

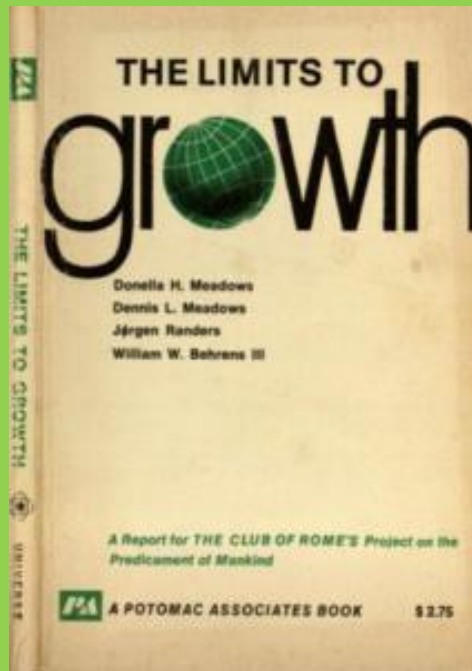
# SDG's for All: Developing Strategic Systems Scenarios

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Chair, European Commission Expert Group, Economic & Societal  
Impacts of Research & Innovation  
Climate Governance Commission, Commissioner  
Energy Transition Commission, Ambassador

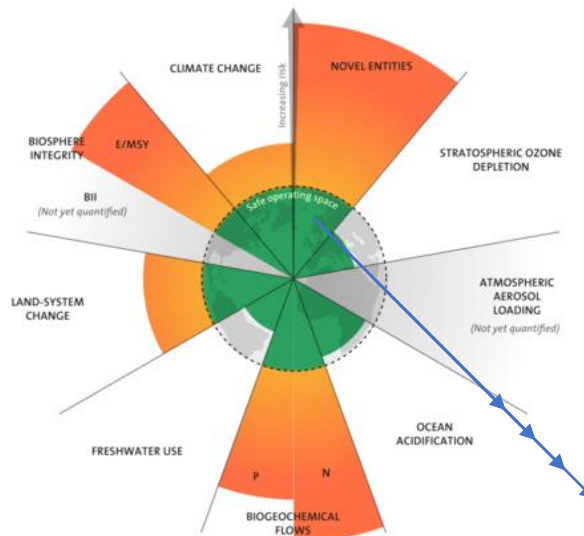




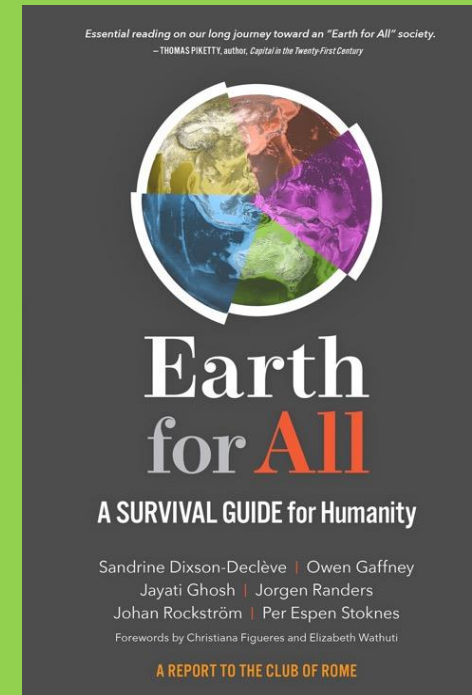
1972



2009



2022



2023

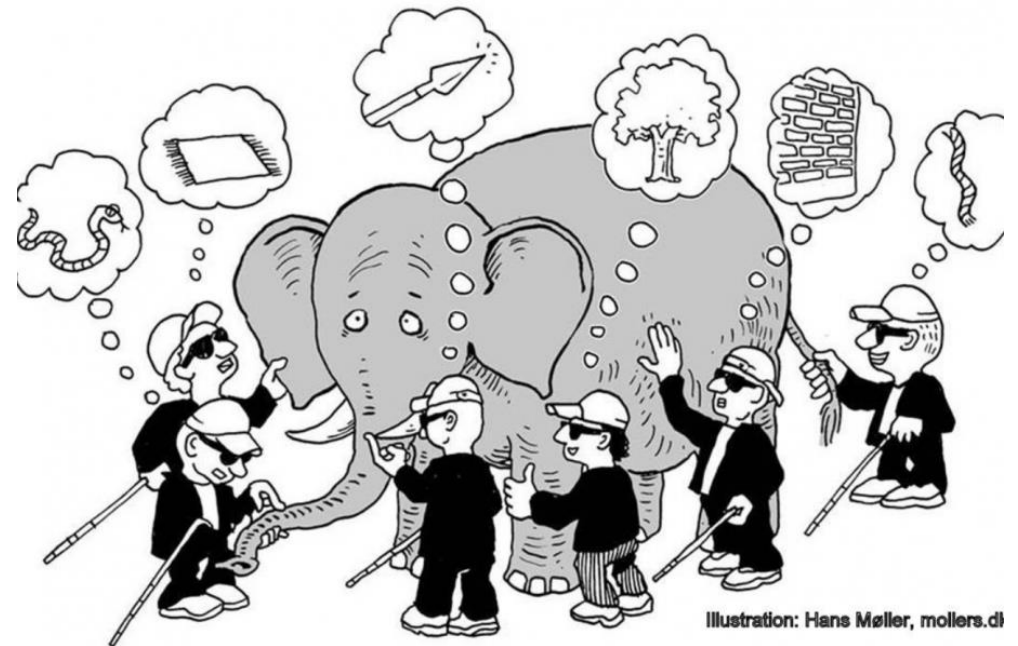
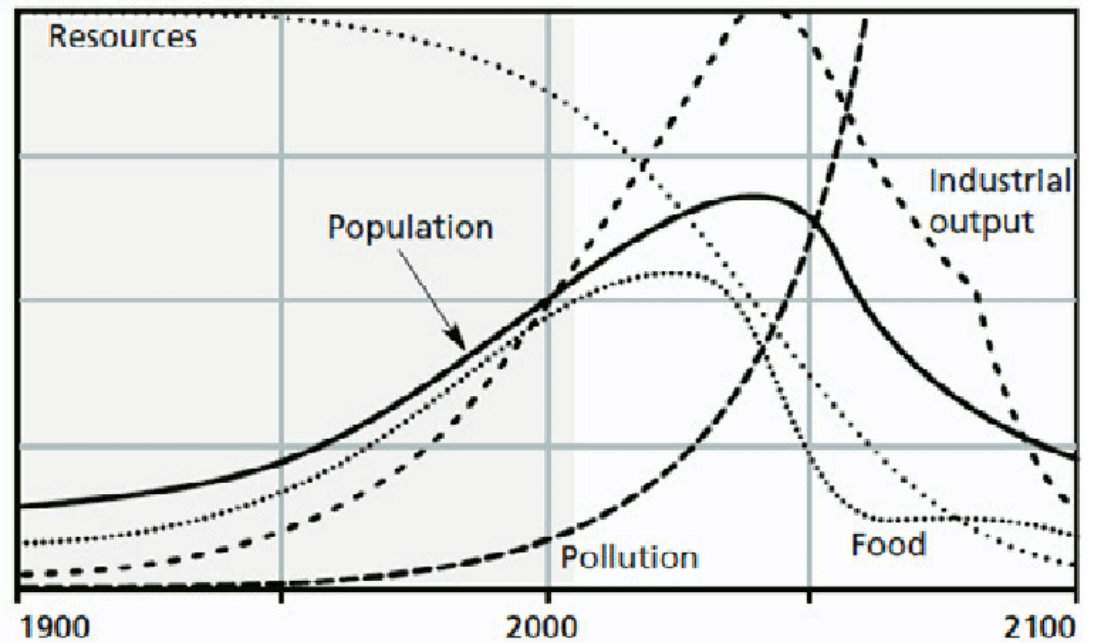


# 1972: The Limits to Growth

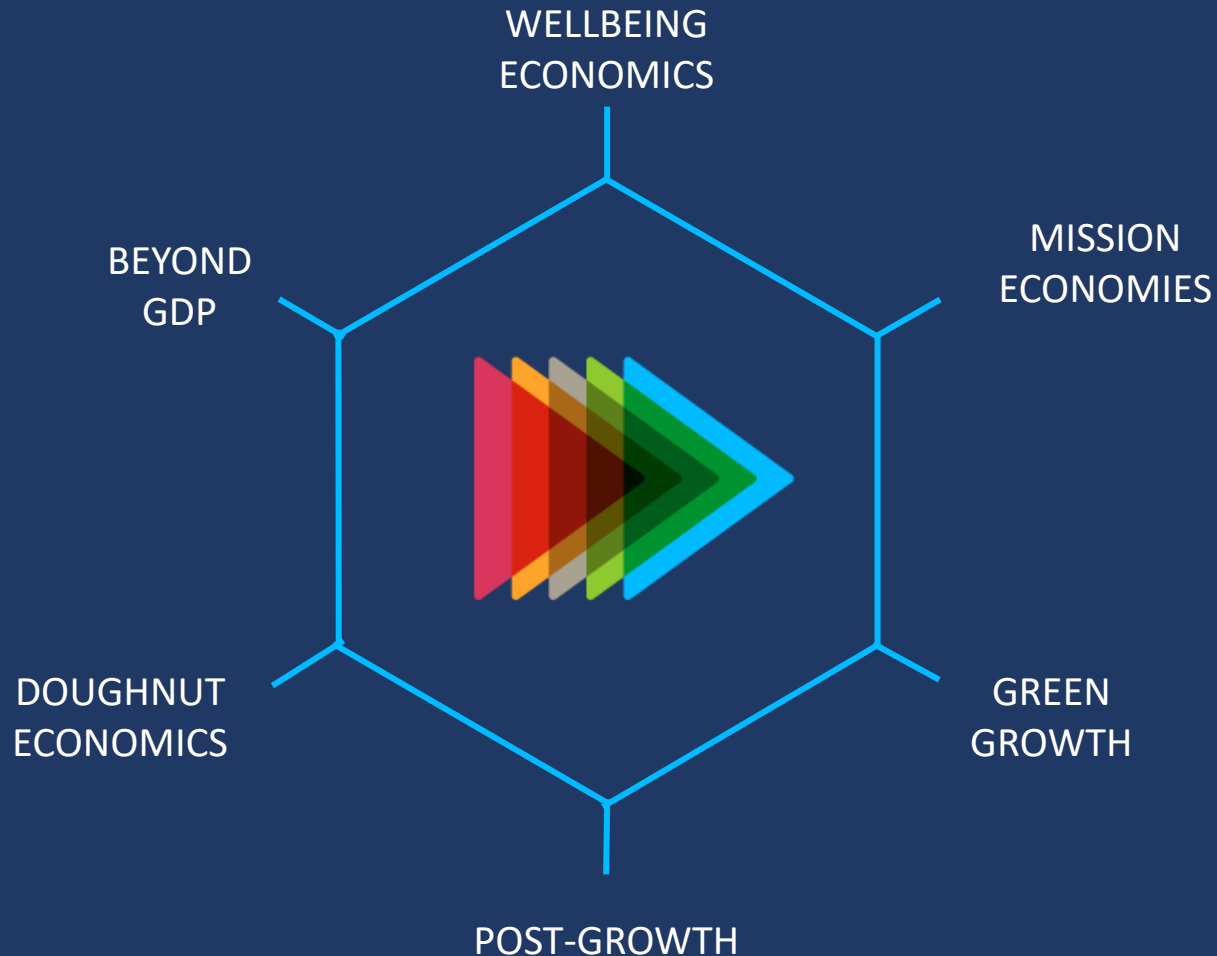
» If the present growth trends in world population, industrialization, pollution, food production, and resource depletion continue unchanged, the limits to growth on this planet will be reached sometime within the next one hundred years.[b] The most probable result will be a rather sudden and uncontrollable decline in both population and industrial capacity. «

The Limits to Growth, 1972

State of the World



# Transformational economics for the 21st century



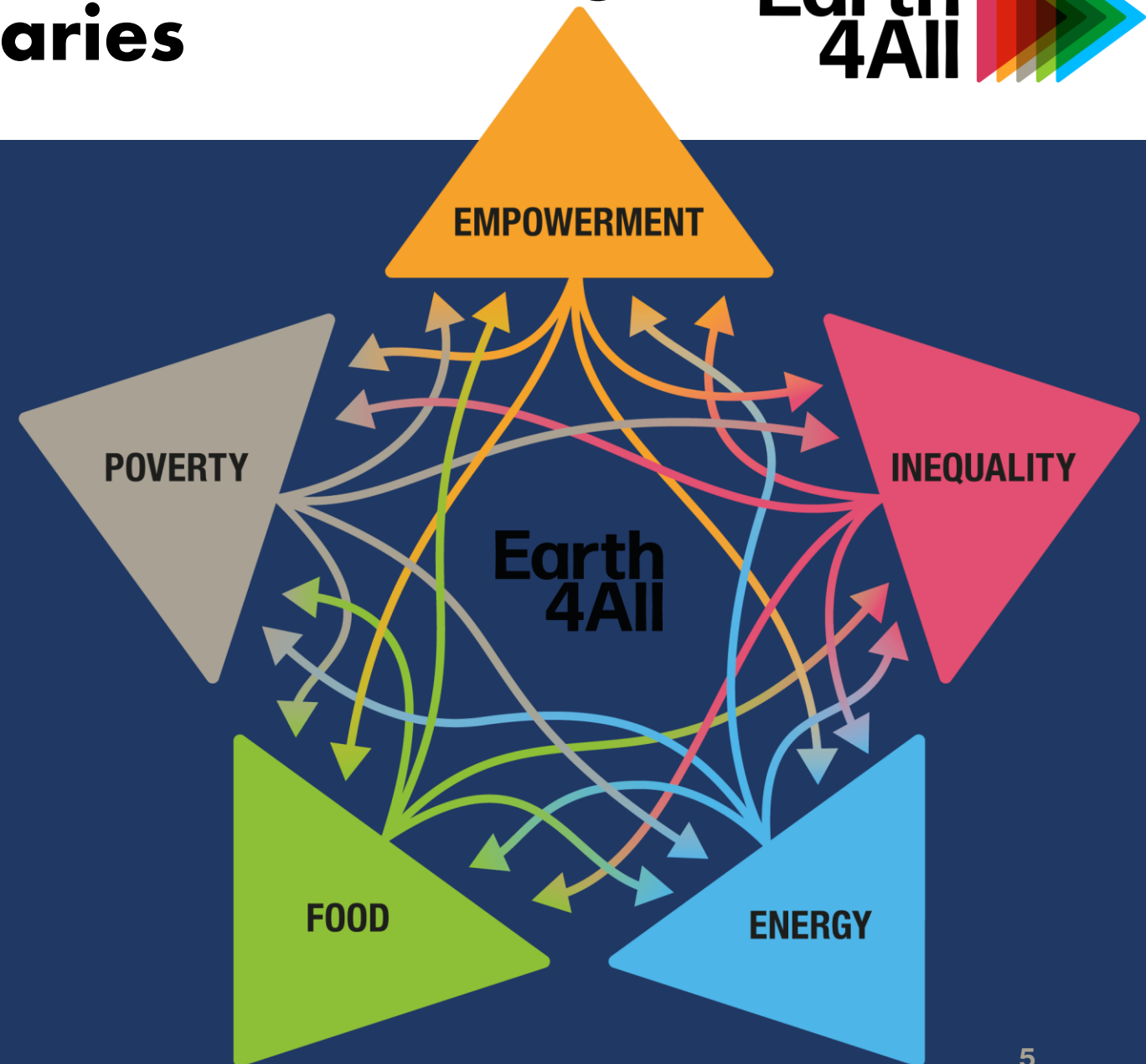
- Account for social and environmental risk in financial and economic decision-making
- Correct the inequity between high and low-income countries created by international finance and trade systems
- our perspective of public goods and socialise the rewards of environmental and social commons
- Increase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

# A systems change agenda for wellbeing within planetary boundaries

21<sup>st</sup> century  
transformational  
economics for well  
being



Global and regional  
system modelling

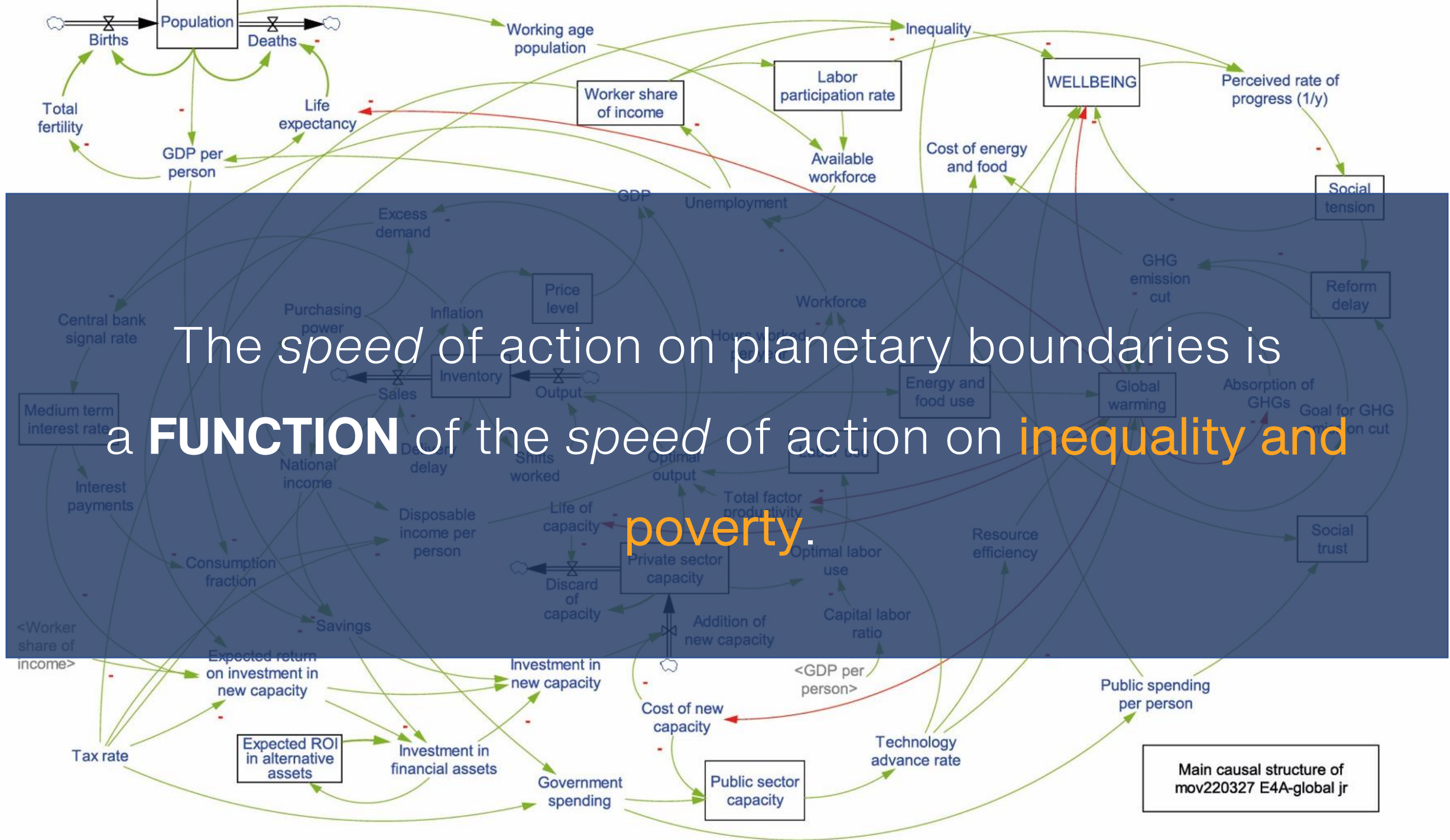




# The Earth4All model



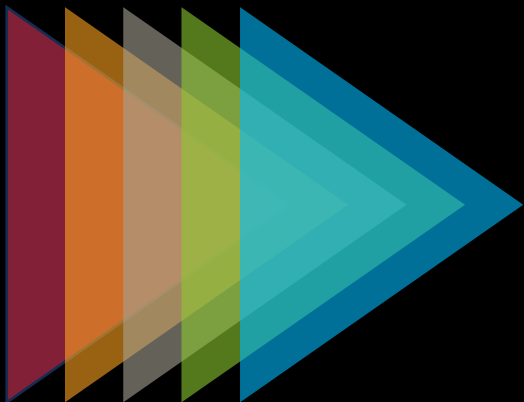
- We investigate the distributional effects in terms of owner & worker share of output from both private investment and public sector activities, confirming the preliminary evidence in favor of the relevance of distributional patterns for the determination of sustainable policy-making (Rao et al, 2017)
- 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)
- We model an active public sector with public infrastructure capacity, welfare policies and an active climate-change mitigation policy stance (Mazzucato, 2021)
- 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)
- We are able to simulate a recurrent 10-year unemployment cycle and its macroeconomic consequences, a global first (Ciarli & Savona, 2019)
- 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)
- 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 speed of action on planetary boundaries is  
a **FUNCTION** of the speed of action on **inequality and poverty**.

Main causal structure of  
mov220327 E4A-global jr





Just

2-4%

of global income is  
needed to invest in a  
better future.

Earth  
4All



Our **societies** will  
become more resilient  
to the consequences  
of climate change if we  
take a **Giant Leap**



WILDFIRES



FLOODS



HURRICANES

**Too Little Too Late:** Earth reaches  
a catastrophic 2.5 C before 2100.  
Wildfires, floods and other extreme  
events become a regular  
occurrence by mid-century.



**Giant Leap:** Societies are more  
resilient. Extreme weather events  
come and go without toppling  
entire nations.



Source: *Earth for All: A Survival Guide for Humanity* (2022)  
[www.earth4all.life](http://www.earth4all.life)

Earth  
4All

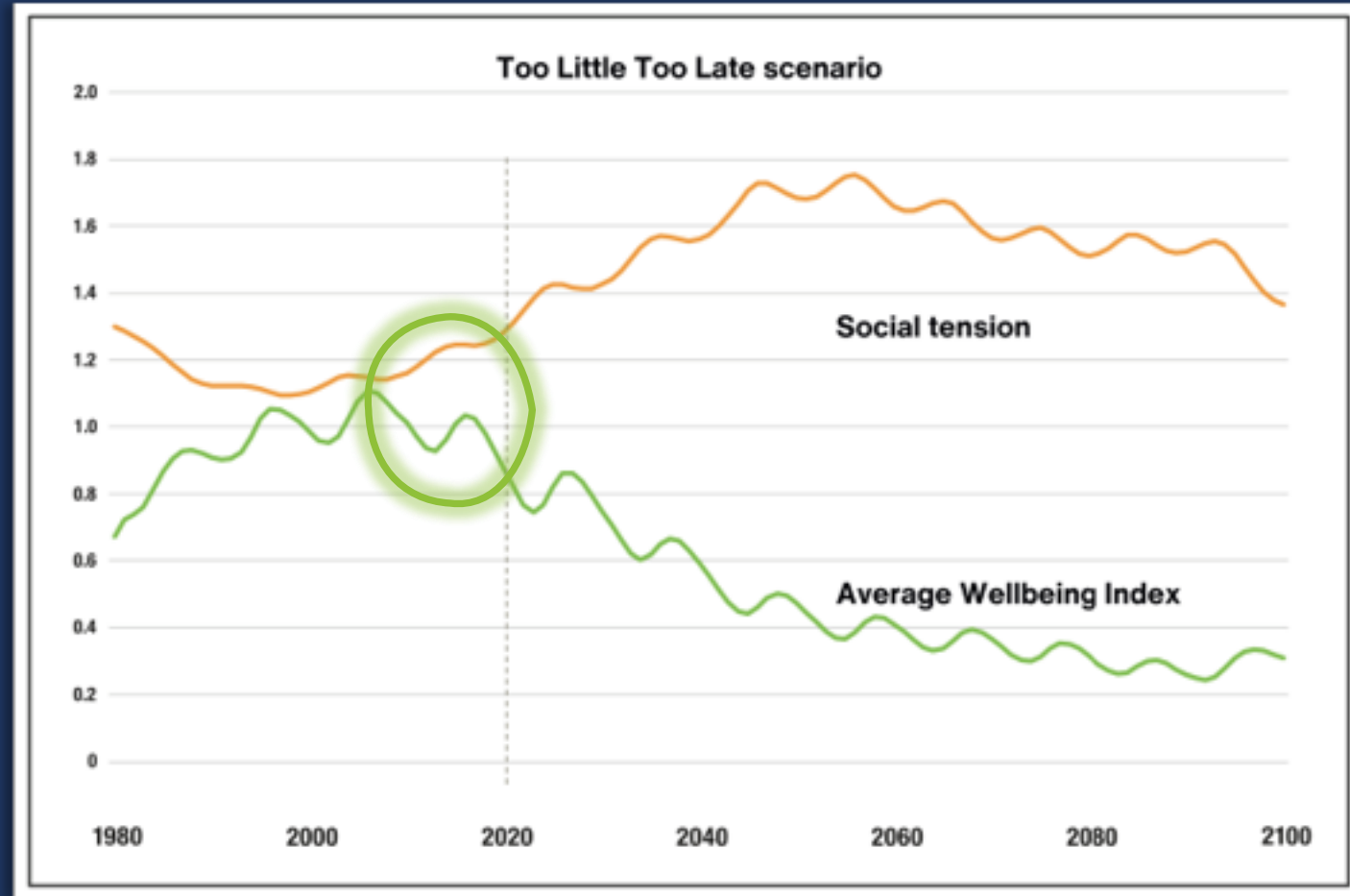




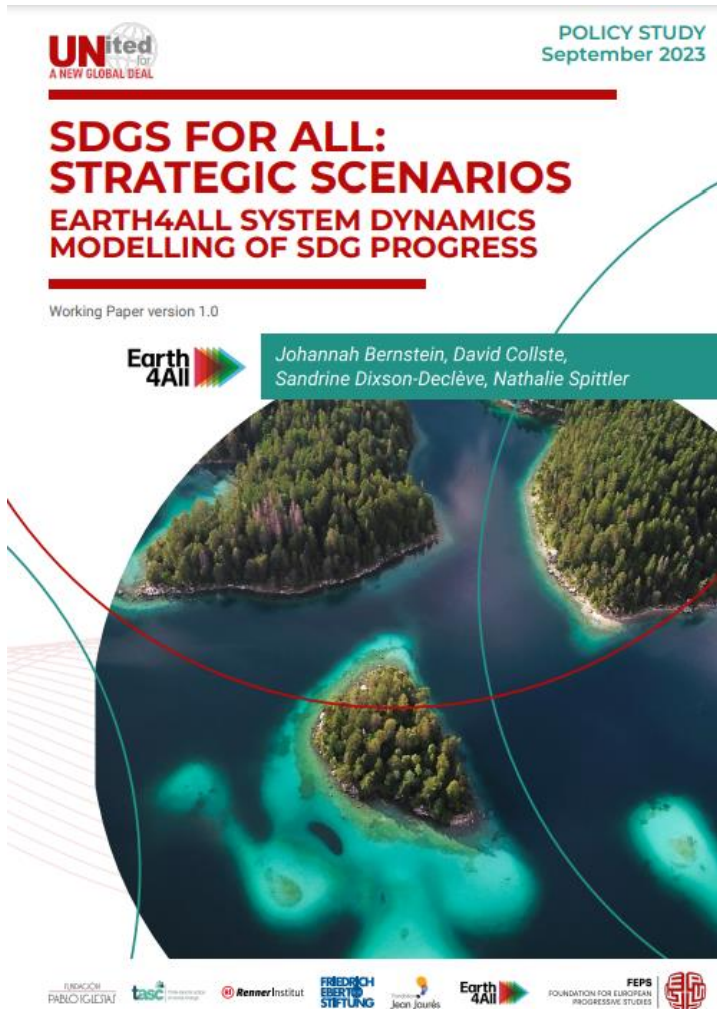
# Global wellbeing is declining

74% of G20 citizens want a well  
being economy\*

\*Ipsos Mori survey 2020



# SDG4All: A new vision for the SDG's

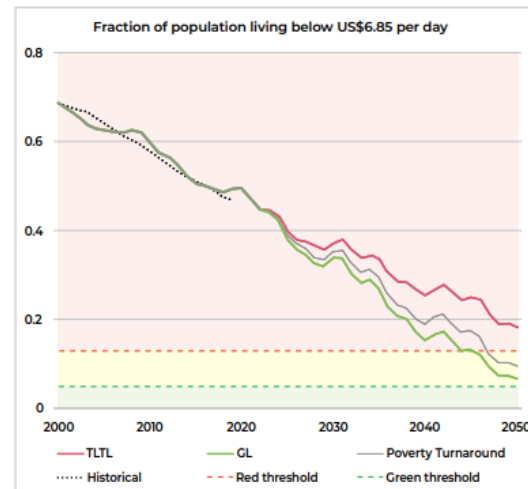


## How to read the Earth4All model graphs:

**Indicators:** only one indicator is used per SDG, chosen out of those in our model that best reflects the SDG in question

**Trend Lines:** four scenarios are modelled; Historical Data (dotted), Too Little Too Late, Giant Leap, and the specific turnaround, e.g. Poverty

**Thresholds:** green thresholds (dashed) represent highest level of attainment in relation to the actual goal. The red thresholds (dashed) demonstrate only partial goal attainment



### RED ALERT 1

The gender gap is 230 years behind schedule

The dire situation of gender inequality in both the scenarios is greatly concerning. Current numbers show that the share of

### RED ALERT 2

Climate goals will not be reached under either scenario

The reality of overshooting climate goals in both the Too Little Too Late and Giant Leap scenarios gives serious cause for concern and calls into question the lack of emergency planning to address climate change including growing shocks and stresses. Even with massive emissions reductions, global warming is on track to reach 1.5°C in the early 2030s. It is time to heed the call of Secretary-General António Guterres for all countries to declare a state of climate emergency until the world has reached net-zero CO2 emissions.

Equally important, we need governments to step up their ambition levels at UNFCCC COP28 and agree to:

- ▶ fast track our global transition to clean energy and decarbonisation by accelerating fossil energy phase out and fossil energy subsidy repurposing
- ▶ support vulnerable communities to adapt
- ▶ transform climate finance to support vulnerable communities to rebuild after climate-related disasters.<sup>15</sup>

me increases before levelling improvement scenario. At 42% by 2050, there is only approximately 11 years behind need to be a start under equality the Giant Leap, by turnaround and prosperous

# SDG 1 Poverty

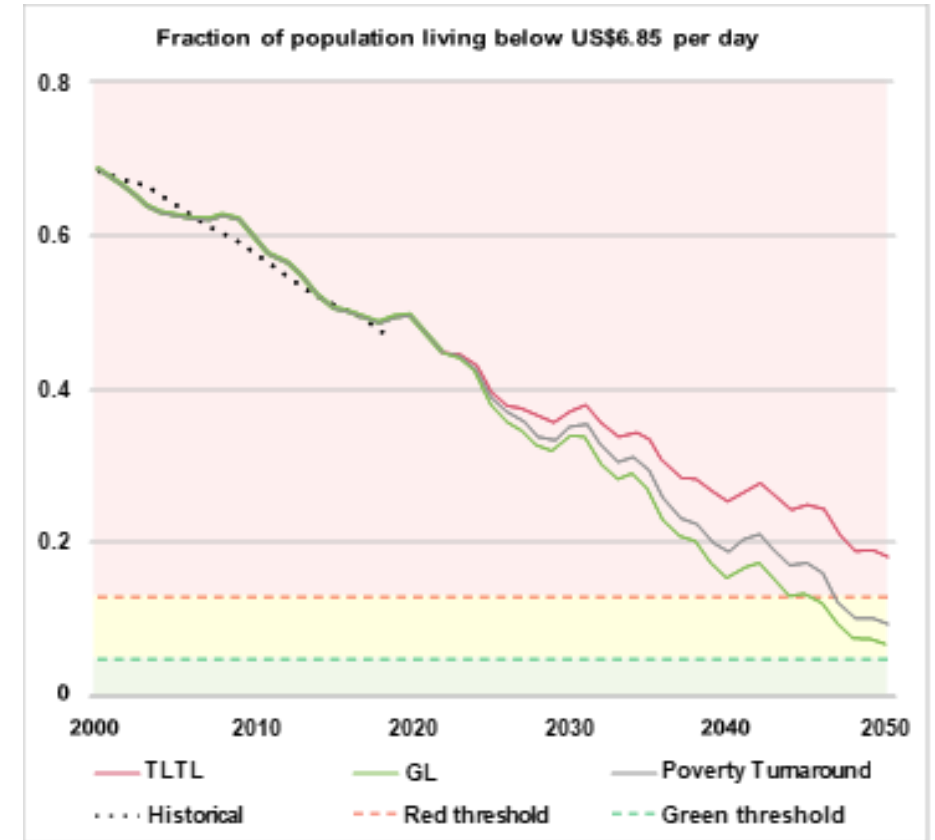
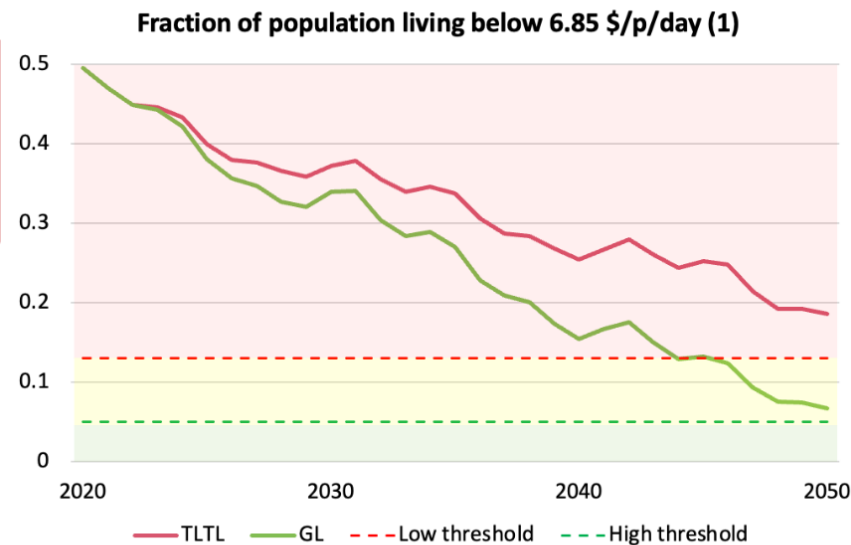
## SDG 1: Poverty

### Too Little Too Late

Poverty reduces slower than past trends due to increased inequality. Still around 20 % in 2050.

### Giant Leap

Poverty declines steeply to only 7 % by 2050. 1 billion fewer poor than in Too Little Too Late!



# SDG3 Healthy Lives and Well Being for all

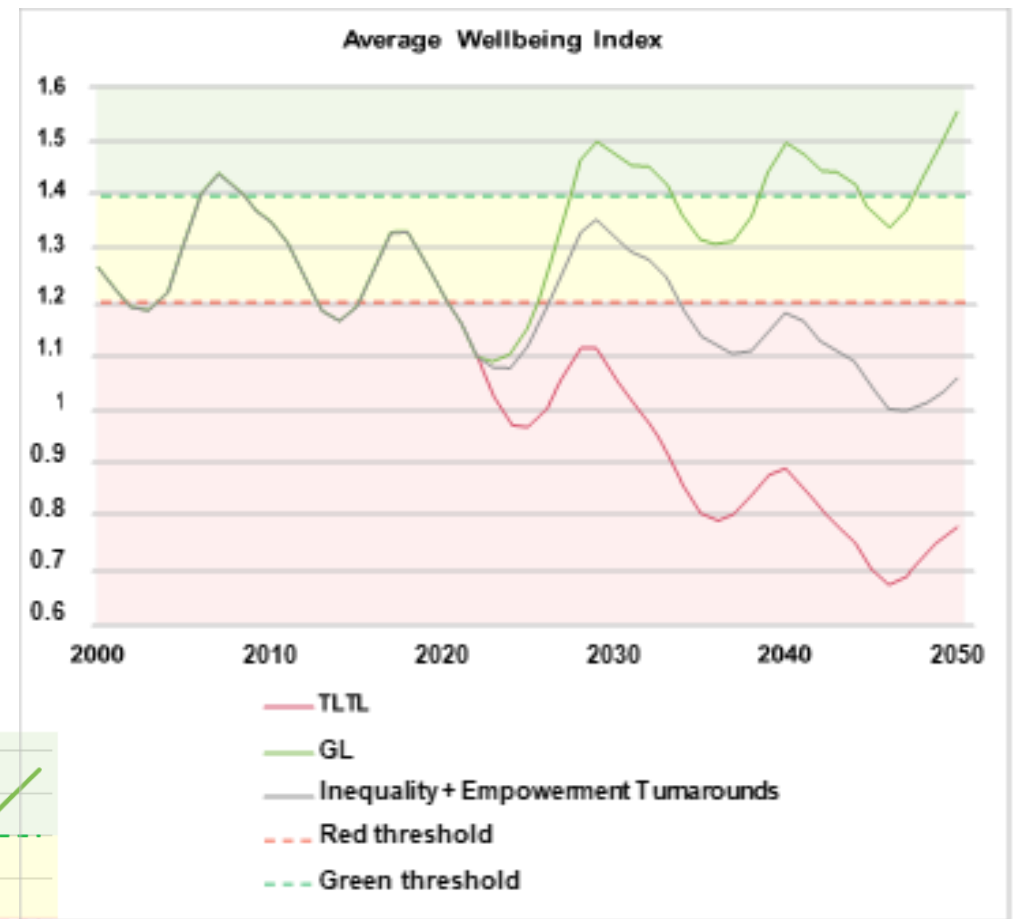
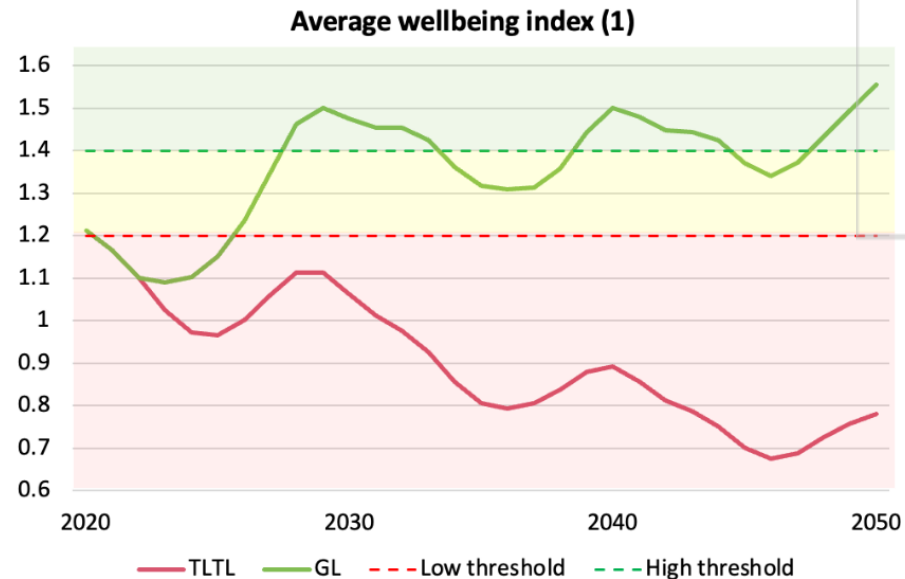
## SDG 3: Wellbeing

### Too Little Too Late

Wellbeing drops:  
increased inequality  
and global warming

### Giant Leap

Wellbeing increases:  
elimination of poverty,  
lowered warming and  
reduced inequality



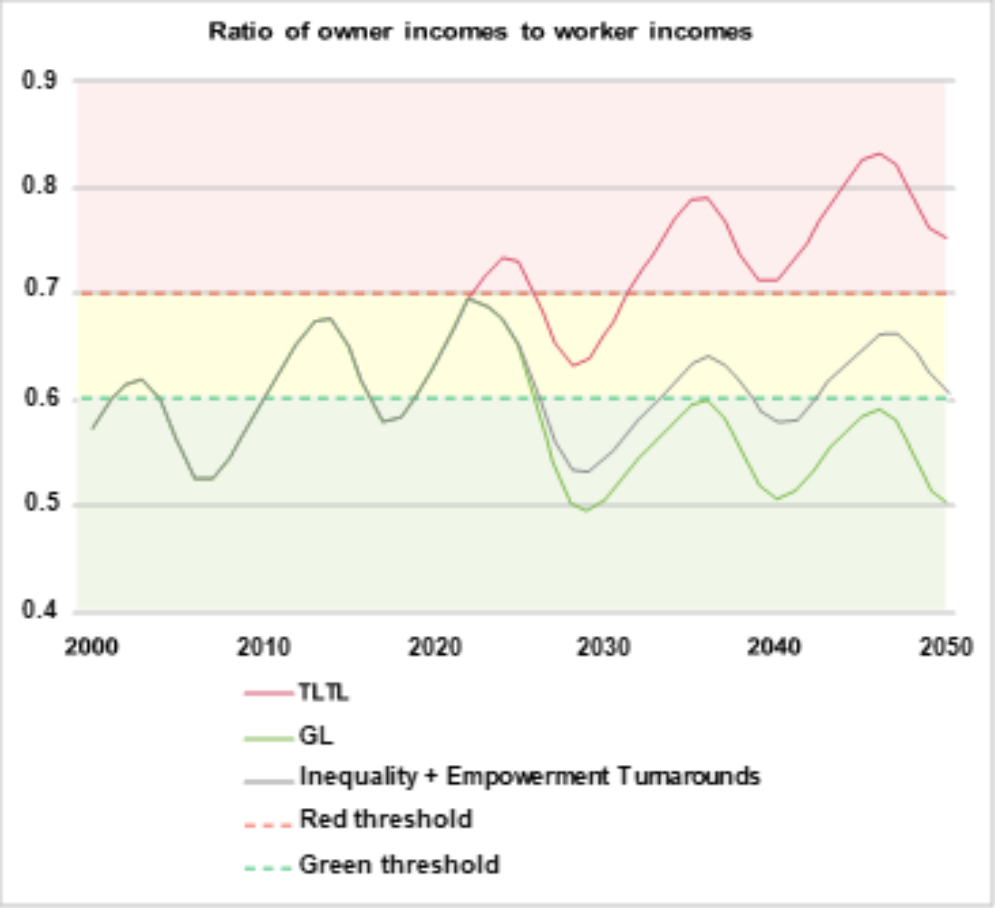
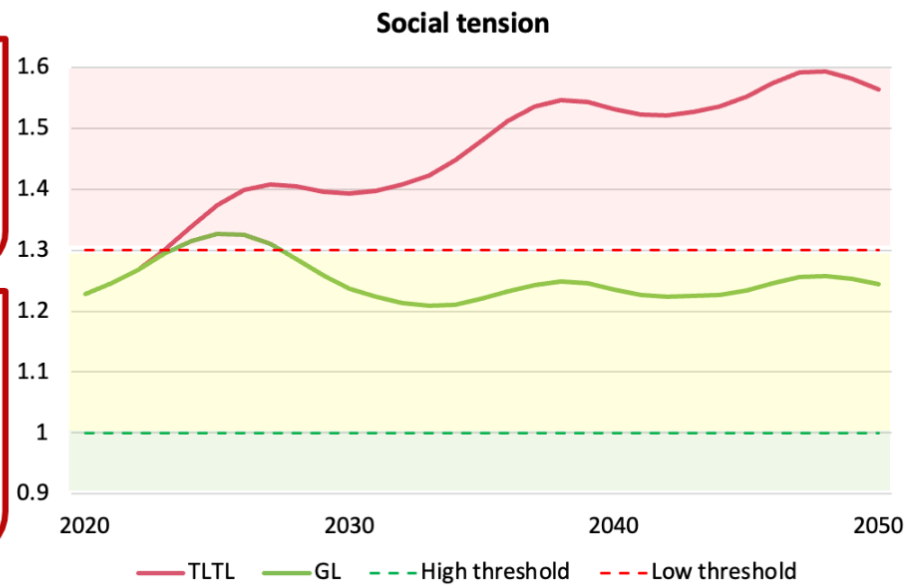


# SDG 17 Promoting a Sustainable World

## SDG 17: Social tension

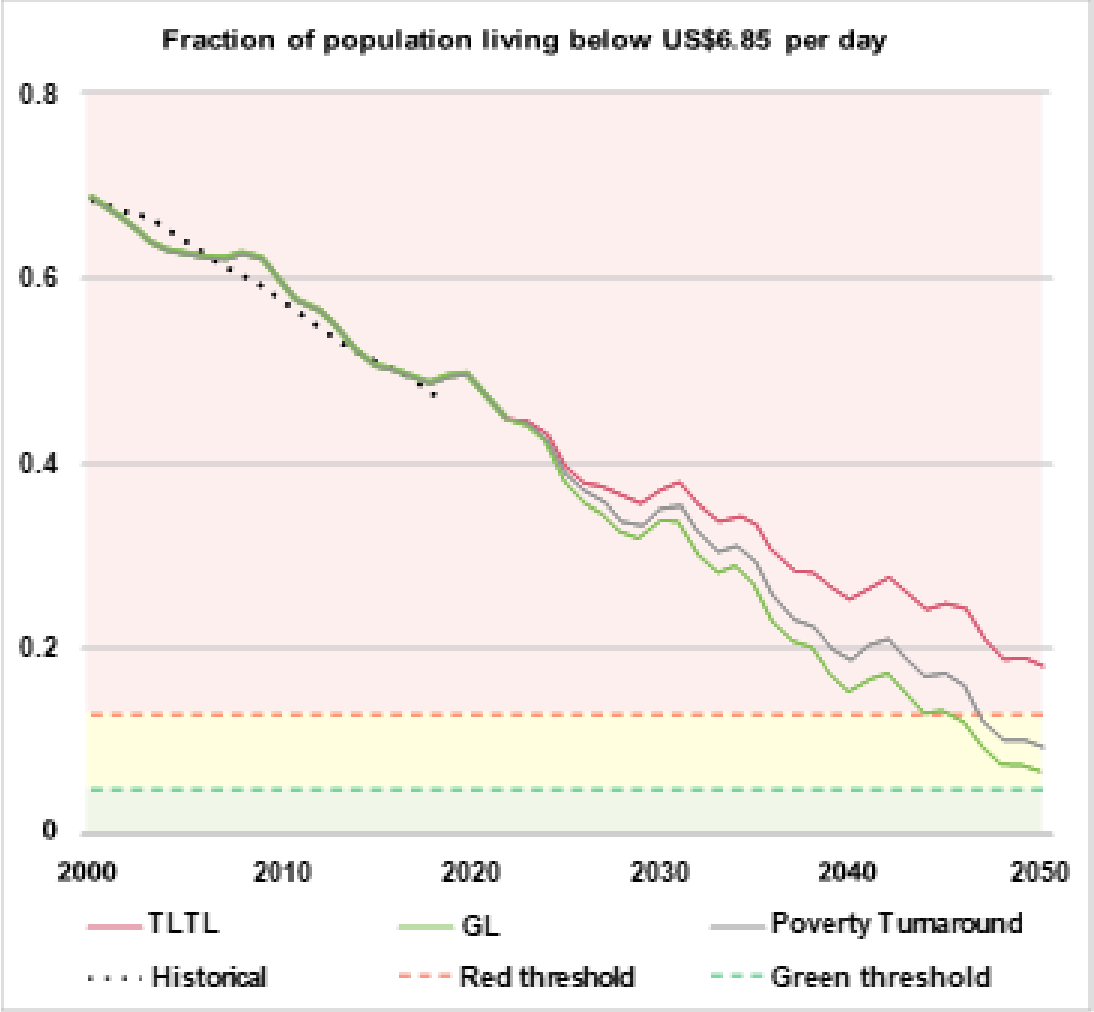
**Too Little Too Late**  
Social tension trends upwards, reaching alarming levels well beyond current 1.3.

**Giant Leap**  
The upward trend halts in 2025, and plateaus around current levels, dipping slightly by 2050.



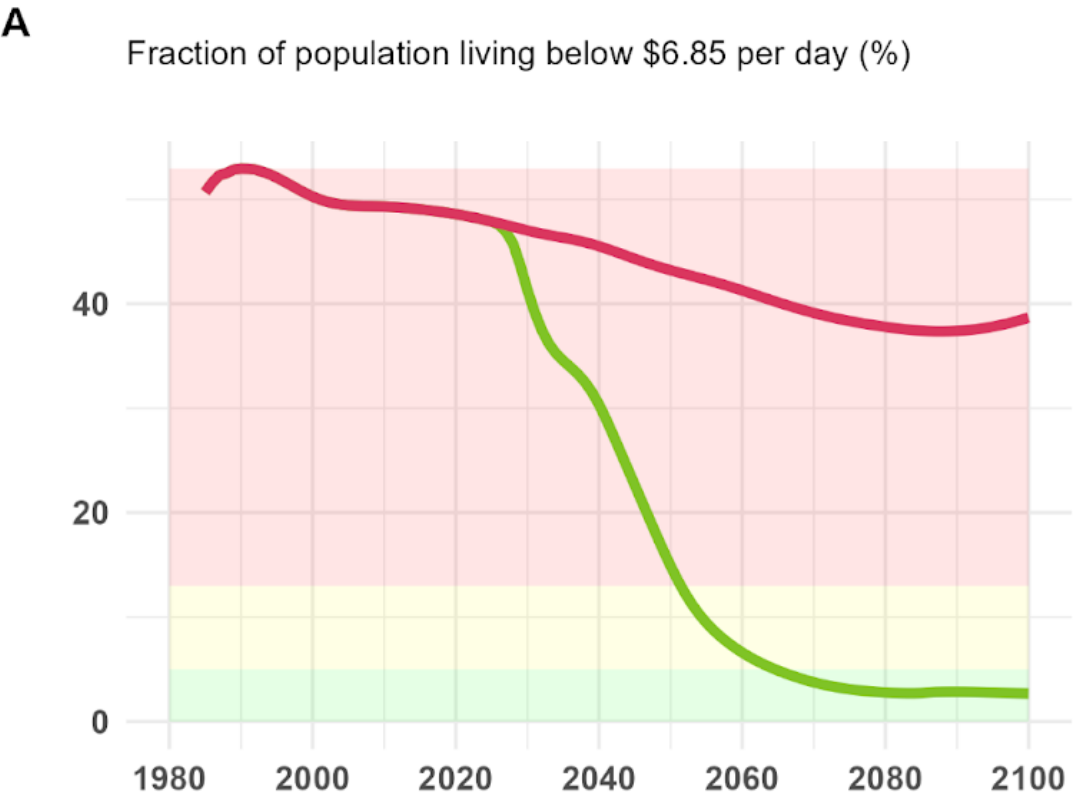
# We can turn poverty around with 1 billion less people in poverty by 2050 (Global vs African regional result)

Global Results



Regional Results

SDG-1: No poverty - Africa South of Sahara





# The Five Turnarounds, their SDG Clusters & Policy Interventions

	Poverty Turnaround	Inequality Turnaround	Empowerment Turnaround	Food Turnaround	Energy Turnaround
SDGs	SDG 1 Poverty SDG 2 Zero Hunger SDG 6 Clean Water Sanitation	SDG 3 Health and Wellbeing SDG 4 Quality Education SDG 5 Gender Equality SDG 8 Decent Work and Economic Growth	SDG 10 Reduced Inequalities SDG 16 Peace, Justice and Strong Institutions SDG 17 Partnership for the Goals	SDG 12 Sustainable Consumption and Production SDG 14 Life Below Water SDG 15 Life on Land	SDG 7 Clean Energy SDG 9 Industry, Innovation and Infrastructure SDG 11 Sustainable Cities and Communities SDG 13 Climate Action
POLICY LEVERS	<ul style="list-style-type: none"><li>Expand the fiscal space</li><li>Global financial architecture</li><li>Address trade deficits</li><li>Clean technology and leapfrogging</li><li>New economic indicators</li></ul>	<ul style="list-style-type: none"><li>Stronger progressive taxation</li><li>Strengthened labour rights and trade unions' negotiating power</li><li>Safety nets and innovation nets</li></ul>	<ul style="list-style-type: none"><li>Gender equality</li><li>Investment in education</li><li>Gender equality in leadership positions</li><li>Universal social protection</li></ul>	<ul style="list-style-type: none"><li>Repurpose agricultural subsidies.</li><li>Shift food production</li><li>Localised consumption, food sovereignty, and farmworker rights</li><li>Supply chain efficiency</li></ul>	<ul style="list-style-type: none"><li>Triple Investment in renewables and efficiency</li><li>Concessional climate financing</li><li>Redirect fossil fuel subsidies</li><li>Global price on carbon</li><li>Access to safe, affordable energy</li></ul>

# Overarching insights from our SDGs for All system dynamics modelling



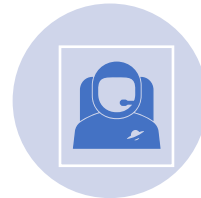
This modelling work has enabled us to ask profound “what-if” questions: 1. What if economic policy continues on the same track it has for the last forty years. 2. What if societies make extraordinary decisions and invest in building more resilient societies?



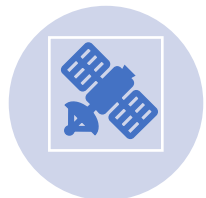
Addressing these questions and working with the Too Little Too Late and Giant Leap scenarios has enabled us to create different versions of possible futures. We explore how the world might evolve under different sets of assumptions



The stability and resilience of the Earth system and human well-being are inseparably linked, yet their interdependencies are generally under-recognized.



The pathway for ensuring a sustainable, prosperous, and equitable future for all within planetary boundaries depends on the speed, synergies and simultaneous action at which we address growing inequality and injustice.



The Giant Leap (GL) scenario is the only way out of the current planetary emergency and the only pathway for attaining the majority of SDGs. The synergistic effects of the GL policy interventions are crucial for success.



The big lift requires a shift away from today’s extractive economy dominated by GDP growth to wellbeing economies that place a value on people, planet and prosperity. This means pivoting away from growth at all costs to a new growth paradigm, which embraces an economic development fostering prosperity for the many – not just the few – within the planetary boundaries.



THIS IS THE DECISIVE  
DECADE!

“ THERE IS TOO MUCH BAD  
NEWS TO JUSTIFY  
COMPLACENCY. THERE IS  
TOO MUCH GOOD NEWS TO  
JUSTIFY DESPAIR “

D. MEADOWS

### Earth4All: one future, two scenarios, one choice

New York | September 2022



Coauthors of Earth for All joined a [live broadcast](#) to present the five extraordinary turnarounds needed to achieve wellbeing for all within planetary boundaries. Per Espen Stoknes and Sandrine Dixson-Declève introduced the scenarios for the future and the policies and commitments we need from leaders in order to move towards a future of wellbeing for all followed by reflections from Gaya Herrington, Fadhel Kaboub and Amanda Janoo.

### Earth4All at the New York Stock Exchange

New York | September 2022



In collaboration with partners Newday Impact and Pottinger, authors of Earth for All joined the Newday team in ringing the honorary New York Stock Exchange [closing bell](#).

### Swiss Green Economy Symposium

Switzerland | September 2022



Ernst Ulrich von Weizsäcker and Till Kellerhoff presented Earth4All at this symposium in Winterthur.



### UK Parliament book launch

October 2022



In collaboration with the All-Party Parliament Group (APPG) on *The Limits to Growth*, chaired by MP Caroline Lucas, the book was launched at a special event at the House of Lords in London. The evening brought together Members of Parliament and representatives of Earth4All to discuss its policy implications.

### Five extraordinary turnarounds to save the world

Norway | October 2022



As part of the [Norwegian launch](#), Earth for All authors were joined by policy makers to discuss the role of Norwegian business and Scandinavian governments in taking a Giant Leap. Speakers included Jonas Gahe Støre, Prime Minister of Norway.

### Earth4All youth solutions forum

Argentina | October 2022



On 7-9 October the [Local Conference of the Youth \(LCOY\) ARG](#) took place in Argentina, bringing together climate leaders and activists from all around the country. Earth4All and The 50 Percent ran a 2-hour workshop with 70 participants for an introduction to economics systems change in relation to climate change and inequality. This was followed by a deliberative discussion focused on solutions and ways forward.



### Outreach

### Media coverage around launch

431 Press releases  
17M Social media  
4.79K Engagements  
6.28B Impressions  
50 Transcripts



### Selection of launch creative comms

# Thank you!

