

From Growth to Well Being: Why we Need an Earth for All

Aurelio Peccei Lecture, Rome, Italy 2022

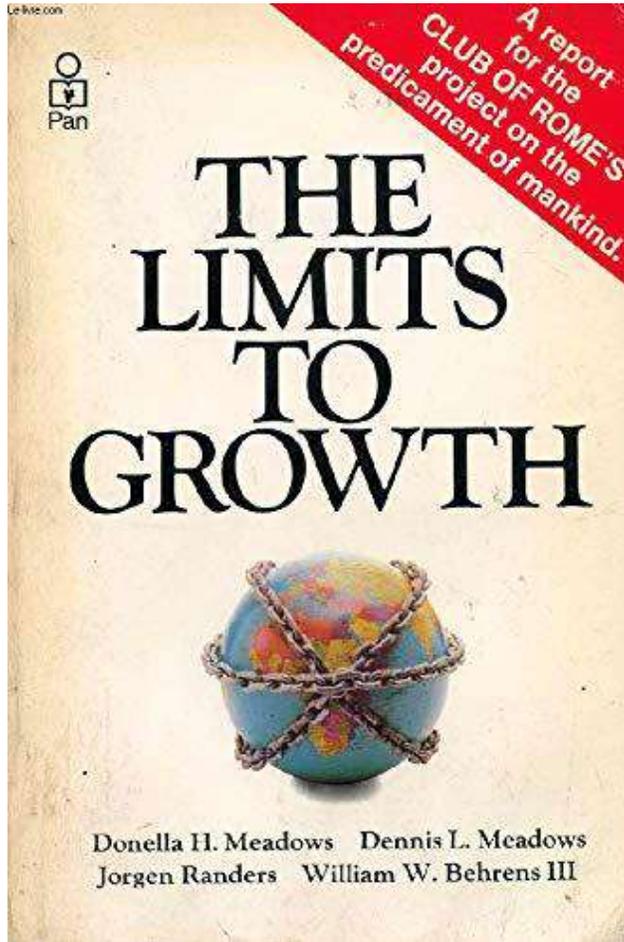


Sandrine Dixson-Declève
Co-President, The Club of Rome

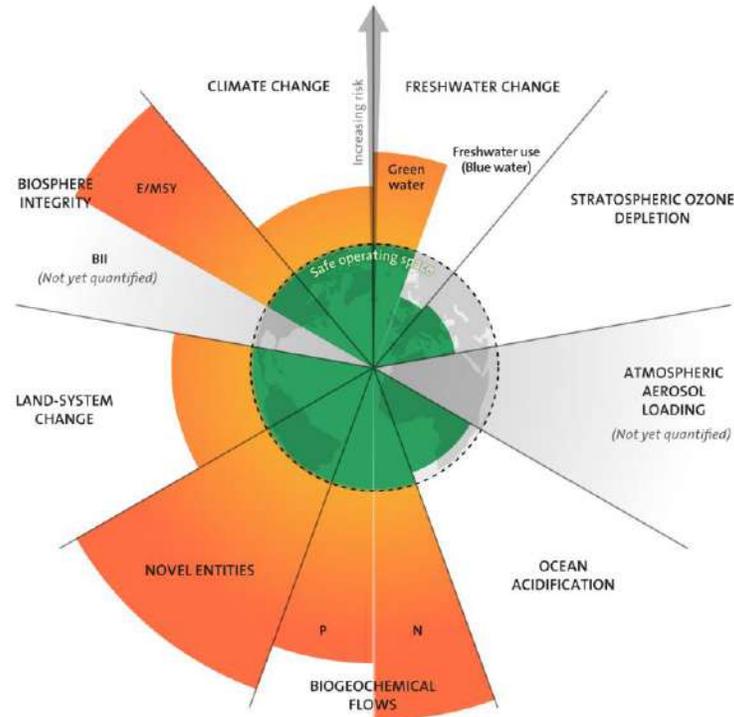
Chair, DGR&I, Expert Group on Economic and Societal Impact
of Research & Innovation (ESIR)
Ambassador, Well being Economy Alliance



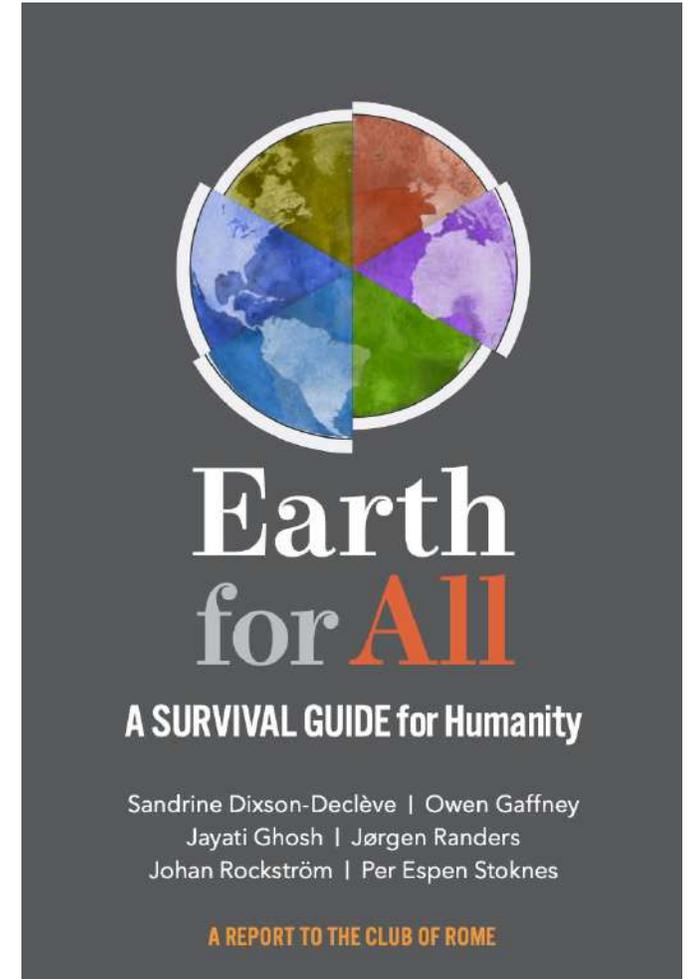
Limits to Growth to Growth within Limits



1972



2009



2022

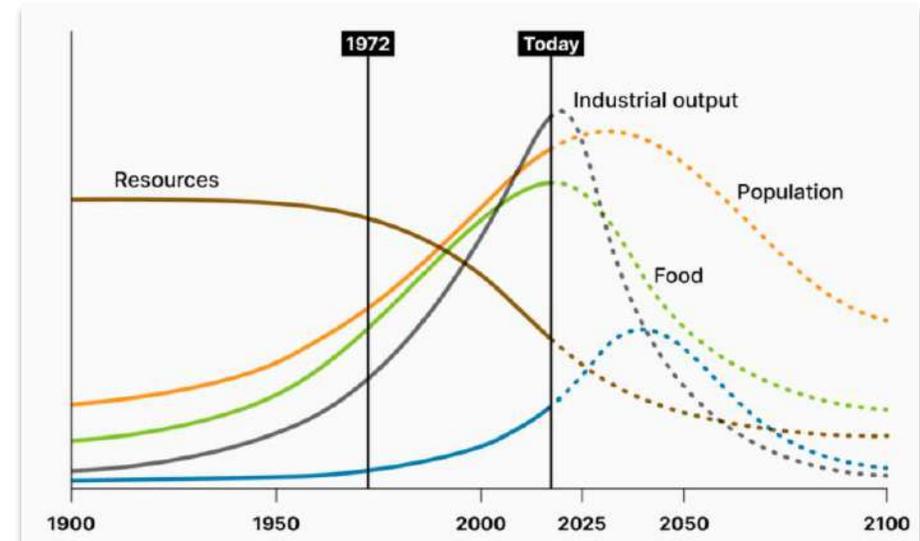
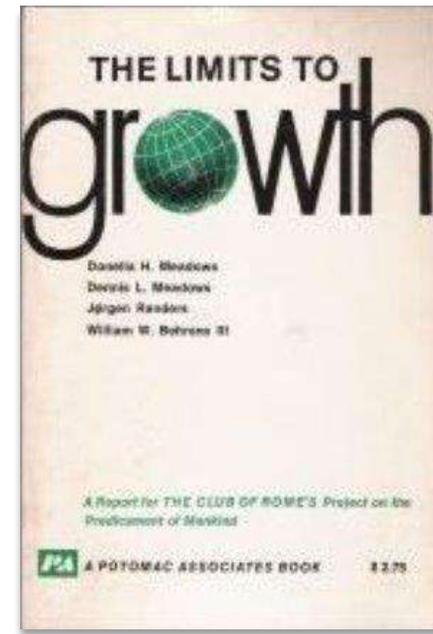
We have known for 50 years we are risking collapse

“This supreme effort is a challenge for our generation. It cannot be passed on to the next. The effort must be resolutely undertaken without delay, and significant redirection must be achieved during this decade.”

[The Limits To Growth, 1972](#)

“Folks who do systems analysis have a great belief in “leverage points.” These are places within a complex system (a corporation, an economy, a living body, a city, an ecosystem) where a small shift in one thing can produce big changes in everything.”

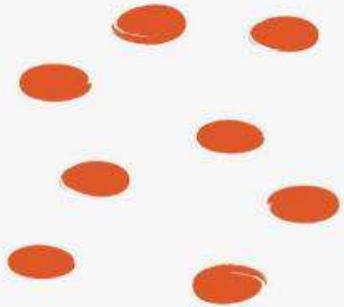
[Leverage Points: Places to Intervene in a System](#)



LINEAR THINKING

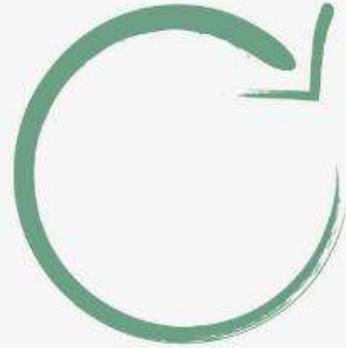


Linear

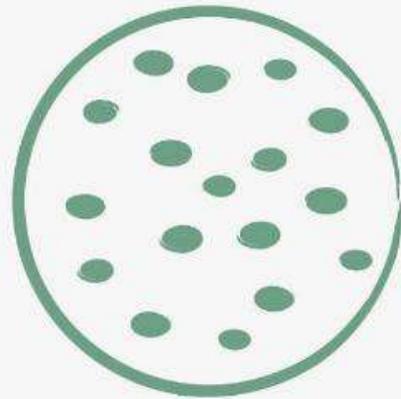


The parts

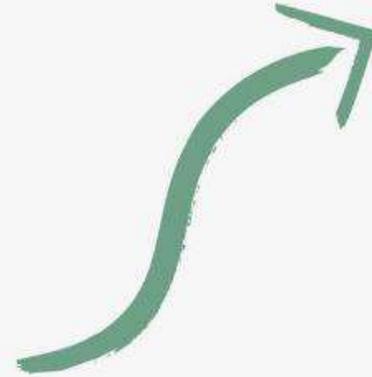
SYSTEMS THINKING



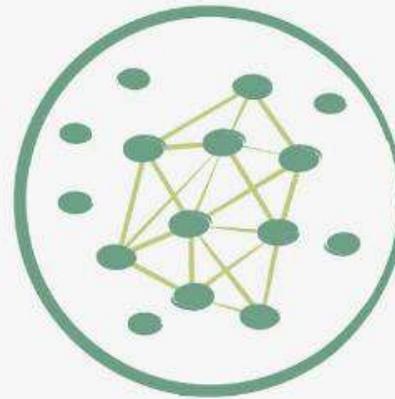
Circular



Whole



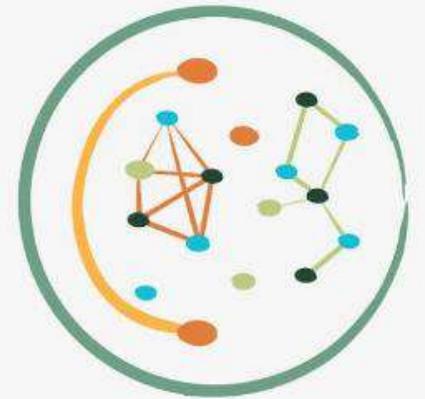
Exponential
+ S-curves



Network



Non-linear



Emergence

2020-2022: EU wake-up call for “the future we want”

WE ARE REACHING TIPPING POINTS:

We are leaving the “safe operating space” across multiple earth systems: multiple crises at the same time: 3 C’s
Climate, COVID, Conflict

AN ECONOMIC RESET:

Economies in lockdown - governments releasing the biggest stimulus packages in recent memory and are forced to address value chain disruption

PARADIGM CHANGE IN EUROPEAN POLITICS:

The European Green Deal as new strategic objective, supported by a new cohort of politicians

MULTILATERALISM ON THE TEST BENCH:

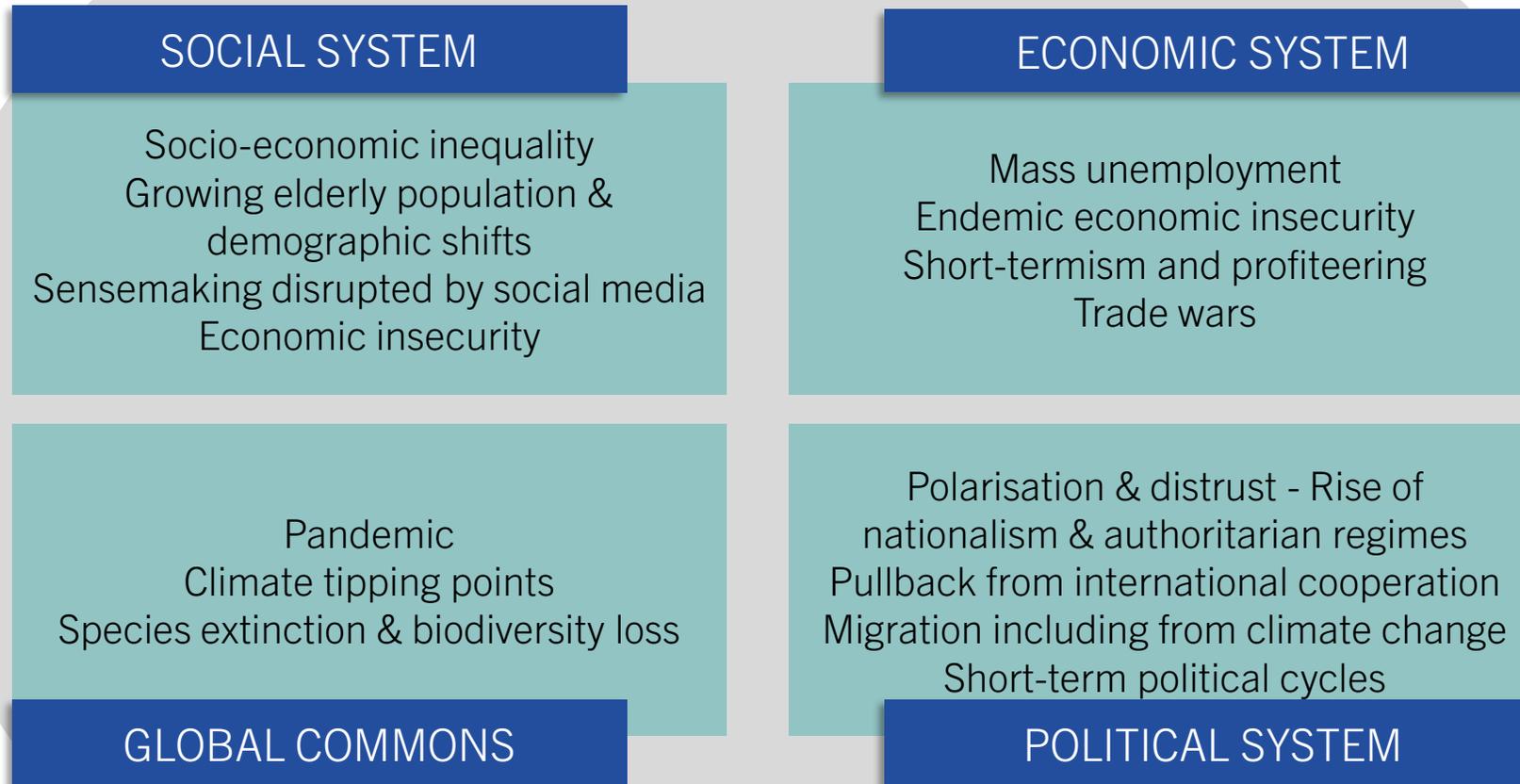
America and China joining climate leadership, Russian invasion of Ukraine testing geo political power play

ACTIVISM WITH RENEWED VIGOUR:

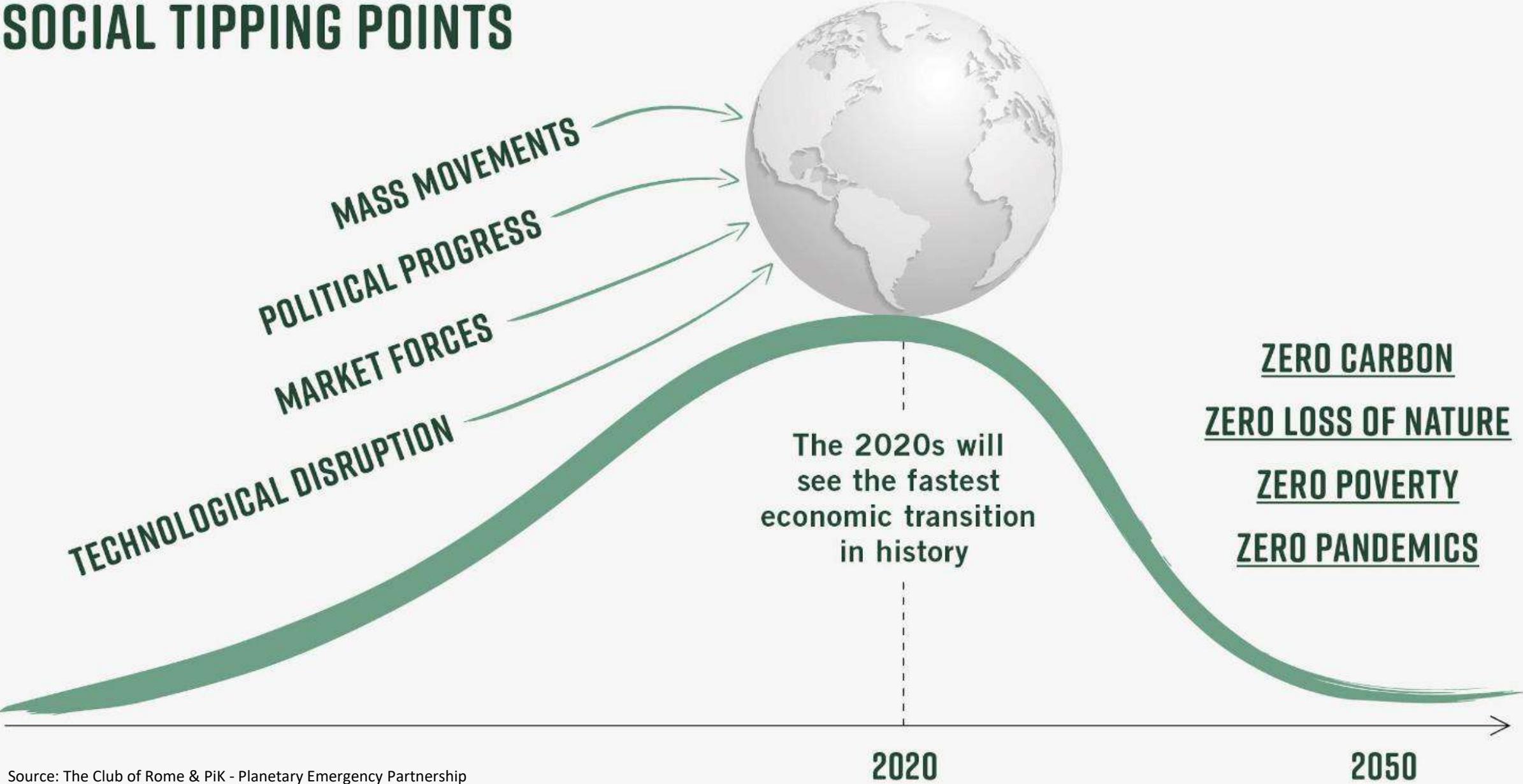
Greta effect, “Convention Citoyenne pour le Climat”, “German Zero”, Black Lives matter, Public opinion impact



Interconnected Global Instabilities: Net Zero Impact



SOCIAL TIPPING POINTS



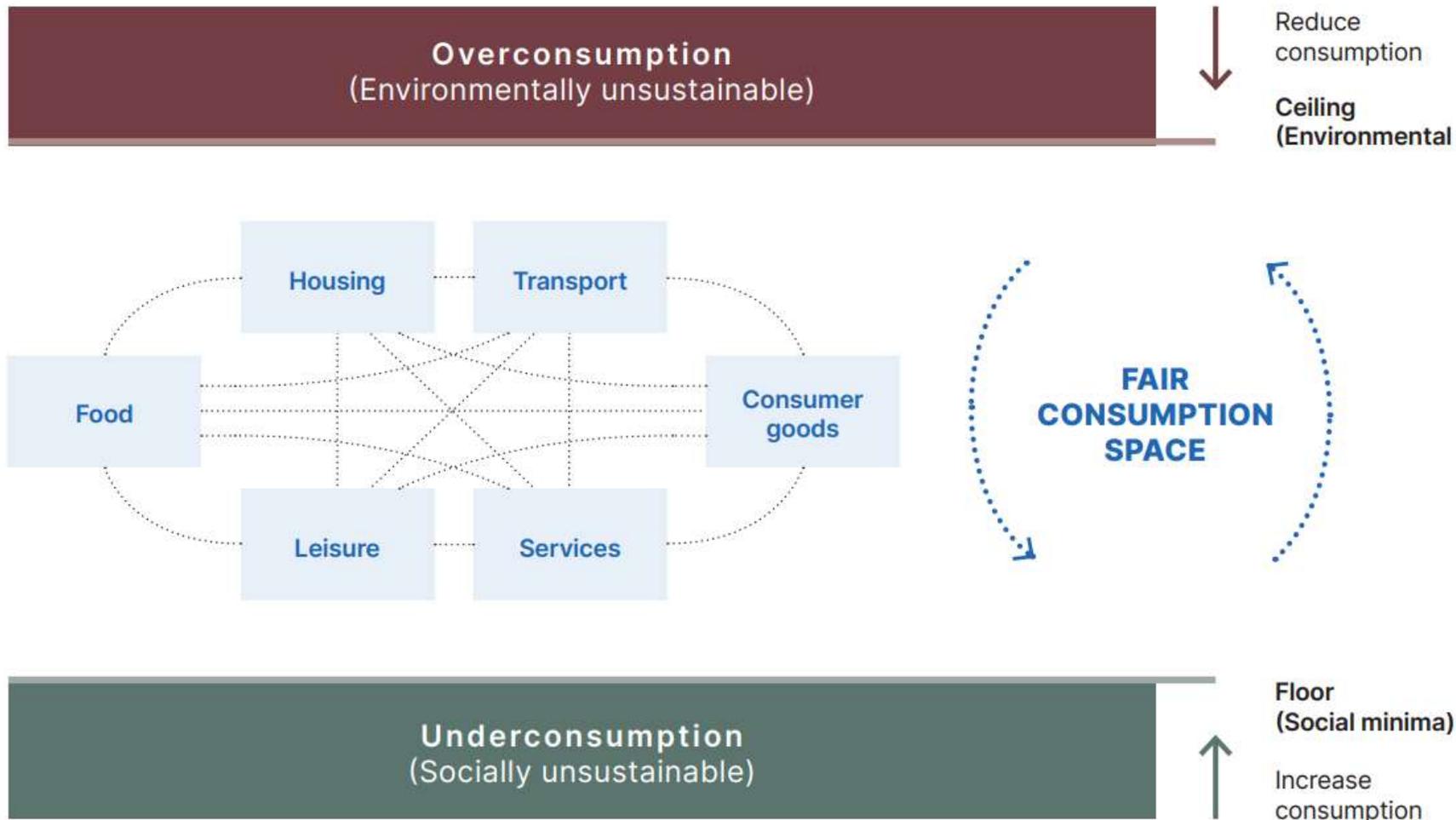
Source: The Club of Rome & PiK - Planetary Emergency Partnership

21st c impacts from growth and overconsumption

- ✓ **Population growth** = full world existing & future over consumption + resource dependency (2022 8 bil - 2050 9.7 billion)
- ✓ The core limiting factor of human wellbeing and our (economic) development are **natural resources and environmental sinks**
- ✓ **The world's richest 1% have more than twice as much wealth as 6.9 billion people and the 22 richest men have more wealth than all the 326 million women in Africa**
- ✓ **More than 50% of urban fabric expected to exist by 2050 still needs to be constructed.** 2011-13 China has used more cement than USA in 20th century
- ✓ **Climate change** experts warned us that emissions need to be about halved by 2030 to limit warming to 1.5°C
- ✓ **Biodiversity: Living Planet Index – 60% fall in just 40 years.** Biomass of the mammals living in the nature has been reduced in recent decades by 82%

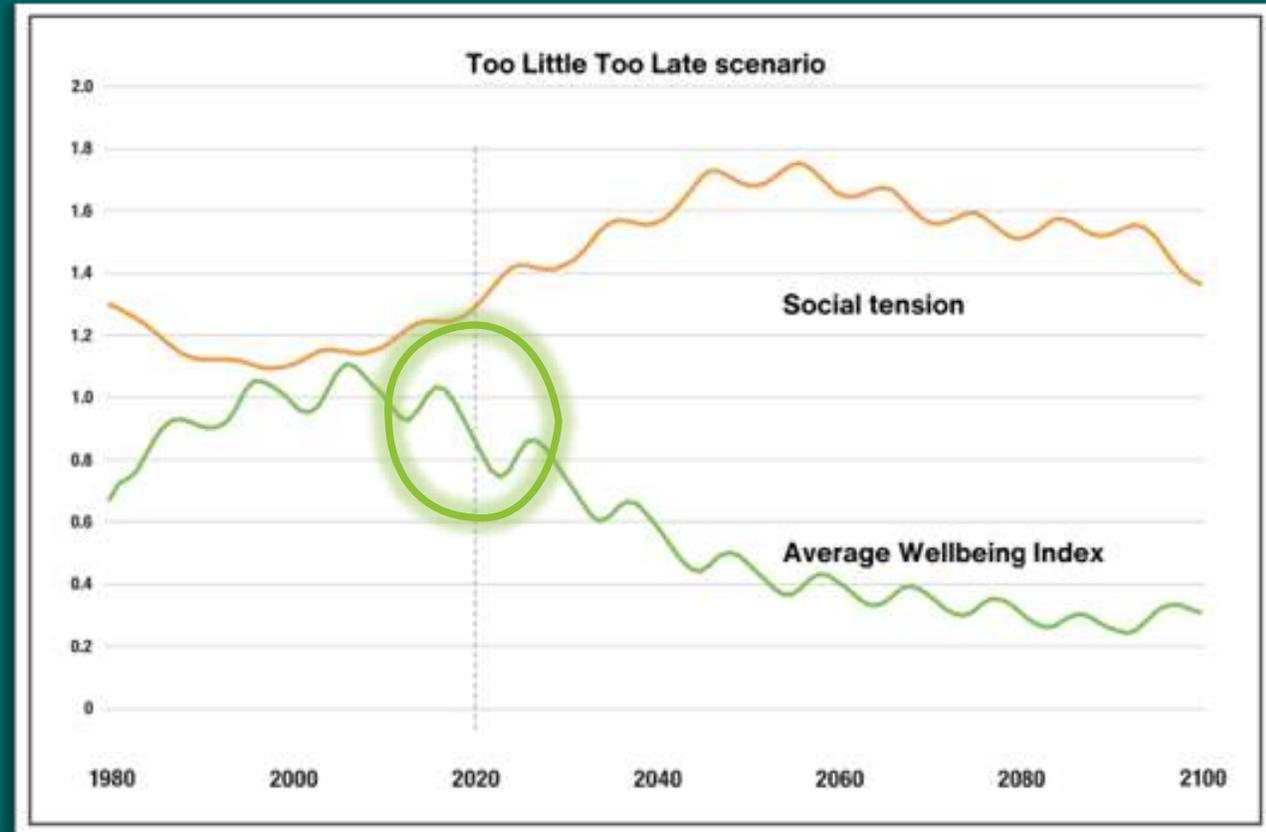


The Fair Consumption Space – A Guiding Framework



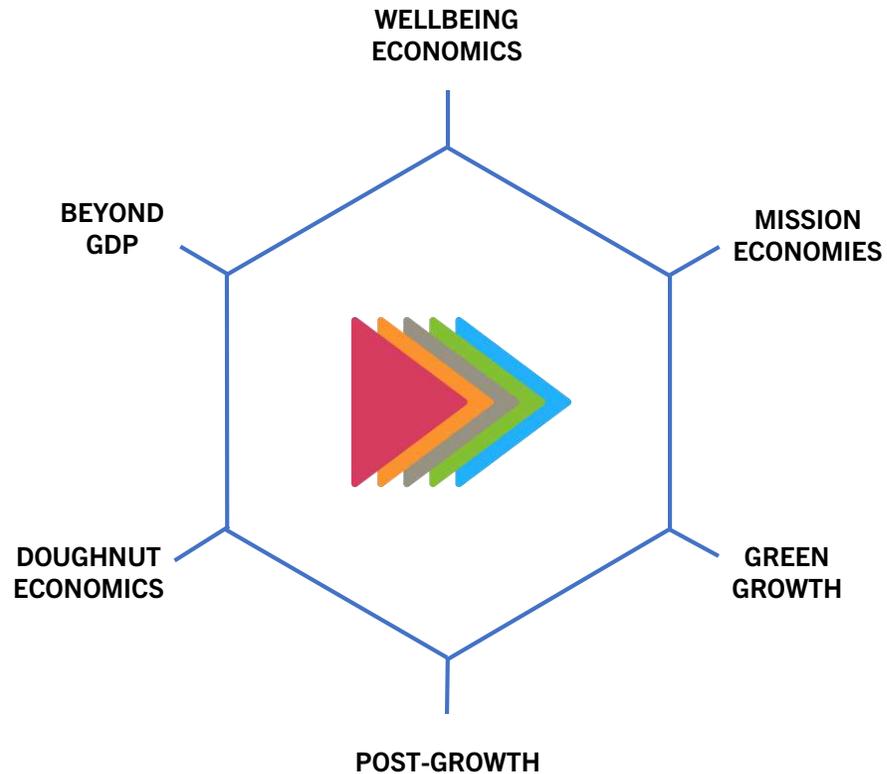
- How do we divide up the limited remaining “carbon budget”?
- Whose needs and desires do we prioritise?
- How do we eliminate overconsumption while enabling everyone to consume enough to be healthy and safe?
- We need to put fairness at the centre of climate debates

Global wellbeing is declining.



*UNPUBLISHED RESEARCH. To be released by Earth4All September 2022

Transformational economics for the 21st century



- Account for social and environmental risk in financial and economic decision-making
- Expand our perspective of public goods and socialise the rewards of environmental and social commons
- Correct the inequity between high and low-income countries created by international finance and trade systems
- Increase the agency of women and workers to drive the direction of the economy

21st Century Wellbeing Economics *



ECONOMIC INDICATORS:	SOCIETAL INDICATORS:	ENVIRONMENTAL INDICATORS:
<ul style="list-style-type: none"> • Jobs/employment • Incomes (equality, poverty) • Fair work & business • Employment & economic conditions • Housing (quality, access, etc.) 	<ul style="list-style-type: none"> • Health and social care (equity, life expectancy, mental health, quality & access) • Education (knowledge, skills) • Communities, social connections, social capital • Culture • Children & young people 	<ul style="list-style-type: none"> • Environmental protection & climate (clean environment) • Land use (land reclamation, protected areas, access to green and blue spaces) • Energy • Air & water pollution • Waste & recycling



“WE NEED A RE-ARTICULATION OF HUMAN DEVELOPMENT FOR THE 21ST CENTURY – TO REDIRECT PURPOSE FROM GROWING GDP TO SECURING THE WELLBEING OF PEOPLE AND PLANET. NOW IS THE TIME TO FOCUS ON MEASURES OF WELLBEING”.

DAVID KORTEN

* Adopted by 5 countries: F, I, NZ, S, W

THIS IS A **UNIQUE** **MOMENT IN TIME**



THE SHOCK

The global pandemic has forced us to reflect on what really matters.



THE URGENCY

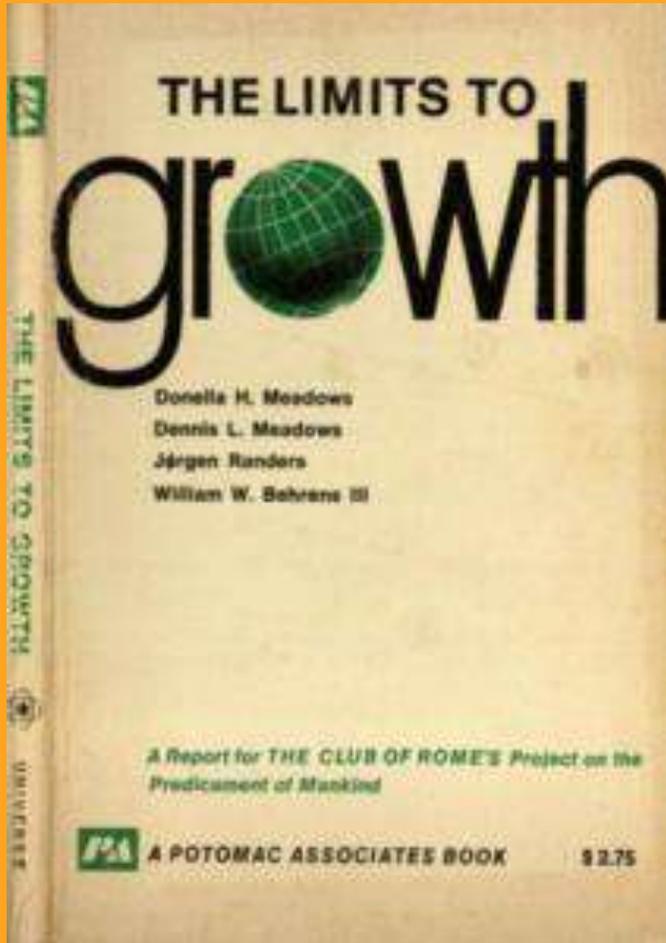
We have 8.5 years and counting to avoid the worst impacts of the climate crisis.



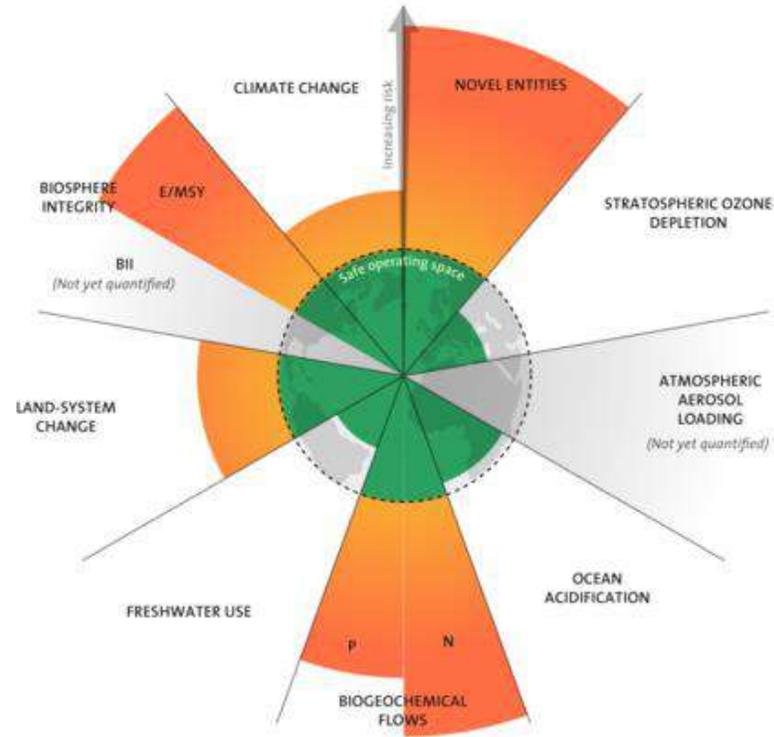
THE WILL

74% of people in G20 countries want transformation towards “wellbeing economies”*

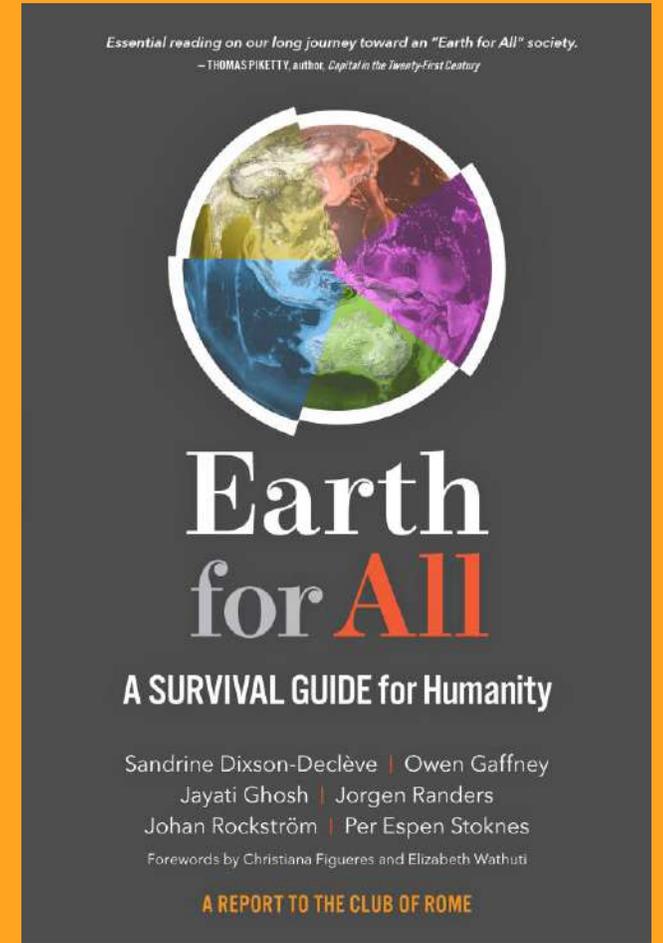
1972



2009



2022



21st century transformational economics

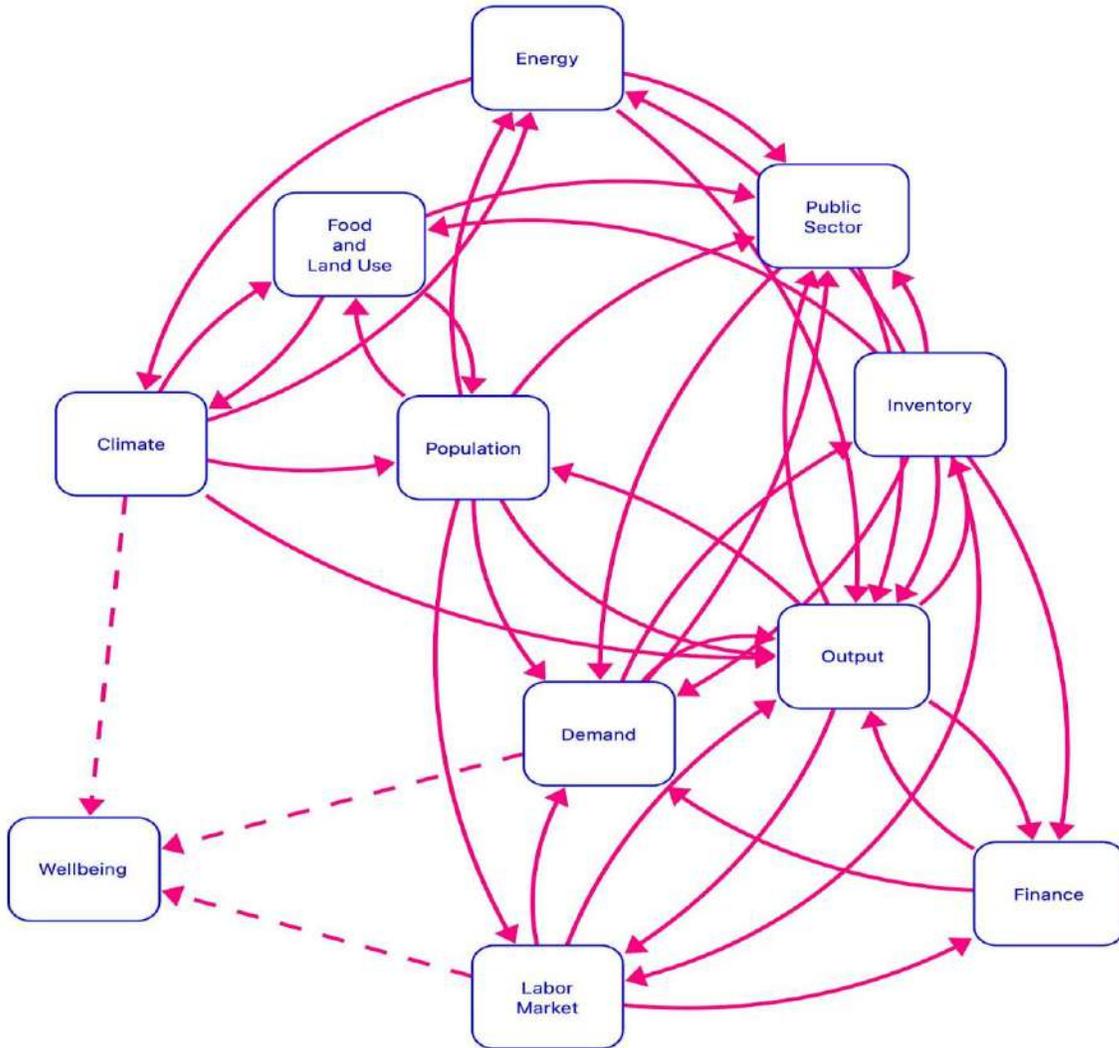


Global and regional system modelling

A SYSTEMS CHANGE AGENDA FOR GREATER WELLBEING IN PLANETARY BOUNDARIES

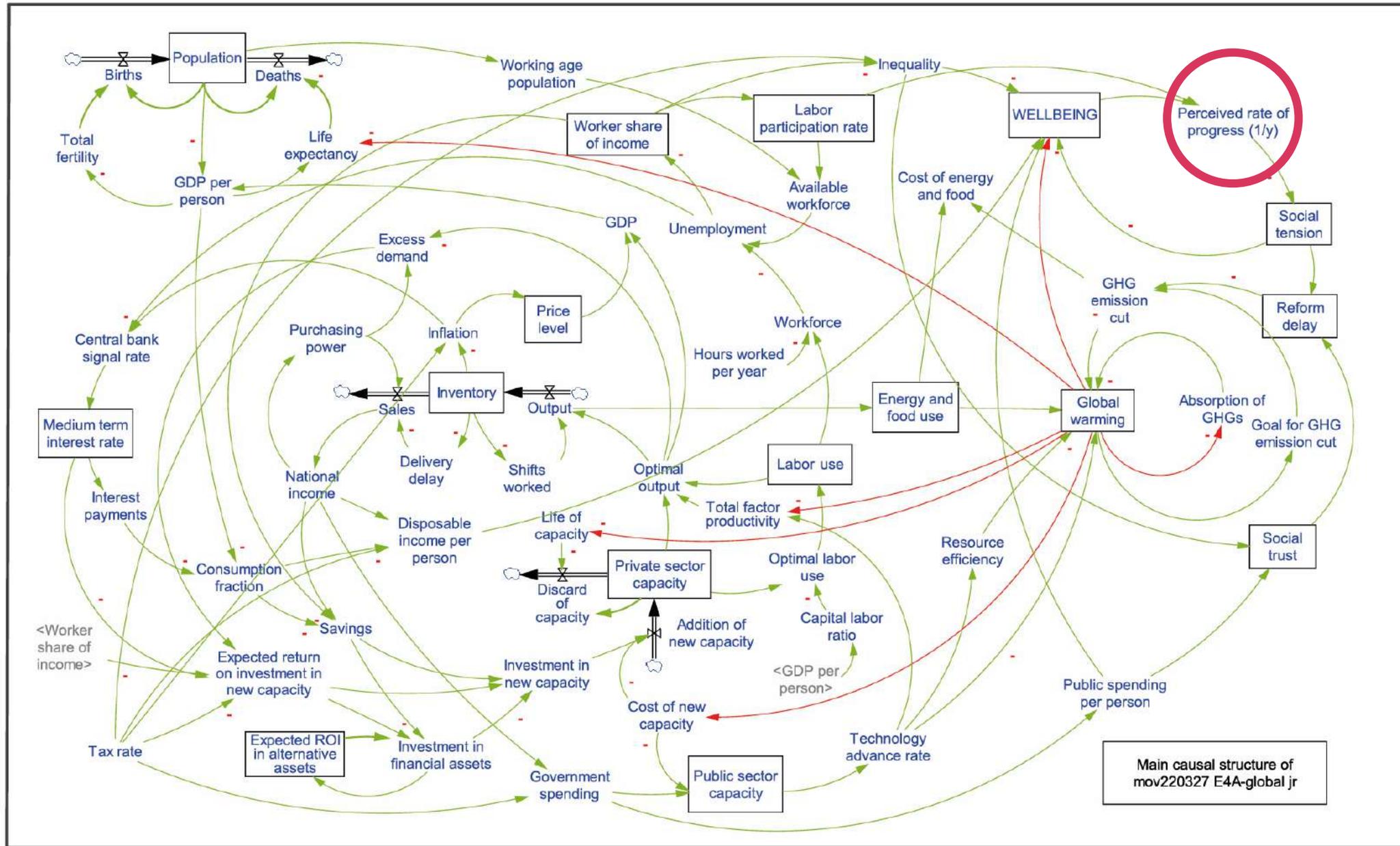


THE EARTH FOR ALL MODEL

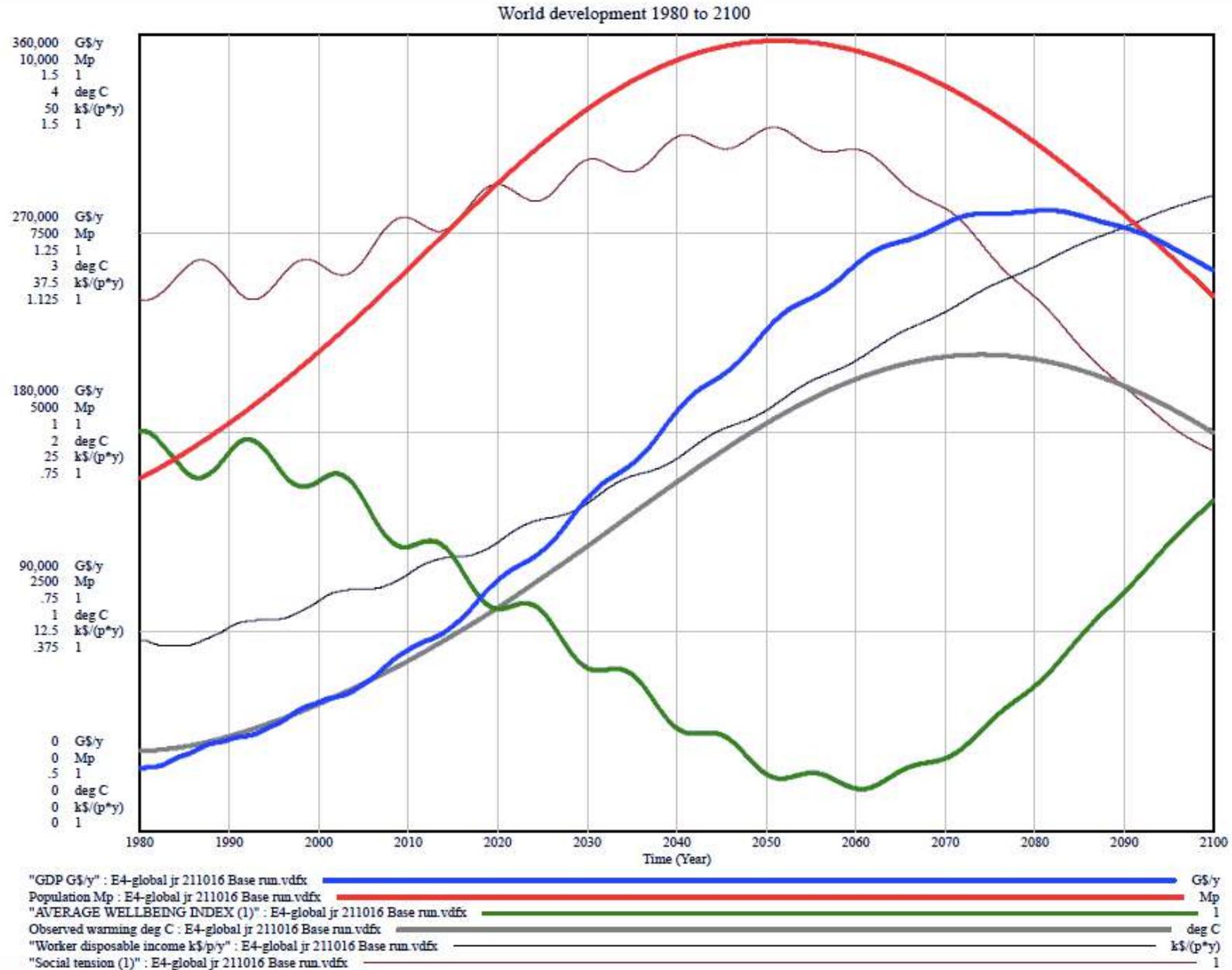


A tool to consistently **ASSESS** and **QUANTIFY** the econ-socio-bio-system dynamics *and* the impacts of extraordinary action in 5 areas:

THE EARTH FOR ALL MODEL



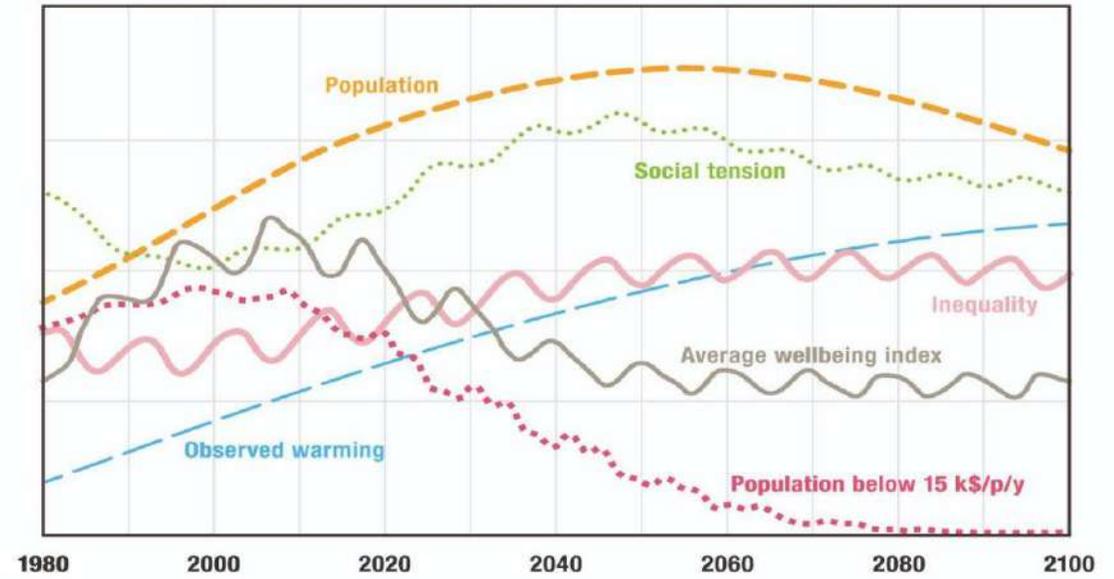
EARTH4ALL: GDP GROWTH + POP GROWTH + CLIMATE = (-) WELL BEING



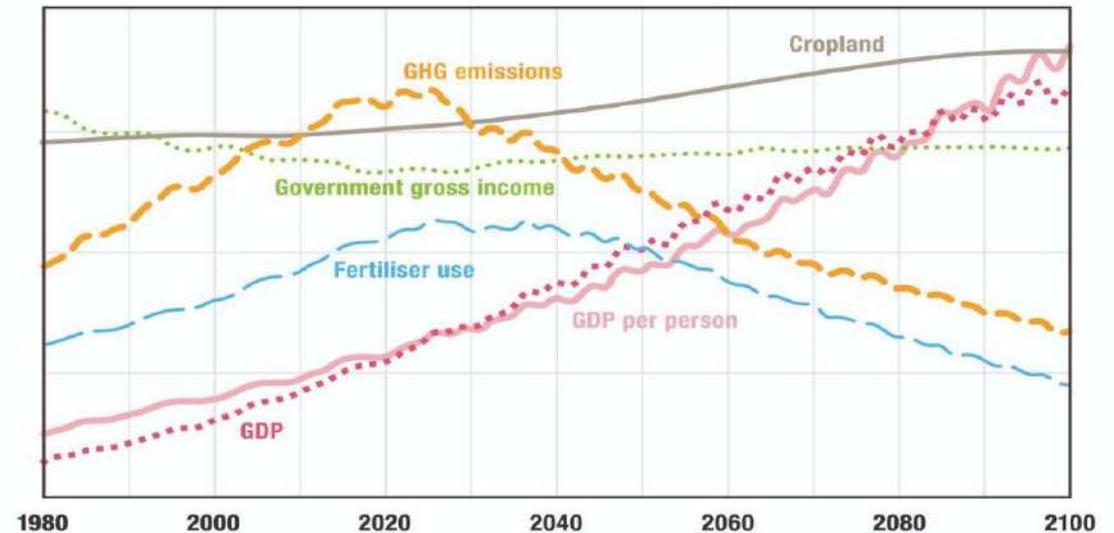
'Too Little, Too Late' Scenario

- Poverty reaches zero around 2100
- Social tensions rise this century, conversely wellbeing falls.
- Global average temperature: a catastrophic 2.5°C rise minimum.

1. Main trends
Too little too late scenario

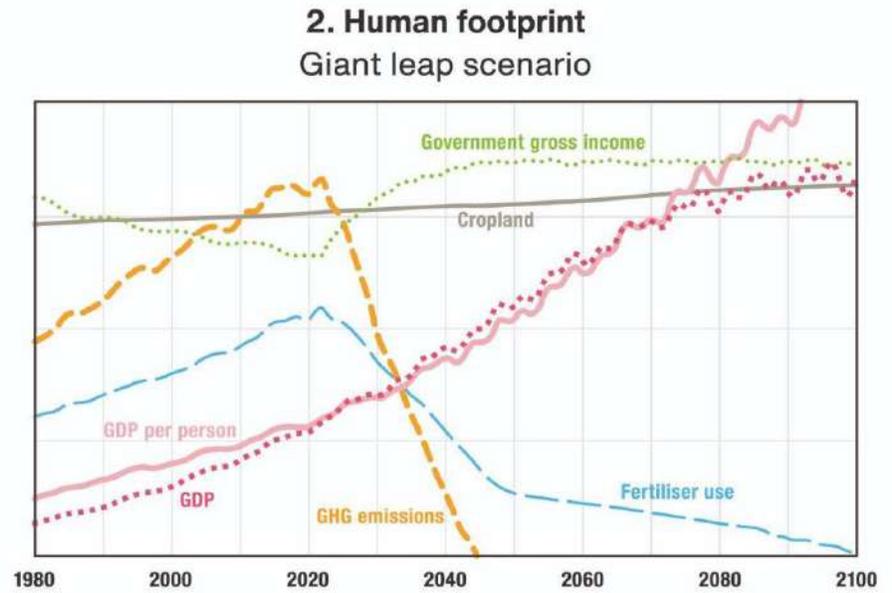
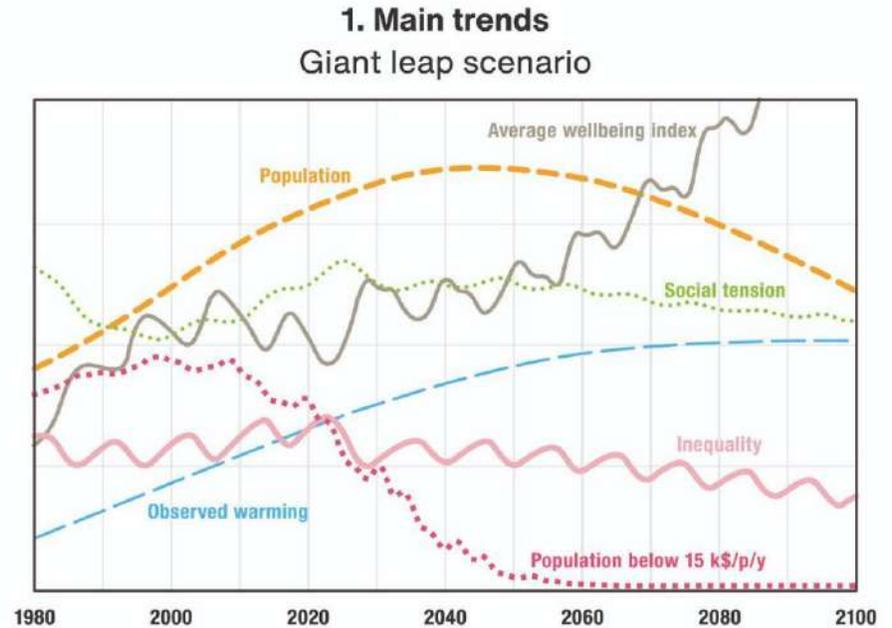


2. Human footprint
Too little too late scenario



'Giant Leap' Scenario

- Poverty reaches zero around 2050 (USD 15k pppy).
- Wellbeing rises.
- Temperature stabilises at below 2°C.



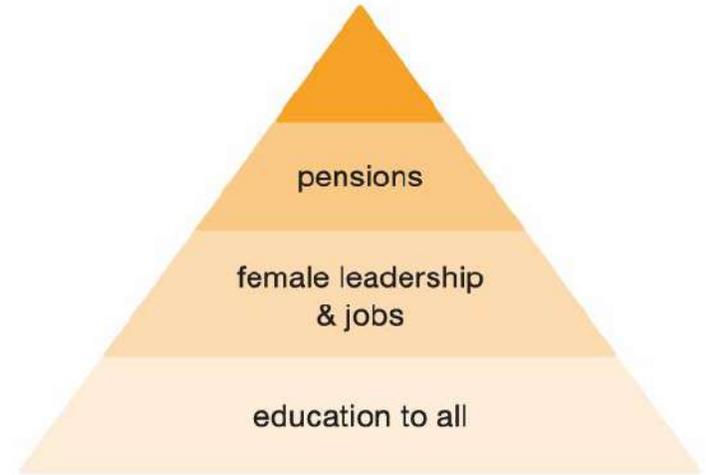
THE ACTIONS TO ACHIEVE THE TURNAROUNDS



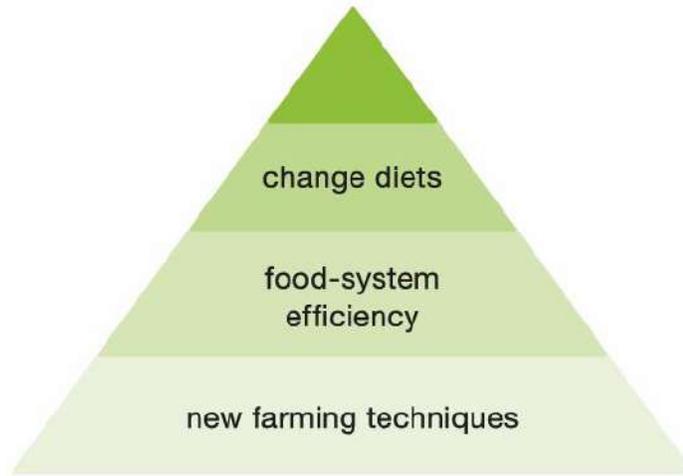
POVERTY



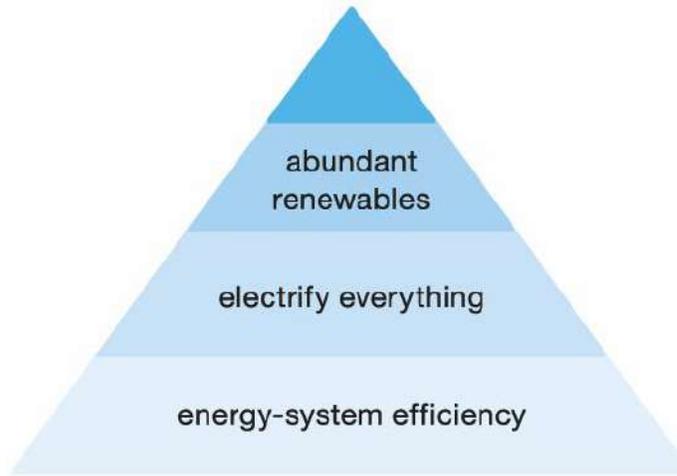
INEQUALITY



EMPOWERMENT



FOOD



ENERGY

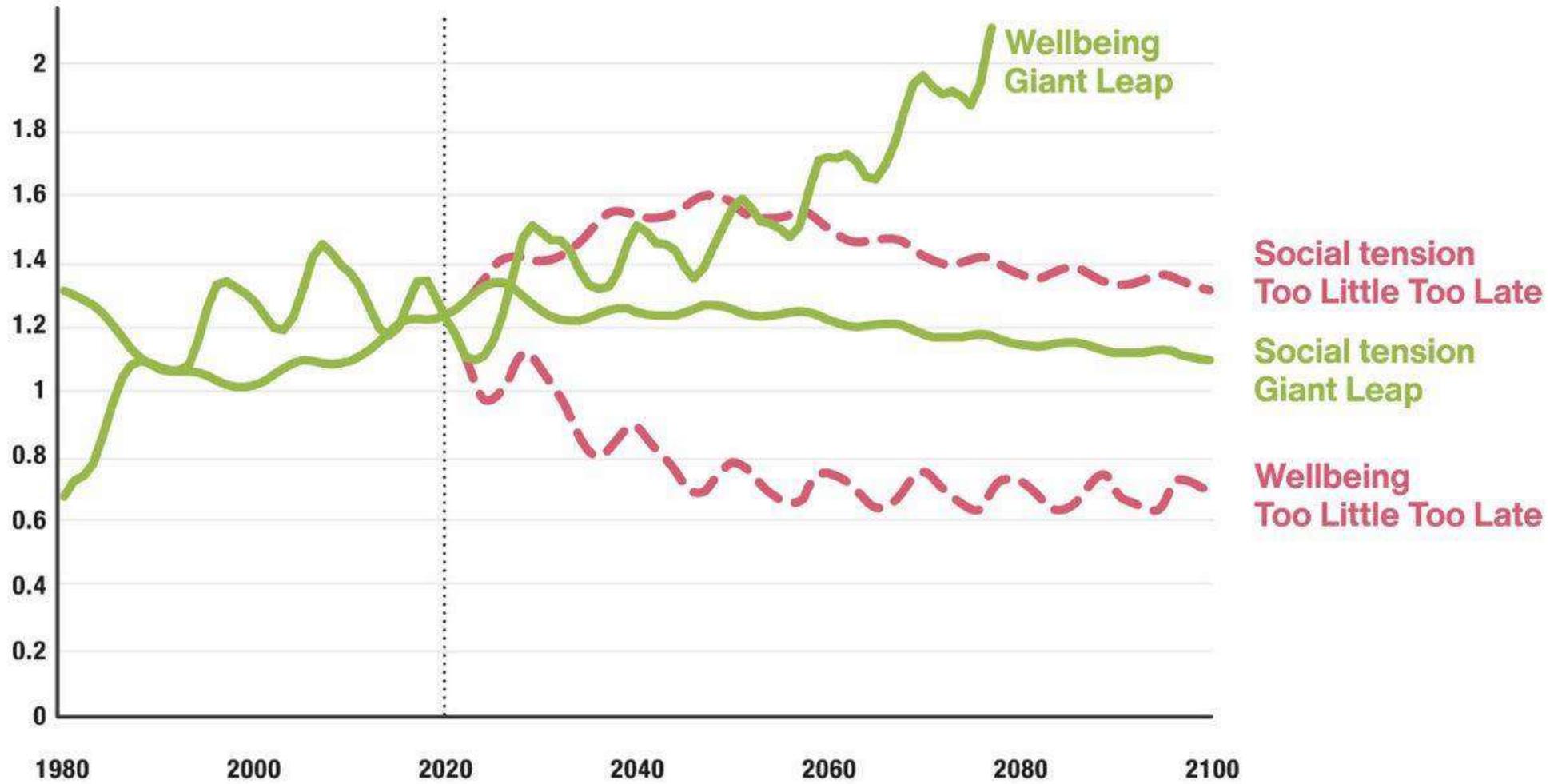
QUANTIFYING THE FEEDBACK LOOP



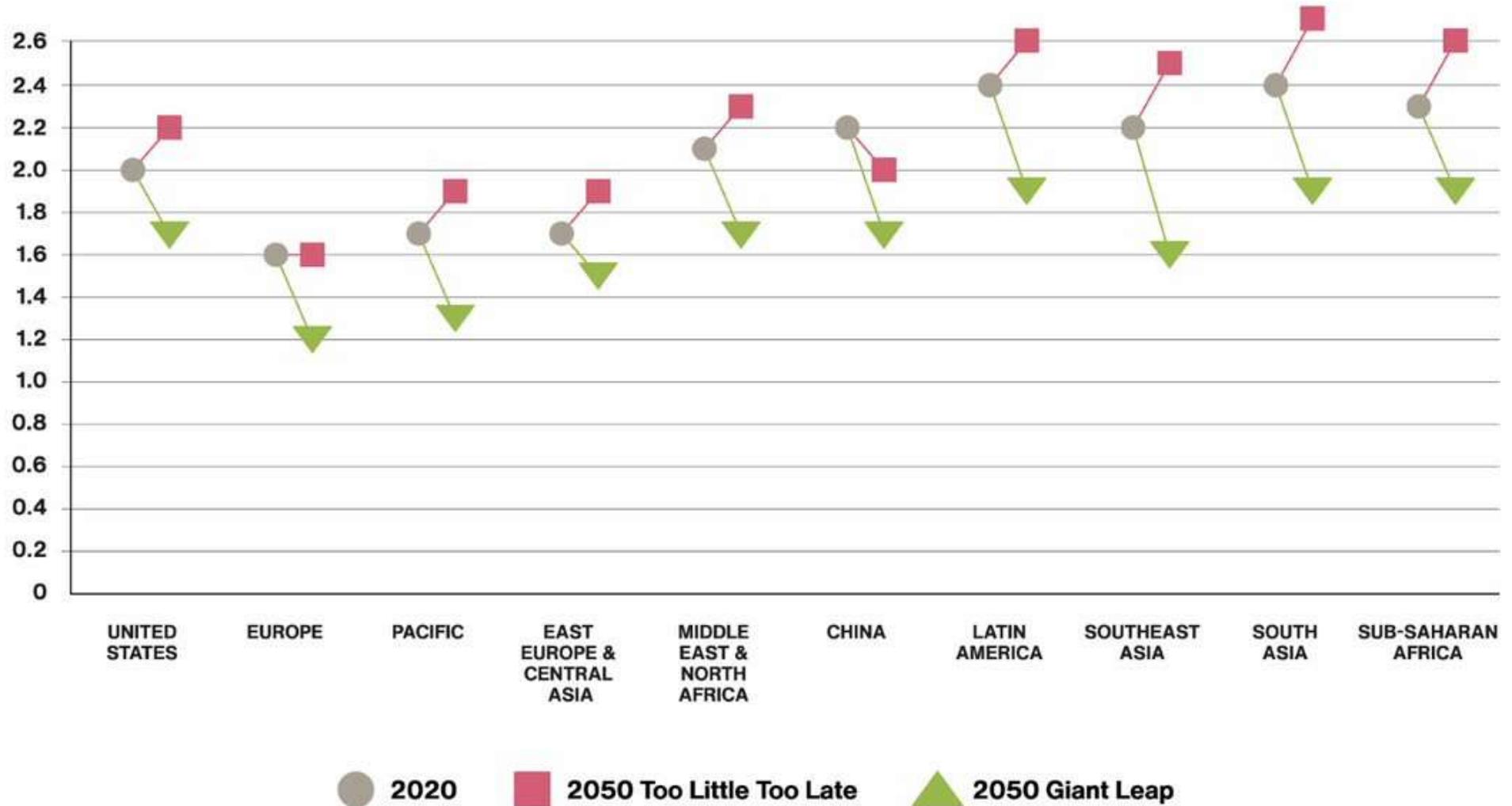
Dignity	Fundamental needs must be met	Worker disposable income k\$/p/y
Nature	People safe and healthy in their communities	Global warming in C
Connection	Fair distribution of the commons and wealth	Public spending k\$/p/y
Fairness	Everyone focused on delivering shared wellbeing	Owner incomes after tax / worker income after tax
Participation	Planetary boundaries are not exceeded	People's observed progress (previous levels of wellbeing)



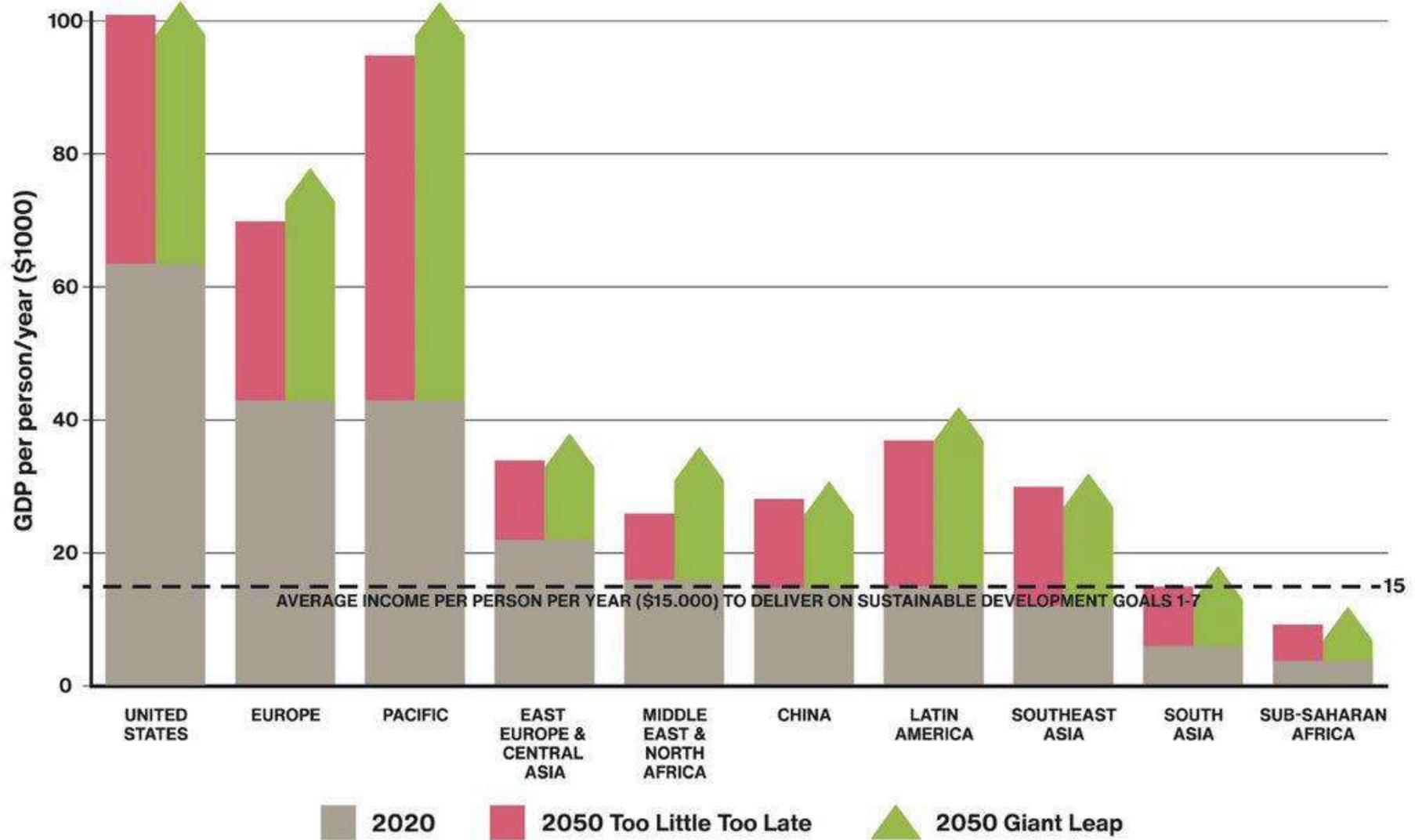
Global Social Tension Index



Inequality Index

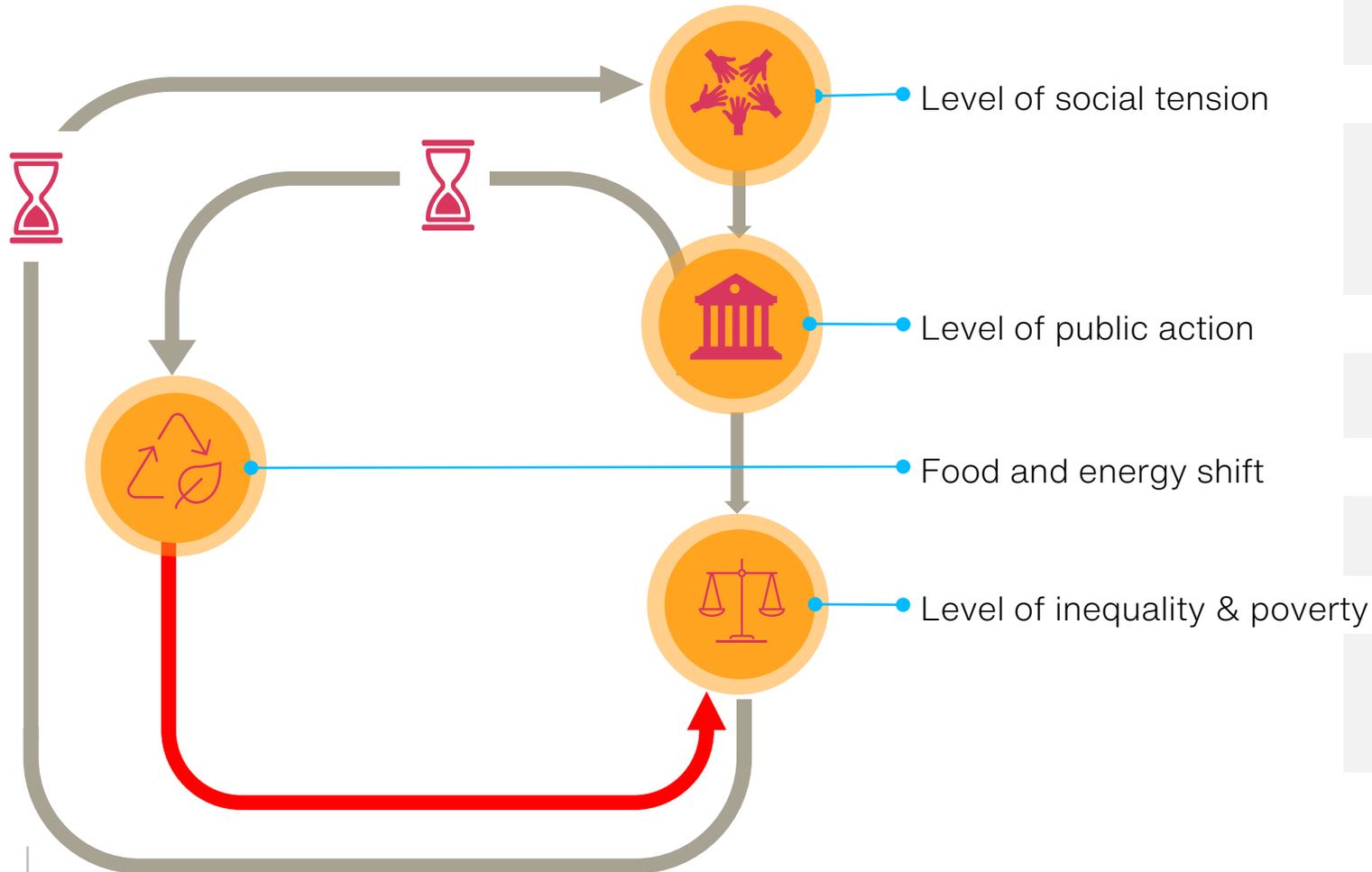


Average income per person in 10 regions



THE CRITICAL FEEDBACK LOOP

ACTION ON PLANETARY BOUNDARIES IS A FUNCTION OF ACTION ON INEQUALITY AND POVERTY



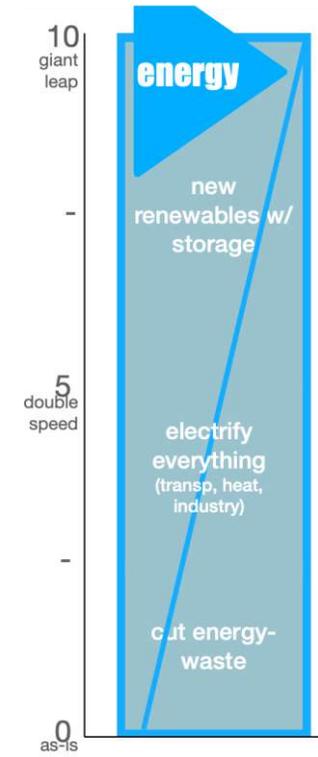
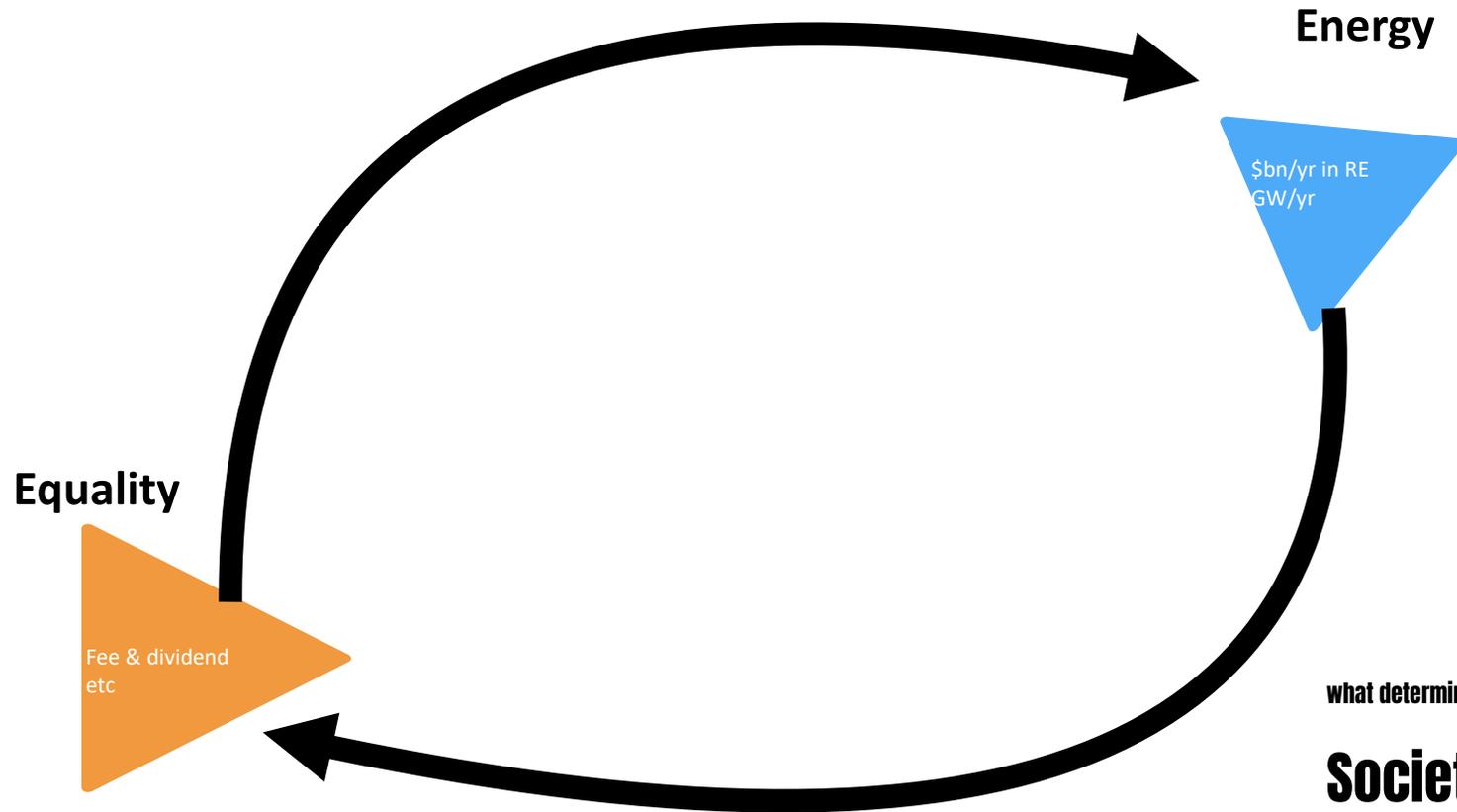
Social trust influences the political space available for transformative public action

How effectively the state intervenes to reduce inequality and planetary breakdown

The regulation of the food and energy system impacts inequality

Inequality drives social tension

ENERGY-EQUALITY INTER-RELATIONSHIPS



- equality
- universal basic Dividend
- trade re-unionisation
- progressive taxation (land, wealth, income)

what determines the speed of the energy turnaround?

Societal trust !
(interpersonal and institutional trust)

And what determines the Societal trust?

Inequality
(both income- and wealth inequality)



NOVELTIES OF THE EARTH4ALL MODEL

- 1 **INEQUALITY**
We investigate the distributional effects in terms of owner & worker share of output from both private investment and public sector activities, confirming the preliminary evidence in favor of the relevance of distributional patterns for the determination of sustainable policy-making (Rao et al, 2017)
- 2 **ECOLOGY**
We include the wider effect of the human economy on the main planetary boundaries (climate, nutrients, forests, biodiversity), the impact of the natural boundaries on economic development and their complex feedback effects (Harfoot et al., 2014)
- 3 **PUBLIC SECTOR**
We model an active public sector with public infrastructure capacity, welfare policies and an active climate-change mitigation policy stance (Mazzucato, 2021)
- 4 **FINANCE**
We include the effects from debt and money supply, central bank interest rates and corporate capital costs, addressing the call for further integration of financial mechanisms with IAMs (Battiston et al, 2021)
- 5 **LABOR**
We are able to simulate a recurrent 10-year unemployment cycle and its macroeconomic consequences, a global first (Ciarli & Savona, 2019)
- 6 **POPULATION**
In contrast to UN's statistical approach, we have endogenous population dynamics affected by investment levels in public spending, education and income levels, improving on existing IAM with demographic sectors (McIsaac, 2020)
- 7 **WELLBEING**
We integrate a wellbeing index, and social tension index (as a function of GDPpp, unemployment, income inequality, debt burden, government services, local/regional pollution, perceived global warming), illustrating the connection between environmental and social sustainability and integrating the latter within a IAM for the first time (Eizenberg & Jabareen, 2017)

THE **FIVE** TURNAROUNDS IN DETAIL

1) End Poverty so all low to middle-income countries have reached a minimum income threshold of USD 15,000 per person per year.

- Allow the International Monetary Fund to allocate over \$1 trillion annually to low-income countries for green jobs— creating investments through so-called Special Drawing Rights.
- Cancel all debt to low-income countries (<\$10,000 income per person).
- Protect fledgling industries in low-income countries and promote South-South trade between these countries. Improve access to renewables and health technologies by removing obstacles to technology transfer, including intellectual property constraints.

2) Addressing Inequality so the wealthiest 10% should take no more than 40% of national incomes.

- Increase taxes on the 10% richest in societies until they take less than 40% of national incomes by 2030. The world needs more progressive taxation; and closing international loopholes is essential to deal with destabilizing inequality and luxury carbon and biosphere consumption.
- Legislate to strengthen worker's rights. In a time of deep transformation, workers need economic protection.
- Introduce Citizens Funds to give all citizens their fair share of the national income, wealth, and the global commons through fee and dividend schemes.

THE **FIVE** TURNAROUNDS IN DETAIL

Turnaround 3) Accelerating Gender Equity to improve wellbeing and contribute to stabilising population growth by 2050.

- Provide access to education for all girls and women.
- Achieve gender equity in jobs and leadership.
- Provide adequate pensions.

Turnaround 4) Transform the Food system to regenerative and sustainable agriculture + provide healthy diets for people within planetary boundaries.

- Legislate to reduce food loss and waste.
- Scale up economic incentives for regenerative agriculture and sustainable intensification.
- Promote healthy diets that respect planetary boundaries.

Turnaround 5) Transition the Energy system on a “Carbon Law” pathway of cutting fossil fuels and other greenhouse gases 50% every decade to reach net zero emissions by 2050

- Immediately phase out fossil fuels and scale up energy efficiency and renewables. Triple investments immediately to >\$1 trillion per year in new renewables.
- Electrify everything.
- Invest in energy efficiency and storage at scale.

A NEW POLICY NARRATIVE

Earth4All supports systemic thinking for new policies by supplying the economic thinking and framework for systems change that moves beyond siloed thinking:

- Five turnarounds have been developed with world class economic and scientific modellers and stress tested by a multi-disciplinary Commission of thought leaders from across the globe.
- For the first time, we have evidence to suggest that turning around our economies **is achievable**. Earth4All has developed a framework of **five turnarounds that can support long-term prosperity** on a (relatively) stable planet.
- Implementing these turnarounds requires **bold economic ideas** that move us away from the current destructive economic paradigm, ensures we address current environmental and social tipping points and builds a future that ensures a more holistic balance between people, planet and prosperity.
- The most novel finding of the analysis is that **extreme inequality needs to be addressed as a matter of urgency to remain within planetary boundaries**. Without transformative steps to address inequality, social tension will continue rising, eroding trust and making it even more difficult to take essential long-term decisions in the future. This then increases the likelihood of crossing dangerous tipping points in the Earth system.

CALLS TO ACTION

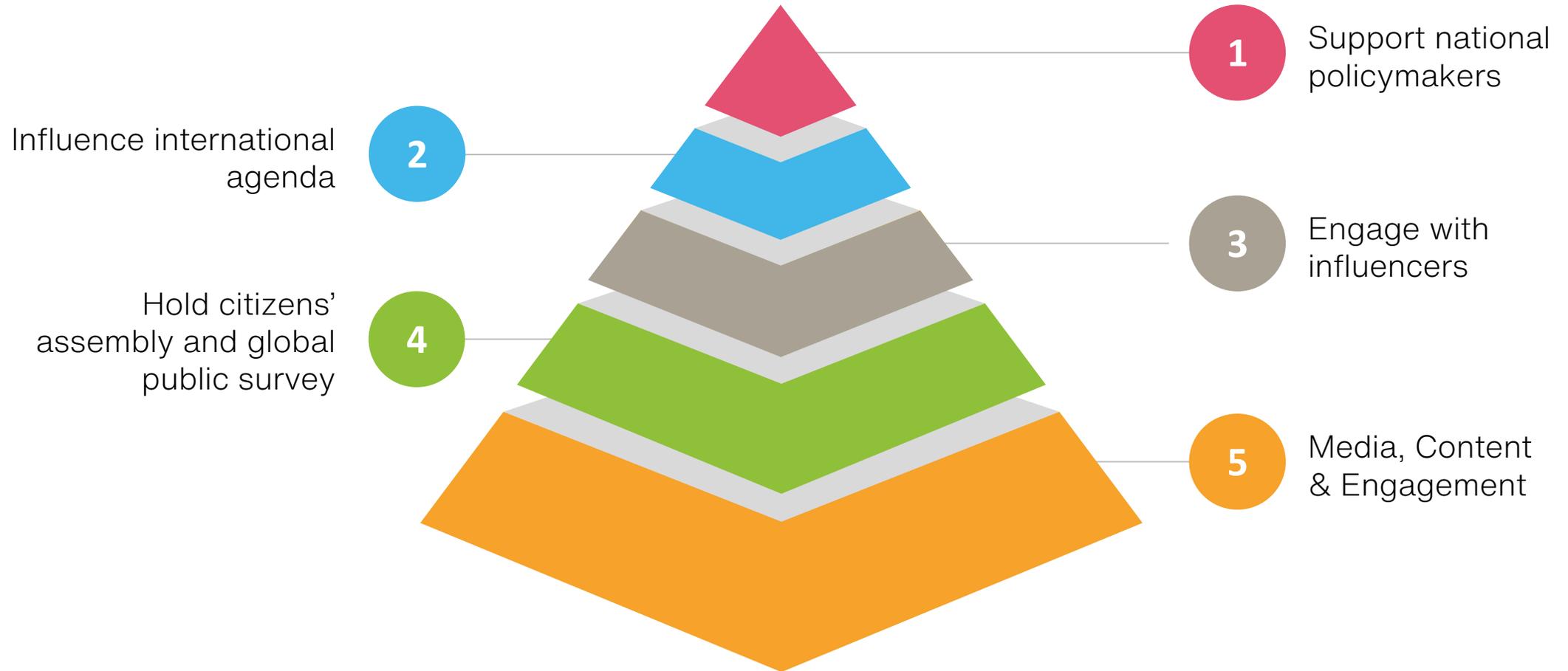
Our findings are that we immediately need to:

- Upgrade and transform the dominant economic worldview from extractive to regenerative in both monetary and material cycles by applying insights from living systems.
- Upgrade and transform the global financial system (the World Bank, International Monetary Fund, WTO and well beyond).

This is because current trends will not lead to wellbeing for the majority.

- Nothing less than all of the five turnarounds are necessary.
- Governance by an active, trusted state is needed.
- Bold, new funding mechanisms through which high-income countries support the low-income countries are crucial for everyone's wellbeing.
- Long-term planning rather than short-term decision-making will be necessary.
- Material consumption patterns will need to both decrease and shift in terms of resource distribution.
- Achieving the key turnarounds at speed requires sharing the benefits, bottom-up participation, and local adaptation.
- New economic indicators must be adopted that shift beyond GDP to a wellbeing economics that prioritises people, planet and prosperity for all.

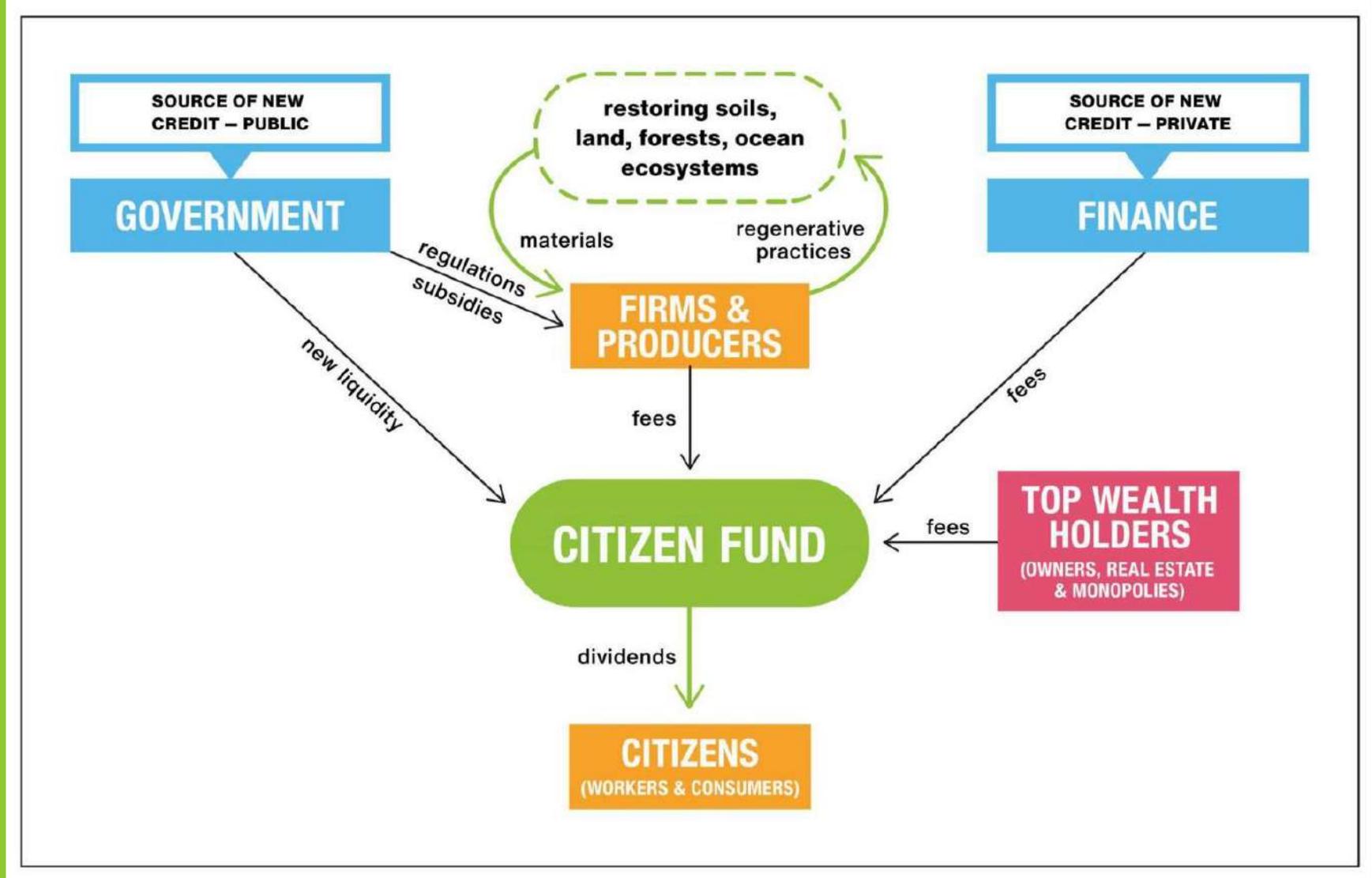
THE MOVEMENT



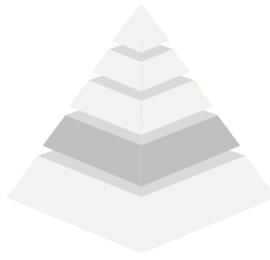
The Citizen Fund

A Universal Basic Dividend as a shock absorber:

Companies that emit greenhouse gas emissions or extract natural resources would pay fees into a common fund, which would then distribute equal payments to all citizens, creating an economic cushion during a period of transformation and beyond.



LISTEN TO CITIZENS

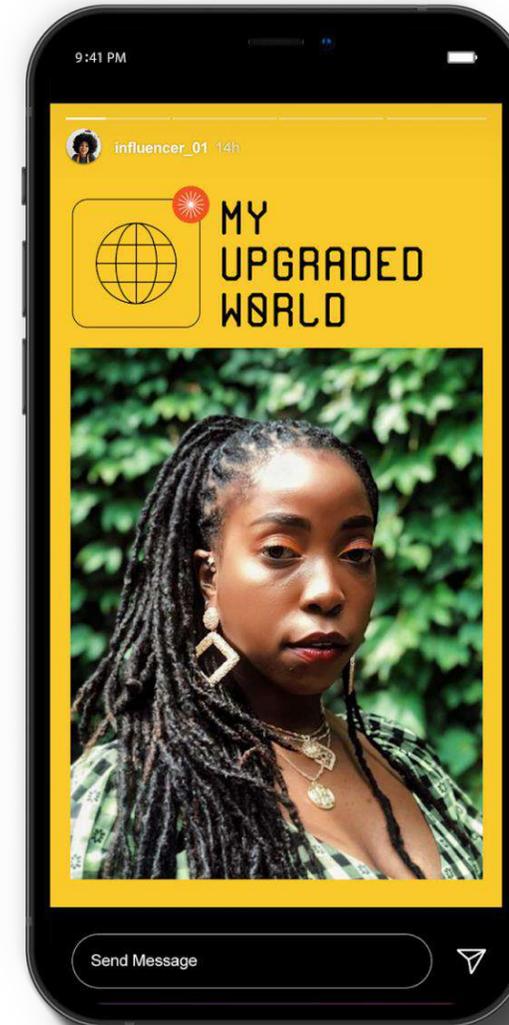
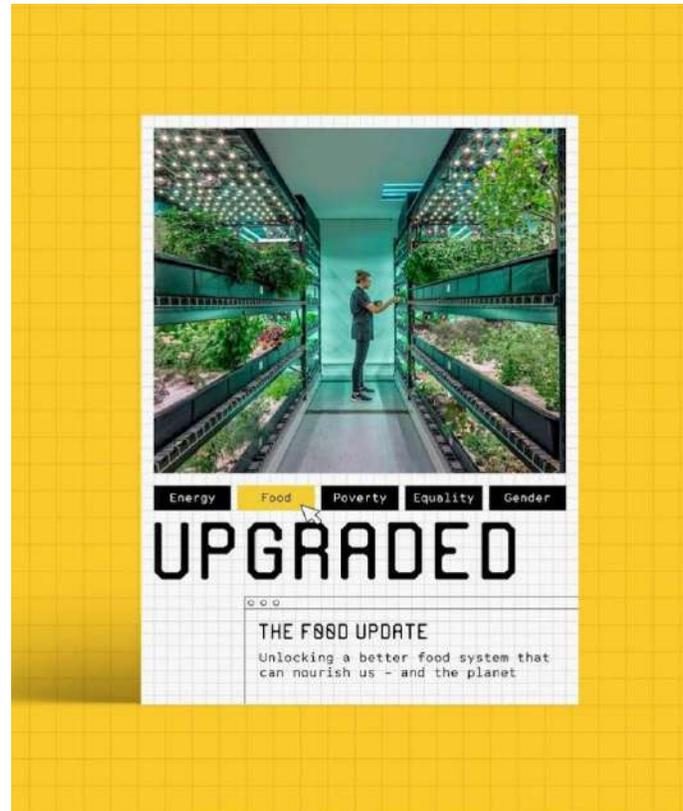
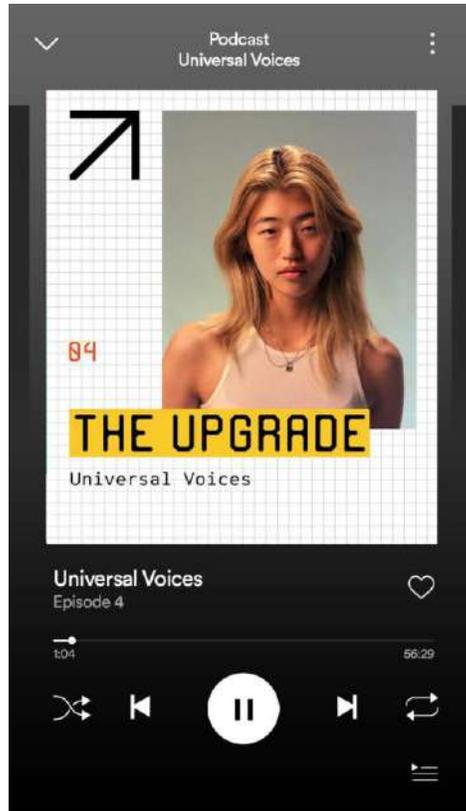


- ▶ Collaborate with Global Assembly to run a citizen assembly focused on economic systems change*
- ▶ Extract wellbeing-related demands and reports from past citizen assemblies and Global Assembly
- ▶ Commission Ipsos MORI survey targeting G20 countries and focusing on level of public support for economic systems change
- ▶ Include in calls to action by government to hold government-sponsored citizen assemblies on economic policy

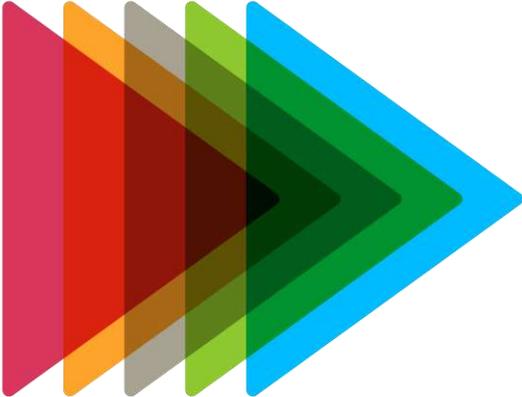
*Earth4All is still in discussions with Global Assembly. A full Global Assembly would need to be funded as a separate project to maintain the integrity of the global assembly process.

MY UPGRADED WORLD

Innovative storytelling hub and community of diverse voices, directly amplifying the conversation to policy-makers.



Earth 4All



...This is the decisive decade : There is no time for complacency nor despair!

