> As we confront these conflicting signals and entrenched financial capital myopia, the path forward necessitates a paradigm shift.

US$44 trillion
More than half of global GDP is moderately or highly dependent on nature and ecosystem services[102]

3/4
of total energy sector subsidies go to fossil fuels[103]

5x
The economic cost of inefficient agriculture, fishing and fossil fuel subsidies to people and nature is five times higher than the amount subsidized[104]

78%
of investors think that companies should prioritize investments in long-term sustainability issues material to their business even at the expense of profits in the short-term, but 53% of company finance leaders reported short-term earnings pressure from investors
– 2022 EY Global Corporate Reporting and Institutional Investor Survey[105]

SHORT-TERMISM

IN BRIEF

Despite warnings that our actions this decade will have impacts for thousands of years, resulting in losses and damage multiple times higher than those currently observed, we continue to prioritize short-term gains at the expense of long-term outcomes. This is locking in delay that further exacerbates environmental degradation, social disparities and geopolitical tensions.

The persistence of short-termism has both structural and psychological roots – from policy cycles, business planning and investment horizons, to multiple cognitive biases that cause us to prioritize the present, normalize increasing environmental degradation and numb our empathy toward the suffering of millions of people. The ultimate effect is that we are colonizing the future, passing the costs of our inaction onto generations yet to be born, who are powerless to prevent it.

All around us, we see signs, not only of financial capital myopia, but temporal myopia too. Politicians can barely see past the next 24-hour news cycle, let alone the next election. Business strategies rarely look more than three to five years beyond the present, and CEO tenures are getting shorter over time.[107] The average amount of time investors hold on to a particular stock is getting shorter and shorter too.[108]

At 3°C of warming (the trajectory under current policies), some estimates place the total cost of climate change at about 5% of annual global GDP by 2050 and over 10% by 2100.[109] Conversely, the Earth4All initiative has modeled the cost of a "Giant Leap" to a new economy at a more modest 2%–4%.[110] Yet despite this evidence that the long-term costs of inaction far outweigh the short-term costs of action[111] – and that each year of delay compounds near-term costs by shortening the period over which rising costs of mitigation can be spread[112] – delay is still the order of the day.

Policymakers continue to procrastinate on large-scale economic and policy reforms, in favor of restoring short-term economic growth. Businesses set ambitious net-zero targets, yet, as EY analysis illustrates, few have credible plans for getting there.[113] **Worse, a worrying number of businesses appear to be scaling back their efforts rather than ramping them up, taking fewer actions to address climate change and pushing out target years from a median of 2036 to 2050.**[114]

Have you ever paused to consider that your success might not be yours alone – that we are all, in fact, beneficiaries of a shared inheritance from nature (through ecosystem services) and the systems (e.g., legal and communications) built by previous generations? How might recognizing our corresponding duty to be "good ancestors"[106] to future generations encourage us to think longer?

▲

And despite climate investment needing to increase at least sevenfold by the end of this decade, as well as aligning broader financial flows with Paris Agreement objectives,[115] many financial managers remain reluctant to undertake such investments, primarily due to perceived high costs and uncertain financial returns.

Short-termism is hardwired into our systems and institutions because it's hardwired into our own psychology through multiple cognitive biases. As illustrated by the following examples, these (and many other) cognitive factors can undermine the imperative to act. Transcending our own narrow self-interest requires the empathy, imagination and "outrospection"[116] to place others and the planet at the forefront of our thinking. For example, being "other-focused" rather than "self-focused" has been shown to be instrumental in combating climate skepticism.[117]

At 3°C of warming, climate change is estimated to cost: [120]

5%
of global GDP by 2050

10%
of global GDP by 2100

Meanwhile:

10%
The estimated global output equivalent directed to counter the shock from COVID-19[121]

2%-4%
The estimated annual cost to transition to a new economy aligned with Paris Agreement goals[122]

According to the 2023 EY Sustainable Value Study:[123]

34%
of businesses surveyed plan to spend more to address climate change, down from 61% in 2022

7%
of businesses surveyed qualify as "pacesetters" (i.e., leading the charge on climate action) compared to 32% in 2022 as gains become harder to make

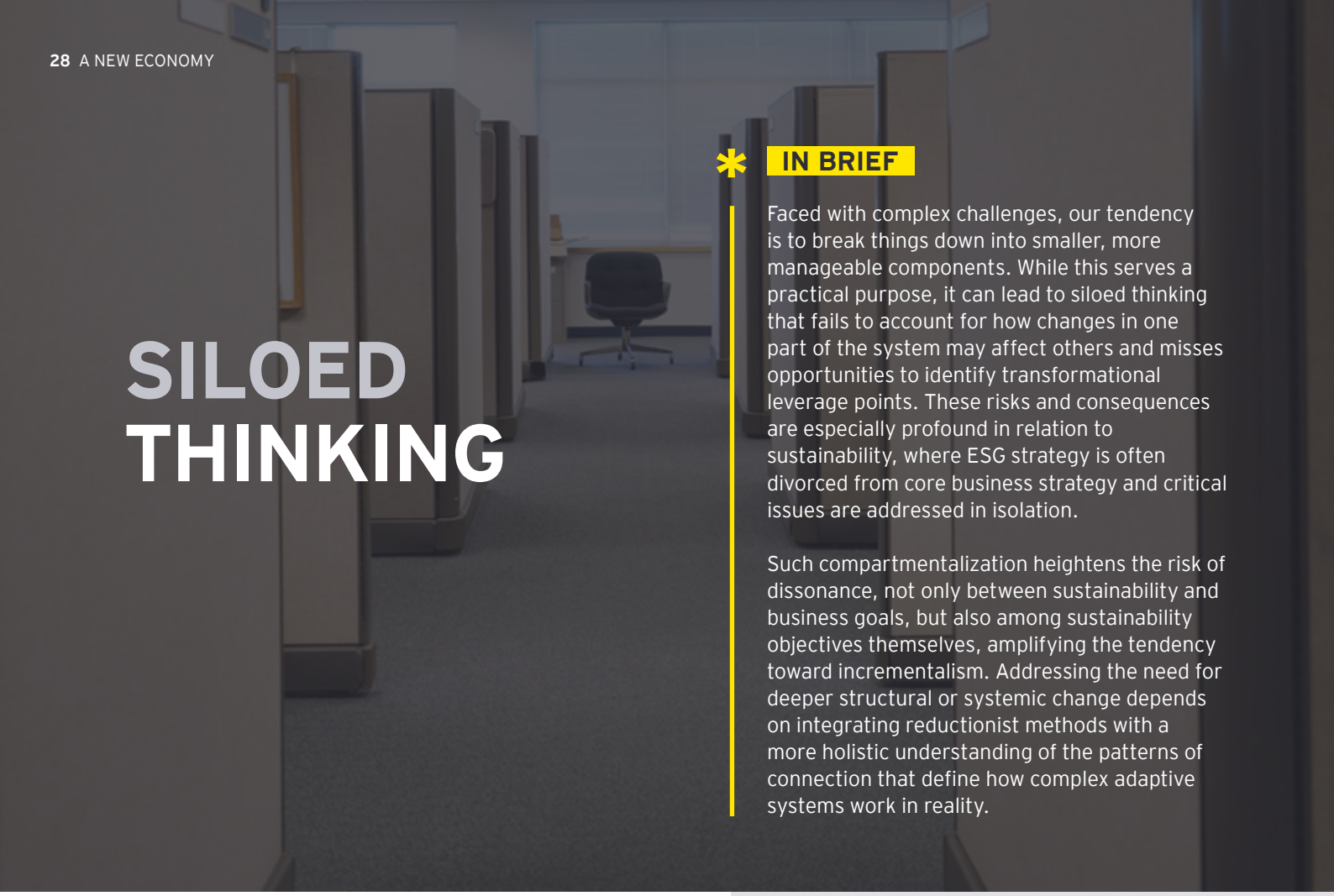
COGNITIVE FACTORS THAT REINFORCE SHORT-TERMISM

Present bias: COVID-19 vs. climate change
The stark difference in global responses to COVID-19 and climate change underscores the human tendency to prioritize short-term crises over long-term, systemic challenges. Whereas the immediate threat posed by the pandemic prompted swift and coordinated worldwide effort worldwide, **the urgency and decisiveness of action to address the more distant-feeling, slow-moving (at least historically) and complex challenge of climate change pale by comparison**.

The prominence effect, confirmation bias and the sunk cost fallacy: fossil-fuel phaseout
Choosing options that are better according to one defensible attribute (the prominence effect), perhaps helps to explain arguments aimed at delaying the phaseout of fossil fuels. Whether centered on negative impacts on jobs, growth and competitiveness, skepticism about the reliability of renewable technologies or existing investments in fossil fuel infrastructure, they often appear to exhibit this tendency, rather than reflecting a full picture of the necessity and benefits of energy transition. This may be compounded by our **proclivity to prioritize information that supports our already held beliefs** (confirmation bias), and to continue pursuing activities we've invested in, even in the face of negative outcomes (the sunk cost fallacy).

Optimism bias: techno-optimism
Techno-optimism epitomizes our **tendency to underestimate the probability of undesirable outcomes and to overestimate favorable ones**. For example, while carbon capture and storage (CCS) purportedly provides the means to negate global carbon emissions, facilities currently in operation capture only 0.1% of them. Even accounting for projects in the pipeline, by 2030, CCS would amount to only one-third of what's needed under the International Energy Agency's (IEA) 1.5°C scenario. Furthermore, high-CCS pathways to 1.5°C would cost an extra US$30 trillion by 2050, compared to a low-CCS alternative that relies on faster reductions in fossil fuel use.[118]

Normalization: shifting baselines
Normalization speaks to our **tendency to modify our expectations and behaviors in response to advancing threats** ("the boiling frog effect"). For example, a 2019 analysis of over two billion social media posts showed that people base their idea of "normal" weather on just the last handful of years, taking only five years on average for changes in temperature to become completely unremarkable.[119] This serves to illustrate the danger of creeping acceptance of undesirable outcomes as a new (and even inevitable) normal, which reduces our sense of urgency to act.



SILOED THINKING

IN BRIEF

Faced with complex challenges, our tendency is to break things down into smaller, more manageable components. While this serves a practical purpose, it can lead to siloed thinking that fails to account for how changes in one part of the system may affect others and misses opportunities to identify transformational leverage points. These risks and consequences are especially profound in relation to sustainability, where ESG strategy is often divorced from core business strategy and critical issues are addressed in isolation.

Such compartmentalization heightens the risk of dissonance, not only between sustainability and business goals, but also among sustainability objectives themselves, amplifying the tendency toward incrementalism. Addressing the need for deeper structural or systemic change depends on integrating reductionist methods with a more holistic understanding of the patterns of connection that define how complex adaptive systems work in reality.

Parceling out the management of specific aspects of culture, strategy and operations to specialist teams may create a sense of simplicity and efficiency at the level of those teams, and an opportunity for people within them to develop deep knowledge. But the tendency for information, resources and decision-making to be confined within each of those segments can also hinder the flow of communication and coordination at the organizational level, resulting in inefficiencies, duplication of effort and the lack of a holistic view, as each unit or department operates according to its own objectives and priorities.

The risks and consequences of this disconnection are especially profound in relation to sustainability, where it can be seen at multiple levels. ESG strategy is frequently divorced from core business strategy, rather than seeing them as the indivisible halves of a sustainable business strategy. **Critical sustainability challenges — such as climate change, biodiversity loss, resource use and social inequality — are too often addressed as individual issues, rather than acknowledging their profound interdependencies, such as we see with carbon tunnel vision**. And even those individual issues are further compartmentalized (e.g., siloed approaches to setting science-based targets for Scope 3 (value chain) GHG emissions vs. Scopes 1 and 2).

Imagine treating a medical symptom without thinking about how it might affect the rest of your body. Or consider how the culling of wolves (since reintroduced) at Yellowstone National Park led to the overgrazing of the park by expanding elk populations. The potential and actual effects of attempting to fix parts, in isolation of the whole, illustrate the importance of a more connected and well-rounded strategy to avoiding unintended consequences.

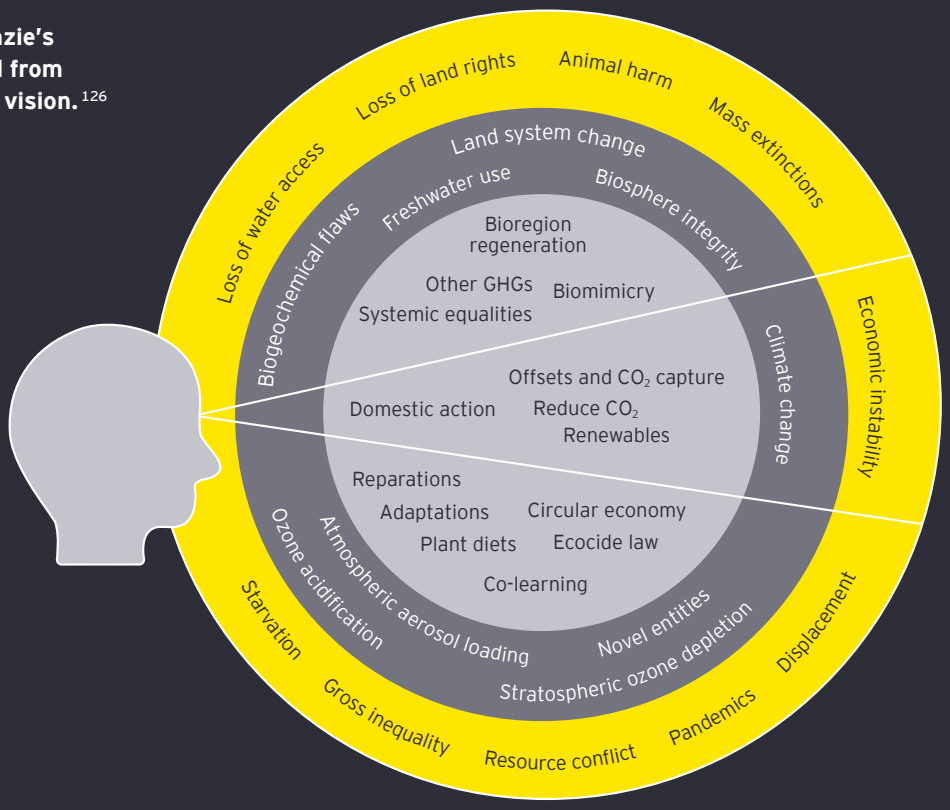
> While we may comprehend the problems to which ecology points, breaking the world into bits and never fully putting them back together again represents a failure to grasp the kind of remedy to which an ecological perspective leads.

Approaches that reactively isolate and compartmentalize issues heighten the risk of disconnection, not only between sustainability and business goals, but also among sustainability objectives themselves. In turn, the tension this causes can amplify the inclination toward incrementally improving established ways of working, rather than addressing the need for deeper structural or systemic change.

What's more, such siloed approaches aren't just limited to individual organizations. We see similar patterns replicated in the international arena too, where efforts to strengthen cross-sector collaboration and coordinated action continue to coalesce around individual issues (e.g., separate conferences on biodiversity, climate change and human rights, even though they are intertwined).[124]

While we may comprehend the problems to which ecology points, breaking the world into bits and never fully putting them back together again represents a failure to grasp the kind of remedy to which an ecological perspective leads.[125] **Successfully addressing the causes and symptoms of the polycrisis depends on integrating reductionist methods of critical reasoning and problem solving with a more holistic understanding of the patterns of connection that define how complex adaptive systems work in reality.**

> Adapted from Bridget McKenzie's Earth crisis blinkers, expanded from Jan Konietzko's carbon tunnel vision. [126]

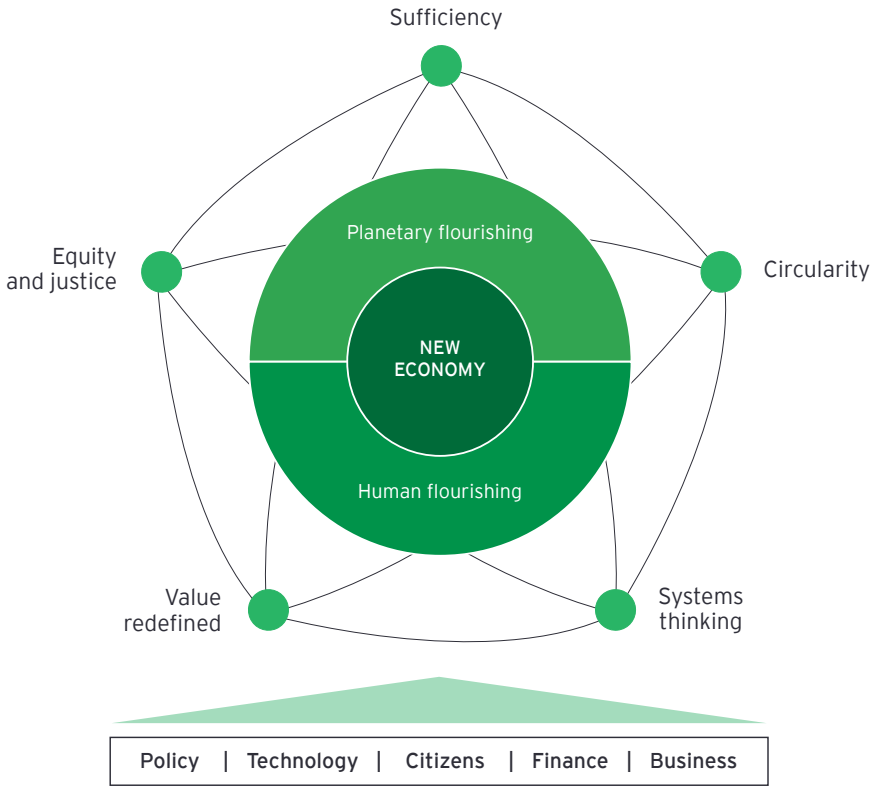


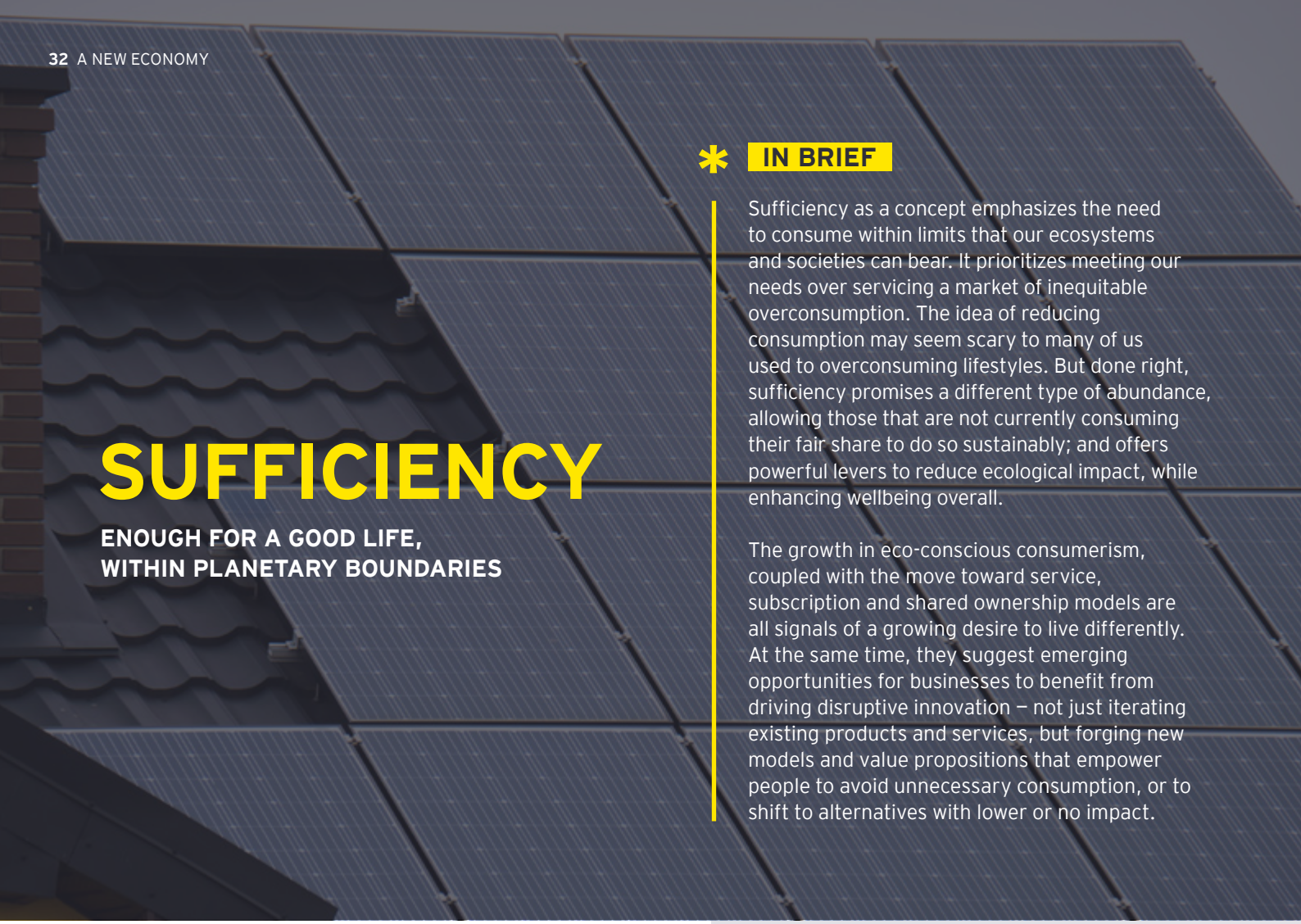
TRANSITIONING TO A NEW ECONOMY

All of the above paints a dire diagnosis of a patient that is sick and getting worse, and treating the symptoms alone won't solve the problem. Acknowledging and accepting the root causes of the polycrisis are the first steps toward transcending it. But, as well as identifying what we should move away from, we must also agree what we should move toward – a regenerative economy that has human and planetary flourishing as its inextricably linked goals.

Transitioning to this new economy is possible if we act swiftly and decisively. In understanding the shifts needed and seeing glimmers of this better future already here in the present, we can more effectively mobilize, harness momentum and transition from our polycrisis state at greater pace and scale. We present five guiding principles, foundational to this transition.

"As well as identifying what we should move away from, we must also agree what we should move toward – a regenerative economy that has human and planetary flourishing as its inextricably linked goals.





SUFFICIENCY

ENOUGH FOR A GOOD LIFE, WITHIN PLANETARY BOUNDARIES

IN BRIEF

Sufficiency as a concept emphasizes the need to consume within limits that our ecosystems and societies can bear. It prioritizes meeting our needs over servicing a market of inequitable overconsumption. The idea of reducing consumption may seem scary to many of us used to overconsuming lifestyles. But done right, sufficiency promises a different type of abundance, allowing those that are not currently consuming their fair share to do so sustainably; and offers powerful levers to reduce ecological impact, while enhancing wellbeing overall.

The growth in eco-conscious consumerism, coupled with the move toward service, subscription and shared ownership models are all signals of a growing desire to live differently. At the same time, they suggest emerging opportunities for businesses to benefit from driving disruptive innovation – not just iterating existing products and services, but forging new models and value propositions that empower people to avoid unnecessary consumption, or to shift to alternatives with lower or no impact.

Sufficiency is both an end in itself (contentment with "enough" and the satisfaction of needs over wants) and a means of rebalancing production and consumption so that everyone, everywhere, has enough to meet essential needs and enjoy a good quality of life within ecological limits.

Sufficiency practices can be powerful levers for bringing planetary systems back within a safe operating space by significantly reducing emissions across key sectors, lowering the costs of mitigation, decreasing the risk of overreliance on infrastructure and technological breakthroughs, and providing high well-being co-benefits compared to supply side mitigation.[127] [128]

While sufficiency requires significant behavioral and mindset shifts from consumers and businesses, **consuming less or differently doesn't have to mean being worse off. Instead, it means reorienting business from a demand to a needs mindset**, and shifting away from conspicuous consumption as being representative of life satisfaction.

1/4

Shared mobility and enhanced public transport could reduce land transport emissions by a quarter[129]

1/3

Halving reliance on animal-based food products can cut emissions from land use by one third, and almost fully halt net reduction of forest and natural land[130]

US$4 trillion

Behavioral changes that avoid energy and resource demand cumulatively save US$4 trillion between 2021 and 2050 compared to achieving the same reductions through technological means[131]

79%

A study of 306 combinations of wellbeing outcomes and demand-side climate change mitigation solutions found that 79% have positive effects on wellbeing, 18% are neutral and only 3% are negative[132]

What needs to change?

Sufficiency measures fall into two categories: **avoiding** unnecessary and excessive consumption and **shifting** from environmentally intensive consumption to alternatives with low or no impact.

For example, sufficiency practices in the mobility and food sectors, and sufficiency strategies for business might include the following:

> Examples of sufficiency practices in the mobility and food sectors [133]

Sector	"Avoid" strategies	"Shift" strategies
Mobility	▸ Reducing transport overall (e.g., through remote working, smart location, co-logistics, delivery services and local tourism)	▸ Modal shifts (e.g., from short-haul flights to rail, or from car journeys to shared transport services, walking or cycling)
Food	▸ Eliminating retail and household food waste ▸ Reducing caloric excess ▸ Applying conscious sales and marketing techniques	▸ Substituting environmentally intensive foods with less intensive ones ▸ Prioritizing nutrition over indulgence ▸ Educating and engaging consumers on the environmental and nutrition properties of foods

> Business strategies [134] [135] [136]

"Avoid" strategies	"Shift" strategies
▸ Access-over-ownership models (e.g., car sharing, equipment rental, either standalone or in collaboration with other ecosystem partners) ▸ Extending product life (e.g., by making products more durable, offering lifetime servicing or low-cost warranties, or upskilling customers on DIY repair and maintenance) ▸ Conscious sales and marketing strategies (e.g., sustainability nudging, eco-labelling, avoiding sales policies that lead to overconsumption (such as "buy one, get one free")) ▸ Creating opportunities for reuse through online resale or exchange platforms ▸ Gradually discontinuing production of some luxury and convenience products ▸ Raising awareness around sustainable consumption and sufficiency practices ▸ Smart product design that makes sustainable consumption choices more attractive	▸ Shifting to new revenue models for products or services that meet the same consumer need in a low or no impact way ▸ Collaborating with ecosystem partners to provide greener alternatives (e.g., rail as an alternative to short-haul flights) ▸ Offering price incentives for purchasing greener or less convenient alternatives

What might that mean in practice?

Motivation: making sufficiency desirable

Mainstreaming sufficiency can appear daunting because it requires people in high-consumption countries and segments of society to consume less or differently by voluntarily changing behaviors centered on luxury and convenience. But, done right, sufficiency doesn't have to mean sacrifice. Quite the opposite, it can be the route to an "alternative hedonism" that frees us from the dominance of a "work and spend" existence and prefigures more fulfilling ways of living.[137]

The Great Resignation, downshifting, slow living, zero-waste living, vegetarianism, minimalist living and many other bottom-up movements all indicate a growing desire for **a different type of affluence and abundance — of time, community and meaning over material possessions.** Tapping into these desires is key to telling a different story.

While policymakers and grassroots movements are critical in building awareness, business (as a key driver of demand creation) is uniquely placed to catalyze behavioral change. Eco-labels, marketing campaigns, smart product design and targeted messaging around unsustainable consumption can all be highly effective in shifting people's perceptions toward more sufficiency-oriented lifestyles.

In December 2022, a survey was conducted with 2,500 UK homeowners about their willingness to adopt heat pumps — a more energy-efficient and eco-friendly alternative to traditional heating systems. Results showed that only 2% of respondents used heat pumps and that 18% were interested. Meanwhile, 39% were uninterested, and a further third lacked sufficient knowledge to respond. Despite their environmental benefits, heat pumps lack the appeal of other shift technologies, such as solar panels or electric cars. In assessing how to make heat pumps more attractive as a technology option, researchers found "social proofing" to be an effective strategy[138] – **people have a desire to conform to a new normal, and do this by following the actions of others**, such as reading reviews before purchasing an item or copying an influencer's purchases. A critical mass of 10%–30% of Global North citizens moving into a lower-consumption lifestyle could establish new norms for the rest to follow,[139] which is promising for shifting global consumption.

> Exciting new sufficiency-based business models are emerging — ones that reduce absolute material throughput and energy consumption, by encouraging and empowering customers to do more with less.

Take fashion brand **Early Majority** as an example of an antithesis of fast fashion. While it focuses on many of the things you would expect from any "sustainable" fashion brand – sustainable materials, design for durability, a scheme for garments to be traded in, repaired and resold, and so on – two additional features of its business model really stand out. First is a design philosophy that favors timelessness over trends and creates a modular system of garments, whereby the minimum number of products can be combined to satisfy the maximum number of uses. Second is a membership model, offering a variety of benefits including special member pricing and access to the business's re-commerce platform. Ultimately, it's the expansion of this community that drives the success of the business, not the proliferation of unnecessary products.

Capacity: scaling and replicating sufficiency-inspired models

Individuals need not only the motivation but also the capacity to make sufficiency-oriented choices. In a world still dominated by the pursuit of more, those opportunities may seem few and far between. With sustainability priced at a premium, many consumers are reluctant or unable to pay,[140] and with sustainable alternatives less available, a more sufficiency-oriented lifestyle may seem out of reach for many, especially those who are already struggling to make ends meet.

Yet, exciting new sufficiency-based business models are emerging – ones that reduce absolute material throughput and energy consumption, by encouraging and empowering customers to do more with less. Approaches such as this are lighting the road ahead. And while sufficiency may require businesses to fundamentally rethink the purpose of what they make and how they market it, the boom in access-over-ownership models, alternative proteins and the rise of the wellness economy to name a few, suggests there's also opportunity for those willing to think outside the box.

QUESTIONS FOR REFLECTION

SUFFICIENCY

1. In a future where societal needs must be met within ecological thresholds, how many of your current products and services would you be able to market?
2. How would your business need to transform if sufficiency-oriented lifestyles became the societal norm across your consumer base?
3. How would applying the principle of sufficiency to your organization lead to a change in your KPIs?
4. What are the opportunities to reshape your market, or capture greater market share, by appealing to consumers seeking sufficiency-oriented products and services?

CIRCULARITY

ALIGNING PRODUCTION AND CONSUMPTION WITH NATURE

IN BRIEF

By treating waste and unnecessary resource extraction as fundamental design flaws, circularity emphasizes design for sufficiency, durability and cycling – producing only what's needed, making products that last, and making sure that materials can either be cycled in ways that retain their embedded value or safely returned to the soil to regenerate the land.

Breakthrough innovation requires broadening our horizons beyond retroactively applying circular principles to existing products and processes. Supported by a more conducive policy and regulatory environment, businesses can be incentivized not only to accelerate innovation of regenerative and material-preserving business models, but also to explore symbiotic approaches that exchange energy and materials, as well as knowledge and capability across multiple actors in a system.

Circularity (or the circular economy) describes a system of production and consumption that treats waste and unnecessary resource extraction as fundamental design flaws. Products, and indeed entire business models, should be designed so that technical (man-made) materials are kept in circulation through repair, reuse, refurbishment, remanufacture and recycling, and biological materials can be safely returned to the soil to decompose and regenerate the land.

Even at lower levels of consumption, **circularity is key to addressing the quintuple crises of climate change, nature decline, pollution, waste and resource scarcity**. Studies estimate that a circular economy could halt and even partially reverse biodiversity loss by 2035[141] and, applied across five key sectors – cement, plastics, steel, aluminum and food – could reduce GHG emissions by 9.3 billion tons, or 16% of global emissions, on top of reductions achieved by transitioning to renewables and improving energy efficiency.[142] [143]

Circularity offers substantial economic benefits too. It's estimated that working toward a circular economy could create a net total of seven to eight million jobs by 2030.[144] In the food and land use sector alone, the global value of the circular economy is projected to reach US$10.5 trillion annually by 2050.[145] Beyond the economic, environmental and social co-benefits, the challenge of transforming linear models into circular ones also presents an exciting opportunity for collaborative innovation breakthroughs, beyond today's incremental and siloed approaches.

Transitioning to a circular economy could lead to:

Halting and even partially reversing biodiversity loss by 2035[150]

16%
Reduction in global GHG emissions across five key sectors, on top of of reductions from renewables and energy efficiency gains[151] [152]

7-8 million
Net total jobs created by 2030 [153]

US$10.5 trillion
Annual yield by 2050 in the food and land use sector alone[154]

What needs to change?

Whereas many approaches today tend to try to retroactively apply circular principles to an existing product or process, achieving circularity's full potential demands adopting it as a fundamental design value and operating principle. Treating waste and unnecessary resource extraction as design flaws leads to three key objectives:[146]

Made for sufficiency

However efficiently resources are recycled or reused, there's always some loss or degradation in the process, which means that a business or economy can never become 100% circular. To truly shift to a sufficiency paradigm, producers start at the top end of the waste hierarchy (refuse and rethink), rather than the bottom.

Made for durability

Instead of designing with a single-use mindset, or with planned obsolescence built in, products are intentionally designed for a long life and ease of repair (e.g., smartphone manufacturers, such as SHIFT and Fairphone, offering customers spare parts and DIY repair guides). Providing products as a service — thereby retaining ownership and stewardship of constituent materials — further incentivizes making products that last, minimizes the number of products that need to be sold, and reduces the amount of materials needed to produce them by encouraging design for ease of repair, and recovery and reuse of resources. Reorienting product and service design in these ways makes even more sense in the context of right-to-repair requirements and bans on planned obsolescence increasingly making their way into legislation in the US[147] and across the EU.[148]

> Breaking down a product to be remade is far less preferable to prolonging, reusing and refurbishing it, because reducing it to its basic materials loses much of its embedded value.

Made for cycling

Producers move away from reliance on nonrenewable resources and toward embracing regenerative practices, as we have seen in the growing space of regenerative agriculture, through methods, such as intercropping, restorative grazing and minimal tillage, to enhance soil health, biodiversity and ecosystem resilience.

In product development, this includes being deliberate, not only about choices of materials (using life-friendly chemistry[149]), but also how they are combined, which affects how easily technical and biological materials can be separated and recycled in their respective loops.

Use of technical resources is predicated on the ability to keep these materials in circulation by designing products that can be recycled to a high quality, as many times as possible, or that can be incinerated for energy recovery. Circular and regenerative models also share a focus on design for the biological cycle, seeking not only to reduce the environmental harm of product development, but also to restore and improve the natural environment by safely returning biological nutrients to the soil.

What might that mean in practice?

Circularity by design

A truly sustainable design hierarchy views sufficiency, circularity and efficiency as complementary ideas that should be applied in that order. The logical first question to ask is whether a product or service is truly needed in the first place. If the answer is yes, the next question is how its design can mimic nature's closed loop systems to maximize how long resources remain in circulation and to maintain as much of their embedded value as possible. The final question then addresses efficiency (i.e., how to achieve the greatest-use value from the fewest inputs).

This hierarchy flips the script on how things generally work in the current system, where efficiency is typically the first consideration, not the last. This is why efforts tend toward retrofitting circular principles to existing products and services, rather than radically redesigning them, leading to incremental improvement of fundamentally unsustainable designs.

Furthermore, because most products haven't been designed for their respective technical and biological circulation processes from the outset, efforts at circularity are typically limited to the least-wanted option of recycling. Beyond the often-limited success of recycling schemes, breaking down a product to be remade is far less preferable to prolonging, reusing and refurbishing it, because reducing it to its basic materials loses much of its embedded value.

If personal and home care product lines were designed to be refilled (rather than recycled), such as through detergent pod subscriptions or refill return programs, this would result in an **80%–85% reduction in packaging and transport emissions and over 85% in transport cost savings**.[155] Similarly, designing buildings with circularity principles could achieve **up to a 60% reduction in cement and 30% reduction in steel use**.[156]

System-wide innovation

The widening circularity gap won't be closed by businesses acting in isolation – certainly not as long as it remains cheaper and simpler to continue operating in a linear fashion. As highlighted in a joint report by EY Ripples and Ashoka in 2022, **climate innovators stress the huge and necessary role for policy and regulation in creating incentives that serve to increase the value and competitiveness of material-preserving business models**.[159]

This includes fiscal policies that shift the burden of taxation from renewable resources (including human labor) to consumption of nonrenewable materials and energy, and the production of undesired wastes and emissions. Aided and abetted by appropriate physical and digital infrastructure – from collection points and transport for reclaiming and processing materials, to mainstreaming digital product passports that promise to improve transparency, decision-making and operational efficiency across the value chain – such changes can help to promote regional circular economies over a linear global one, based on local reuse of materials.

It also includes addressing regulatory roadblocks, in terms of how waste is classified and defined, which hinder the establishment and expansion of effective markets for secondary materials. Regarding the latter, there are hopeful signs in the EU, with provisional agreement on new regulations that would establish a target for ensuring that at least 25% of the EU's annual consumption of critical raw materials is sourced from domestic recycling.[160]

Beyond creating an operating environment more conducive to the adoption of circular models, **businesses also need to broaden their thinking, from creating closed loops within their own value chains to creating multiple possible loops in concert with other organizations.**

Exemplified by the **Kalundborg Symbiosis** in Denmark,[157] such cross-sector and cross-industry collaboration offers tremendous potential to yield transformational technological, process and market innovations. More than 30 different exchanges of energy, water and materials between 18 public and private organizations (e.g., nutrient-rich yeast slurry from Novo Nordisk's insulin production being converted by Kalundborg Bioenergy into biomethane and fertilizer products) support recycling and reuse of more than 62,000 tons of materials each year, as well as avoiding use of 4 million cubic meters of groundwater and 586,000 tons of CO_2 emissions.[158]

QUESTIONS FOR REFLECTION

CIRCULARITY

1. How would an imposed limit on the amount of finite resources your organization can extract or procure annually lead you to reconsider what products and services you market and produce – and how?

2. In a future in which you were legally **obliged to take back every product you ever made** at the end of its useful life, how would you operate differently?

SYSTEMS THINKING

JOINING THE DOTS TO CATALYZE SYSTEMS CHANGE

IN BRIEF

Whereas reductive thinking seeks to simplify complex dynamic systems by breaking them down and studying individual parts, systems thinking seeks to make sense of complexity by retaining a focus on the whole and the relationships **between** the parts. Mapping and understanding the relationships, dynamics and causal links in a system is vital to identifying leverage points that can create the positive feedback loops and tipping points needed for transformational change.

In promoting a holistic, shared understanding of system dynamics, systems mapping is foundational to cross-sector, multistakeholder collaboration that can drive development and implementation of more effective, systems-wide interventions. And as nodes connecting multiple system actors — including consumers, policymakers, suppliers and other strategic partners — businesses are ideally placed to foster more of this kind of collaborative effort.

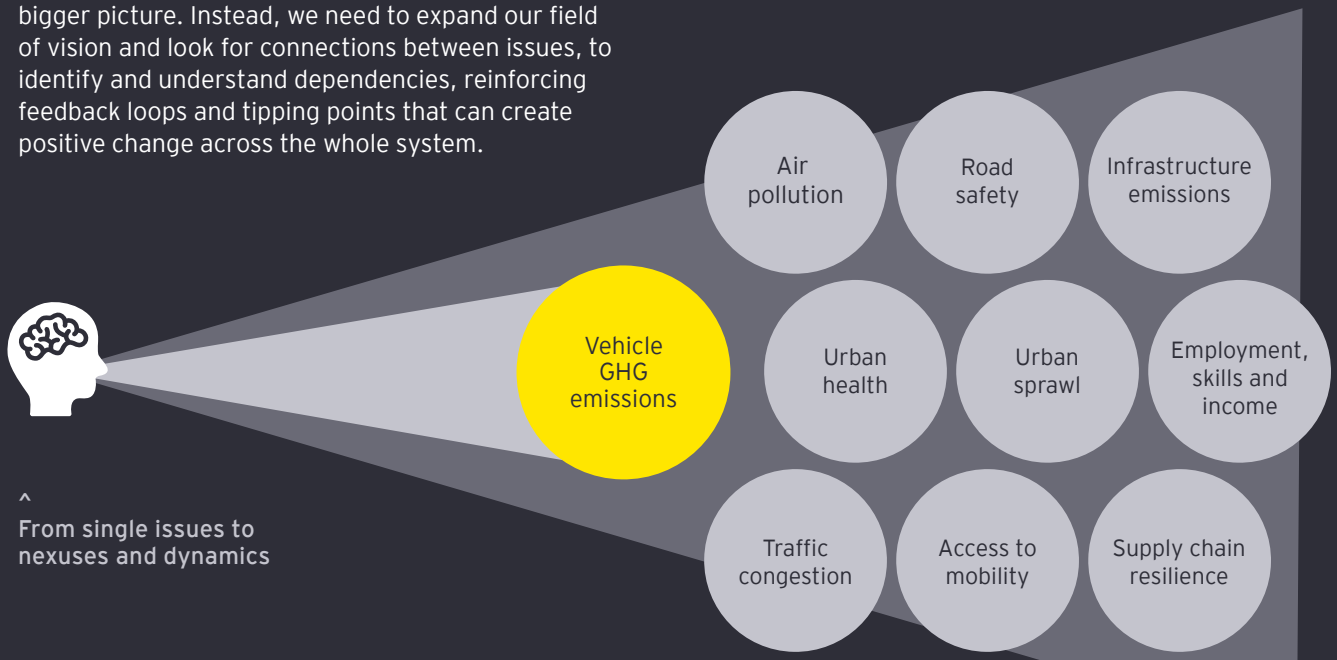
Whereas reductive thinking seeks to simplify complex dynamic systems by breaking them down into their constituent parts, **systems thinking revolves around exploring connected wholes and the patterns of connection between the parts**. Because our economy is made up of interconnected systems — in turn, operating within the "system of systems" that is nature — mapping and understanding the relationships, dynamics and causal links within and between systems is key to identifying the points of intervention that can create positive feedback loops and tipping points.

What needs to change?

Transitioning to a new economy, including mainstreaming sufficiency and circularity models, will require an understanding of system complexity, as well as cross-system engagement and co-creation. For businesses, this means understanding their position and role within the system, moving beyond linear, centralized solutions to single issues, and expanding thinking beyond value chains to value networks. As illustrated below, with reference to the shift from internal combustion engine vehicles (ICEVs) to electric vehicles (EVs), critical changes in approach include moving:

Dynamic interconnections: From seeing issues in isolation to looking for dynamic interconnections

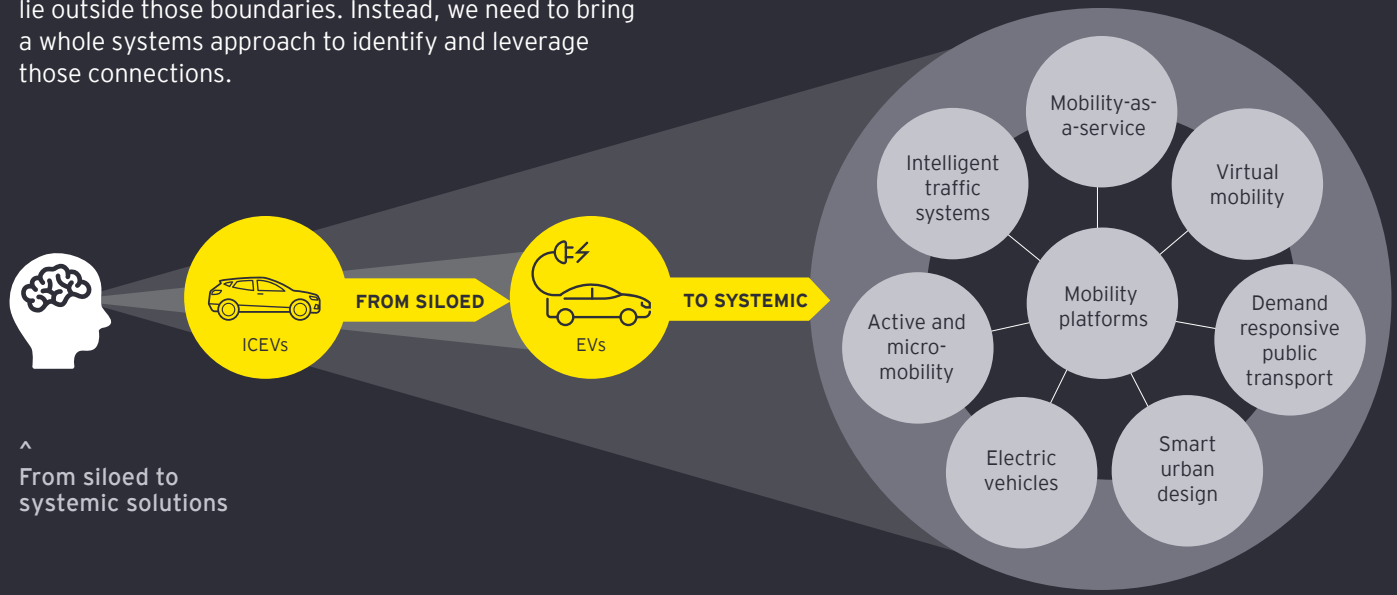
When we seek to address issues in isolation (e.g., the splitting of ESG into separate issues), we fail to see the bigger picture. Instead, we need to expand our field of vision and look for connections between issues, to identify and understand dependencies, reinforcing feedback loops and tipping points that can create positive change across the whole system.



^
From single issues to nexuses and dynamics

Whole of system solutions: From developing solutions in isolation to adopting a whole systems approach

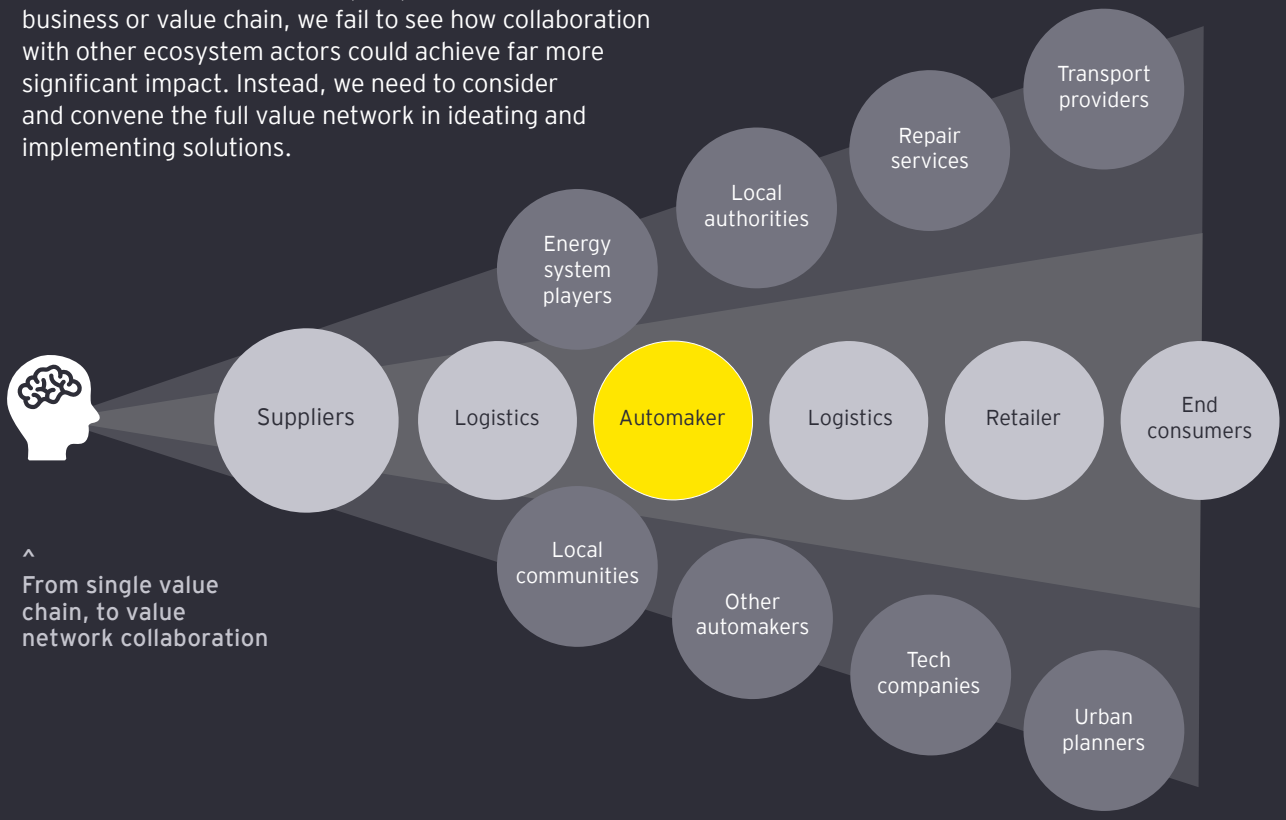
When we work toward one solution, from within the narrow perspective of a particular policy or operational remit, we similarly fail to see potential connections to complementary and mutually reinforcing solutions that lie outside those boundaries. Instead, we need to bring a whole systems approach to identify and leverage those connections.



^
From siloed to systemic solutions

Value network collaboration: From acting alone to working with and across wider value networks

When we act alone, from the perspective of an individual business or value chain, we fail to see how collaboration with other ecosystem actors could achieve far more significant impact. Instead, we need to consider and convene the full value network in ideating and implementing solutions.



^
From single value chain, to value network collaboration

What might that mean in practice?

Mapping system dependencies and points of intervention

There is a growing focus in the research and policy discourse around positive socioeconomic tipping points, where relatively small interventions can lead to a cascade of events that usher in transformative change. This can be seen, for example, in the rapid scale-up of solar energy, which is already set to become the dominant power source before 2050, even without additional policy support.[161] The rapid pace with which solar and other energy transition technologies, such as offshore wind and electric vehicles, have risen to prominence is a function of four key system dynamics that drive development of new S-curves:[162]

S-curves can help the adoption of sustainable technologies through:

- **Learning curves** (i.e., the cost, technology and productivity gains) that accumulate with increasing knowledge and experience
- **Economies of scale** that help to further drive down the cost of materials sourcing and production
- **Technological reinforcement** (e.g., the scale up of supportive technologies, such as car charging infrastructure) that facilitate wider adoption of EVs
- **Social diffusion** (i.e., an increasing number of citizens or businesses adopting particular technologies or practices because they see others in their network doing the same)

While such positive feedback loops have been identified in sectors such as electricity and transport, others, including many that are necessary to mainstream the new economy principles proposed in this review, require further research and understanding. Core to that process of exploration – and to deeper business transformation, beyond incrementalism – is the visual representation of interconnections and dependencies within the system.

Developing systems mapping capability is essential for businesses seeking to create superior value and impact. This exercise is integral to recognizing how changes in one part of the system can impact others, to highlighting key variables that may amplify each other's effects to create positive feedback loops, and to anticipating and leveraging those feedback loops and tipping points through scenario analysis.

Cross-system engagement

In promoting a holistic understanding of system dynamics and a shared visualization of the complex issues at play, systems mapping is also foundational to cross-sector collaboration. The antithesis of siloed thinking, such collaborations are vital to addressing critical barriers to adoption, including overcoming vested interests, considering requirements for a just transition, and relieving market and policy constraints. They not only empower diverse stakeholders, including researchers, businesses and policymakers, to work together to identify positive feedback loops, but also to coordinate development and implementation of more effective, systems-wide interventions. As nodes connecting multiple system actors, including consumers, policymakers, suppliers and other strategic partners, businesses are ideally placed to foster such collaborative efforts.

In Sweden, **EY Doberman** is currently working alongside Innovation Skåne AB and the Malmö municipality on a decade-long program intended to transform Malmö into a hub for environmentally, socially and economically sustainable food, where a third of the food consumed in the city is produced, processed and sold in the municipality itself. This is just one of eight innovation platforms for a sustainable food system, funded by the Swedish innovation agency, Vinnova, which aim to leverage the combined strengths of multiple actors across the public, private and NGO sectors.[163]

QUESTIONS FOR REFLECTION

SYSTEMS THINKING

1. To what extent do you currently manage sustainability issues in isolation? **How could you approach these challenges holistically?**

2. If you could imagine what your sector would look like in a regenerative economy, **how would your current business model fit?** Would your key stakeholders and partners be different from today?

3. **What policy or regulatory support is needed** to support better whole-of-systems collaboration? What could the role of public and private finance be?

VALUE REDEFINED

PUTTING HUMAN AND PLANETARY FLOURISHING AT THE HEART OF VALUE CREATION

IN BRIEF

Breaking free from the grip of the polycrisis economy calls for redefining the notion of value itself, enhancing our understanding of what drives prosperity, and mainstreaming metrics that convey performance in the context of relevant environmental and social thresholds. This doesn't mean doing away with financial measures of value entirely. Rather, it means recognizing that financial capital is only one dimension of a thriving economy and society, and that human and planetary flourishing depends on healthy stocks and flows of all forms of capital.

There's no shortage of initiatives and coalitions exploring more holistic value frameworks. What is largely missing is standardization, followed by consistent and widespread adoption of these frameworks, not simply in accounting but also in governance, through the integration of multicapital accounting into the core of decision-making processes.

Where markets are failing to self-correct on what's driving value for society, governments are intervening, and will increasingly intervene, as demonstrated by the exponential rise in sustainability regulations. It is therefore in the benefit of businesses to step up, as the critical link between policymakers, standards-setters and action in the real economy, to ensure that what they measure, report and feed into strategy and risk management is both meaningful and decision-useful.

Redefining value requires expanding our view beyond a myopic focus on financial returns and monetary measures, which perpetuate short-term thinking and the commodification of basic needs and nature. It means embracing a multicapital model of value, which recognizes that financial capital is only one dimension of a thriving economy and society.

The time when externalities could be dismissed as negligible market failures, or as issues that existing markets could fix, has surely passed.[164] To achieve the fundamental shifts needed to break free from the grip of the polycrisis economy, we must rediscover a more holistic notion of value, enhancing our understanding of what drives prosperity and mainstreaming metrics linked to planetary and social thresholds.

What needs to change?

The preservation and enrichment of all forms of capital, not just financial, need to be seen as the litmus test of any organization's commitment to a truly sustainable strategy[165] and foundational to long-term business model viability. This calls for three essential shifts:

> "Human society, as a subsystem of the biosphere, cannot flourish amid ecological collapse.

A different theory of value

A different theory of value starts with recognizing that business depends on healthy stocks and flows of all forms of capital (including natural, human, social and relationship), and that any organization's use of, and impacts on, these capitals is expected to affect their quality and availability over time. In this light, shareholder value, social justice and environmental regeneration aren't competing demands; they're interdependent. As subsystems of society, business and the economy cannot flourish amid social and political instability; in turn, human society, as a subsystem of the biosphere, cannot flourish amid ecological collapse.

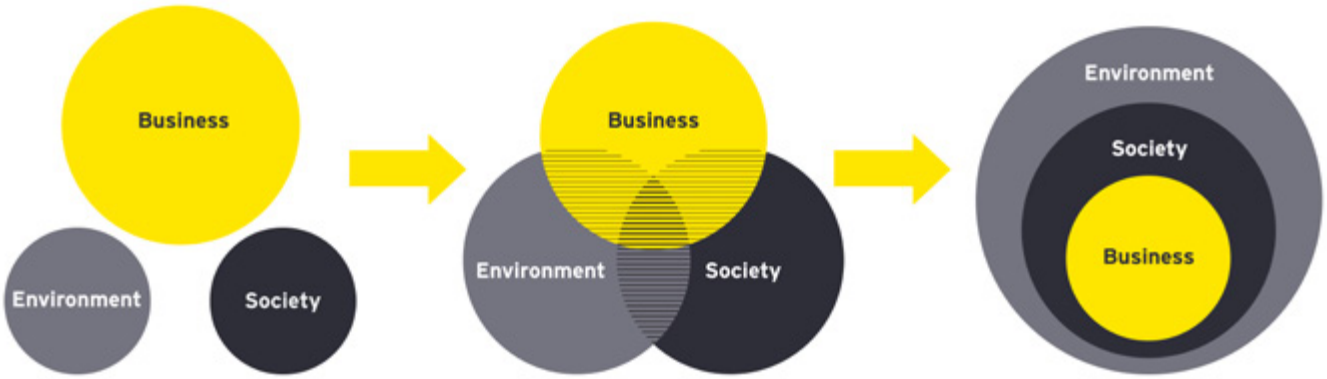
When we accept the reality of these nested dependencies, we see that shareholder value flows from creating systems value, not the other way around. We also begin to reconnect with a different worldview — nothing new to Indigenous communities — which sees human wellbeing as inseparable from planetary flourishing, and therefore sees no need to either attach a monetary value to natural capital or to prioritize protecting and growing it relative to other forms of capital.

> Moving from shareholder, to shared, to system value (adapted from Future Fit Business Benchmark by Future Fit Foundation under license CC BY-SA 4.0 DEED)[168]

Shareholder value
Financial returns are all that matters: companies privatize gains and externalize losses

Shared value
Business comes first: negative impacts are often not sufficiently internalized or are justified by "doing good" elsewhere

System value
Business addresses societal needs in a holistic way while not hindering progress toward a flourishing future



A broader understanding of prosperity

Just as poverty can't be properly understood as simply a lack of income, prosperity can't be properly understood by looking at purely monetary measures. It's better understood in broader terms, including health and happiness, with the ultimate measures of societal health and wealth being the accumulation of solutions to the problems of people and planet, and how widely available those solutions are to everyone in society.

Context-based measures of value

The quality and sufficiency of actions purported to help bring a more equitable and livable future into being can only be fully understood and evaluated in their proper context. In the case of sustainability, that means planetary boundaries and social foundations (elegantly illustrated and interwoven, for example, by Kate Raworth's doughnut[166]), and associated tipping points and budgets. For instance, per the UN Sustainable Development Performance Indicators[167] (UN SDPIs) released in 2022, information on a company's net water consumption is ultimately meaningless without an understanding of how that compares to the company's fair allocation of locally available and renewable supplies.

What might this mean in practice?

An economy that serves human and planetary flourishing requires a system that puts sustainability first, valuing the systemic foundations of a good life for all (e.g., ecological health, individual purpose, social relationships) above financial and material abundance. This does not mean doing away with financial measures entirely. Rather it means reframing them as a means to an end, and integrating financial, social and environmental impact returns into a unified, multidimensional story of value.

As an illustrative example, it is a profound misconception to assume that impact enterprises, whose primary purpose is to unleash new social value, are not concerned with profit. On the contrary, profit is still hugely important for an organization to become self-sustaining, but it's understood very differently. By and large, it's seen as a measure of financial sustainability and the means to scale (and what flows from scaling) equitable access to their products and services.

Redefining value in accounting

There's no shortage of initiatives and coalitions exploring new value frameworks. For example, at the national level, countries are beginning to experiment with "wellbeing"[169] or "green"[170] budgets. The UN's System of National Accounts (SNA) is also due to be revised in 2025, having launched task forces on issues including sustainability, wellbeing, digitalization and the informal economy.[171]

Among the multitude of initiatives at the business level, the Science Based Targets Network (SBTN) and Science Based Targets initiative (SBTi) have been key in developing and standardizing methods, guidance and tools to help organizations set science-based, planetary threshold-aligned targets, not only for GHG emissions reductions, but also for the protection of the wider global commons — our air, water, land, biodiversity and oceans.[172]

The UN SDPIs are going broader still, proposing a number of context-based metrics for assessing organizations' performance relative to both ecological and social thresholds.[173]

Already supported by pledges of commitment from more than 1,000 companies, Economy for the Common Good (ECG) and its Common Good Balance Sheet are helping to visualize an economic model where a good life for all on a healthy planet is the primary goal, and where businesses are rewarded for above-average performance with legal advantages in taxes, loans and public contracts.[174]

Thus, the primary challenge in redefining value in accounting is not the absence of viable alternatives to traditional economic accounting, and its narrow focus on financial value and monetary metrics. It's in standardizing on and driving consistent, widespread adoption of these approaches. **Rather than seeking to delay or water down the implementation of alternative accounting measures and standards, businesses need to positively embrace their necessity, and step up as the critical link between policymakers, standards-setters and action in the real economy.**

“

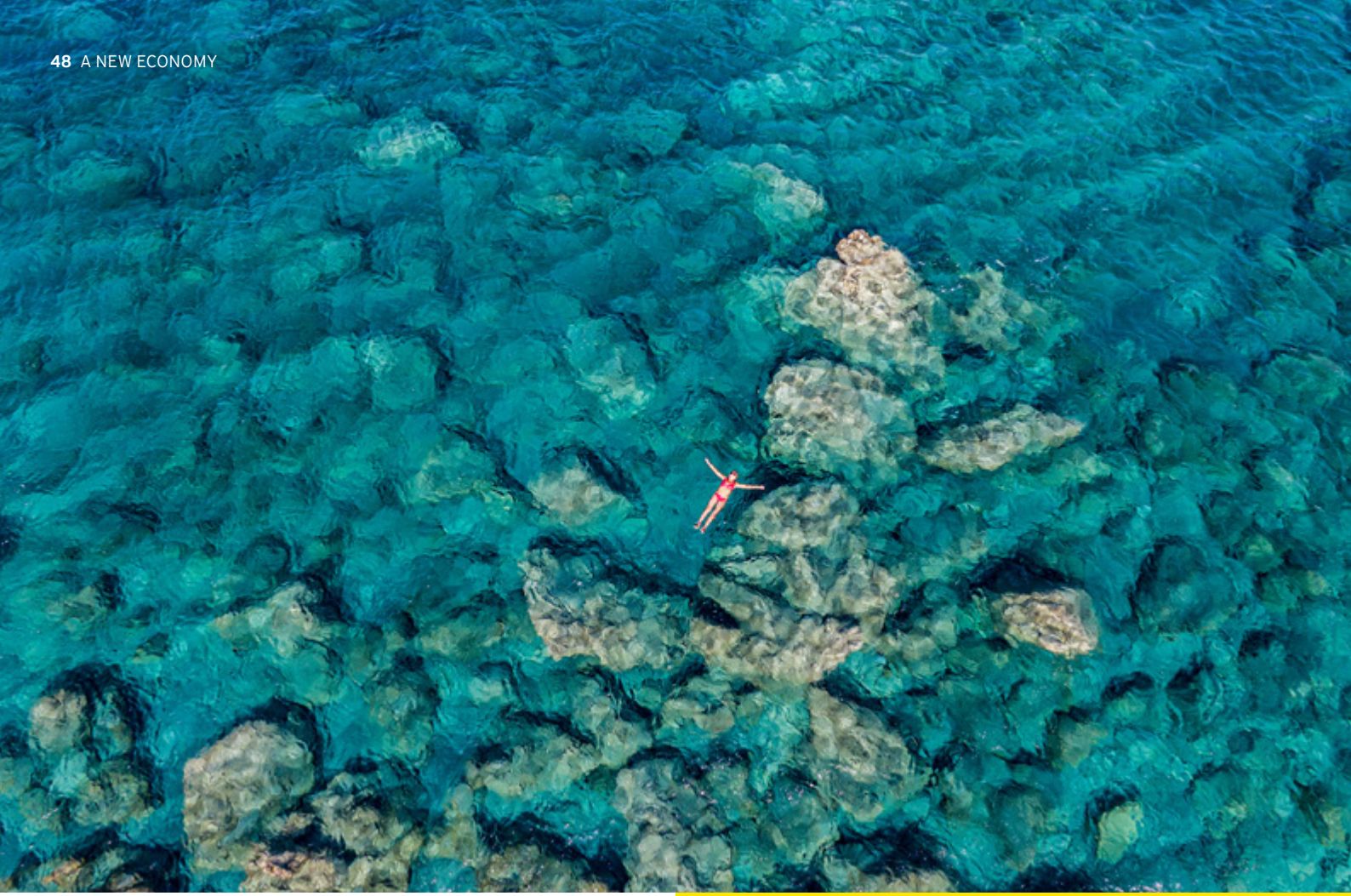
The primary challenge in redefining value in accounting is not the absence of viable alternatives to traditional economic accounting; it's in standardizing on and driving consistent, widespread adoption of these approaches.

Redefining value in governance

Redefining value in accounting is necessary, but insufficient on its own. Merely accounting for dependencies and impacts on social and environmental systems is ultimately meaningless unless it directly translates into strategy and the conduct of everyday operations.

Redefining value in governance is not simply a matter of shoehorning environmental and social value into risk registers and business management. The essence of sustainable business and economic transformation lies in the integration of multicapital accounting into the core of decision-making processes.

This requires business to shift from being predominantly inward-facing (i.e., focused on enterprise and shareholder value) to embracing a more outward-facing perspective (i.e., focused on broader stakeholder and systems value). New reporting and disclosure benchmarks, such as the European Sustainability Reporting Standards (ESRS) and Taskforce for Nature-related Financial Disclosures (TNFD), have adopted this principle of "double materiality," requiring businesses to account for their dependencies and impacts on social and environmental systems. And the UN SDPIs are going further still by adding a third dimension, rooted in the concept of Context Based Sustainability,[175] that of performance against ecological and social thresholds.[176]



▲

This inward to outward shift will require transformational changes to traditional business models and governance structures. In particular, it includes addressing internal factors that limit companies' ability to unlock value from sustainability (e.g., limited board diversity and knowledge of key sustainability issues, siloed or inflexible organization structures, misaligned culture, strategy and executive compensation) highlighted in the most recent EY Long-term Value and Corporate Governance Survey.[177]

QUESTIONS FOR REFLECTION

VALUE REDEFINED

1. Absent constraints around quarterly and annual returns, **would your strategy change?**

2. If your business success was judged on environmental and social value created, **would you be able to articulate that value?**

3. If your balance sheet showed your organization's surplus or deficit across ecological and social indicators, **how would you treat a negative balance in your strategic planning?**

EQUITY AND JUSTICE

ACHIEVING SHARED AND LASTING PROSPERITY FOR ALL

IN BRIEF

For the same reasons that inequity and injustice are foundational drivers of the polycrisis, equity and justice are indispensable principles for breaking free from it. An economy based on equity and justice would be distributive by design, fairly sharing burdens and benefits, supporting a life of dignity for all, and instilling a clear sense of intra- and intergenerational accountability.

There is much that business can contribute to building fairer, more resilient economies that equitably share value and decision-making power, respect and integrate other worldviews and knowledge systems, and support collaborative stewardship of the global commons, on which all life depends. This includes by empowering the participation of people across the value chain, decentralizing governance structures to encourage proliferation of locally and culturally relevant solutions, and lobbying for reforms that promote climate and social justice.

For the same reasons as inequity and injustice are foundational drivers of the polycrisis, equity and justice are indispensable principles for breaking free from it. This isn't just a question of the morality of so few possessing so much while so many lack access to life's necessities. It's also a question of strategic and practical importance.

Deepening inequality within and between countries erodes trust in our institutions, weakens our social fabric and undermines international cooperation. In turn, this erodes our ability to move and act collectively to address the interconnected threats of social and ecological breakdown.

What needs to change?

An economy based on equity and justice would have fair processes for distribution, support a life of dignity for all (beyond doing no harm), and instill a clear sense of intra- and intergenerational accountability. Addressing **current** needs and injustices, not just those of an imagined dystopian future,[178] requires embedding these values into our social, corporate, political and economic systems. Among other things, this rests on:

Fair distribution of burdens and benefits

Fair distribution of burdens inherently involves accepting accountability for, and taking more radical action to address, the intra- and intergenerational consequences of environmental degradation and overconsumption, which disproportionately impact low-income communities in the present and shift the cost burden of mitigation and adaptation onto future generations. In an equitable and just system, current and projected impacts on society and nature shift from externalized to internalized, supported by accountability, compensation and remediation mechanisms.

Fair distribution of benefits also entails a fundamental shift in economic ownership and value-sharing structures to directly address inequality. Challenging the conventional notion that prosperity will naturally "trickle down," a "distributive by design" approach emphasizes proactive measures that provide for the benefits of assets and economic activities being shared inclusively among all stakeholders from the outset.

Openness to other worldviews and knowledge systems

Engagement with minority and affected groups, and local and Indigenous communities, needs to shift from an "inform" approach to one of genuine consultation and co-creation. In turn, this calls for a level of cultural intelligence that goes far beyond mere awareness of cultural differences and embraces cultivating the ability to see, think and act from the perspective of other values, norms and behaviors. In this way, we learn to question our own assumptions, recognize our own biases and engage with people on **their** terms, enriching our understanding not only of interconnected crises, but also of more holistic solutions.

Indigenous communities, for example, have cultivated harmonious relationships with the natural world for generations, drawing upon profound knowledge of ecosystems, biodiversity and the delicate balance necessary for coexistence. This wisdom holds invaluable insights for addressing both environmental degradation and social inequality.

By acknowledging and incorporating these and other perspectives into global strategies, we can tap into age-old practices that prioritize harmony with nature, community wellbeing and the preservation of cultural heritage. And, in the process, we can build the mutual trust, understanding and collaboration that is so desperately needed to tackle wicked problems of our time.

Stewardship of the global commons

Encompassing shared resources, such as the atmosphere, oceans and biodiversity, the global commons are essential to the wellbeing of all life on Earth. These ecosystem functions that they provide — from air and water purification, to climate regulation and carbon sequestration, to medicinal resources and crop pollination — are interconnected and transcend national borders, underscoring the need for global cooperation to preserve and regenerate them.

Proper stewardship involves recognizing our collective responsibility to prevent overexploitation and depletion of these vital resources, making sure that access to them and the myriad benefits we freely derive from them flow equitably to everyone in society. Fostering a sense of shared guardianship is essential to preventing resource-based conflicts, promoting peace, and championing climate and social justice, all contributing to a more just and equitable society over the long term.

Countries with lower levels of income inequality and greater social support structures tend to rank **higher in overall happiness**[180]

Countries with more equitable income distribution tend to have higher Human Development Index (HDI) scores, indicating **better life expectancy, education, income and overall development**[179]

> A key principle of regenerative economics, empowered participation speaks not only to people's capacity to meet and negotiate for their own needs, but also to add their unique contribution to the health and wellbeing of the wider systems they are part of.

What might this mean in practice?

However much concepts of "stakeholder" or "inclusive" capitalism may speak to creating long-term value for all stakeholders — employees, customers, suppliers, society and the environment, as well as shareholders — in reality, how equally are all those voices heard and represented in decision-making? Realizing the transformations described above depends on businesses going beyond performative equity, diversity and inclusion initiatives, and engaging in the serious business of structural reforms that create increased opportunities for the equitable sharing of value, prosperity and decision-making power.

Empowered participation

A key principle of regenerative economics, empowered participation speaks not only to people's capacity to meet and negotiate for their own needs, but also to add their unique contribution to the health and wellbeing of the wider systems they are part of.[181] Business plays an important role in this, most notably through the provision of employment and skills development. However, there are also many ways in which common business practices systemically undermine these capabilities.

Empowered participation rests on more equitable sharing of value and decision-making power, both within businesses and across their value chains. At a minimum, this should require the payment of living wages, but it should also include consideration of, for example, maximum ratios between the highest- and lowest-paid in organizations, and systems and structures for giving voice to the interests of employees, suppliers and communities.

Distributed governance

Whereas the concentration of power can lead to single points of failure by driving out the diversity and redundancy critical for systemic resilience, more distributed models support greater agility and flexibility, while also encouraging knowledge-sharing and local leadership. Ultimately, operating at a local

▲

or regional scale allows for easier identification of ecological limits and social foundations, and the development and proliferation of solutions that are more relevant to local contexts and preserve cultural diversity. Decentralized governance models, like top-down models, are not without their shortcomings, including the challenge of scalability. The key lies in the complementarity and alignment between the two models, and the tactical deployment of each format to address complex and far-reaching sustainability challenges.

Decentralization through citizens' energy communities, for example, is key to creating a more democratic, responsive and clean energy system,[182] particularly in low-income communities and nations. The same applies to nature conservation, where almost 50% of the global land area is traditionally managed, owned, used or occupied by Indigenous peoples,[183] and solutions led by those communities have been shown to yield better results for nature and people compared to those led by outside organizations.[184] Applied to businesses, this thinking further amplifies the need to challenge established governance and ownership structures, and centralized decision-making, such as by exploring employee-owned and cooperative models.

Structural change

Changing the economic, political and social structures that cause and perpetuate inequality requires reforming economic incentives and enhancing key economic provisioning systems to provide access to basic human needs for all. As well as examining their own practices, businesses have a vital role in leading and supporting social and environmental movements, and lobbying for reforms that promote climate and social justice. Instead of passively accepting the status quo and merely reacting to political or social movements, companies should assert themselves as advocates for positive systemic change.

There are very good reasons for businesses using their influence in this way. It's a given that there can be no such thing as a sustainable company in an unsustainable system, and strategies limited to improving the performance of individual companies will provide little insulation against the rising threat of social and ecological breakdown. By challenging established norms, narratives and regulations that shape the operating environment for every business, companies can not only enhance their reputation as sustainable brands, but also de-risk more progressive strategies by fostering conditions conducive to their success.

> “There can be no such thing as a sustainable company in an unsustainable system.

QUESTIONS FOR REFLECTION

EQUITY AND JUSTICE

1. **For whom does your business create value?** How much does your business involve those stakeholders in your decision-making?

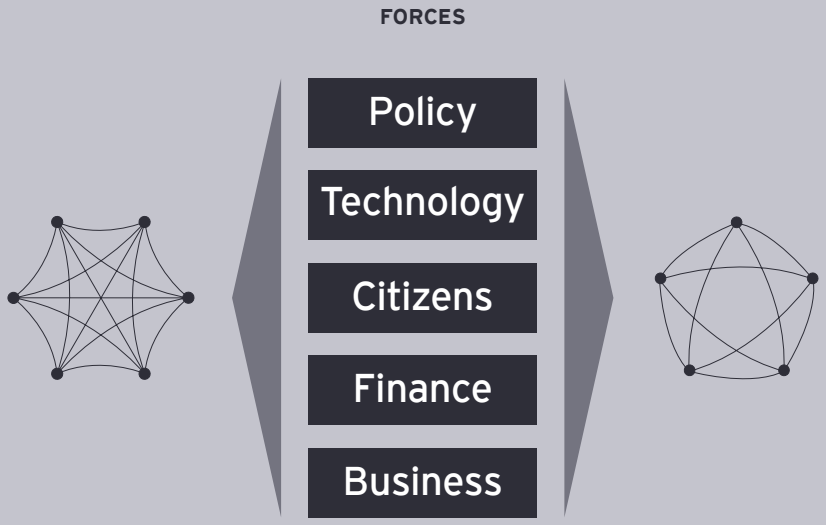
2. If you were to share accountability for the burdens and distribute the benefits that flow from your business, **how would your business model be different?**

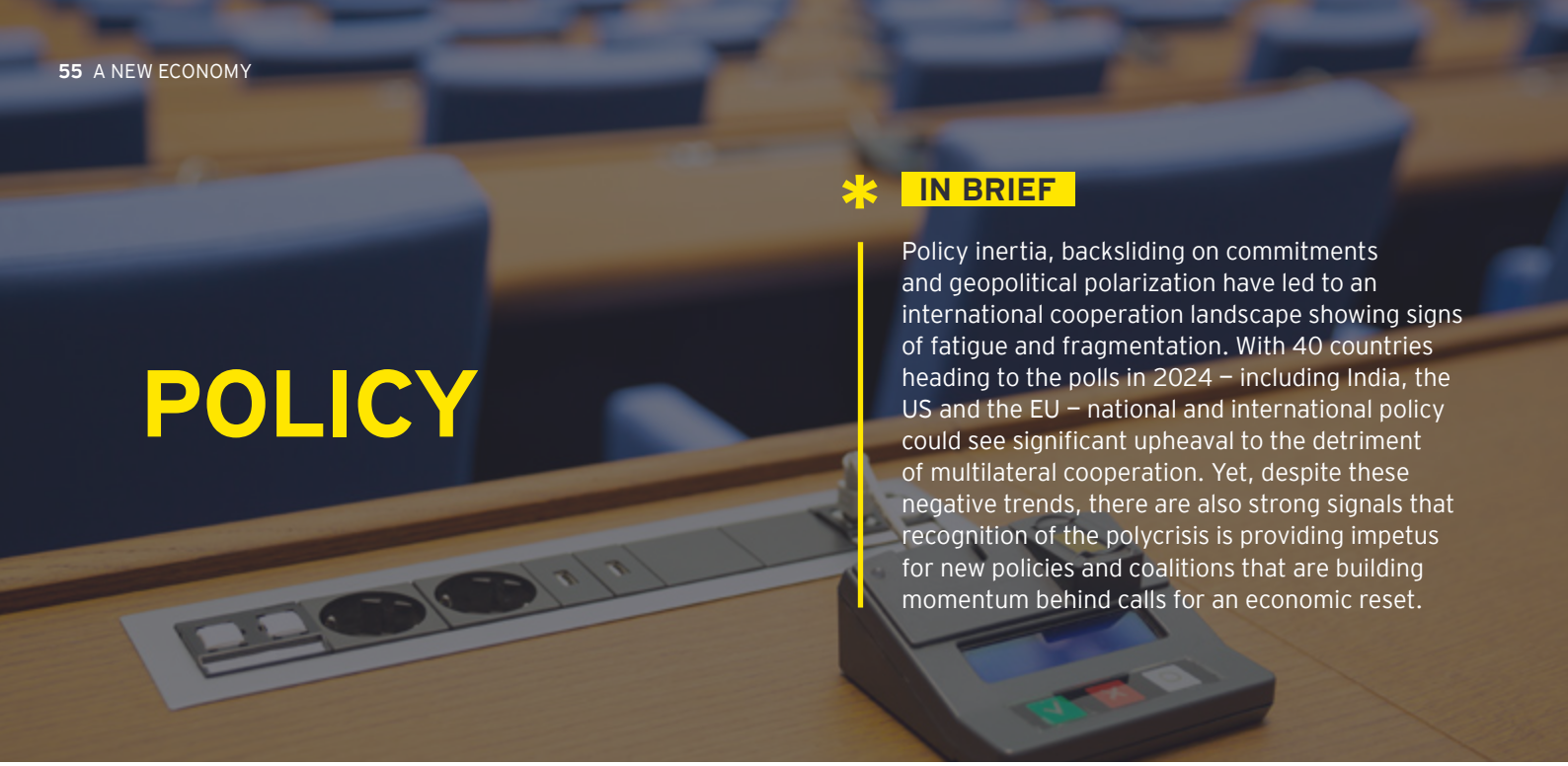
FORCES THAT MAY HELP OR HINDER THE TRANSITION

We sit at a critical inflection point with two future economies in view — one deeply entrenched, one slowly emerging and both likely to continue vying for dominance. Policy, technology, citizens, finance and business all have huge roles to play. They can either reinforce the inertia that holds the dominant system in place, or they can be forces that help build unstoppable momentum behind the transition.

Across all of these domains, we see both reasons for concern and reasons for optimism, underscoring that neither future is a given. This highlights the importance of paying closer attention to the disruptive innovation space between today's world in crisis and the vision of a more equitable, livable future — in particular, critically evaluating whether the purpose of innovation is to accelerate the journey toward that vision or to perpetuate the status quo.

> “Across all of these domains, we see both reasons for concern and reasons for optimism, underscoring that neither future is a given.





POLICY

IN BRIEF

Policy inertia, backsliding on commitments and geopolitical polarization have led to an international cooperation landscape showing signs of fatigue and fragmentation. With 40 countries heading to the polls in 2024 – including India, the US and the EU – national and international policy could see significant upheaval to the detriment of multilateral cooperation. Yet, despite these negative trends, there are also strong signals that recognition of the polycrisis is providing impetus for new policies and coalitions that are building momentum behind calls for an economic reset.

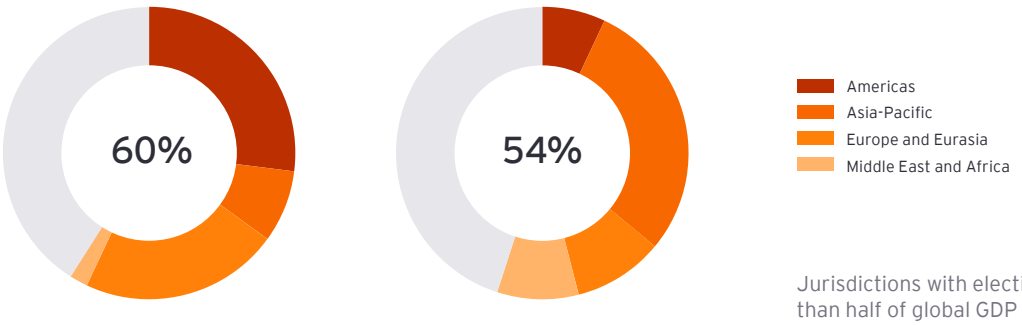
Reasons for concern

Geopolitical polarization

Worsening China-US relations, the war in Ukraine, and the most recent escalation in conflict between Israel and Palestine all point to rising geopolitical tensions. Together with isolationist approaches and the increasing politicization of and backlash against sustainability action (e.g., the cost of living crisis being exploited to rationalize scaling back climate and environmental commitments, the anti-ESG movement unfolding in the US), these hinder international cooperation and risk further exacerbating negative impacts. Protectionist measures are also on the rise as countries and regional blocs vie for self-sufficiency, and deglobalization remains at the forefront of current policy discourse.

Geoeconomic power struggles are also extending to largely uncharted territories, including the Arctic, the deep sea and even outer space. In the absence of international treaties covering these domains, there are growing concerns that "stretching" ecological and technological limits in these environments could lead to further resource conflicts and cause catastrophic damage to critical ecosystems that we barely understand. Hence, there are numerous calls from scientists for moratoria to stop governments from experimenting or moving into these domains unilaterally.[185]

> In an already polarized environment, the global elections supercycle raises significant questions about future sustainability policies and collaboration[186]



Jurisdictions with elections in 2024 account for more than half of global GDP and population.
[EY 2024 Geostrategic Outlook]

Policy asymmetries

International forums for cooperation are showing signs of fatigue, buffeted by decades of incrementalism, persistent science denialism, and self-serving short-sightedness in politics and business. Despite promising headway at COP28, clear actions – beyond pledges – on phasing out fossil fuels, ending deforestation and mobilizing finance at the scale needed remain elusive. And while some jurisdictions (particularly the EU) plow on with more advanced sustainability regulations, others fall behind, stagnate or regress. This inconsistent and fluctuating policy environment creates uncertainty for business and finance in terms of defining and achieving their sustainability ambitions. In the absence of strong reforms, we face the unsavory prospect of fragmentation or sustained stagnation.

Reasons for optimism

New economic thinking

New economic thinking and science are increasingly finding their way into policy discourse. While seemingly organized under many different frameworks (e.g., doughnut economics, beyond GDP, ecological economics, degrowth, regenerative economics), these concepts ultimately all strive for the same thing: an economy founded on human and planetary flourishing. Notable policy examples are the EU's Post-Growth Deal (or REAL) and the Wellbeing Economy Governments (WEGo) alliance, comprising the governments of Canada, Finland, Iceland, New Zealand, Scotland and Wales.[187] [188]

Beyond policymakers, many think tanks and multistakeholder coalitions are increasingly exploring alternative economic models, concepts and policies. Earth4All, through its modeling of two scenarios – "too little too late" and a "giant leap" – provide tangible transformations needed to transition to a new economy. The Wellbeing Economy Alliance (WEAll), brings together organizations, alliances, movements and individuals working toward a Wellbeing Economy, targeting both bottom-up and top-down actions. The Economy for the Common Good promotes an economic system grounded on a new type of balance sheet that takes into consideration human dignity, solidarity, ecological sustainability, and social justice and democratic co-determination as signs of success. These and many others give reason for hope that new coalitions are forming to create and share knowledge for catalyzing systems change.[189] [190] [191]

A multitude of frameworks have (re)emerged in recent years, striving for a shared objective: an economy founded on human and planetary flourishing. Despite geoeconomic headwinds, a growing number of initiatives and coalitions are building momentum behind calls for an economic reset.[192] [193] [194] [195] [196]

Earth4All: builds on the legacies of the Limits to Growth and planetary boundaries frameworks. The initiative has modeled two scenarios – "too little too late" and a "giant leap" – identifying five extraordinary turnarounds needed to transition to a new economy.

Wellbeing Economy Alliance (WEAll): brings together organizations, alliances, movements and individuals working toward a Wellbeing Economy. Its initiatives include the Wellbeing Economy Governments partnership, comprising the governments of Scotland, New Zealand, Iceland, Wales, Finland and Canada.

Doughnut Economics Action Lab (DEAL): works with changemakers worldwide to turn the ideas of Doughnut Economics into transformative action and aims to bring about systemic change.

Economy for the Common Good (ECG): promotes an economic system grounded on a new type of balance sheet that takes into consideration human dignity, solidarity, ecological sustainability, and social justice and democratic co-determination as signs of success.

ZOE Institute for Future Fit Economies: is a platform for new economic thinking, exploring new ways to a future-fit economy for the 21st century and implementing them in co-creative policy consulting with the EU, national and regional governments.

Regional pioneers

While policy asymmetries delay or pose barriers to action, many large jurisdictions, most notably the EU, are forging ahead with ambitious policy packages, which promise to bring other jurisdictions along by way of trade.

Many large corporations operating within the EU will be affected by enhanced disclosure and transparency regulations, such as the Corporate Sustainability Reporting Directive (CSRD), the Corporate Sustainability Due Diligence Directive (CS3D) and the Sustainable Finance Disclosure Regulation (SFDR). Similarly, California's recently enacted climate laws will require certain public and private entities conducting business in California to provide enhanced climate-related disclosures,[197] while multiple jurisdictions around the world have signalled their intent to adopt the new climate and sustainability standards released by the International Sustainability Standards Board (ISSB) in 2023.

Enhanced requirements are also emerging at the product level, including prospective right-to-repair legislation and planned obsolescence bans across the EU through the Circular Economy Action Plan, as well as in the US and parts of Canada. Meanwhile, the EU's landmark Carbon Border Adjustment Mechanism (CBAM) is the first policy of its kind to charge a carbon levy for certain emissions-intensive goods imported into the EU.[198] [199] [200] [201] Such developments may prove a source of tension between jurisdictions (e.g., perceived as imposing too heavy a burden on domestic markets or even as protectionist). But they may also prove critical to driving action on a regional or global scale, and can act as tried and tested models for broader adoption.

> Many large jurisdictions, most notably the EU, are forging ahead with ambitious policy packages, which promise to bring other jurisdictions along by way of trade.

QUESTIONS FOR REFLECTION

POLICY

1. How can your business contribute to removing barriers that currently prevent your jurisdiction from aligning with policy pioneers on sustainability?

2. Today's policy pioneers set tomorrow's baseline. How would the adoption of new economy models, concepts and policies impact your business? What could you do to not only prepare for, but also accelerate, their advent?

TECHNOLOGY

IN BRIEF

Techno-optimism comes with major risks of negative impacts on sectors, labor markets and global stability. This is especially the case when sustainability is not baked into design and when the pace of technological advancement outstrips society's capacity to adapt to and address its consequences. Most significantly, it risks breeding complacency that the symptoms of the polycrisis can be treated without addressing its root causes, diverting attention away from systemic interventions toward speculative technological fixes whose knock-on effects are difficult (if not impossible) to predict. However, technology also holds great promise to reprogram how we live and work for the better. Digital technology can help unpack systems complexity; facilitate value chain visibility and traceability; change how we collect, share and use data; and transform how we connect and interact.

Reasons for concern

Negative disruption

While technological advances are in many ways augmenting the way we live and work, they are also increasingly disrupting many sectors, the labor market and broader society. For example, the advent of digital platforms, such as for ride-hailing and hospitality, have added convenience and variety to commuting and travel. But they have also had negative impacts on workers' rights and job security – expanding the gig economy, which some projections anticipate could encompass 50% of the workforce by 2030[202] – as well as housing availability and rental prices. Recent advances in generative AI (GenAI) are even affecting industries previously thought immune from AI and automation, such as the creative arts.

Unknown and unintended consequences

Contemporary challenges are clear,[203] with disinformation rife, social media algorithms sowing polarization and deep fakery[204] making generative content ever more indistinguishable from the real thing. These and slew of other concerns – from the threats of rogue programs, autonomous warfare and 3D weapon printing,[205] to pursuing technologies, such as geoengineering, without fully understanding their potential impacts – all pose significant risks to global stability and safety.

1st

The 2024 WEF risks report ranks **misinformation** and **disinformation** as the most severe risk over the next two years, with **AI-generated misinformation and disinformation** as the second most likely to present a material crisis on a global scale in 2024. Meanwhile, cyber insecurity ranks fifth in 2024 and fourth over the next two years.[206]

90%

of online content could be generated or manipulated by AI by 2026.[207]

Throughout history, civilizations have fallen as the pace of technological advancement has outstripped the ability of society to deal with the problems it creates.[208] Technological innovations and business models, designed without consideration for social justice, environmental regeneration and economic inclusion, can lead to unintended consequences,[209] which the length of policy cycles make hard (if not impossible) to keep in check.

Beyond policymakers and regulators being able to keep up, the challenge is not simply about regulating technology itself, but rather how technology is used. If regulation of new technology is overly myopic, rushed or focused too narrowly on functional elements, it may fail to address broader systemic risks. For instance, systemic inequalities in hiring or justice[210] processes could be further entrenched by discrimination based on AI reinforcement learning,[211] potentially creating the next underclass of workers akin to the gig economy in the process.[212]

The commodities of the future

As the saying goes, "If you're not paying for something, you're the product," and the ownership of personal data by an ever-smaller group of corporations raises myriad issues.[213] As well as heightened risk in relation to privacy, cybersecurity and mass surveillance, the agglomeration of data and information confers substantial market influence. It potentially heralds a world where a handful of powerful companies and public entities control the public narrative, where competition and innovation is limited, and where compromises on diversity and freedom exacerbate social inequality.

Furthermore, this digital commodification extends beyond data to the virtual world. The metaverse operates on the tokenization of digital space through non-fungible tokens (NFTs), representing assets that could include digital land. If not appropriately managed, this risks replicating the physical world's inequalities in the virtual one. Governing bodies or developers intentionally limiting the total number of NFTs for digital assets would effectively create artificial scarcity and economic imbalances through the monopolization of pricing structures, production restrictions and reduced consumer choice.[214]

Reasons for optimism

Immersive virtual worlds

The metaverse has emerged as an increasingly viable virtual universe that could fundamentally reshape the way we work, socialize, travel and ultimately satisfy our desires, moving away from material consumption toward a more virtual, experience-based world.

An integral component of the metaverse, digital twins especially are showing huge potential to improve real-world problem-solving, unlocking precision and efficiency that lowers the resource intensity of economic activities and minimizes waste. Beyond industrial applications, virtual reality and digital twins are being used in education to demonstrate the real-world applicability of abstract mathematical concepts[215] and, in science, groups are developing digital twins of the entire Earth to model, monitor and forecast the impacts of human and natural activities.[216] [217]

Data and decentralization

In supply chains, blockchain technology is supporting end-to-end traceability, transparency and accountability, helping businesses understand and disclose the environmental impact of their activities and helping consumers understand the sustainability credentials of their purchases.

This ability to trace ingredients and materials, and track their extraction and associated emissions, underpins digital product passports[218] — comprehensive digital documentation that includes information on a product's environmental and social impact, recycling guidelines and the sustainability standards it adheres to. Such technology can even be applied to digital content (e.g., Adobe's "nutrition label"), which is essentially metadata to detect whether an image has been doctored.[219]

AI and connectivity

Already widely used in agriculture; climate finance; environmental monitoring; and energy, water and waste management, Internet of Things (IoT) technologies are key tools for addressing business and environmental challenges. When paired with AI and machine learning, this real-time information collection, measurement and analysis can help businesses predict and automate processes. As these technologies continue to advance, the detail and accuracy afforded will help with monitoring natural ecosystems, allowing businesses to better understand, own and report on the negative impacts and positive outcomes of their activities.

Hard tech

Breakthroughs in renewable energy and energy storage have transformed the landscape, making sustainable energy sources more efficient and cost-effective.[220] Precision farming, using technologies, such as drones, sensors and AI, offers a path to more sustainable food production.[221] Bioprinting technology is helping to tackle some of the most challenging obstacles in medicine.[222] And, aided by quantum computing, advances in materials science are contributing to more sustainable manufacturing processes and the development of environmentally friendly materials.[223]

Over the coming decades, alternative proteins are projected to capture a substantial share of the $1.7 trillion conventional meat and seafood market, offering solutions to issues like deforestation, biodiversity loss, antibiotic resistance, zoonotic disease outbreaks and the grim realities of industrialized animal slaughter. If produced using renewable energy, cultivated meat could slash greenhouse gas emissions by up to 92% and decrease land use by as much as 90% compared to conventional beef. Cultivated meat could also eliminate the need for antibiotics entirely, potentially reducing foodborne illnesses linked to enteric pathogens.[224]

QUESTIONS FOR REFLECTION

TECHNOLOGY

1. **How can your business use technology** as a catalyst for environmental, social and economic transformation on a systemic level?

2. **How can your business leverage new economy principles** in technology development and use them for wider impact?

3. How will technology enable you to **better understand and connect** within your value chain?

CITIZENS

IN BRIEF

Without significant change in global consumption patterns, and with a global middle class 40% larger by 2030, both the ecological deficit and inequality are set to rise dramatically. Divisive narratives and ongoing global uncertainty against a backdrop of cost-of-living challenges and economic pessimism provide cause for concern about the health of our societies. But there is hope in changing attitudes and modes of consumption. Consumers, especially younger generations, increasingly value experiences over physical goods. Since COVID-19, many people have also experienced a shift in what they value and how they want to live, and are louder in calling for business and government to be accountable for their actions. Empowered by digital platforms, the global citizenry is more globally and culturally mobile, capable of organizing and amplifying knowledge, ideas and trends in ways that can shape broader global consciousness.

Reasons for concern

Uncertainty breeds discontent

Economic optimism is at an all-time low across 24 of 28 of the world's largest economies.[225] Divisive narratives on the polycrisis, playing on fear, increase feelings of not only grief and anxiety, but also a sense of apathy and nihilism.[226] [227]

Against the backdrop of the cost-of-living crisis and ongoing global uncertainty, many people feel forced to prioritize immediate concerns over conscientious environmental decisions and sustainable choices. And while consumption might feel like it offers instant gratification or a means to escape from the dire outlook for the world, there's mounting evidence that digital overconsumption and doomscrolling are having serious negative impacts on mental health,[228] especially among teenagers.[229]

Demographic change threatens to put overconsumption in overdrive

Driven predominantly by countries across Asia and Africa,[230] the global population is expected to reach 8.5 billion by 2030 and 9.7 billion by 2050,[231] with an expanding global middle class growing from 3.5 billion people in 2020 to 6 billion by 2040. If their development path follows that of the Global North, and it isn't counterbalanced by a dramatic downturn in the throughput of materials and energy in consumption-rich nations, this can only result in a massive increase in absolute consumption and emissions.[232]

An equitable and livable future hinges on the ability of policymakers, businesses and society-at-large to navigate this sensitive but necessary rebalancing of economic activity, mitigating the environmental impact of affluence, and reimagining human satisfaction beyond the allure of luxury and convenience.

54%
of people surveyed across 27 countries in 2023 said they've seen changes in their values and how they look at life [243]

In a 2023 EY Future Consumer Index survey of 22,000 people across 28 countries: [244]

74%
say they plan to buy less in the future

73%
of which say that this is in an effort to save money

49%
feel they don't need those items anyway

39%
are trying to buy less to help the environment

Reasons for optimism

Cultural shifts toward living differently

The slow-living, downshifting and mindfulness movements are among several cultural shifts indicating a widespread reprioritization of people's life goals and a desire to live differently.[233] While these shifts aren't new, they've certainly gained popularity and become more pronounced in recent years. A side effect of COVID-19 lockdowns, 54% of 21,000 people from 27 countries surveyed in 2023 said they've seen changes in their values and how they look at life.[234]

Evidenced by the so-called Great Resignation, people's attitudes toward work-life balance are changing,[235] with much greater emphasis on their physical health and mental wellbeing. While the productivity, hybrid working and return-to-office debate may still be ongoing,[236] employees continue to prioritize flexibility,[237] and several countries and large companies are trialing four-day workweeks, including in Australia, Canada, Denmark, Iceland, New Zealand, Portugal, South Africa and the UK.[238] [239]

Conscious consumerism

An ever-growing number of consumers want products that are more sustainable, brands that embody their commitment to human and planetary wellbeing, and businesses to be held fully accountable for impacts across their entire value chains, not just direct operations. Indeed, a global survey of G20 countries found that 74% of people support reform of economic systems, away from a singular focus on profit and growth toward a stronger focus on human and planetary wellbeing.[240]

The ongoing rise of the conscious consumer, and their mindfulness of the social and environmental impacts of their purchases, is increasing demand for sustainable products and services.[241] Additionally, people are shifting toward lower-intensity patterns of consumption, such as switching to alternative proteins; using sharing platforms rather than buying products that they only use occasionally; repairing what they already own, rather than throwing it away; and, if something has to be replaced, buying secondhand, rather than new.[242]

These changing habits are sending clear signals to businesses around the products and services of the future, with smart entrepreneurial enterprises and even some established global brands already responding through their offerings.

Activism rising

Beyond movements such as Extinction Rebellion and Just Stop Oil, the likes of ClientEarth and the Good Law Project are taking governments and companies to court for the inadequacies of their climate strategies. Increasingly, employees aren't afraid to publicly call out insufficient action by their employers either, indicative that companies face unprecedented scrutiny from within their organizations as well as outside.

The number of climate litigation cases has doubled in the past five years – from 884 in 2017 to 2,180 in 2022 – including a growing number in low-income countries.[245] This trend is only expected to increase as more cases are brought in relation to climate migration, and to the rights of Indigenous peoples and other groups disproportionately affected by climate change.

Underscoring a global shift toward legal recourse against government and corporate actors for loss and damage caused by climate change, other anticipated trends include a growing number of cases that involve personal responsibility of company directors, that challenge commitments that overrely on negative emissions technologies and that focus on the nexus between climate change and biodiversity loss.[246]

QUESTIONS FOR REFLECTION

CITIZENS

1. How is your business responding to more eco-conscious, experience-based and sharing economy-oriented consumer preferences?

2. In a constrained economic environment, how can your business innovate to make sufficiency-oriented lifestyles irresistible to your customers?

FINANCE

IN BRIEF

Buffeted by an uncertain economic environment and unprecedented levels of global debt, governments and businesses struggle to prioritize the long term. Meanwhile, the world of sustainable finance continues to grapple with scale, consistency and transparency, alongside growing concerns around greenwashing, competing interests and risks linked to the commodification of sustainability. Yet, despite these concerns, and although further acceleration is undoubtedly needed, sustainable finance has nonetheless made significant strides over recent years. Greater volumes of traditional finance are being directed toward sustainability, with market forces already driving the scale-up of renewables and commitments to triple current investments by 2030.[247] Innovation is also opening up new routes to financing, and restructuring financial products and markets, while tokenization is challenging the concept of money itself.

Reasons for concern

Uncertain economic outlook and rising debt

Global public debt has increased fivefold since 2000,[248] and total global debt (including corporate and household debt) is rising too – 9% higher than in 2019 and US$200 billion above 2021 levels.[249] Coupled with rising interest rates, this is exacerbating a debt crisis, most notably impacting low-income nations.[250] Borrowing costs for these countries have now surged to more than 10 percentage points higher than those for developed countries – an alarming increase from the less than 5% difference observed in 2019.[251]

As a proportion of government revenues, debt interest payments are at their highest level since at least 2010, and nearly 60% of low-income countries, representing 13% of the world's population, are either at or near a debt stress point. According to the UN, 3.3 billion people now live in countries where debt payments exceed expenditures on health or education, with obvious implications for achievement of the SDGs.[252]

Nearly 60%
of low-income countries, representing 13% of the world's population, are either at, or near, a debt stress point[253]

3.3 billion people
now live in countries where debt payments exceed expenditures on health or education[254]

Sustainable finance facing credibility challenges

Misalignment in sustainable finance taxonomies, policies and standards, and inadequate transparency and monitoring of impact, all continue to erode trust in sustainable finance products. A notable portion of sustainable funds' ratings don't meet the benchmark of the UN Conference on Trade and Development's (UNCTAD) Inclusive Growth Index. And the carbon content of "green funds" can be confusing or misleading,[255] adding to investor skepticism toward funds' ESG claims and contributing to noticeable outflows from the responsible investment category.[256]

As a result, despite significant growth, sustainable finance still isn't scaling far or fast enough to meet the SDGs, particularly in low-income countries. The annual investment deficit across all SDGs has increased by 60% since 2014 to more than US$4 trillion, attributable not only to historical underinvestment and COVID-19-related setbacks, but also higher estimates from specialist agencies regarding the costs of climate change mitigation and adaptation.[257]

Commodification of nature

Global carbon markets have been going through hard times, following multiple negative reports, including a nine-month investigation, which concluded that more than 90% of rainforest carbon credits issued by the world's leading carbon credit certifier claimed reductions in deforestation that didn't exist.[258] Beyond rising skepticism about additionality and permanence, carbon credits are also increasingly raising concerns around the commodification of the natural world and new forms of environmental colonialism, as land owned by low-income nations and populations is bought up to compensate for the impact of largely higher-income polluters.[259]

Nonetheless, carbon markets — and now also biodiversity markets — remain an essential way to bolster corporate and government action. The potential of these markets must be safeguarded through robust mechanisms and standards, supported by clear regulation and scientific rigor; and weighed carefully against the risks of unintended consequences, moving forward with a primary focus on mitigation. This is essential to making sure that they work as intended, not only avoiding exacerbating inequality, but also contributing meaningfully to combating climate change and regenerating biodiversity.

Reasons for optimism

Sustainable finance gaining momentum

Despite the challenges of transparency and consistency, the growth of sustainable finance has outpaced traditional financial assets, growing by 15% since 2015 and reaching a total value of US$35.3 trillion in 2020.[260]

The cumulative value of the sustainable bond market surged to US$3.3 trillion in 2022, a fivefold increase over 2017,[261] with green bonds emerging as highly successful instruments since their establishment in 2007. For a second straight year, banks generated higher revenue from green financing compared to fossil fuel financing in 2023,[262] boding well for significant expansion across other sectors, notably utilities.[263]

Governments aiming for domestically produced, cost-effective and low-carbon energy are actively reducing reliance on imports and enhancing energy security

US$35.3 trillion
The total value of sustainable finance 2020, which has grown 15% since 2015 and outpaced traditional finance assets[270]

US$3.3 trillion
The cumulative value of the sustainable bond market in 2022, a fivefold increase over 2017[271]

through stimulus packages aligned with net-zero goals. In the US, the Inflation Reduction Act (IRA) is anticipated to double renewable capacity by attracting investment of US$550 billion–US$600 billion.[264] In China, a record surge in clean energy investment could see emissions go into structural decline as early as this year.[265] And in the EU, the Green Deal Industrial Plan, introduced in 2023, is similarly expected to boost clean energy financing across the region.[266]

New routes to sustainable finance

Though not a headline topic at COP28 (other than mobilization of the loss and damage fund), climate finance remained a common thread throughout negotiations and featured prominently in the "Green Zone," with significant focus placed on blended finance. Public-private partnerships (PPPs) are seen as key levers for de-risking investments and accelerating the phaseout of carbon-intensive assets, with international projects involving multilateral development banks (MDBs) and governments reducing interest rate spreads by an average of 40%.[267]

Technological advancements are unlocking new opportunities, drawing in nontraditional investors by facilitating peer-to-peer transactions and democratizing access to funding. Nonbank fintech lending showed a notable 23% increase in 2021, surpassing the growth in lending from both traditional banks (10%) and nonbank institutions (3%).[268]

Tokenization is even challenging the traditional concept of money. Sustainability tokens, such as EY OpsChain ESG,[269] offer platforms for tracking emissions and carbon credits, potentially unlocking financial innovation for impact-based investments in sustainability, particularly through regenerative finance (ReFi) initiatives.

At COP28, the Asian Development Bank (ADB), Global Energy Alliance for People and Planet (GEAPP) and the Monetary Authority of Singapore (MAS) announced a partnership that would mobilize US$2 billion for a range of projects, including the phasing out of coal assets and the decarbonization of hard-to-abate sectors. The partnership will seek capital from the private, philanthropic and public sectors for energy transition projects across Asia.[272]

QUESTIONS FOR REFLECTION

FINANCE

1. How can your business leverage financial incentives to accelerate long-term, collective sustainability goals?
2. How can your business design its financial products to address systemic disparities and promote inclusivity for your customers and communities?
3. With access to preferential finance or incentives, how would you accelerate your transition to a regenerative business model?

BUSINESS

IN BRIEF

Demands for growth and short-term financial returns continue to act as a barrier – a "green ceiling" – that makes it hard for long-term, sustainability-oriented businesses to raise capital and invest in transformative progress. At the same time, the concentration of market power and influence in the hands of fewer and fewer incumbent companies risks limiting diversity of ideas, consumer choice and innovation.

Yet, the compound effect of other forces – the rapidly evolving regulatory landscape, shifting consumer attitudes and expectations, and the advent of new financial instruments and technologies – is driving increased focus on business model innovation. As well as transformation of existing business models, new models are increasingly emerging to challenge traditional paradigms in relation to ownership, governance, value sharing and value chain structures.

Reasons for concern

Green ceilings dampen enthusiasm

Rising inflation, heightened geopolitical turbulence and levels of business bankruptcies not seen since the global financial crisis[273] are contributing to an uncertain economic outlook. As illustrated by the 2023 EY Sustainable Value Study, this is driving a noticeable deceleration of corporate sustainability initiatives and a dilution of ambition on climate change.[274] Similar trends are evident in investment and financing, where interest rate rises and recession concerns are further dampening enthusiasm for risk,[275] and the prioritization of short-term returns is making it harder for long-term, sustainability-oriented businesses to raise capital.

2023 saw levels of business bankruptcies not seen since the global financial crisis.[276]

Fears of an economic downturn are widespread among private-sector respondents, featuring as a top-five risk in 102 countries (90%) according to the World Economic Forum's Global Risk Report 2024, a significant uptick from 2022.[277]

▲

Concentration of market power

Globally, the market capitalization of the world's top 0.1% of companies is equal to that of the bottom 82% combined.[278] In the US, the top 0.1% of companies account for more than 80% of all sales, compared to 65% 50 years ago[279] – a trend that, although less pronounced, is also mirrored in Europe.[280] At the same time, the number of new startups is declining,[281] an observable trend even before the COVID-19 pandemic.[282]

Previously decentralized, the internet has now shifted to a more centralized structure, and major innovations in the digital universe increasingly orbit around the tech giants. The same consolidation can be noted across other sectors. Five out of the 10 largest pharmaceutical companies are based in the US;[283] a series of bank mergers over the past 40 years has given rise to several giant organizations, while the number of distinct banking organizations has plummeted from over 20,000 to approximately 5,000;[284] and in food, the majority of supermarket sales are dominated by a handful of chains in most cities.[285] [286]

The resulting economies of scale mean that superstar incumbents are better placed to influence the market, through decisions on existing and new products and services, lobbying for favorable policy and by vacuuming up competition. This increases dependence on a handful of companies for transformative change across the entire economic, natural and social systems; and threatens to create a long-term barrier to much-needed consumer choice and competition-driven innovation.

Reasons for optimism

Increasing focus on business model transformation

Recognition is growing that compliance-based approaches to sustainability are insufficient, and that maintaining relevance and competitiveness requires deeper transformation, without which, businesses risk being left behind. Whether driven to respond to rapidly evolving regulation and consumer preferences; to future-proof supply chains and operations against the tides of social, environmental and geoeconomic turbulence; or to capitalize on innovations across technology and finance, the compound effect of these forces is huge. Business's recognition and response to these pressures is evident, if not proportionate to the scale and pace of change. Sustainability is now firmly in the C-suite; the role of the CSO is becoming increasingly mainstream (at least in larger organizations), and the sustainability function more generally – once relegated to compliance, volunteering and corporate affairs – is more strategic than ever.[287]

Early signals of this shift in mindset abound. The fashion industry, for example, is increasingly recognizing the importance of optimizing resource use and minimizing waste, shifting toward encouraging people to buy fewer high-quality, enduring pieces. In the electronics industry, initiatives for recycling electronic waste and designing products for easy disassembly are gaining traction. In mobility, manufacturers are shifting toward sharing and service models, and collaborating with road networks to create whole-of-system solutions. In agriculture, businesses are implementing regenerative agriculture practices, reducing food waste and partnering with farmers to create more equitable, inclusive and resilient supply chains. And some large businesses are adopting the legal status of B Corps, or similar, to enshrine their commitment to sustainability and the pursuit of value beyond the financial.

Innovative models exemplify new economy principles

At the same time as large, established businesses are increasingly recognizing the need to pivot their business models, innovative new models and corporate structures are also springing up that challenge traditional norms around governance, ownership and value sharing, and exemplify new economy principles in practice. Their prioritization of inclusion, sustainability and collaborative approaches reflects a broader societal shift toward more responsible, equitable and interconnected business practices, and provides valuable blueprints for a more resilient and purpose-driven future.

Against a backdrop of stagnating growth, market disruptions and diminishing returns from process improvements, sharing economy models have proven to be compelling alternatives to traditional models, unlocking diversification and new market opportunities. Combined with their many co-benefits — reducing the number of physical products in circulation, supporting sufficiency and reduced need for materials, and creating a broader sense of ownership and stewardship through community networks — this has seen many businesses embrace the transition from product-centric to service- or subscription-based models.[288]

Ecosystem business models (in all their forms[289]) represent a departure from traditional competition by fostering collaboration and "co-opetition." While traditional competition is unlikely to disappear anytime soon, such approaches are becoming increasingly common as companies seek to optimize the capital they deploy to create new forms of value at an ever-higher pace. Collaborative ecosystems offer tremendous potential to pool knowledge, resources and expertise to address sustainability issues collectively and more efficiently.[290] They exemplify the interconnectedness and interdependence required in the new economy, where shared goals and mutual benefits take precedence over isolated pursuits.

The cooperative movement is scaling rapidly too, with 10% of the global workforce now either employed by a cooperative or functioning as a worker-owner within one.[291] Together with other forms of impact enterprise, they are instrumental in accelerating the shift from divisive, degenerative models toward distributive, regenerative ones that democratize ownership and governance.

US$600 billion

The global value of the sharing economy is projected to reach US$600 billion by 2027 – a quintuple growth from US$113 billion in 2021. This demonstrates that the sharing economy is a compelling alternative for large businesses seeking to redefine their value propositions in line with changing consumer values.[292]

13.7%

A 2022 EY study showed that ecosystem models have contributed an average 13.7% of total annual revenues, driven a 12.9% reduction in costs and generated a 13.3% increase in incremental earnings.[293]

US$2.15 trillion

Over the past decade, the number of cooperatives has risen approximately 15% to around 3 million,[294] [295] and the top 300 cooperatives worldwide collectively generate over US$2.15 trillion in revenue.[296]

A growing number of examples signal a departure from traditional paradigms. From extending resource cycles and engaging stakeholders in sufficiency-oriented propositions to slashing emissions and democratizing governance, these and many other innovators are demonstrating the "art of the possible:"

Recognizing the very different company it would need to become to survive and thrive in a low-carbon future, **Ørsted** has successfully reinvented itself as a global leader in offshore wind, doubling revenues and quadrupling profits between 2013 and 2022. Previously generating 85% of its heat and power from coal and only 15% from renewables, it has flipped those numbers in around a decade and aims to be carbon-neutral across all scopes by 2040.

Founded in 2018, **Andelsgaarde** is a Danish cooperative with the goal of buying and converting conventional farms to regenerative agriculture.[298] Members pay a monthly fee of DKK150 (approximately US$20), which helps to fund buy-ups. As well as enjoying the ability to buy directly from the cooperative's farms, members also become part owners of all the farms, with voting rights at annual general meetings, thereby sharing in the risks, rewards and responsibilities of ownership.

Riversimple is bringing a whole systems design approach to eliminating the environmental impact of personal transport. On top of providing its hydrogen-powered cars exclusively as a service, its corporate structure has been designed to give genuine voice to all stakeholders in decision-making. Its board is answerable to six "custodians," representing not only the interests of customers and investors, but also staff, local communities, the environment and commercial partners.[299]

Supported by a lease-to-own model and free repairs, **MUD Jeans** has created the world's first circular denim brand.[297] Customers pay a small monthly fee for 12 months after which they can keep the jeans, swap them for a fresh pair or return them (free of charge) to be recycled, making real-cost pricing affordable for more people.

On a mission to make slave-free chocolate the norm, **Tony's Chocolonely**'s five sourcing principles include supporting living incomes by paying cocoa farmers well above Fairtrade premiums; building long-term relationships with, and buying directly from, farmer cooperatives; and ensuring full "bean to bar" traceability of all the cocoa it uses. By open-sourcing these principles, it aims to set new industry standards for the whole chocolate industry to follow.[300]

The world's highest-scoring B-Corp, **South Mountain Company**, designs and builds high-performance, net-zero energy buildings that generate, on-site, as much energy as they consume and are constructed from materials that have all undergone rigorous lifecycle analysis. However, what pushes its B Impact Assessment score over the top is its structuring as a worker-owned cooperative. Ownership is available to all qualified employees, offering not only an equal stake in the profits of the business, but also equal control over its operations and strategic direction.

> At the same time as large, established businesses are increasingly recognizing the need to pivot their business models, innovative new models and corporate structures are also springing up that challenge traditional norms around governance, ownership and value sharing, and exemplify new economy principles in practice.

QUESTIONS FOR REFLECTION

BUSINESS

1. How would your business fare in a market dominated by new economy business models?
2. What can you do to help mobilize a critical mass of early movers in your sector to transition to a new economy?
3. What would a long-term transition to a new economy mean for your business model and strategy today? What is your individual role in accelerating this transition?

CONCLUSION

> The transition is necessary, feasible, desirable and already underway; but just as our current polycrisis economy is not inescapable, so the advent of a new economy is not inevitable.

Marked by increasing signs of ecological breakdown, deepening social inequality and rising geopolitical tensions, we find ourselves in the midst of a polycrisis. These causally entangled crises are the result of similarly interconnected structural flaws in the global economic system, which incentivize the pursuit of unsustainable growth; drive vast overconsumption in high-income communities; perpetuate linear models of production and consumption; and encourage financial capital myopia, short-termism and siloed thinking.

Breaking free from this polycrisis economy first requires understanding and accepting these root causes, then addressing them by embracing a fundamentally different set of design values and operating principles – sufficiency, circularity, systems thinking, value redefined, and equity and justice. Collectively, these define the more just and regenerative system essential to long-term human and planetary flourishing, and to creating an equitable and livable future, where everyone, everywhere, has the capacity to satisfy their basic needs within planetary thresholds.

With two very different economic systems in view – and reasons for both concern and optimism across the critical domains of policy, technology, citizenship, finance and business – that equitable, livable future hangs in the balance. And while there is certainly hope to be found in the new economic thinking and science that is increasingly finding its way into policy discourse, and already finding expression in new business models, translating that hope into widespread action requires intentional, collaborative effort.

The transition is necessary, feasible, desirable and already underway; but just as our current polycrisis economy is not inescapable, so the advent of a new economy is not inevitable. Recognizing that our intentions and behaviors actively shape the future today, the questions that we must all ask ourselves are:

Which future do we wish to gift to future generations? And what is our role in bringing it about?

REFERENCES

[1] *Enough - A review of corporate sustainability, in a world running out of time*, EY, 2021.

[2] Ripple, William J, et al., "The 2023 state of the climate report: Entering uncharted territory," *BioScience* (2023), https://doi.org/10.1093/biosci/biad080.

[3] Richardson, Katherine, et al., "Earth beyond six of nine planetary boundaries," Science Advances 9, no. 37 (2023), https://doi.org/doi:10.1126/sciadv.adh2458.

[4] "Rising inequality: A major issue of our time," Brookings, https://www.brookings.edu/articles/rising-inequality-a-major-issue-of-our-time/.

[5] *The Sustainable Development Goals Report Special Edition*, The United Nations (UN), 2023.

[6] "What Is a Global Polycrisis?," Cascade Institute, https://cascadeinstitute.org/wp-content/uploads/2022/04/What-is-a-global-polycrisis-v2.pdf.

[7] Ripple, William J, et al., "The 2023 state of the climate report: Entering uncharted territory," *BioScience* (2023), https://doi.org/10.1093/biosci/biad080.

[8] "Can we still avoid 1.5 degrees C of global warming?," Yale Climate Connections, https://yaleclimateconnections.org/2023/11/can-we-still-avoid-1-5-degrees-c-of-global-warming/#:~:text=In%20a%20November%202023%20report,any%2012%20months%20on%20record.

[9] *Emissions Gap Report 2023*, The United Nations Environment Programme (UNEP), 2023.

[10] "When were the 10 warmest years on record?," Yahoo News, https://uk.news.yahoo.com/when-were-the-10-warmest-years-on-record-174557762.html.

[11] *The Global land outlook, second edition*, The United Nations Convention to Combat Desertification (UNCCD), 2022.

[12] Jones, Kendall R., et al., "The Location and Protection Status of Earth's Diminishing Marine Wilderness," *Current Biology* 28, no. 15 (2018), https://doi.org/https://doi.org/10.1016/j.cub.2018.06.010.

[13] *Living Planet* Report 2020, World Wildlife Fund (WWF), 2020.

[14] "Global Plastics Outlook – plastics waste by region," The Organization for Economic Cooperation and Development (OECD), https://stats.oecd.org/OECDStat_Metadata/ShowMetadata.ashx?Dataset=PLASTIC_WASTE_V2_1.

[15] "Plastic leakage and greenhouse gas emissions are increasing," The Organization for Economic Cooperation and Development (OECD), https://www.oecd.org/environment/plastics/increased-plastic-leakage-and-greenhouse-gas-emissions.htm.

[16] "Can we still avoid 1.5 degrees C of global warming?," Yale Climate Connections, https://yaleclimateconnections.org/2023/11/can-we-still-avoid-1-5-degrees-c-of-global-warming.

[17] "When were the 10 warmest years on record?," Yahoo News, https://uk.news.yahoo.com/when-were-the-10-warmest-years-on-record-174557762.html.

[18] *Emissions Gap Report 2023*, The United Nations Environment Programme (UNEP), 2023.

[19] *Living Planet Report 2020*, World Wildlife Fund (WWF), 2020.

[20] *Living Planet Report 2022*, World Wildlife Fund (WWF), 2022.

[21] Lenton, Timothy M., et al., "Quantifying the human cost of global warming," *Nature Sustainability* 6, no. 10 (2023), https://doi.org/10.1038/s41893-023-01132-6.

[22] Lenton, Timothy M., et al., "Quantifying the human cost of global warming," *Nature Sustainability* 6, no. 10 (2023), https://doi.org/10.1038/s41893-023-01132-6.

[23] *Loss and damage today: How climate change is impacting output and capital,* University of Delaware, 2023.

[24] van der Wijst, Kaj-Ivar, et al., "New damage curves and multimodel analysis suggest lower optimal temperature," *Nature Climate Change 13*, no. 5 (2023), https://doi.org/10.1038/s41558-023-01636-1.

[25] *Emissions Gap Report 2023*, The United Nations Environment Programme (UNEP), 2023.

[26] "Find your country," Climate Action Tracker, https://climateactiontracker.org/.

[27] "New analysis of National Climate Plans: Insufficient progress made, COP28 must set stage for immediate action," The United Nations Climate Change (UNCC), https://unfccc.int/news/new-analysis-of-national-climate-plans-insufficient-progress-made-cop28-must-set-stage-for-immediate.

[28] Townson, Duncan. (2017). Goldin, Ian & Kutarna, Chris: Age of Discovery. Navigating the Risks and Rewards of our New Renaissance. London, Bloomsbury Publishing, 2016. 328 pp.. Cuadernos de Historia Contemporánea. 39. 10.5209/CHCO.56291.

[29] "Ensure availability and sustainable management of water and sanitation for all," The United Nations Department of Economic and Social Affairs (UNDESA), https://sdgs.un.org/goals/goal6.

[30] "*Poverty and Shared Prosperity 2022*, The World Bank, 2022.

[31] "Ensure access to affordable, reliable, sustainable and modern energy for all," The United Nations (UN), https://sdgs.un.org/goals/goal7.

[32] "Inequality Inc. How corporate power divides our world and the need for a new era of public action," Oxfam, https://policy-practice.oxfam.org/resources/inequality-inc-how-corporate-power-divides-our-world-and-the-need-for-a-new-era-621583/.

[33] *The Sustainable Development Goals Report Special Edition*, The United Nations (UN), 2023.

[34] *The Sustainable Development Goals Report Special Edition*, The United Nations (UN), 2023.

[35] "Poverty," The World Bank, https://www.worldbank.org/en/topic/poverty/.

[36] *The Sustainable Development Goals Report Special Edition*, The United Nations (UN), 2023.

[37] "Rising inequality: A major issue of our time," Brookings, https://www.brookings.edu/articles/rising-inequality-a-major-issue-of-our-time/.

[38] Scheffran, Jürgen, "Limits to the Anthropocene: geopolitical conflict or cooperative governance?," Frontiers in Political Science 5 (2023), https://doi.org/10.3389/fpos.2023.1190610.

[39] Global Assessment Report on Biodiversity and Ecosystem Services, The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), 2019.

[40] The Sustainable Development Goals Report Special Edition, The United Nations (UN), 2023.

[41] "Income Inequality," The International Monetary Fund (IMF), https://www.imf.org/en/Topics/Inequality/introduction-to-inequality.

[42] 2023 Edelman Trust Barometer, Edelman, 2023.

[43] "Why aren't we talking about a social recession?," The United Nations Development Programme (UNDP), https://www.undp.org/future-development/signals-spotlight/why-arent-we-talking-about-social-recession.

[44] "Why aren't we talking about a social recession?," The United Nations Development Programme (UNDP), https://www.undp.org/future-development/signals-spotlight/why-arent-we-talking-about-social-recession.

[45] "Why aren't we talking about a social recession?," The United Nations Development Programme (UNDP), https://www.undp.org/future-development/signals-spotlight/why-arent-we-talking-about-social-recession.

[46] "COVID-19 death toll four times higher in lower-income countries than rich ones," Oxfam, https://www.oxfam.org/en/press-releases/covid-19-death-toll-four-times-higher-lower-income-countries-rich-ones.

[47] *Poverty and Shared Prosperity 2022*, The World Bank, 2022.

[48] "Refugee Statistics," The United Nations Refugee Agency, https://www.unrefugees.org/refugee-facts/statistics/.

[49] *The Global Risks Report 2024*, The World Economic Forum, 2024.

[50] "COVID-19 death toll four times higher in lower-income countries than rich ones," Oxfam, https://www.oxfam.org/en/press-releases/covid-19-death-toll-four-times-higher-lower-income-countries-rich-ones.

[51] "IPBES workshop on bidiversity and pandemics," The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), https://www.ipbes.net/events/ipbes-workshop-biodiversity-and-pandemics.

[52] "The concept of 'climate refugee'," The European Parliament, https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/698753/EPRS_BRI(2021)698753_EN.pdf.

[53] *The Global Risks Report 2024*, The World Economic Forum, 2024.

[54] "Gross domestic product (GDP) by world region," Our World in Data, https://ourworldindata.org/grapher/gdp-world-regions-stacked-area.

[55] O'Neill, Daniel W., et al., "A good life for all within planetary boundaries," *Nature Sustainability 1*, no. 2 (2018), https://doi.org/10.1038/s41893-018-0021-4.

[56] "Population," The United Nations (UN), https://www.un.org/en/global-issues/population.

[57] *New Nature Economy Report 2020*, The World Economic Forum, 2020.

[58] *Climate Change 2022: Mitigation of Climate Change: Working Group III contribution to the Sixth Assessment Report*, The Intergovernmental Panel on Climate Change (IPCC), 2022.

[59] "Matflow 2.0," Material Flows, https://visualisations.material-flows.net/mf-shiny.

[60] "GDP, PPP (constant 2017 international $)", The World Bank, https://data.worldbank.org/indicator/NY.GDP.MKTP.PP.KD

[61] "GDP growth (annual %)", The World Bank, https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG

[62] "Global inequalities in CO2 emissions," Our World in Data, https://ourworldindata.org/inequality-co2.

[63] "OECD Forum 2012: Better Life," The Organization for Economic Cooperation and Development (OECD), https://www.oecd.org/forum/oecdforum2012betterlife.htm.

[64] "Why the shift from measuring GDP to green growth matters," TriplePundit, https://www.triplepundit.com/story/2021/gdp-green-growth/722241.

[65] Collste, David, et al., "Human well-being in the Anthropocene: limits to growth," *Global Sustainability* 4 (2021), e30, https://doi.org/10.1017/sus.2021.26.

[66] *The World Inequality Report*, World Inequality Lab, 2022.

[67] *The World Inequality Report*, World Inequality Lab, 2022.

[68] Raworth, Kate, *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist* (Random House, 2017).

[69] "Full Datasets," World Inequality Lab, https://wir2022.wid.world/methodology/.

[70] "Full Datasets," World Inequality Lab, https://wir2022.wid.world/methodology/.

[71] "Swimming pools of the rich driving city water crises, study says," The Guardian, https://www.theguardian.com/environment/2023/apr/10/swimming-pools-rich-driving-city-water-crises.

[72] "Matflow 2.0," Material Flows, https://visualisations.materialflows.net/mf-shiny.

[73] *The Economics of Biodiversity: The Dasgupta Review*, The UK Government, 2021.

[74] *The Sustainable Development Goals Report 2020*, The United Nations (UN), 2020.

[75] "We are consuming the future," The World Counts, https://www.theworldcounts.com/challenges/planet-earth/state-of-the-planet/overuse-of-resources-on-earth.

[76] "Why is circular economy important for our planet?," The United Nations Development Programme (UNDP), https://climatepromise.undp.org/news-and-stories/what-is-circular-economy-and-how-it-helps-fight-climate-change.

[77] "We are consuming the future," The World Counts, https://www.theworldcounts.com/challenges/planet-earth/state-of-the-planet/overuse-of-resources-on-earth/

[78] "Fast Facts – What are sustainable food systems?," The United Nations (UN), https://www.un.org/sustainabledevelopment/fast-facts-what-are-sustainable-food-systems/.

[79] *Places and Spaces: Environments and children's well-being*, The United Nations Children's Fund (UNICEF), 2022.

[80] Ahlström, Richard, Gärling, Tommy, and Thøgersen, John, "Affluence and unsustainable consumption levels: The role of consumer credit," Cleaner and Responsible Consumption 1 (2020), https://doi.org/https://doi.org/10.1016/j.clrc.2020.100003.

[81] "Goal 12: Ensure sustainable consumption and production patterns," The United Nations (UN), https://www.un.org/sustainabledevelopment/sustainable-consumption-production/.

[82] "The Greenwashing Hydra," Planet Tracker, https://planet-tracker.org/the-greenwashing-hydra/.

[83] "Goal 12: Ensure sustainable consumption and production patterns," The United Nations (UN), https://www.un.org/sustainabledevelopment/sustainable-consumption-production/.

[84] "Overconsumption and the environment: should we all stop shopping?," The Guardian, https://www.theguardian.com/lifeandstyle/2021/may/30/should-we-all-stop-shopping-how-to-end-overconsumption.

[85] "E-commerce worldwide - statistics & facts," Statista, https://www.statista.com/topics/871/online-shopping/#topicOverview.

[86] *Circularity Gap Report 2023*, Circle Economy Foundation, 2023.

[87] *Circularity Gap Report 2024*, Circle Economy Foundation, 2024.

[88] "UN calls for urgent rethink as resource use skyrockets," The United Nations Development Programme (UNDP), https://www.unep.org/news-and-stories/press-release/un-calls-urgent-rethink-resource-use-skyrockets.

[89] *Circularity Gap Report 2024*, Circle Economy Foundation, 2024.

[90] *Circularity Gap Report 2023*, Circle Economy Foundation, 2023.

[91] "UN calls for urgent rethink as resource use skyrockets," The United Nations Development Programme (UNDP), https://www.unep.org/news-and-stories/press-release/un-calls-urgent-rethink-resource-use-skyrockets.

[92] "Electric cars fend off supply challenges to more than double global sales," The International Energy Agency (IEA), https://www.iea.org/commentaries/electric-cars-fend-off-supply-challenges-to-more-than-double-global-sales.

[93] *Geopolitics of the energy transition: Critical materials*, The International Renewable Energy Agency (IRENA), 2023.

[94] "The role of critical minerals in clean energy transitions," The International Energy Agency (IEA), https://iea.blob.core.windows.net/assets/ffd2a83b-8c30-4e9d-980a-52b6d9a86fdc/TheRoleofCriticalMineralsinCleanEnergyTransitions.pdf.

[95] "UN calls for urgent rethink as resource use skyrockets," The United Nations Development Programme (UNDP), https://www.unep.org/news-and-stories/press-release/un-calls-urgent-rethink-resource-use-skyrockets#:~:text=Over%20the%20past%20five%20decades,by%202060%20on%20current%20trends.

[96] *Circularity Gap Report 2023*, Circle Economy Foundation, 2023.

[97] "Critical Minerals Demand Dataset," International Energy Agency (IEA), https://www.iea.org/data-and-statistics/data-product/critical-minerals-demand-dataset.

[98] *Global Multidimensional Poverty Index 2022*, The United Nations Development Programme (UNDP), 2022.

[99] Mazzucato, Mariana, *The Value of Everything: Making and Taking in the Global Economy* (London: Penguin Books, 2019).

[100] Glasgow Financial Alliance for Net Zero, https://www.gfanzero.com/

[101] Pleiades Strategy, Anti-ESG Legislation Tracker, accessed 1 April 2024, https://www.pleiadesstrategy.com/pleiades-anti-esg-bill-tracker-state-legislation-attacks-on-responsible-investing

[102] *New Nature Economy Report 2020, The World Economic Forum, 2020.*

[103] "Detox development: repurposing environmentally harmful subsidies," The World Bank, https://www.worldbank.org/en/topic/climatechange/publication/detox-development.

[104] "Detox development: repurposing environmentally harmful subsidies," The World Bank, https://www.worldbank.org/en/topic/climatechange/publication/detox-development.

[105] *EY Global Corporate Reporting and Institutional Investor Survey*, EY, 2022.

[106] Kznaric, R., *The Good Ancestor: How to Think Long-Term in a Short-Term World* (The Experiment, 2020).

[107] "CEO Tenure Rates," Harvard Law School Forum on Corporate Governance, https://corpgov.law.harvard.edu/2023/08/04/ceo-tenure-rates-2/.

[108] "Buy, sell, repeat! No room for 'hold' in whipsawing markets," Reuters, https://www.reuters.com/article/idUSKBN24Z101/.

[109] van der Wijst, Kaj-Ivar, et al., "New damage curves and multimodel analysis suggest lower optimal temperature," *Nature Climate Change* 13, no. 5 (2023), https://doi.org/10.1038/s41558-023-01636-1.

[110] "Earth for All: A survival guide for humanity," Earth4All, https://earth4all.life/wp-content/uploads/2023/03/Earth4All_Exec_Summary_EN.pdf.

[111] Sanderson, Benjamin M. and O'Neill, Brian C., "Assessing the costs of historical inaction on climate change," *Scientific Reports* 10, no. 1 (2020), https://doi.org/10.1038/s41598-020-66275-4.

[112] Sanderson, Benjamin M. and O'Neill, Brian C., "Assessing the costs of historical inaction on climate change," *Scientific Reports* 10, no. 1 (2020), https://doi.org/10.1038/s41598-020-66275-4.

[113] "Only 5% of FTSE 100 have published Net Zero plans that would be deemed 'credible' under Government's Transition plan guidance," EY, https://www.ey.com/en_uk/news/2023/04/only-five-percentage-of-ftse-100-have-published-net-zero-plans.

[114] "As global headwinds slow momentum, how can we accelerate climate action?," EY, https://www.ey.com/en_gl/sustainability/how-can-we-accelerate-climate-action.

[115] *Global Landscape of Climate Finance: A Decade of Data 2011-2020*, Climate Policy Initiative, 2022.

[116] "Is the introspection of self-help and therapy hurting our ability to empathise?," Aeon, https://aeon.co/videos/is-the-introspection-of-self-help-and-therapy-hurting-our-ability-to-empathise.

[117] Grapsas, Stathis, Becht, Andrik I., and Thomaes, Sander, "Self-focused value profiles relate to climate change skepticism in young adolescents," *Journal of Environmental Psychology* 87 (2023), https://doi.org/https://doi.org/10.1016/j.jenvp.2023.101978.

[118] "Q&A: Why defining the 'phaseout' of 'unabated' fossil fuels is so important at COP28," Carbon Brief, https://www.carbonbrief.org/qa-why-defining-the-phaseout-of-unabated-fossil-fuels-is-so-important-at-cop28/.

[119] Moore, Frances C., et al., "Rapidly declining remarkability of temperature anomalies may obscure public perception of climate change," *Proceedings of the National Academy of Sciences* 116 (2019).

[120] van der Wijst, Kaj-Ivar, et al., "New damage curves and multimodel analysis suggest lower optimal temperature," *Nature Climate Change* 13, no. 5 (2023), https://doi.org/10.1038/s41558-023-01636-1.

[121] "Earth for All: A survival guide for humanity," Earth4All, https://earth4all.life/wp-content/uploads/2023/03/Earth4All_Exec_Summary_EN.pdf.

[122] "Earth for All: A survival guide for humanity," Earth4All, https://earth4all.life/wp-content/uploads/2023/03/Earth4All_Exec_Summary_EN.pdf.

[123] "As global headwinds slow momentum, how can we accelerate climate action?," EY, https://www.ey.com/en_gl/sustainability/how-can-we-accelerate-climate-action.

[124] "COP15, COP27: Why two COPs?," The United Nations Regional Information Centre (UNRIC), https://unric.org/en/cop15-cop27-why-two-cops-2/.

[125] "Can economics grasp what ecology says?," Austin, Duncan, https://bothbrainsrequired.com/wp-content/uploads/2021/02/2021-02-22-Can-Economics-Grasp-What-Ecology-Says-Final.pdf.

[126] "Earth Crisis Blinkers," Climate Museum UK, https://bridgetmckenzie.uk/sustainability-is-in-the-past.

[127] *Climate Change 2022: Mitigation of Climate Change: Working Group III contribution to the Sixth Assessment Report,* The Intergovernmental Panel on Climate Change (IPCC), 2022.

[128] Creutzig, Felix, et al., "Demand-side solutions to climate change mitigation consistent with high levels of well-being," *Nature Climate Change* 12, no. 1 (2022), https://doi.org/10.1038/s41558-021-01219-y.

[129] *Climate Change 2022: Mitigation of Climate Change: Working Group III contribution to the Sixth Assessment Report,* The Intergovernmental Panel on Climate Change (IPCC), 2022.

[130] Kozicka, Marta, et al., "Feeding climate and biodiversity goals with novel plant-based meat and milk alternatives," *Nature Communications* 14, no. 1 (2023), https://doi.org/10.1038/s41467-023-40899-2.

[131] *Climate Change 2022: Mitigation of Climate Change: Working Group III contribution to the Sixth Assessment Report,* The Intergovernmental Panel on Climate Change (IPCC), 2022.

[132] Creutzig, Felix, et al., "Demand-side solutions to climate change mitigation consistent with high levels of well-being," *Nature Climate Change* 12, no. 1 (2022), https://doi.org/10.1038/s41558-021-01219-y.

[133] *Climate Change 2022: Mitigation of Climate Change: Working Group III contribution to the Sixth Assessment Report,* The Intergovernmental Panel on Climate Change (IPCC), 2022.

[134] Bocken, Nancy, Morales, Lisa Smeke, and Lehner, Matthias, "Sufficiency Business Strategies in the Food Industry—The Case of Oatly," *Sustainability* 12, no. 3 (2020).

[135] Bocken, N. M. P. and Short, S. W., "Towards a sufficiency-driven business model: Experiences and opportunities," *Environmental Innovation and Societal Transitions* 18 (2016), https://doi.org/https://doi.org/10.1016/j.eist.2015.07.010.

[136] Niessen, Laura and Bocken, Nancy M. P., "How can businesses drive sufficiency? The business for sufficiency framework," *Sustainable Production and Consumption* 28 (2021), https://doi.org/https://doi.org/10.1016/j.spc.2021.07.030.

[137] "You don't have to live like this—review of Kate Soper's Post-Growth Living," The Centre for the Understanding of Sustainable Prosperity (CUSP), https://cusp.ac.uk/themes/aetw/blog-nt-postgrowth-living-review/.

[138] "Heat pumps need better branding," Bloomberg, https://www.bloomberg.com/features/2023-heat-pump-explained-ads-design/.

[139] The Degrowth Opportunity: Reshaping business for a needs-satisfying, resource-wise economy, Wilkins, Jennifer, 2022.

[140] "EY Future Consumer Index: when talk turns into action, be set for change," EY, https://www.ey.com/en_gl/consumer-products-retail/when-talk-turns-into-action-be-set-for-change.

[141] "Tackling root causes - Halting biodiversity loss through the circular economy," Sitra, https://www.sitra.fi/en/publications/tackling-root-causes/.

[142] *Emissions Gap Report 2023*, The United Nations Environment Programme (UNEP), 2023.

[143] *Completing the picture: How the circular economy tackles climate change*, Ellen MacArthur Foundation, 2019.

[144] "Global South circular economy could generate millions of job opportunities," The International Labour Organization (ILO), https://www.ilo.org/sector/news/WCMS_881334/lang--en/index.htm.

[145] *Growing Better: Ten Critical Transitions to Transform Food and Land Use*, The Food and Land Use Coalition, 2019.

[146] "Circular Economy: Measuring Innovation in the Product Chain," Potting, J., et al.,, https://www.pbl.nl/sites/default/files/downloads/pbl-2016-circular-economy-measuring-innovation-in-product-chains-2544.pdf.

[147] "Readout of the White House convening on right to repair," The White House, https://www.whitehouse.gov/briefing-room/statements-releases/2023/10/25/readout-of-the-white-house-convening-on-right-to-repair/.

[148] "Ecodesign: new EU rules to make sustainable products the norm," The European Parliament, https://www.europarl.europa.eu/news/en/press-room/20230612IPR97206/ecodesign-new-eu-rules-to-make-sustainable-products-the-norm.

[149] "Nature's Unifying Patterns," The Biomimicry Institute, https://toolbox.biomimicry.org/core-concepts/natures-unifying-patterns/chemistry/.

[150] "Tackling root causes - Halting biodiversity loss through the circular economy," Sitra, https://www.sitra.fi/en/publications/tackling-root-causes/.

[151] "Broken Record," The United Nations Environment Programme (UNEP), https://wedocs.unep.org/bitstream/handle/20.500.11822/43922/EGR2023.pdf?sequence=3&isAllowed=y.

[152] "Completing the picture: How the circular economy tackles climate change," Ellen MacArthur Foundation, https://emf.thirdlight.com/file/24/cDm30tVcDDexwg2cD1ZEcZjU51g/Completing%20the%20Picture%20-%20How%20the%20circular%20economy%20tackles%20climate%20change.pdf.

[153] "Global South circular economy could generate millions of job opportunities," The International Labour Organization (ILO), https://www.ilo.org/sector/news/WCMS_881334/lang--en/index.htm.

[154] "Growing better: ten critical transitions to transform food and land use," The Food and Land Use Coalition, https://www.foodandlandusecoalition.org/wp-content/uploads/2019/09/FOLU-GrowingBetter-GlobalReport.pdf.

[155] "The New Plastics Economy: Catalysing action," Ellen MacArthur Foundation, https://www.ellenmacarthurfoundation.org/the-new-plastics-economy-catalysing-action.

[156] "Industrial transformation 2050," Material Economics, https://materialeconomics.com/.

[157] "Surplus from circular production," Kalundborg Symbiosis, https://www.symbiosis.dk/en/

[158] "Surplus from circular production," Kalundborg Symbiosis, https://www.symbiosis.dk/en/

[159] "What could finance do today to help climate innovators bridge gaps to a sustainable future?," EY, https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/corporate-responsibility/ey-ashoka-closing-gaps-in-climate-finance.pdf.

[160] "Council and Parliament strike provisional deal to reinforce the supply of critical raw materials," The European Council, https://www.consilium.europa.eu/en/press/press-releases/2023/11/13/council-and-parliament-strike-provisional-deal-to-reinforce-the-supply-of-critical-raw-materials/.

[161] Nijsse, Femke J. M. M., et al., "The momentum of the solar energy transition," Nature Communications 14, no. 1 (2023), https://doi.org/10.1038/s41467-023-41971-7.

[162] "Harnessing the Power of S-Curves," RMI, https://rmi.org/insight/harnessing-the-power-of-s-curves/.

[163] "Eight innovation platforms for sustainable food systems," Vinnova, https://www.vinnova.se/en/news/2023/11/eight-innovation-platforms-for-sustainable-food-systems/.

[164] "The towering problem of externality-denying capitalism," Both Brains Required, https://bothbrainsrequired.com/wp-content/uploads/2022/10/2022-10-Towering-Problem-Essay-Final.pdf.

[165] "From Monocapitalism to Multicapitalism: 21st century system value creation," r3.0, https://www.r3-0.org/wp-content/uploads/2020/12/r3-0-White-Paper-1-2020-From-Monocapitalism-to-Multicapitalism.pdf.

[166] "About Doughnut Economics," Doughnut Economics Action Lab, https://doughnuteconomics.org/about-doughnut-economics.

[167] "Measuring sustainability, the authentic way," Sustainable Development Performance Indicators (SDPI), https://sdpi.unrisd.org/.

[168] "Future-Fit Business Benchmark," Future-Fit Business, https://futurefitbusiness.org/benchmark/.

[169] "Wellbeing Budget 2022: A Secure Future," The Government of New Zealand, https://www.treasury.govt.nz/publications/wellbeing-budget/wellbeing-budget-2022-secure-future.

[170] "Green breakthrough: New models calculate our impact on nature and climate," The University of Copenhagen, https://socialsciences.ku.dk/news/2023/what-would-you-pay-to-save-the-hazel-dormouse/.

[171] "Towards the 2025 SNA," The United Nations (UN), https://unstats.un.org/unsd/nationalaccount/towards2025.asp.

[172] "Introducing the first science-based targets for nature," The Science Based Targets Network, https://sciencebasedtargetsnetwork.org/.

[173] "Making materiality determinations: A context-based approach," The United Nations Research Institute for Social Development (UNRISD), https://www.unrisd.org/en/library/publications/making-materiality-determinations-a-context-based-approach.

[174] "Theory behind ECG," The Economy for the Common Good (ECG), https://www.ecogood.org/what-is-ecg/theory-behind-ecg/.

[175] "Making materiality determinations: A context-based approach," The United Nations Research Institute for Social Development (UNRISD), https://www.unrisd.org/en/library/publications/making-materiality-determinations-a-context-based-approach.

[176] "Measuring sustainability, the authentic way," Sustainable Development Performance Indicators (SDPI), https://sdpi.unrisd.org/.

[177] "How can effective governance unlock value from sustainability?," EY, https://www.ey.com/en_gl/long-term-value/europe-corporate-governance-survey-findings.

[178] Hawken, Paul, *Regeneration: Ending the climate crisis in one generation* (Penguin Books, 2021).

[179] *Human Development Report 2020*, The United Nations Development Programme (UNDP), 2020.

[180] *World Happiness Report 2020*, The World Happiness Report, 2020.

[181] "8 Principles of A Regenerative Economy," The Capital Institute, https://capitalinstitute.org/8-principles-regenerative-economy/.

[182] Wahlund, Madeleine and Palm, Jenny, "The role of energy democracy and energy citizenship for participatory energy transitions: A comprehensive review," *Energy Research & Social Science* 87 (2022), https://doi.org/https://doi.org/10.1016/j.erss.2021.102482.

[183] "Why protecting Indigenous communities can also help save the Earth," The Guardian, https://www.theguardian.com/climate-academy/2020/oct/12/indigenous-communities-protect-biodiversity-curb-climate-crisis.

[184] "Indigenous and local communities key to successful nature conservation," The University of East Anglia, https://www.sciencedaily.com/releases/2021/09/210901191428.htm.

[185] "Experts call for global moratorium on efforts to geoengineer climate," The Guardian, https://www.theguardian.com/environment/2023/sep/14/experts-call-for-global-moratorium-on-efforts-to-geoengineer-climate.

[186] "Top 10 geopolitical developments for 2024," EY, https://www.ey.com/en_gl/geostrategy/2024-geostrategic-outlook.

[187] "Once unthinkable, the prospect of society driven by wellbeing gains traction," The European Commission, https://projects.research-and-innovation.ec.europa.eu/en/horizon-magazine/once-unthinkable-prospect-society-driven-wellbeing-gains-traction.

[188] "Wellbeing Economy Governments partnership (WEGo)," The Wellbeing Economy Alliance, https://weall.org/wego.

[189] "The dominant economic model is destabilising societies and the planet," Earth4all, https://earth4all.life/.

[190] "Transforming economy for people and planet," The Economy for the Common Good (ECG), https://www.ecogood.org/.

[191] "Giving future generations a seat at the table," The Institute for Future-Fit Economies, https://zoe-institut.de/en/home-2/.

[192] "Earth for All: A survival guide for humanity," Earth4All, https://earth4all.life/wp-content/uploads/2023/03/Earth4All_Exec_Summary_EN.pdf.

[193] "Once unthinkable, the prospect of society driven by wellbeing gains traction," The European Commission, https://projects.research-and-innovation.ec.europa.eu/en/horizon-magazine/once-unthinkable-prospect-society-driven-wellbeing-gains-traction.

[194] Raworth, Kate, *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist* (Random House, 2017).

[195] "Theory behind ECG," The Economy for the Common Good (ECG), https://www.ecogood.org/what-is-ecg/theory-behind-ecg/.

[196] "Wellbeing economy policy design," ZOE Institute for Future-fit Economies, https://zoe-institut.de/en/home-3/.

[197] "Technical Line - A closer look at California's recently enacted climate disclosure laws," EY, https://www.ey.com/en_us/assurance/accountinglink/technical-line-a-closer-look-at-californias-recently-enacted-climate-disclosure-laws.

[198] "Circular economy action plan," The European Commission, https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en.

[199] "Readout of the White House convening on right to repair," The White House, https://www.whitehouse.gov/briefing-room/statements-releases/2023/10/25/readout-of-the-white-house-convening-on-right-to-repair/.

[200] "Quebec passes bill outlawing planned obsolescence," The Gazette, https://montrealgazette.com/news/quebec/quebec-passes-bill-outlawing-planned-obsolescence.

[201] "Carbon Border Adjustment Mechanism," The European Commission, https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism_en.

[202] "How does the gig economy shape the future of work?," HR Forecast, https://hrforecast.com/what-is-the-gig-economy-and-why-is-it-the-future-of-work/.

[203] "The most harmful or menacing changes in digital life that are likely by 2035," Pew Research Centre, https://www.pewresearch.org/internet/2023/06/21/themes-the-most-harmful-or-menacing-changes-in-digital-life-that-are-likely-by-2035/.

[204] "New AI video tools increase worries of deepfakes ahead of elections," Aljazeera, https://www.aljazeera.com/economy/2024/3/6/new-ai-video-tools-increase-worries-of-deepfakes-ahead-of-elections.

[205] "New AI video tools increase worries of deepfakes ahead of elections," Aljazeera, https://www.aljazeera.com/economy/2024/3/6/new-ai-video-tools-increase-worries-of-deepfakes-ahead-of-elections.

[206] *The Global Risks Report 2024*, The World Economic Forum, 2024.

[207] "Facing reality? Law enforcement and the challenge of deepfakes," Europol, https://www.europol.europa.eu/publications-events/publications/facing-reality-law-enforcement-and-challenge-of-deepfakes.

[208] "Rethinking Humanity," RethinkX, https://www.rethinkx.com/humanity.

[209] "Will techno-optimism make us complacent?," The United Nations Development Programme (UNDP), https://www.undp.org/future-development/signals-spotlight/will-techno-optimism-make-us-complacent.

[210] "Humans are biased. Generative AI is even worse," Bloomberg, https://www.bloomberg.com/graphics/2023-generative-ai-bias/.

[211] "Our quick guide to the 6 ways we can regulate AI," MIT Technology Review, https://www.technologyreview.com/2023/05/22/1073482/our-quick-guide-to-the-6-ways-we-can-regulate-ai/.

[212] "AI is a lot of work," Intelligencer, https://nymag.com/intelligencer/article/ai-artificial-intelligence-humans-technology-business-factory.html.

[213] Hicks, Jacqueline, "The future of data ownership: An uncommon research agenda," *The Sociological Review* 71, no. 3 (2023), https://doi.org/10.1177/00380261221088120.

[214] "How will the metaverse change our behavior as it reshapes experiences?," EY, https://www.ey.com/en_gl/digital/how-will-the-metaverse-change-our-behavior-as-it-reshapes-experiences.

[215] "Prisms now at home!," Prisms, https://www.prismsvr.com/get-prisms.

[216] "Nvidia's new supercomputer will create a 'digital twin' of earth to fight climate change," Singularity Group, https://singularityhub.com/2021/11/17/nvidias-new-supercomputer-will-create-a-digital-twin-of-earth-to-fight-climate-change/.

[217] "Digital Twin Earth," The European Space Agency (ESA), https://www.esa.int/ESA_Multimedia/Images/2020/09/Digital_Twin_Earth.

[218] "How digital product passports revolutionize sustainability in the digital age," Sigma Technology Group, https://sigmatechnology.com/articles/how-digital-product-passports-revolutionize-sustainability-in-the-digital-age/.

[219] "These 4 companies' excellence in innovation spans multiple categories," Fast Company, https://www.fastcompany.com/90978936/next-big-things-tech-excellence-innovation-2023.

[220] *World Energy Outlook 2023*, The International Energy Agency (IEA), 2023.

[221] "Can digital innovation help end hunger?," EY, https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/corporate-social-responsibility/ey-sfsa-can-digiital-innovation-help-end-hunger.pdf.

[222] "Bioprinting tissue therapeutics to transform how we treat disease," Aspect biosystems, https://www.aspectbiosystems.com/.

[223] "How can your quantum vision be transformed into a sustainable reality?," EY, https://www.ey.com/en_uk/emerging-technologies/how-can-your-quantum-vision-be-transformed-into-a-sustainable-reality.

[224] "The science of cultivated meat," Global Food and Ingredients (GFI), https://gfi.org/science/the-science-of-cultivated-meat/.

[225] *2023 Edelman Trust Barometer*, Edelman, 2023.

[226] Saab, Anne, "Discourses of Fear on Climate Change in International Human Rights Law," *European Journal of International Law* 34, no. 1 (2023), https://doi.org/10.1093/ejil/chad002.

[227] Lind, Andrea Veggerby, Hallsson, Bjørn Gunnar, and Morton, Thomas A., "Polarization within consensus? An audience segmentation model of politically dependent climate attitudes in Denmark," *Journal of Environmental Psychology* 89 (2023), https://doi.org/https://doi.org/10.1016/j.jenvp.2023.102054.

[228] "How to stop doomscrolling—with psychology," Wired, https://www.wired.com/story/how-to-stop-doomscrolling-psychology-social-media-fomo/.

[229] "Social media is a major cause of the mental illness epidemic in teen girls," After Babel, https://www.afterbabel.com/p/social-media-mental-illness-epidemic.

[230] "A long-term view of COVID-19's impact on the rise of the global consumer class," Brookings, https://www.brookings.edu/articles/a-long-term-view-of-covid-19s-impact-on-the-rise-of-the-global-consumer-class/.

[231] "Population," The United Nations (UN), https://www.un.org/en/global-issues/population.

[232] Wiedmann, T., et al., "Scientists' warning on affluence," *Nature Communications* 11, no. 1 (2020), https://doi.org/10.1038/s41467-020-16941-y.

[233] "When consumers want less but demand more, how will your business grow?," EY, https://www.ey.com/en_gl/consumer-products-retail/changing-consumption-will-reshape-business-priorities.

[234] "When consumers want less but demand more, how will your business grow?," EY, https://www.ey.com/en_gl/consumer-products-retail/changing-consumption-will-reshape-business-priorities.

[235] "The 'Great Resignation' is really the 'Great Discontent'," Gallup, https://www.gallup.com/workplace/351545/great-resignation-really-great-discontent.aspx.

[236] "From the great resignation to the great reskilling: The next era of work," Forbes, https://www.forbes.com/sites/forbeshumanresourcescouncil/2023/07/28/from-the-great-resignation-to-the-great-reskilling-the-next-era-of-work/.

[237] "The EY 2023 Work Reimagined Survey," EY, https://www.ey.com/en_au/workforce/work-reimagined-survey.

[238] "Countries with a 4 Day Work Week," 4 Day Week, https://4dayweek.io/countries.

[239] "Four-day week: Which countries have embraced it and how's it going so far?," Euronews, https://www.euronews.com/next/2023/10/10/the-four-day-week-which-countries-have-embraced-it-and-how-s-it-going-so-far.

[240] "Earth for All: A survival guide for humanity," Earth4All, https://earth4all.life/wp-content/uploads/2023/03/Earth4All_Exec_Summary_EN.pdf.

[241] *Sustainable Market Share Index*, NYU Stern, 2022.

[242] "When consumers want less but demand more, how will your business grow?," EY, https://www.ey.com/en_gl/consumer-products-retail/changing-consumption-will-reshape-business-priorities.

[243] "When consumers want less but demand more, how will your business grow?," EY, https://www.ey.com/en_gl/consumer-products-retail/changing-consumption-will-reshape-business-priorities.

[244] "EY Future Consumer Index: when talk turns into action, be set for change," EY, https://www.ey.com/en_gl/consumer-products-retail/when-talk-turns-into-action-be-set-for-change.

[245] "Climate litigation more than doubles in five years, now a key tool in delivering climate justice," The United Nations Environment Programme (UNEP), https://www.unep.org/news-and-stories/press-release/climate-litigation-more-doubles-five-years-now-key-tool-delivering.

[246] "Will local ambition fast-track or frustrate the global energy transition?," EY, https://www.ey.com/en_gl/recai/will-local-ambition-fast-track-or-frustrate-the-global-energy-transition.

[247] "Will local ambition fast-track or frustrate the global energy transition?," EY, https://www.ey.com/en_gl/recai/will-local-ambition-fast-track-or-frustrate-the-global-energy-transition.

[248] "A world of debt: A growing burden to global prosperity," The United Nations Conference on Trade and Development (UNCTAD), https://unctad.org/publication/world-of-debt.

[249] "Global debt is returning to its rising trend ", The International Monetary Fund (IMF), https://www.imf.org/en/Blogs/Articles/2023/09/13/global-debt-is-returning-to-its-rising-trend.

[250] "UN warns of soaring global public debt," The United Nations (UN), https://www.un.org/sustainabledevelopment/blog/2023/07/press-release-un-warns-of-soaring-global-public-debt-a-record-92-trillion-in-2022-3-3-billion-people-now-live-in-countries-where-debt-interest-payments-are-greater-than-expenditure-on-health-or-edu/.

[251] "US interest rates add to 'silent debt crisis' in developing countries," Financial Times, https://www.ft.com/content/b8a9fd5d-868c-41c8-b03c-e9c0cc01aecd.

[252] "UN warns of soaring global public debt," The United Nations (UN), https://www.un.org/sustainabledevelopment/blog/2023/07/press-release-un-warns-of-soaring-global-public-debt-a-record-92-trillion-in-2022-3-3-billion-people-now-live-in-countries-where-debt-interest-payments-are-greater-than-expenditure-on-health-or-edu/.

[253] "UN warns of soaring global public debt," The United Nations (UN), https://www.un.org/sustainabledevelopment/blog/2023/07/press-release-un-warns-of-soaring-global-public-debt-a-record-92-trillion-in-2022-3-3-billion-people-now-live-in-countries-where-debt-interest-payments-are-greater-than-expenditure-on-health-or-edu/.

[254] "UN warns of soaring global public debt," The United Nations (UN), https://www.un.org/sustainabledevelopment/blog/2023/07/press-release-un-warns-of-soaring-global-public-debt-a-record-92-trillion-in-2022-3-3-billion-people-now-live-in-countries-where-debt-interest-payments-are-greater-than-expenditure-on-health-or-edu/.

[255] *World Investment Report 2023: Investing in Sustainable Energy for All*, The United Nations Conference on Trade and Development (UNCTAD), 2023.

[256] "The tyranny of ESG has run its course," Bloomberg, https://www.bloomberg.com/opinion/articles/2023-10-19/personal-finance-the-tyranny-of-esg-investing-has-run-its-course?srnd=opinion.

[257] *World Investment Report 2023: Investing in Sustainable Energy for All*, The United Nations Conference on Trade and Development (UNCTAD), 2023.

[258] "Revealed: more than 90% of rainforest carbon offsets by biggest certifier are worthless, analysis shows," The Guardian, https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe.

[259] "The looming land grab in Africa for carbon credits," Financial Times, https://www.ft.com/content/f9bead69-7401-44fe-8db9-1c4063ae958c.

[260] *Financing for Sustainable Development Report 2023*, The United Nations (UN), 2023.

[261] *World investment report 2023: Investing in sustainable energy for all*, UN, The United Nations Conference on Trade and Development, 2023.

[262] "Green fees overtake fossil fuels for second straight year," Bloomberg, https://www.bloomberg.com/news/articles/2023-10-18/green-fees-overtake-fossil-fuels-for-second-straight-year?srnd=undefined.

[263] "When do investors go green? Evidence from a time-varying asset-pricing model," The European Commission, https://joint-research-centre.ec.europa.eu/publications/when-do-investors-go-green-evidence-time-varying-asset-pricing-model_en.

[264] "Inflation Reduction Act: It's a big deal for job growth and for a clean energy future," Clean Power, https://cleanpower.org/blog/its-a-big-deal-for-job-growth-and-for-a-clean-energy-future/.

[265] "China's carbon emissions set to decrease from 2024," E&T, https://eandt.theiet.org/2023/11/14/chinas-carbon-emissions-set-decrease-2024.

[266] "Green trade tensions," The International Monetary Fund (IMF), https://www.imf.org/en/Publications/fandd/issues/2023/06/green-trade-tensions-kaufman-saha-bataille.

[267] *World Investment Report 2023: Investing in Sustainable Energy for All*, The United Nations Conference on Trade and Development (UNCTAD), 2023.

[268] *Financing for Sustainable Development Report 2023*, The United Nations (UN), 2023.

[269] "EY launches EY OpsChain ESG, to provide a trusted platform for emissions and carbon credit traceability through tokenization," EY, https://www.ey.com/en_gl/news/2023/05/ey-launches-ey-opschain-esg-to-provide-a-trusted-platform-for-emissions-and-carbon-credit-traceability-through-tokenization.

[270] *Financing for Sustainable Development Report 2023*, The United Nations (UN), 2023.

[271] *World Investment Report 2023: Investing in Sustainable Energy for All, The United Nations Conference on Trade and Development (UNCTAD), 2023.*

[272] "COP28: Blended finance partnership launched to accelerate energy transition in Asia," ESG Clarity, https://esgclarity.com/cop28-blended-finance-partnership-launched-to-accelerate-energy-transition-in-asia/.

[273] "A $500 billion corporate-debt storm builds over global economy," Bloomberg, https://www.bloomberg.com/news/features/2023-07-18/billions-in-corporate-debt-wave-of-bankruptcies-threatens-global-economy.

[274] "As global headwinds slow momentum, how can we accelerate climate action?," EY, https://www.ey.com/en_gl/sustainability/how-can-we-accelerate-climate-action.

[275] "Global sustainable fund flows: Q3 2023 in review," Morningstar, https://assets.contentstack.io/v3/assets/blt4eb669caa7dc65b2/blt7d329f330547f085/6537e909de6c442b29970d4d/Global_ESG_Q3_2023_Flow_Report_final.pdf.

[276] "A $500 billion corporate-debt storm builds over global economy," Bloomberg, https://www.bloomberg.com/news/features/2023-07-18/billions-in-corporate-debt-wave-of-bankruptcies-threatens-global-economy.

[277] *The Global Risks Report 2024*, The World Economic Forum, 2024.

[278] "Largest companies by market cap," Companies Market Cap, https://companiesmarketcap.com

[279] "100 years of rising corporate concentration," Kwon, S. Y., Ma, Y., and Zimmermann, K., http://dx.doi.org/10.2139/ssrn.4362319.

[280] "Superstar firms are running away with the global economy," Harvard Business Review, https://hbr.org/2019/11/superstar-firms-are-running-away-with-the-global-economy.

[281] "Alarming decline in startup creation presents challenges and opportunities for entrepreneurs," Crunchbase News, https://news.crunchbase.com/venture/startup-creation-challenges-opportunities-charts-sagie/.

[282] "Superstar firms are running away with the global economy," Harvard Business Review, https://hbr.org/2019/11/superstar-firms-are-running-away-with-the-global-economy.

[283] "U.S. pharmaceutical industry - statistics & facts," Statista, https://www.statista.com/topics/1719/pharmaceutical-industry/.

[284] "Economic Insights," Federal Reserve Bank of Philadelphia, https://www.philadelphiafed.org/-/media/frbp/assets/economy/articles/economic-insights/2023/q1/eiq123.pdf.

[285] "The state of food and agriculture," The Food and Agriculture Organization of the United Nations (FAO), https://www.fao.org/3/cc7724en/cc7724en.pdf.

[286] "Competition, market power, surplus creation and rent distribution in agri-food value chains," The Food and Agriculture Organization of the United Nations (FAO), https://www.fao.org/3/cb0893en/CB0893EN.pdf.

[287] "The Board Imperative: Partner with CSOs to drive value-led sustainability," EY, https://www.ey.com/en_au/board-matters/the-board-imperative-partner-with-csos-to-drive-value-led-sustainability.

[288] "Why industrial companies need to lead business model innovation," EY, https://www.ey.com/en_ca/advanced-manufacturing/why-industrial-companies-need-to-lead-business-model-innovation.

[289] "Seven business models for creating ecosystem value," EY, https://www.ey.com/en_gl/alliances/seven-business-models-for-creating-ecosystem-value.

[290] "Adopting ecosystem collaboration to drive sustainability," HCLTech, https://www.hcltech.com/trends-and-insights/adopting-ecosystem-collaboration-drive-sustainability.

[291] "Facts and figures," The International Cooperative Alliance (ICA), https://www.ica.coop/en/cooperatives/facts-and-figures.

[292] "Value of the sharing economy worldwide in 2021 with a forecast for 2027," Statista, https://www.statista.com/statistics/830986/value-of-the-global-sharing-economy/.

[293] "The CEO Imperative: How mastering ecosystems transforms performance," EY, https://www.ey.com/en_gl/alliances/the-ceo-imperative-how-mastering-ecosystems-transforms-performance.

[294] "Facts and figures," The International Cooperative Alliance (ICA), https://www.ica.coop/en/cooperatives/facts-and-figures.

[295] "Measuring the size and scope of the cooperative economy: Results of the 2014 global census on cooperatives," Dave Grace & Associates, https://www.un.org/esa/socdev/documents/2014/coopsegm/grace.pdf.

[296] "Facts and figures," The International Cooperative Alliance (ICA), https://www.ica.coop/en/cooperatives/facts-and-figures.

[297] "Lease your jeans," MUD Jeans, https://mudjeans.eu/pages/lease-a-jeans-2023.

[298] "We are transforming the Danish farmland," Andelsgaarde, https://www.andelsgaarde.dk/en/.

[299] "Sustainability," Riversimple, https://www.riversimple.com/sustainability/.

[300] "Tony's Open Chain is an industry-led initiative," Tony's Open Chain, https://www.tonysopenchain.com/.

Authors

Anastasia Roussou
EY New Economy Unit
Head of Research

Andrea Von
EY New Economy Unit
Researcher

Zahra Borghei
EY New Economy Unit
Researcher

Contributors

Dr. Matthew Bell
EY Global Climate Change and Sustainability Services
Global Leader

Ben Taylor
EY Global Climate Change and Sustainability Services
Markets Leader

Gareth Jenkins
EY Global Climate Change and Sustainability Services
Head of Creative and Proposition

Adam Carrel
EY Global Climate Change and Sustainability Services
ESG and Sustainability Leader

Bruno Sarda
EY Americas Climate Change and Sustainability Services
Markets Leader

Hanne Thornam
EY EMEIA Climate Change and Sustainability Services
Area Deputy Leader, Markets Leader, Nordics Leader

Kiara Konti
EY EMEIA Climate Change and Sustainability Services
CESA Leader

Velislava Ivanova
EY Americas Climate Change and Sustainability Services
CSO and Leader

Contact

New Economy Unit
neweconomyunit@uk.ey.com

EY | Building a better working world

EY exists to build a better working world, helping to create long-term value for clients, people and society and build trust in the capital markets.

Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world.

About EY Climate Change and Sustainability Services

Climate Change and Sustainability Services (CCaSS) connects the global knowledge, experience, and market-leading technology needed to create sustainable impact and shape the new economy. Our multidisciplinary teams turn sustainable ambition into strategy and action.

About EY New Economy Unit

The New Economy Unit (NEU) is a research and insights team within the EY Global Climate Change and Sustainability Services (CCaSS) practice. The NEU focuses on the long term, systemic shifts toward a new, regenerative economy.

EYG no. 002364-24Gbl
ED None

ey.com