Sustainability summit

05 November 2019

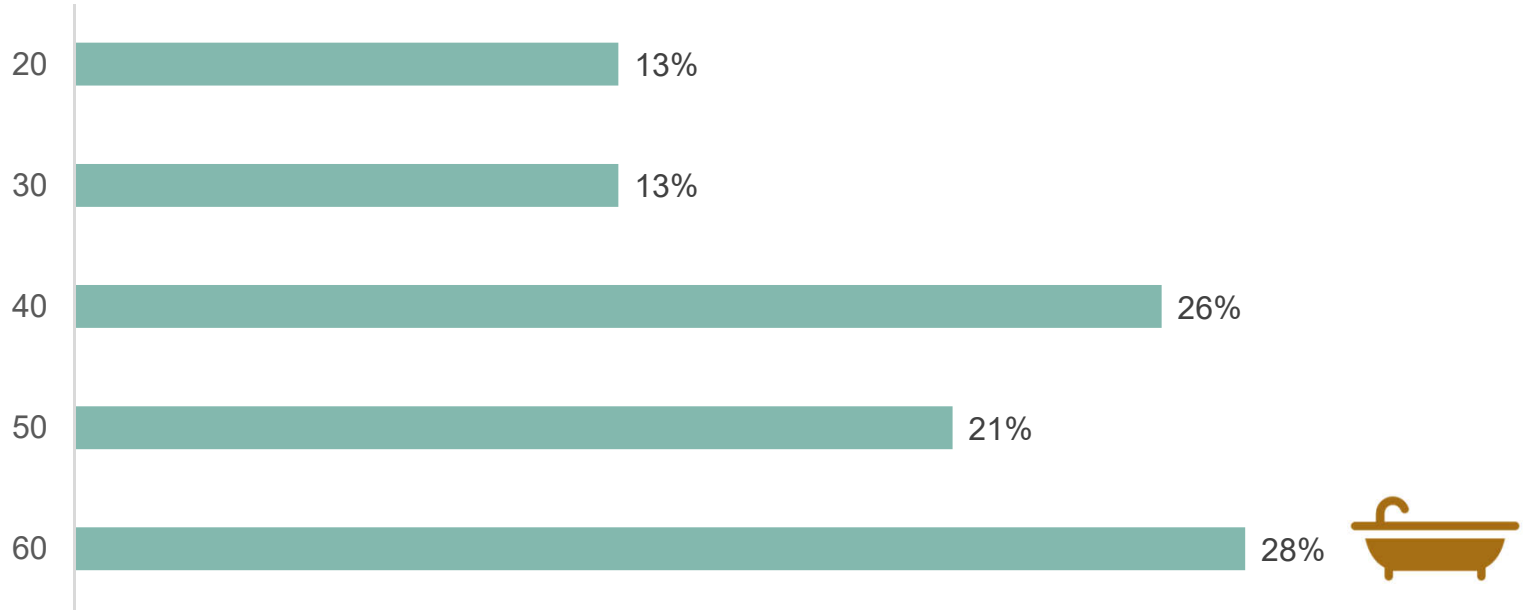
Thinking Ahead Institute

Willis Towers Watson

Sustainability summit
Objectives

- Learn from academic experts
- Explore what we can do in practice
- Develop a list of practical, actionable takeaways

You save more water by not eating 450 grams of hamburger meat than you would by not showering for ____ days.



Total votes: 39

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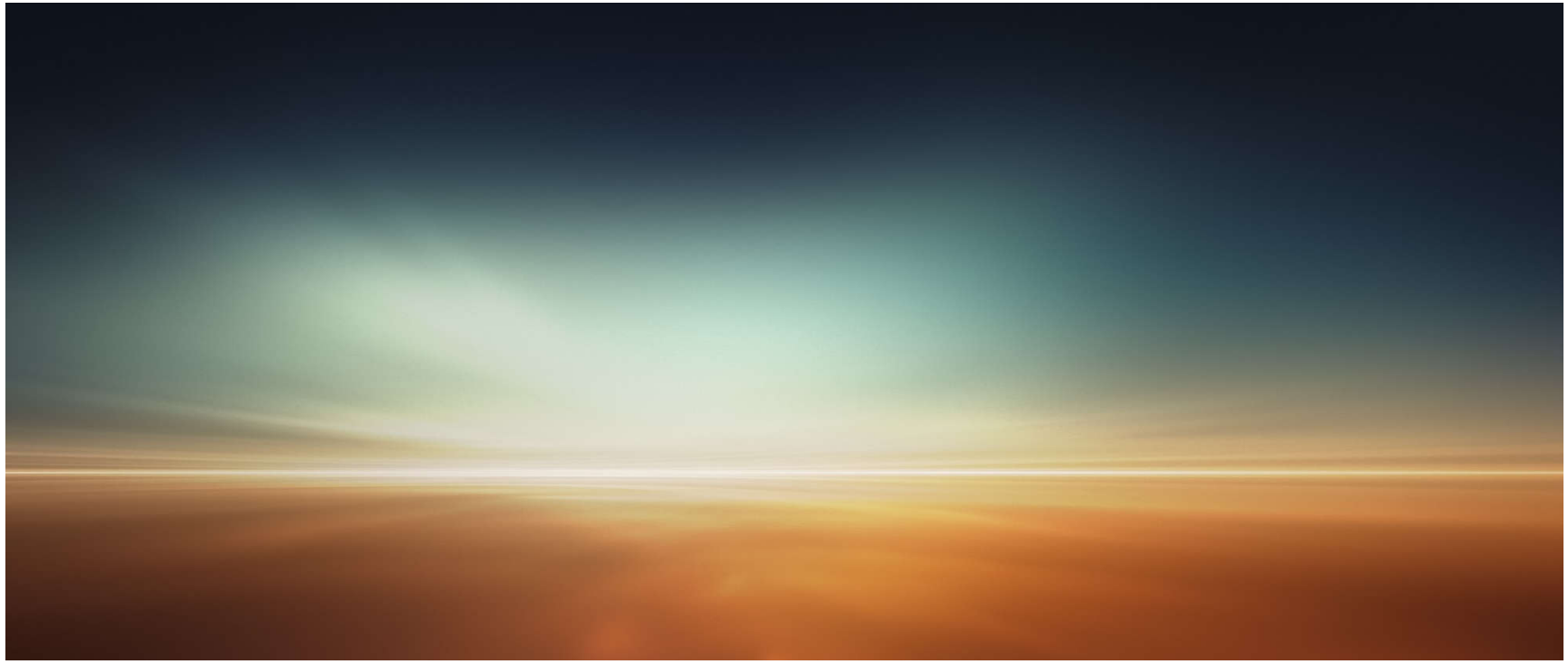
Agenda

Time	Session	Presenter
9:00	Welcome and introductions	Tim Hodgson
9:30	Sustainability beliefs	Roger Urwin
10:30	*Break*	
11:00	Spotlight topic 1 – climate change	Tim Lenton
12:30	*Lunch*	
13:30	Spotlight topic 2 – corporate stewardship in pursuit of the SDGs	Mike Berners-Lee
15:00	Practitioner panel	Marisa Hall, Aled Smith, Catherine Flockhart and Russell Picot
16:00	Concluding remarks	Tim Hodgson
16:30	*Finish (drinks and canapés)*	

Sustainability beliefs

Roger Urwin



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Sustainability in investing: the concept

- Understanding of the material factors that affect long-term value creation
- Aims to generate long-term value in an efficient and balanced approach that is fair to successive generations
- Sees success as achieving a balance of objectives: the maximisation of risk-adjusted financial return and creating positive impact in extra-financial outcomes
- Emphasises governance and stewardship as coping mechanisms

The need for investment beliefs

- Asset owners have to mix a number of distinct strands to build the sustainable strategy that meets their mission
- These multi-strand elements are difficult to integrate into a coherent sustainable strategy
- The conflation of these elements, with their mixed motives and timescales in particular, can often result in cognitive dissonance producing misalignment of mission and strategy
- Dealing with this requires strong governance processes to achieve mission clarity in which beliefs will be a fundamental element.

Effective belief systems

- Beliefs are high level principles and subjective thinking that guide the organisation to certain types of decisions and content
- Effective beliefs are aligned (collective), actionable (get embedded in portfolios) and edgy (have depth and carry competitive advantage)
- Perfect consensus (one identical shared view) is not possible; a settlement (agreement to work to a shared view) is possible
- Beliefs include the unique context parameters of the enterprise as much as the investment content
- What beliefs cannot do is dictate the decisions and the investment priorities, in these areas critical judgement skills must come in

The UK Stewardship Code

- The code applying to UK asset managers and asset owners for adoption from 1 January 2020 under comply or explain obligations.
- It sets a standard higher than the minimum
- Introduces the mix of distinct strands to build a sustainable reporting package including purpose, culture and investment beliefs under Principle 1 opposite.
- There are 12 Principles in total

Principle 1

Signatories' purpose, investment beliefs, strategy, and culture enable stewardship that creates long-term value for clients and beneficiaries leading to sustainable benefits for the economy, the environment and society.

REPORTING EXPECTATIONS

Context

Signatories should explain:

- the purpose of the organisation and an outline of its culture, values, business model and strategy; and
- their investment beliefs, i.e. what factors they consider important for desired investment outcomes and why.

Activity

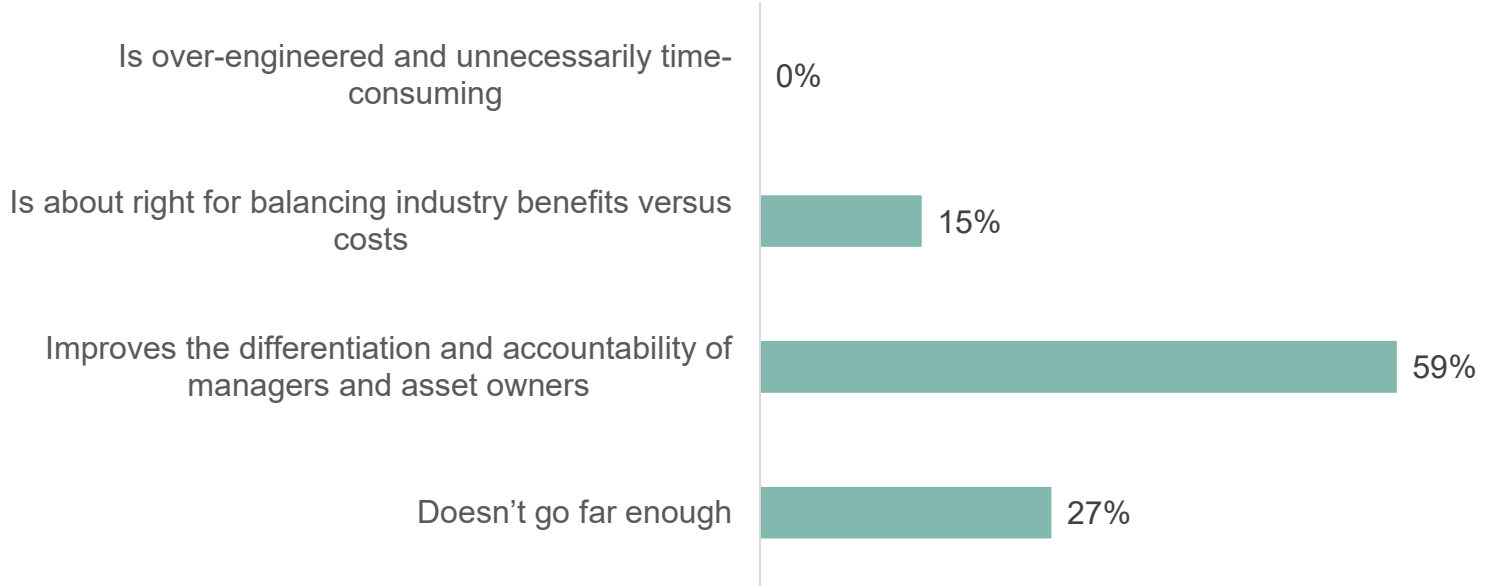
Signatories should explain what actions they have taken to ensure their investment beliefs, strategy and culture enable effective stewardship.

Outcome

Signatories should disclose:

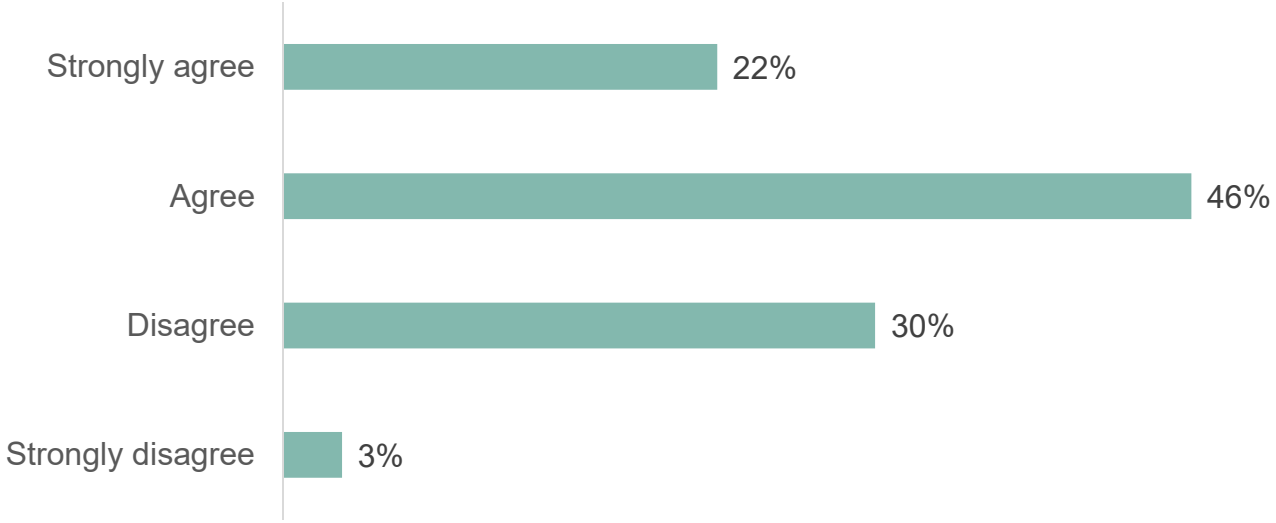
- how their purpose and investment beliefs have guided their stewardship, investment strategy and decision-making; and
- an assessment of how effective they have been in serving the best interests of clients and beneficiaries.

1. The UK Stewardship Code focus on purpose, beliefs, strategy and culture:



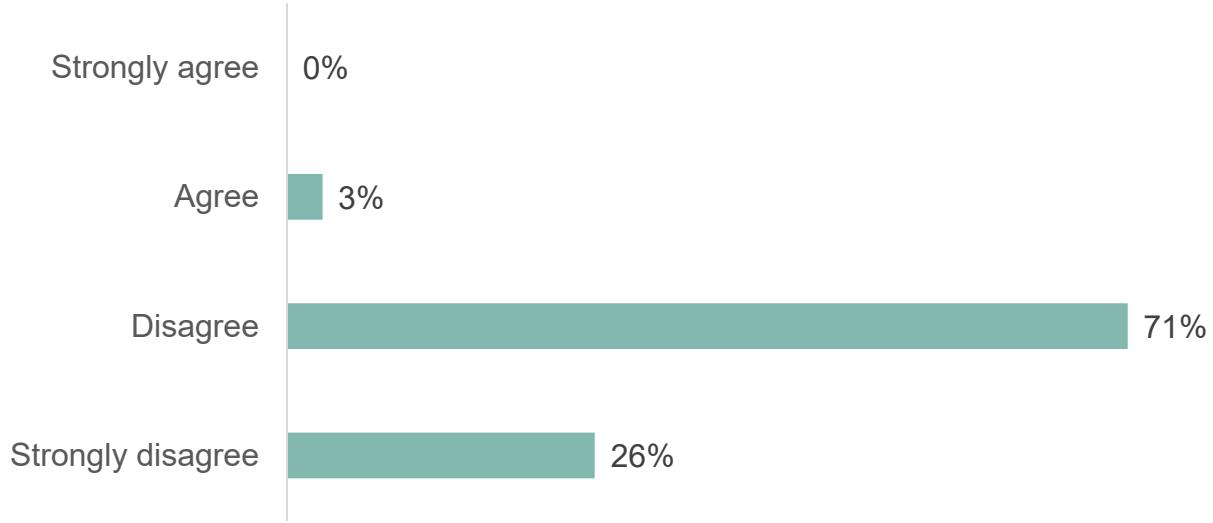
Total votes: 41

2. My investment organisation has attained appropriate levels of mission and purpose clarity.



Total votes: 37

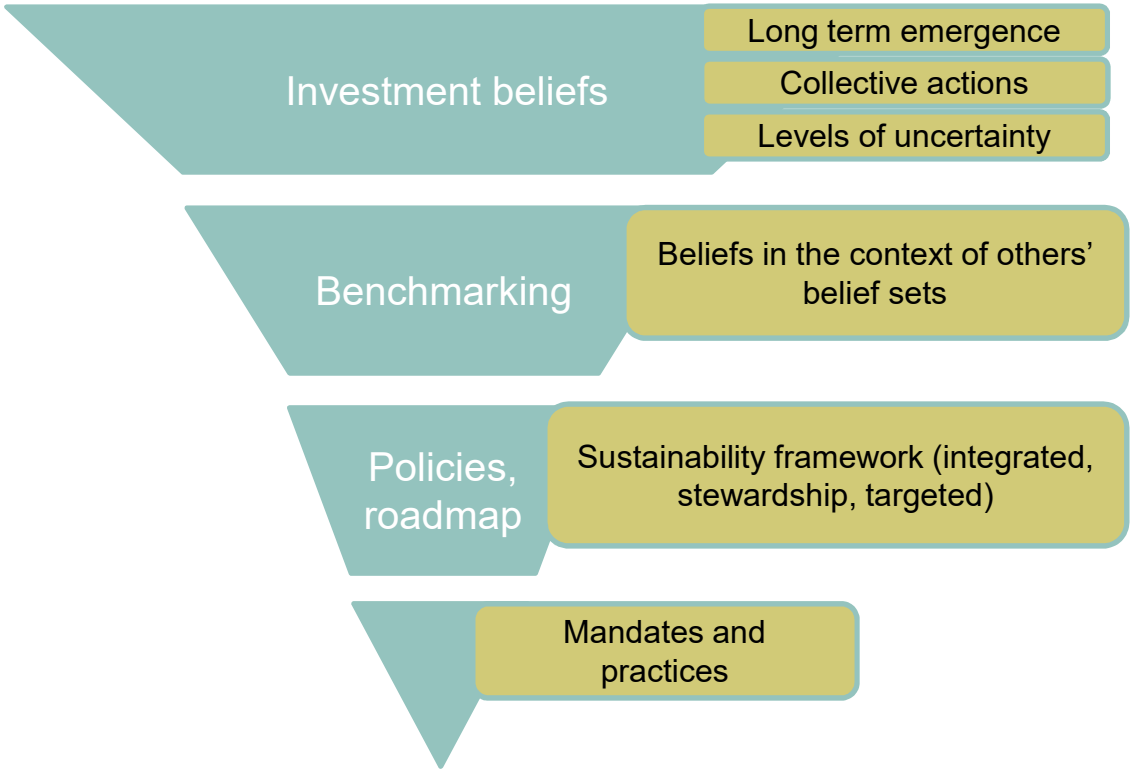
3. Investment organisations in general have attained appropriate levels of mission and purpose clarity.



Total votes: 38

Beliefs project methodology and output

Approaches to sustainability



Project summary

Survey group

- 550 responses
- From **45** organisations
- Asset managers and asset owners

About the survey:

- **36** questions, of which:
  - **32** are based on Likert scale
  - **4** offer range-based responses

Six vectors used to frame the results

Conviction

- Belief in **materiality** of sustainability factors in investment outcomes
- Belief in market **mispricing** of sustainability factors

Motivation

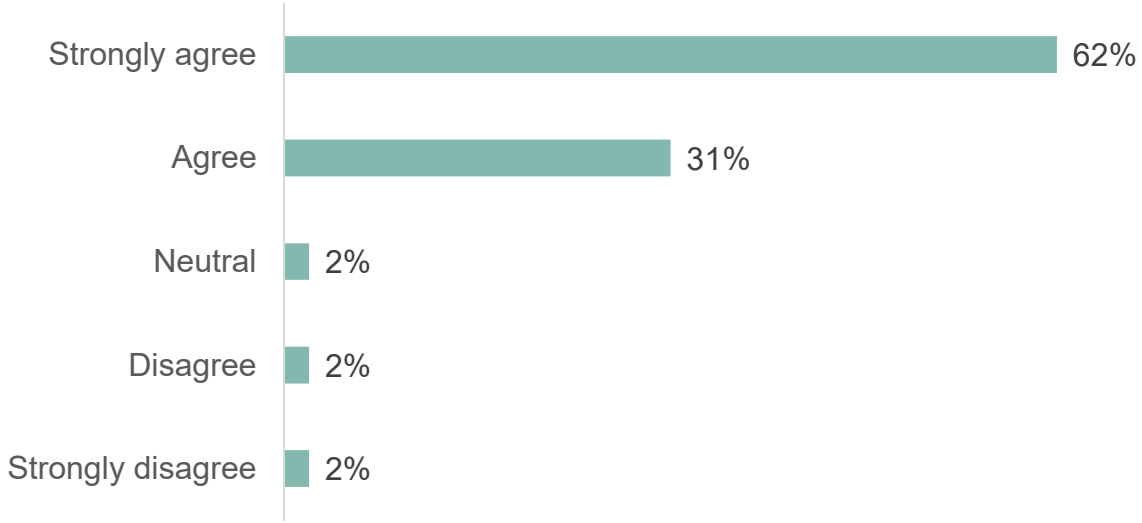
- Belief in a **financial motive** for integrating sustainability into investing
- Belief in **extra-financial motive** (eg investing for a better future) for sustainable investing

Coherence

- The degree to which an individual's responses are internally **consistent**
- The extent to which there is **uniformity** among the beliefs of individuals in the group

Beliefs project results and takeaways

4. Investors are over-sensitive to short-term factors and not sensitive enough to long-term factors. As a result, long-term factors are less efficiently priced.



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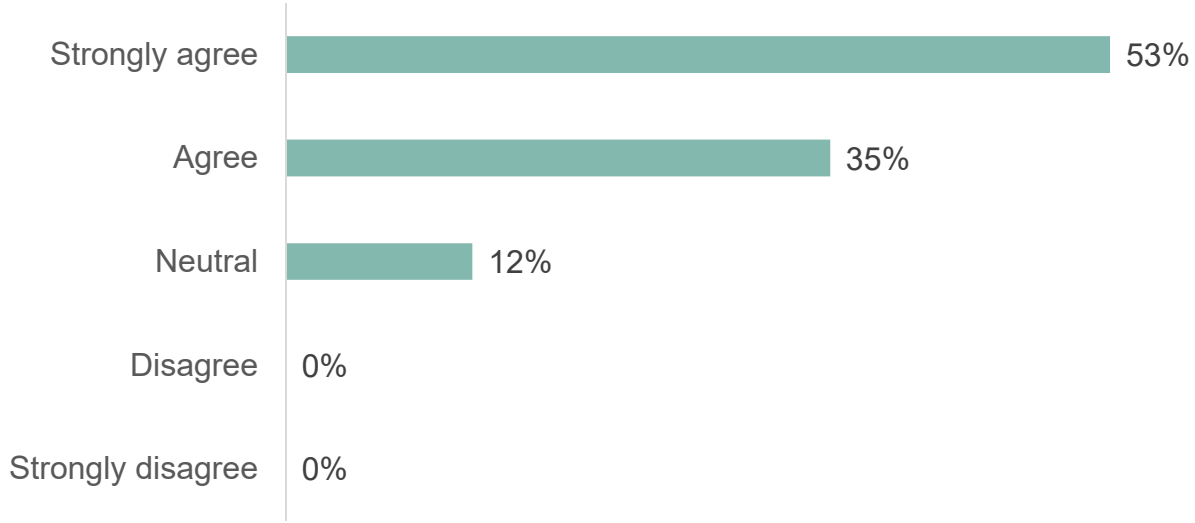
5. The market does not accurately price in ESG externalities.



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Agreement – highest

Statements with which respondents agreed most on average	% agree
14. Sustainability in investing is broader than considering ESG factors, and includes sustainability of the economic and financial system	86%
17. Systematically considering ESG issues will lead to more complete analyses and better-informed investment decisions	85%
19. The execution of ownership rights, including voting and engagement, can positively influence the performance and lower the risk of investments over time	85%
1. Investors are over-sensitive to short-term factors and not sensitive enough to long-term factors. As a result, long-term factors are less efficiently priced	82%
23. Asset owners as part of their overall responsibilities should consider direct and indirect negative impact with respect to the ESG footprint of their investments	81%
5. I am willing to accept a lower return in the shorter term to deliver higher long-term returns	80%

Agreement – lowest

Statements with which respondents agreed least on average	% agree
22. Asset owners should steer clear of non-financial considerations on the basis that financial factors should represent the only consideration	9%
2. The long term is the same as the aggregation of short terms. As a result investors can be most effective maximising the performance of a series of short-term periods	11%
16. The excess demand of investors for assets with well-managed ESG factors has made these investments higher priced and ultimately lower performing than mainstream	18%
20. The benefits of incorporating ESG principles into the investment process are unlikely to outweigh the cost of doing so	28%

Beliefs on climate change

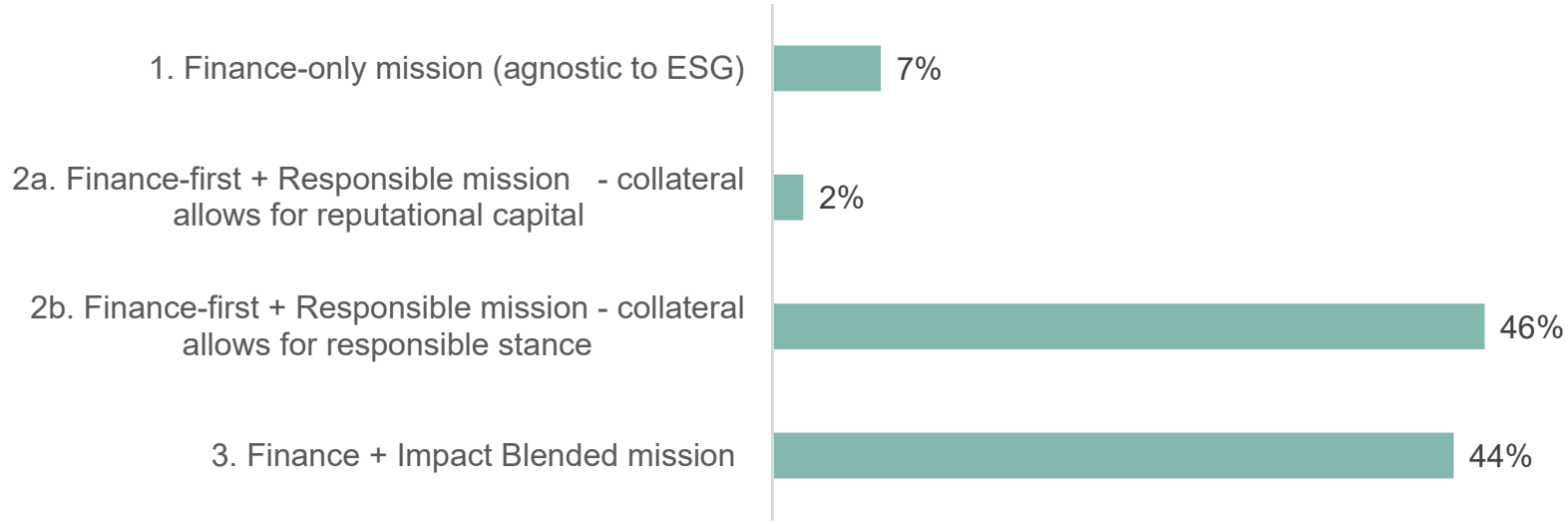
Statements from respondents on climate change	
3. The market does not accurately price in ESG externalities	69% agreement
4. ESG externalities can effectively be priced into valuations	49% agreement
30. Over what time frame will climate change create material impacts for society	10 years
31. The financial impact of climate change over the next 20 years will be	Moderate
33. Companies can gain significant competitive advantage through their strategic response to climate change and resource scarcity/degradation	77% agreement
34. There is a case to ignore stranded assets in anticipation of adaptive organisational and market responses	25% agreement

The mission buckets

- The values for Materiality, Mispricing and Motivations map to these ‘buckets’
- This also allows more accurate specification of the middle areas where funds and managers are clustered with different motivations but similar substance

1. Finance-only mission (agnostic to ESG)	2a. Finance-first + Responsible mission - collateral allows for reputational capital	2b. Finance-first + Responsible mission - collateral allows for responsible stance	3. Finance + Impact Blended mission
Mission is solely focused on financial goals	Mission is ‘responsible’ - includes ensuring license to operate and managing reputational capital Conviction that likely to produce no significant financial detriment	Mission is ‘responsible’ - includes having a positive ESG footprint and doing what underlying investors would wish Conviction that likely to produce no significant financial detriment	Mission is more explicitly concerned with non-financial impacts Conviction that the financial detriment from including non-financial impacts is limited

6. The mission that seems best placed to deliver an ‘ideal’ pension fund system is:



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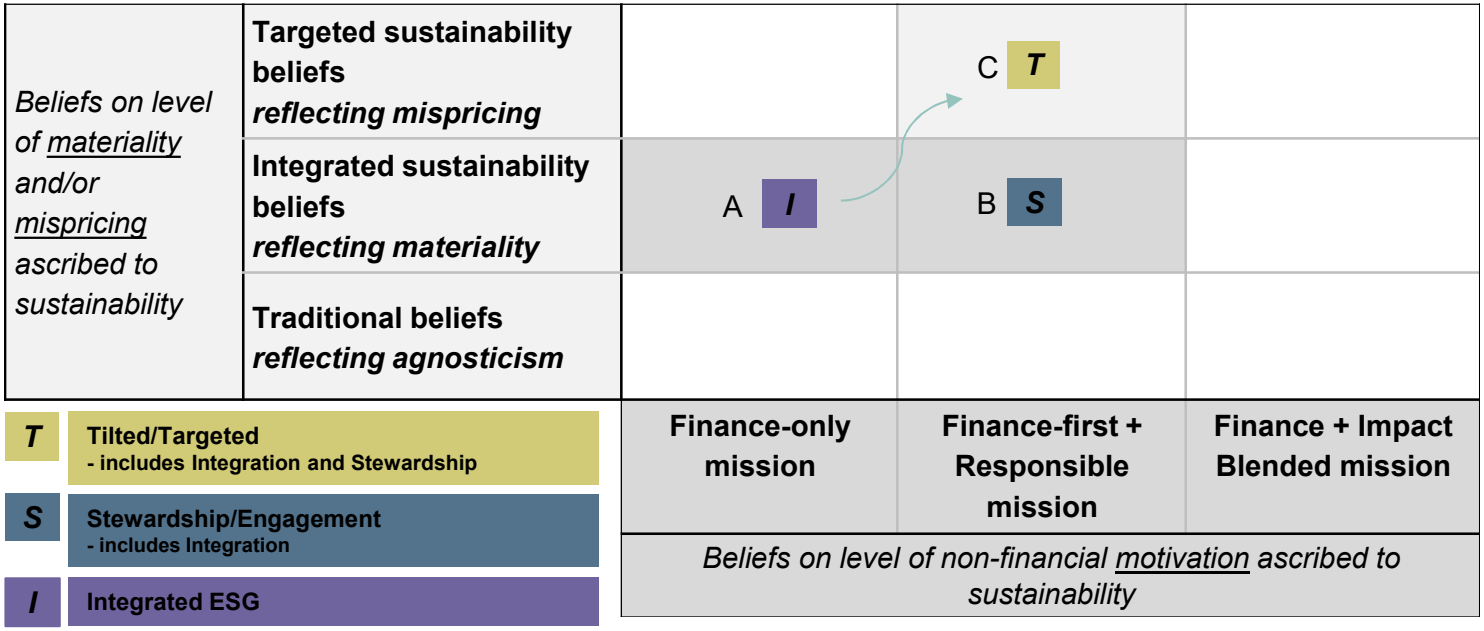
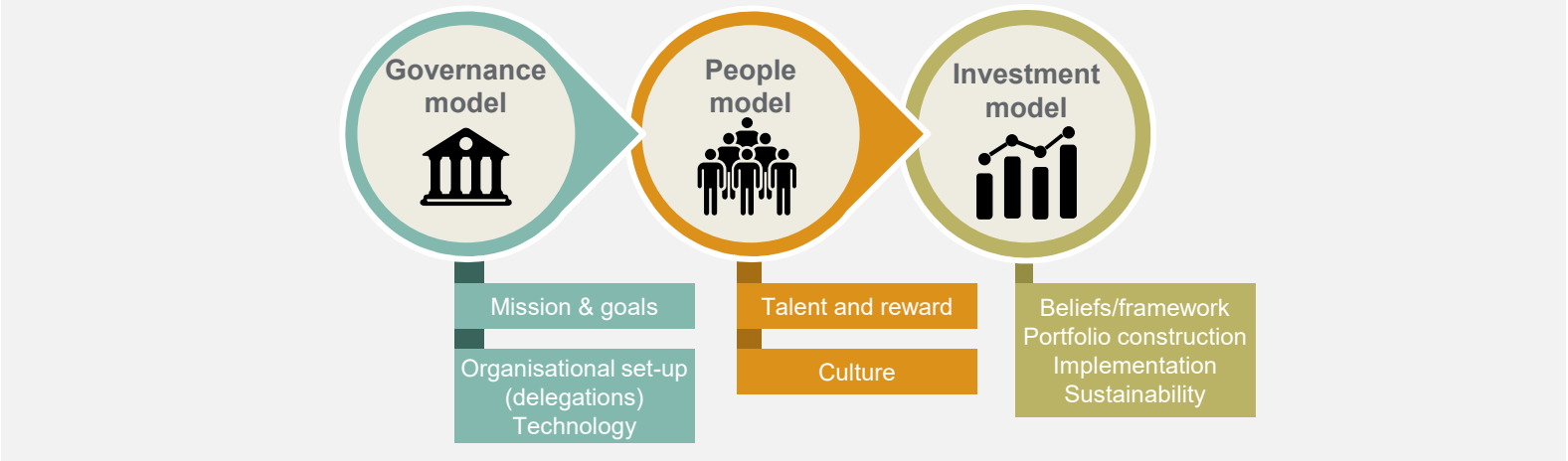
Where are asset owner funds positioned on sustainability?

- Asset owners now count for close to $100trn on a definition of pensions, SWFs and insurance
- But with limitations in long horizon investing and sustainability and particular problems lie in fiduciary duty, sustainability data and achieving impact

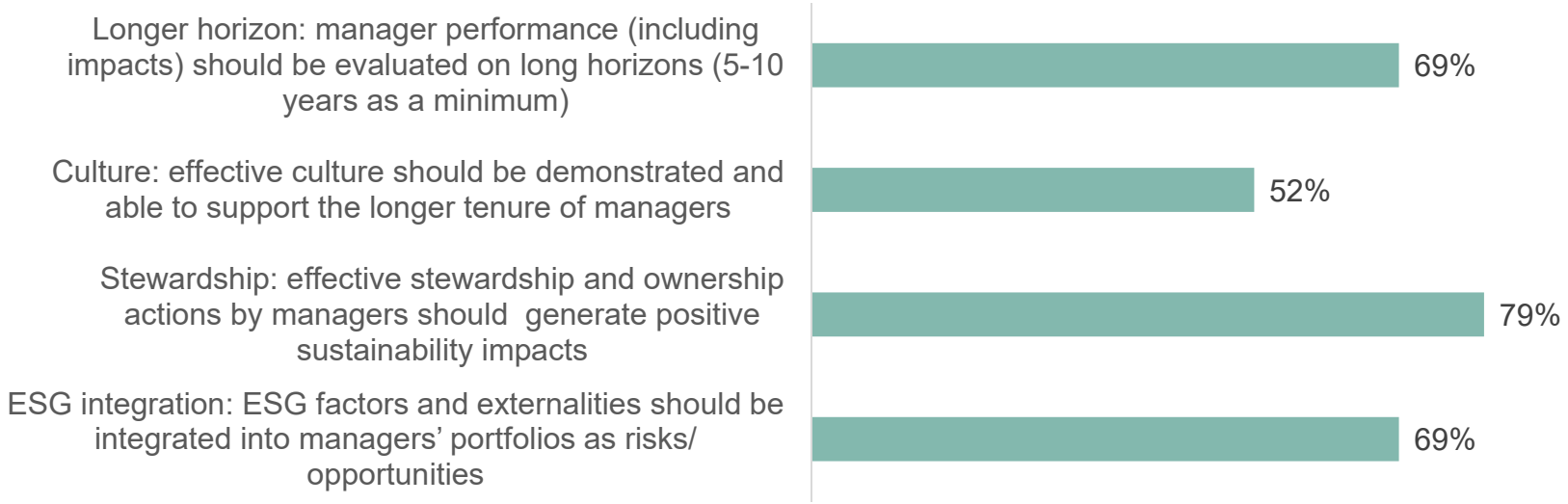


Beliefs on sustainability extend into governance

- Sustainable success reflects mission clarity, good information, trusted board governance, and a delegated investment team powered by
  - effective culture (inclusive, open, innovative) and
  - effective leadership (purposeful, empowering, focused on comparative advantages)
- Sustainability in investing requires some governance changes
  - tapping wider network of disciplines and specialists
  - stronger capabilities internally and through strategic partners
  - governed through more agile work practices



7. For investment mandates to adopt sustainability principles, the monitoring should be aligned with these principles (pick up to 3):



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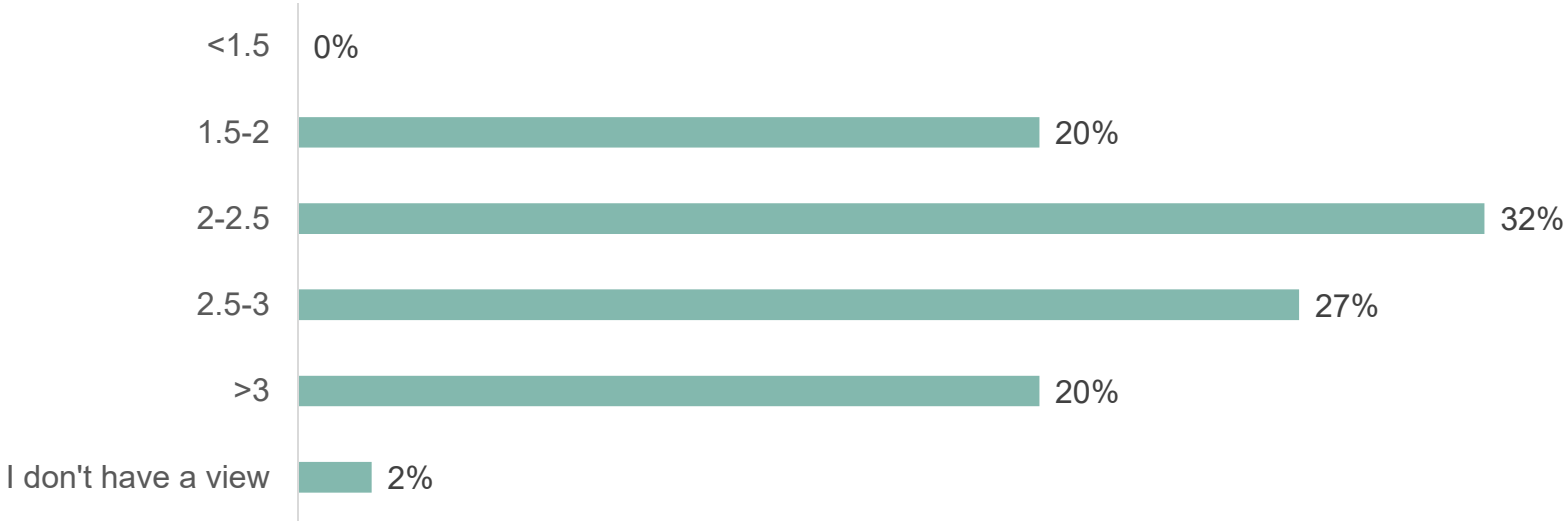
8. I expect the global average temperature to be __ ℃ above pre-industrial levels in 2050.



Total votes: 41

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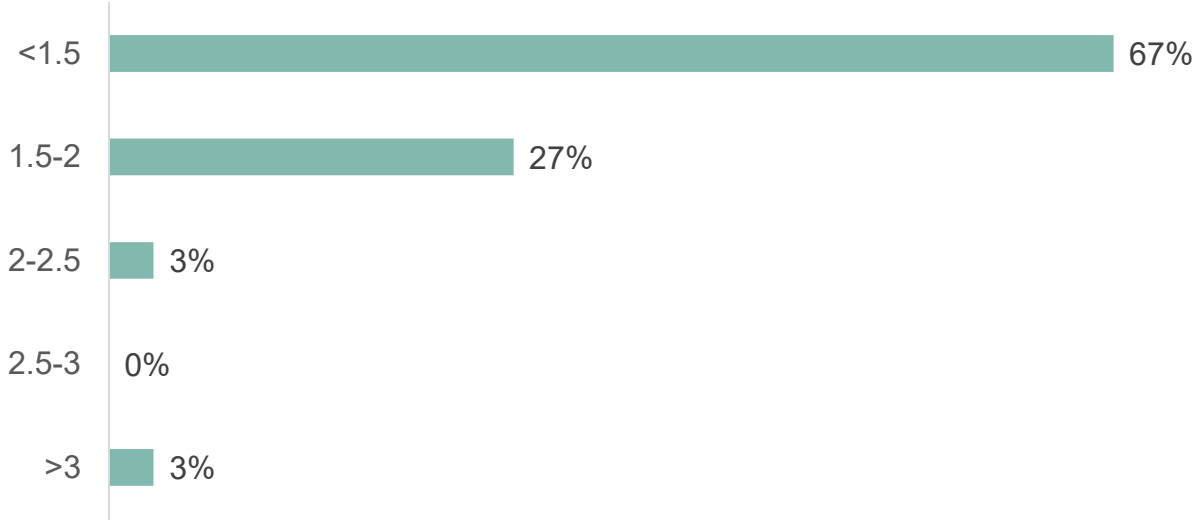
9. I hope the global average temperature to be __ ℃ above pre-industrial levels in 2050.



Total votes: 33

Spotlight topic 1 – climate change

Tim Lenton

Thinking Ahead Institute

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Tim Lenton

Director of the Global Systems Institute, University of Exeter

Tim Lenton is Director of the Global Systems Institute and Chair in Climate Change and Earth System Science at the University of Exeter. His research focuses on understanding the behaviour of the Earth as a whole system, especially through the development and use of Earth system models.

He is particularly interested in how life has reshaped the planet in the past, and what lessons we can draw from this as we proceed to reshape the planet now – as described in his books 'Revolutions that made the Earth' (with Andrew Watson) and 'Earth System Science: A Very Short Introduction'.

Tim's work identifying climate tipping points won the Times Higher Education Award for Research Project of the Year 2008. He has also received a Philip Leverhulme Prize 2004, European Geosciences Union Outstanding Young Scientist Award 2006, Geological Society of London William Smith Fund 2008, and Royal Society Wolfson Research Merit Award 2013.

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Climate change

Tim Lenton

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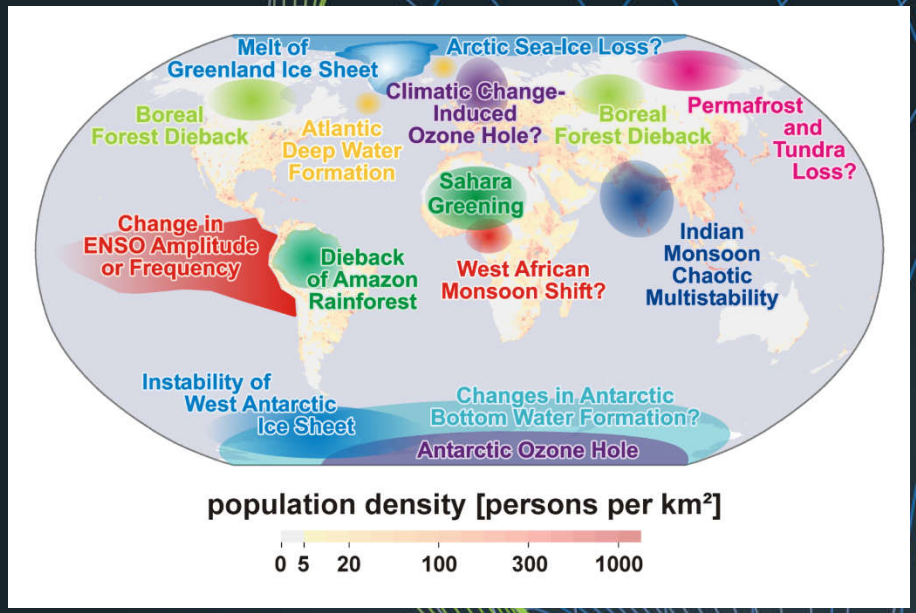

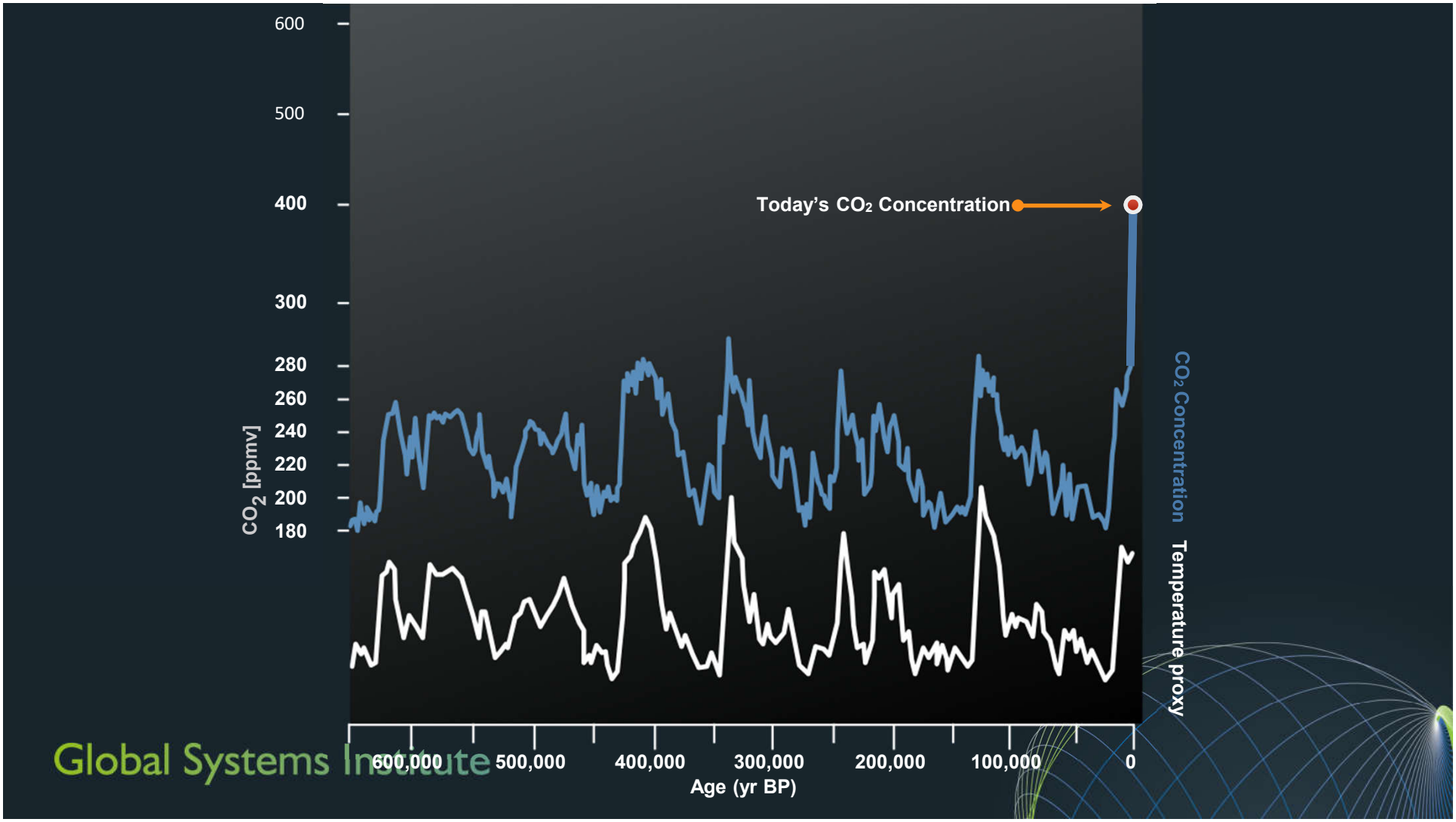
600
500
400
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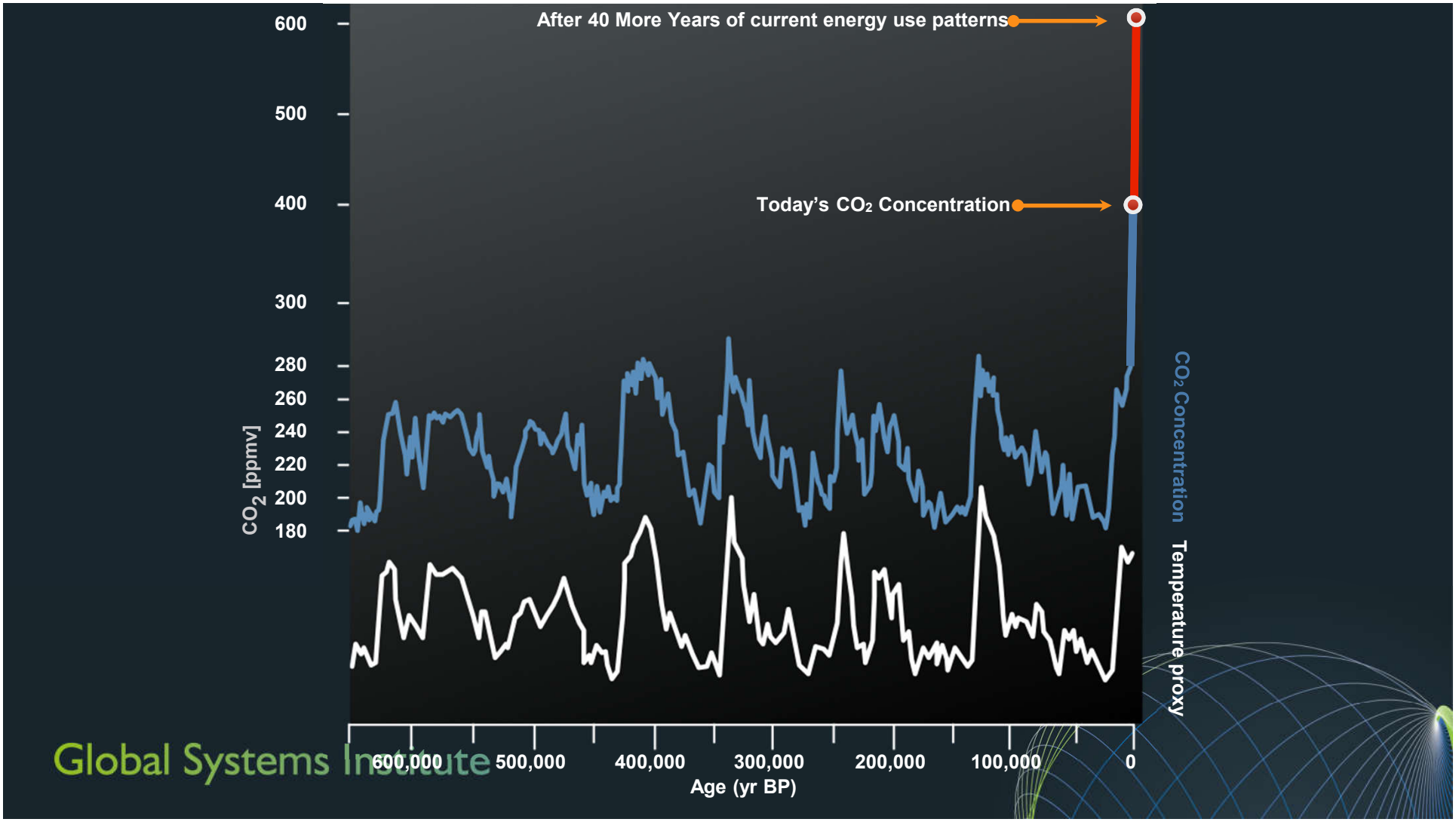
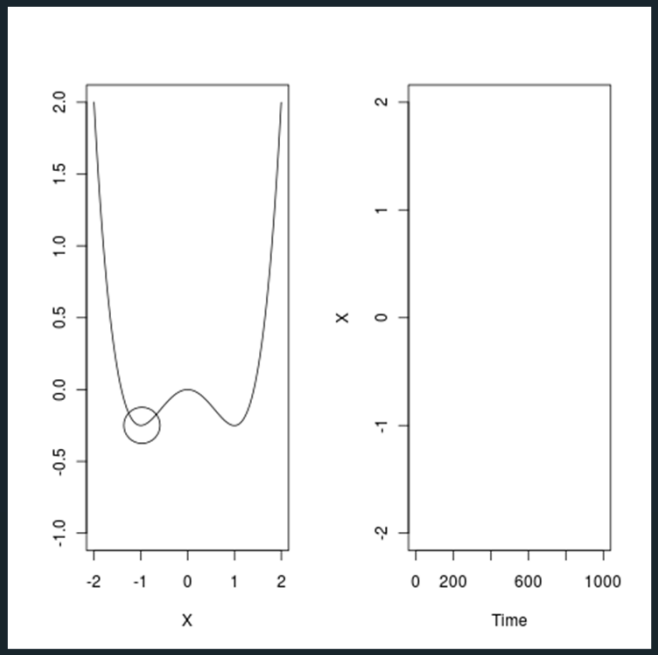
280
260
240
220
200
180
CO_2 [ppmv]
Today's CO_2 Concentration
CO_2 Concentration
Temperature proxy
600,000
500,000
400,000
300,000
200,000
100,000
0
Age (yr BP)
Global Systems Institute


After 40 More Years of current energy use patterns
Today's CO_2 Concentration
600
500
400
300
280
260
240
220
200
180
CO_2 [ppmv]
CO_2 Concentration
Temperature proxy
600,000
500,000
400,000
300,000
200,000
100,000
0
Age (yr BP)
Global Systems Institute

Outline

- Why act now? This is a climate emergency!
- How do tipping point risks affect the economic analysis of climate change?
- Where can investment tip positive change?

Generic example of passing a tipping point



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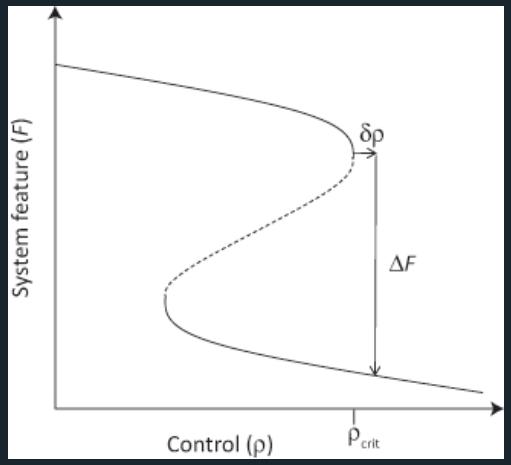
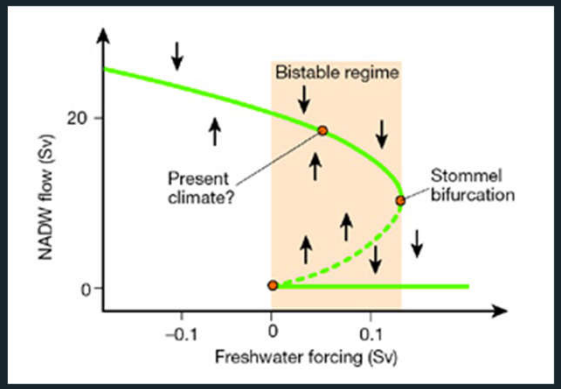
Tipping points

Generic example



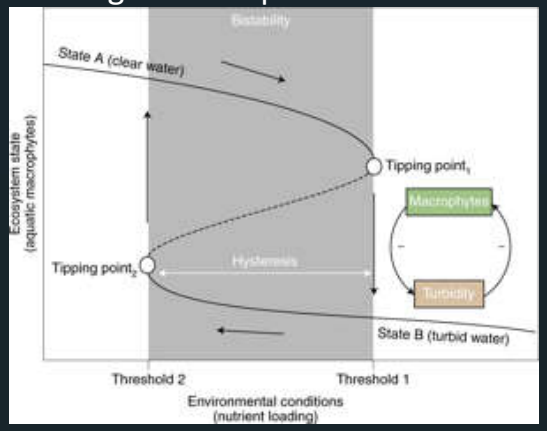
Climate example

North Atlantic Deepwater (NADW) formation



Meincke *et al.* (2003) *Marine Science Frontiers*

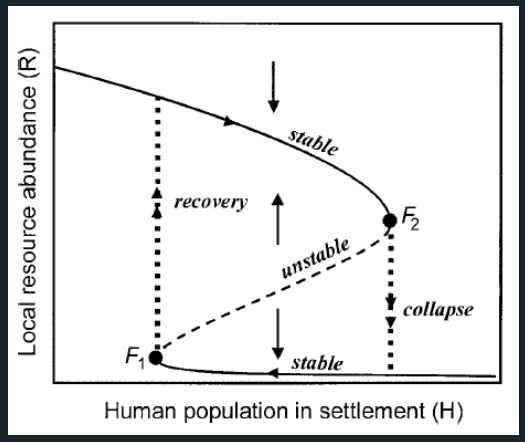
Ecological example



Dakos *et al.* (2019) *Nature Ecol. Evol.* **3**: 355-362

Social example

Sunk-cost effects and societal collapse



Janssen *et al.* (2003) *Current Anthropology* **44**: 722-8

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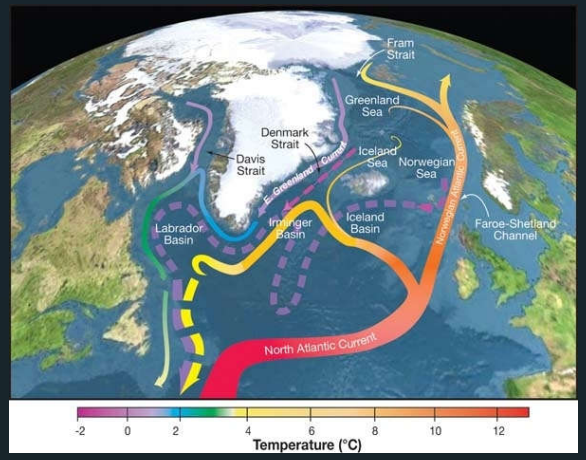
Effect of a climate tipping point on GB agriculture

Collapse of the Atlantic Meridional Overturning Circulation (AMOC)



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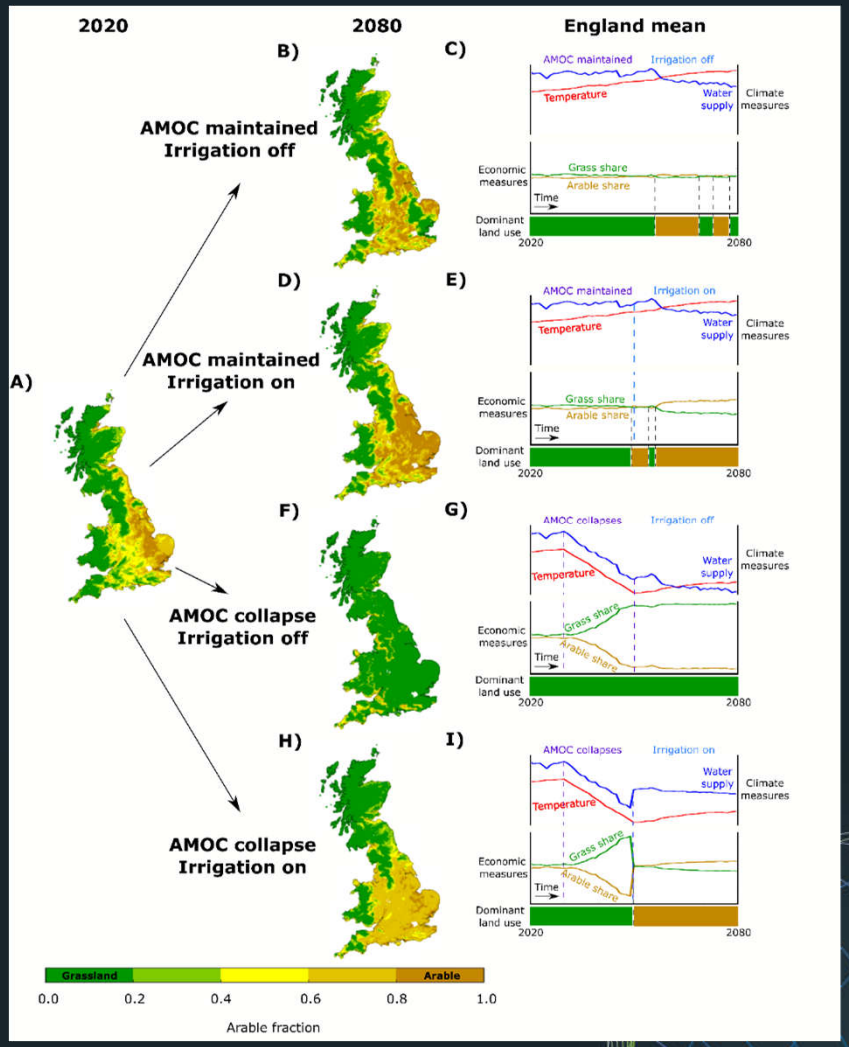
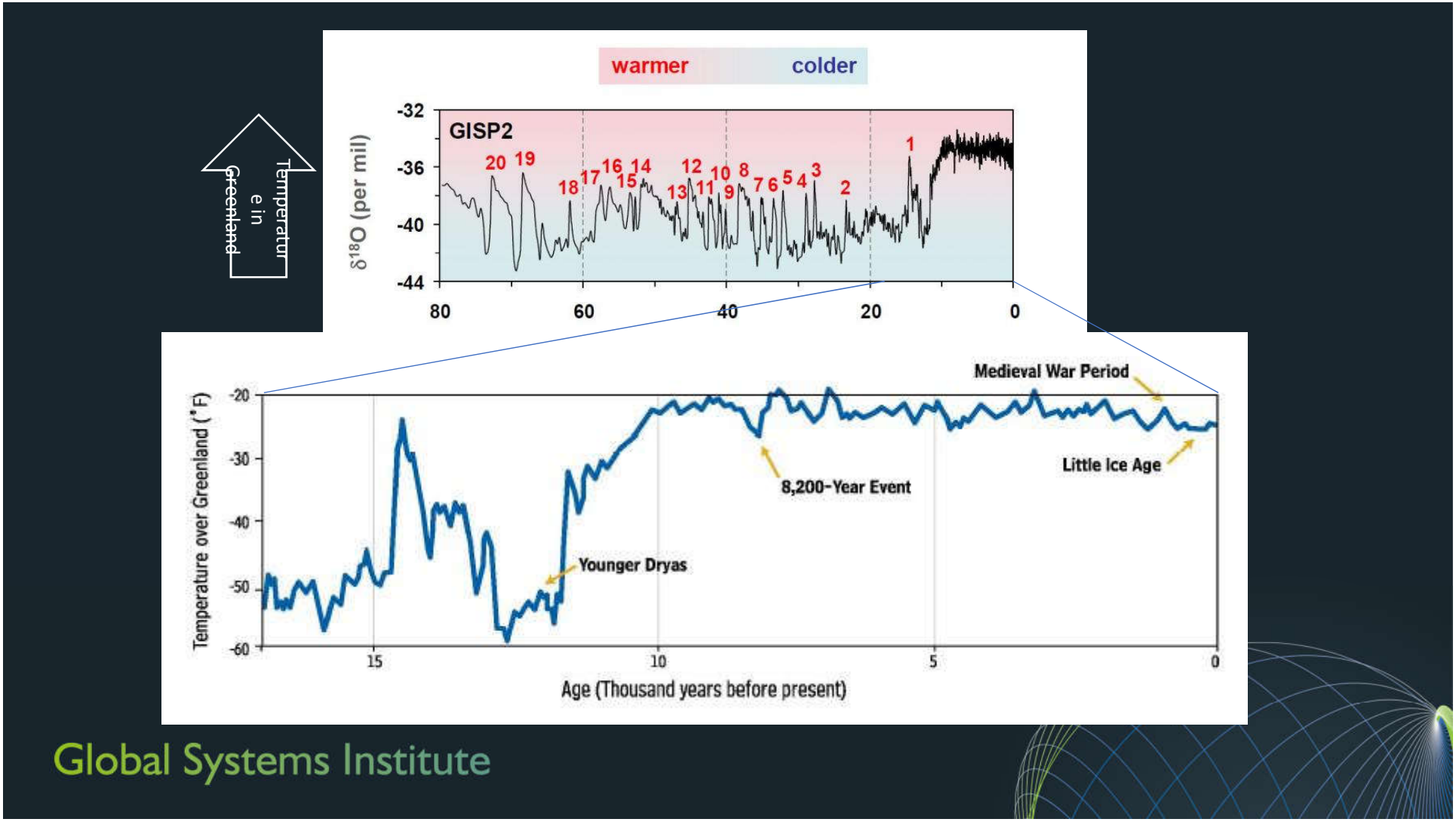


Ritchie, *et al.* (in revision) *Nature Food*



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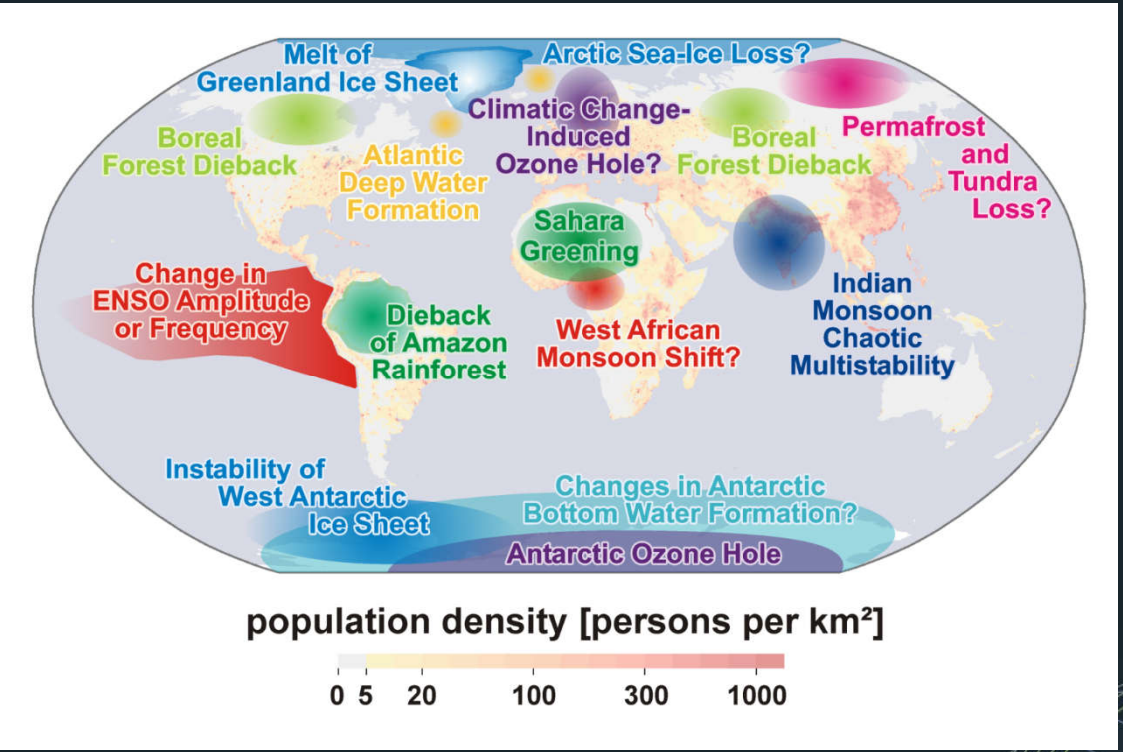
Climate tipping elements



Lenton et al. (2008) *PNAS* 105:1786-1793

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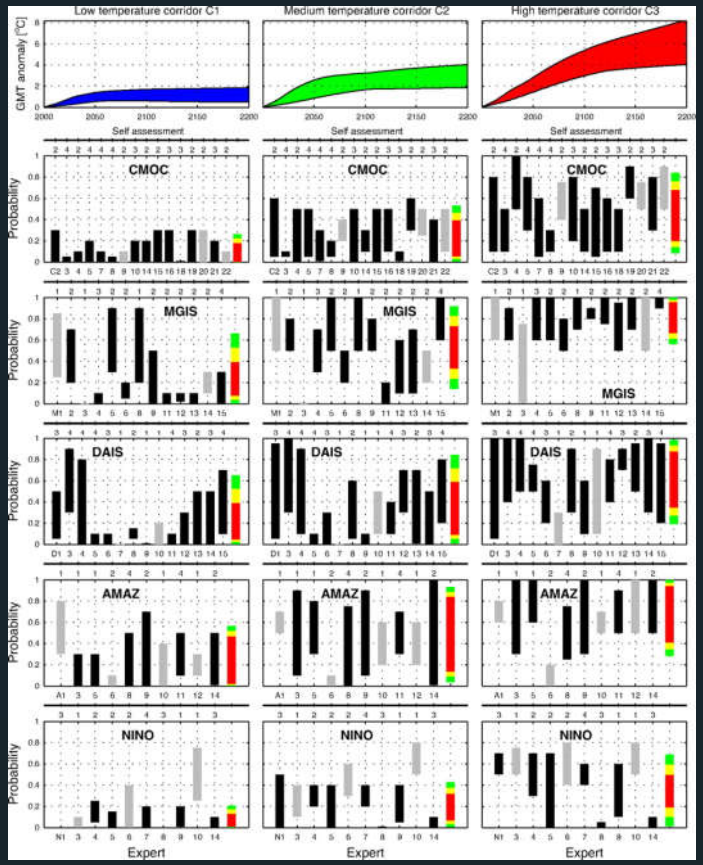
Likelihood of tipping (2009)

- 2-4 °C warming: >16% probability of passing at least one tipping point
- >4 °C warming: >56% probability of passing at least one tipping point



Atlantic

Greenland

Antarctica

Amazon

El Niño

Kriegler et al. (2009) *PNAS* 106(13): 5041-5046

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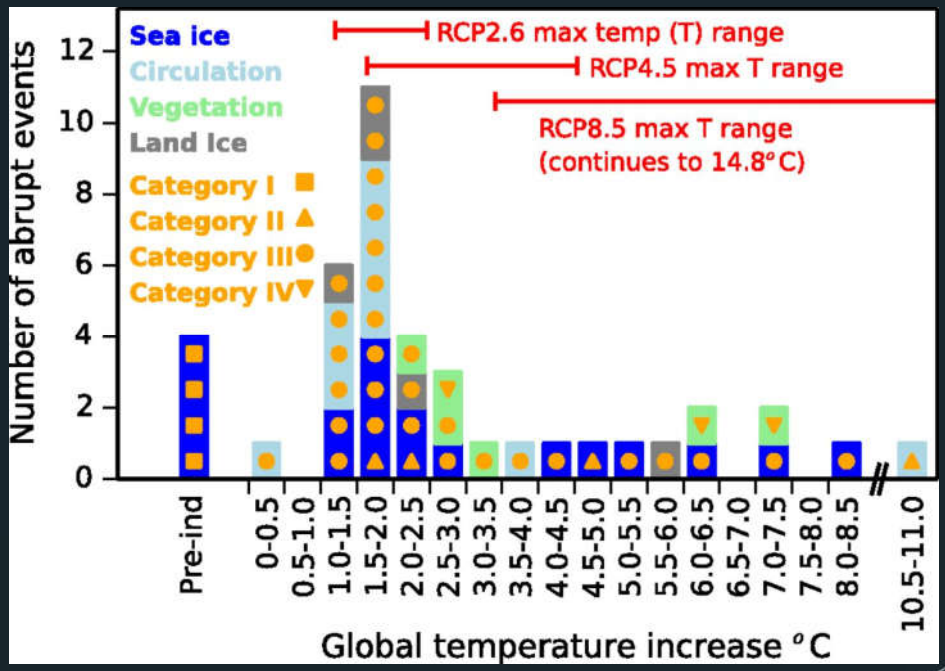
Abrupt changes in climate models (2015)



Drijfhout et al. (2015) *PNAS* 112(43): E5777-E5786

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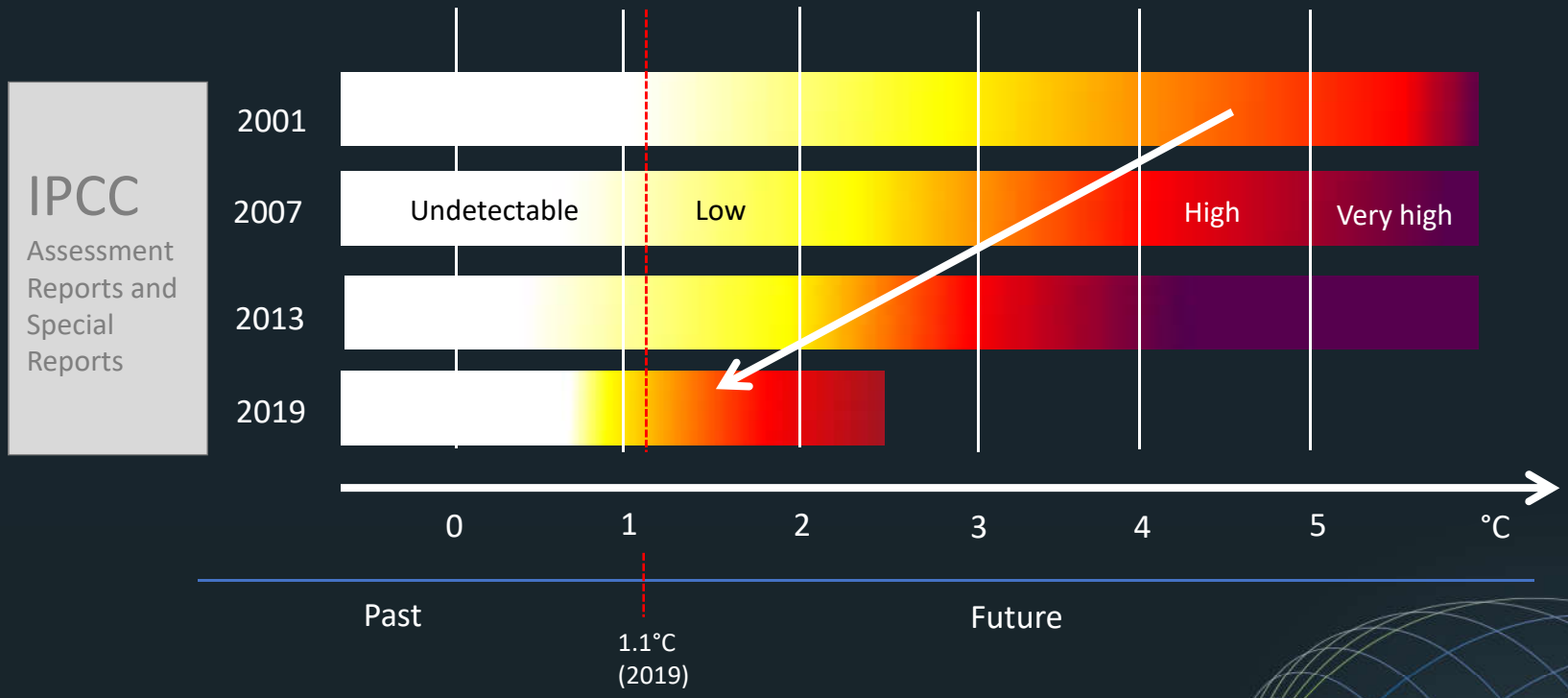
Changing risk assessment of tipping points



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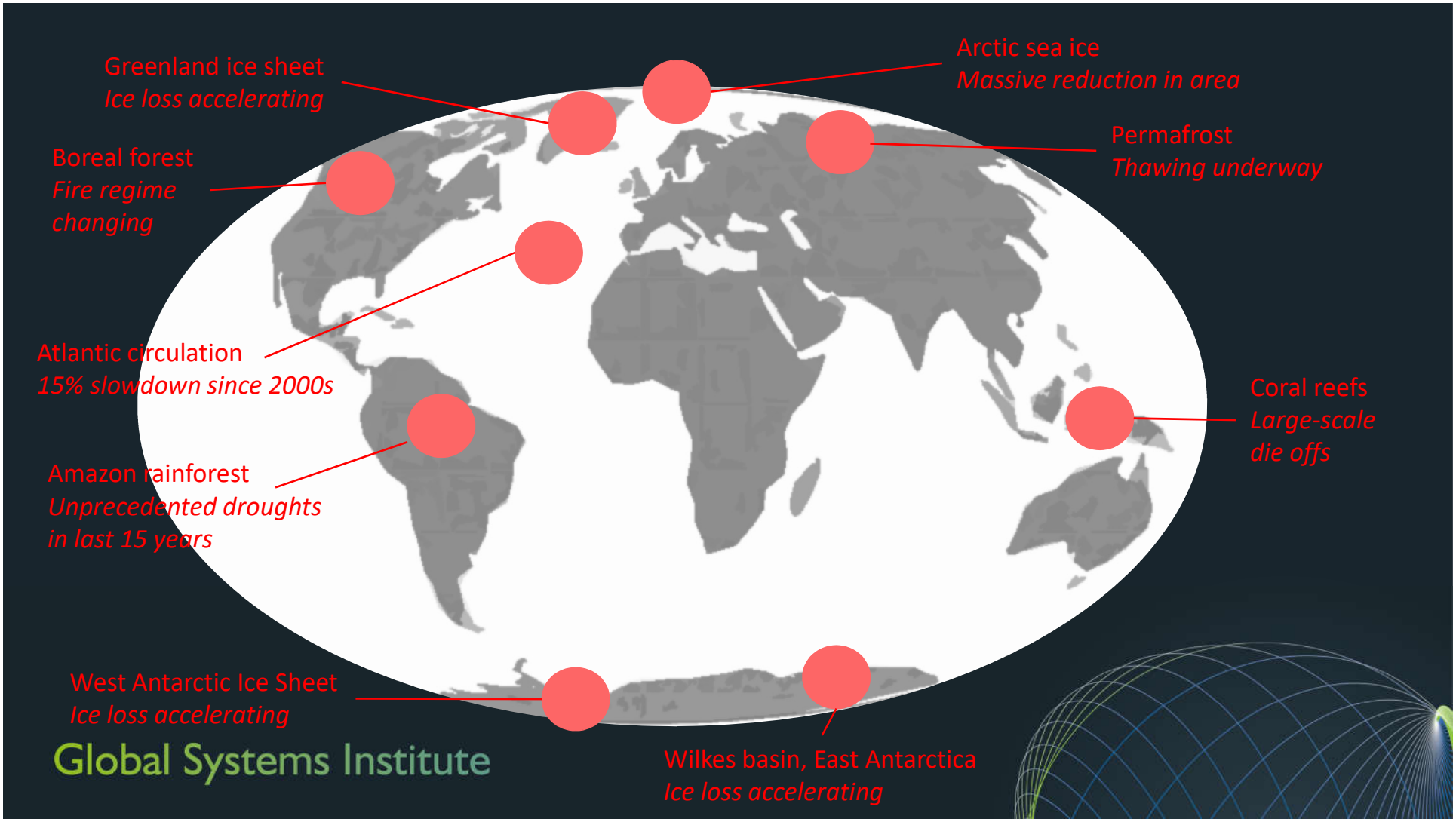
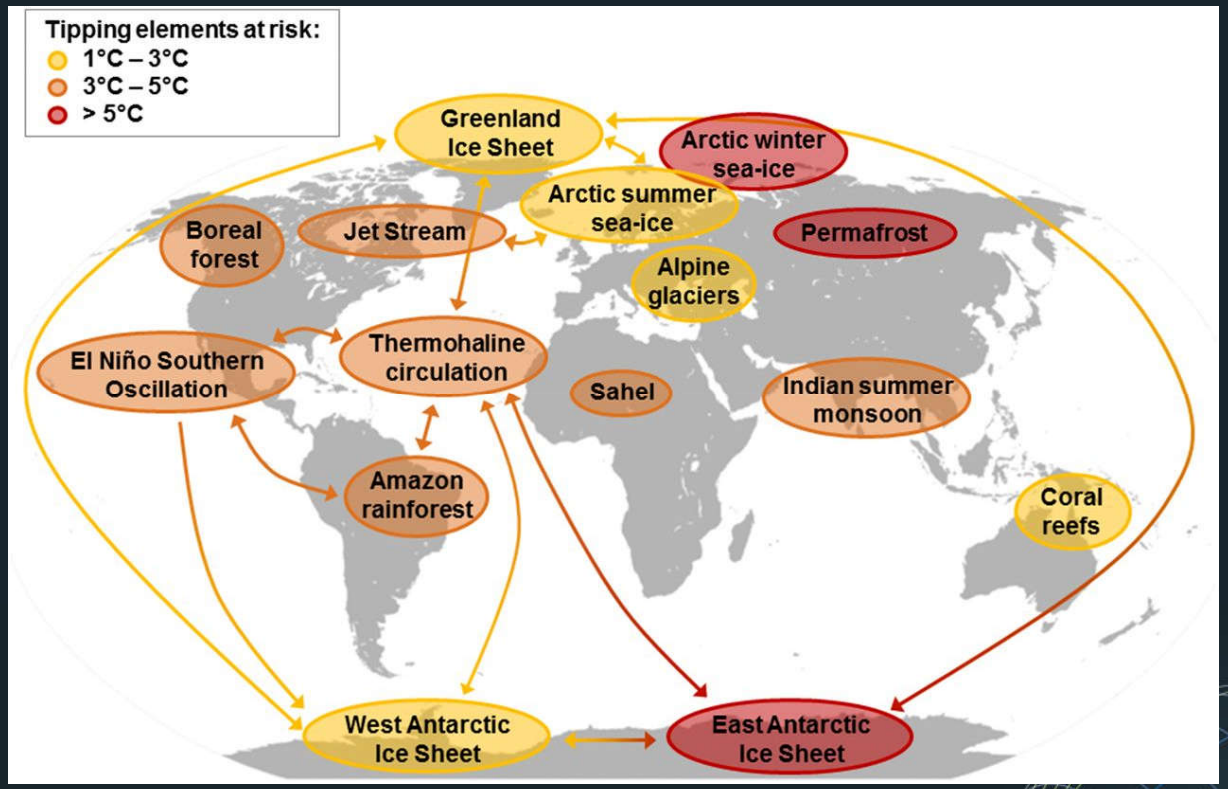
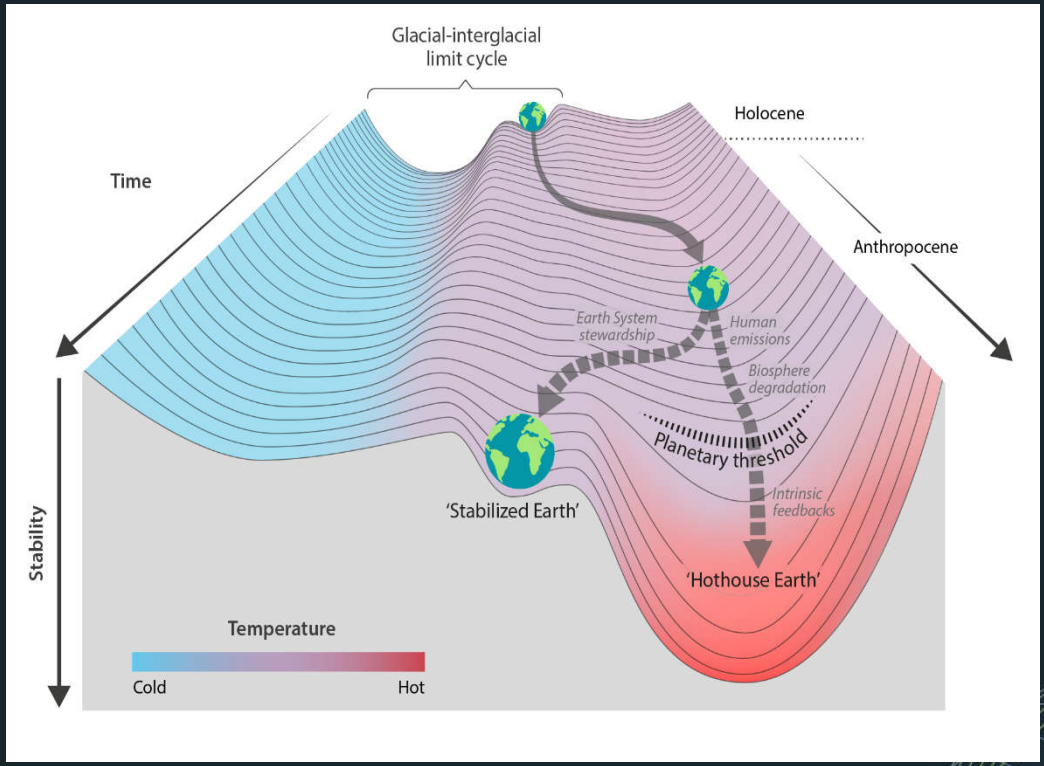

Greenland ice sheet
Ice loss accelerating
Arctic sea ice
Massive reduction in area
Boreal forest
Fire regime changing
Permafrost
Thawing underway
Atlantic circulation
15% slowdown since 2000s
Coral reefs
Large-scale die offs
Amazon rainforest
Unprecedented droughts in last 15 years
West Antarctic Ice Sheet
Ice loss accelerating
Global Systems Institute
Wilkes basin, East Antarctica
Ice loss accelerating

Coupling between tipping events



Steffen et al. (2018) *PNAS* 115:8252-9

A global tipping point???



Steffen et al. (2018) *PNAS* 115:8252-9

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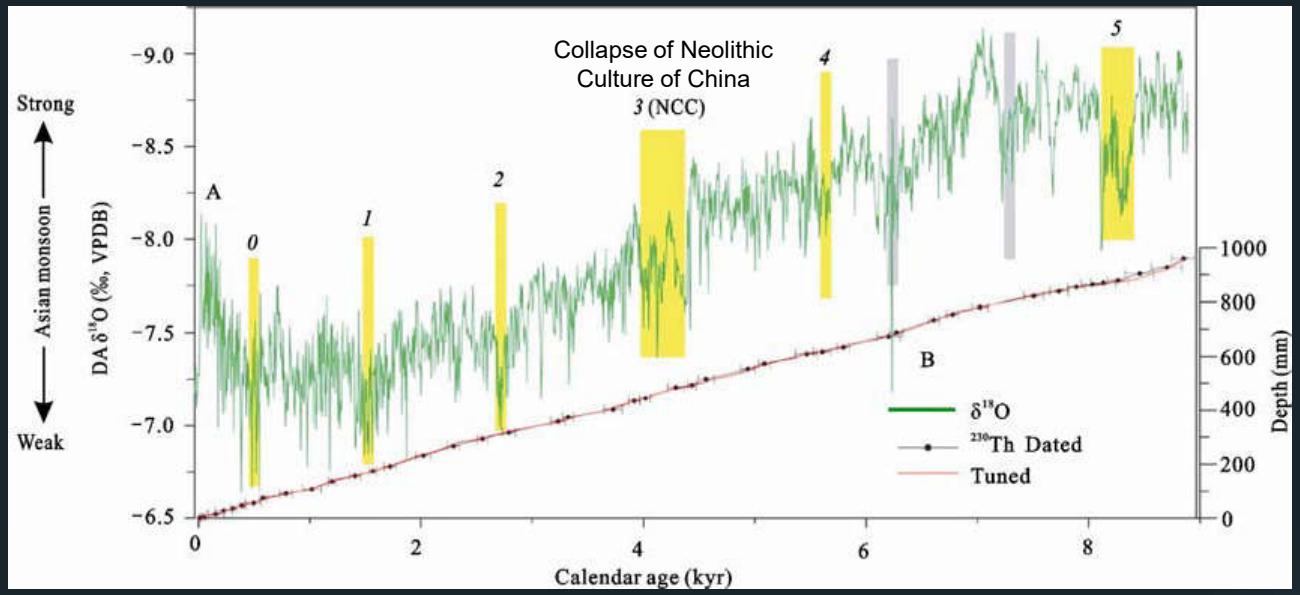
Social tipping points linked to climate change?



Wang et al. (2013) *Chinese Geographical Science* **23**: 1-12

Time

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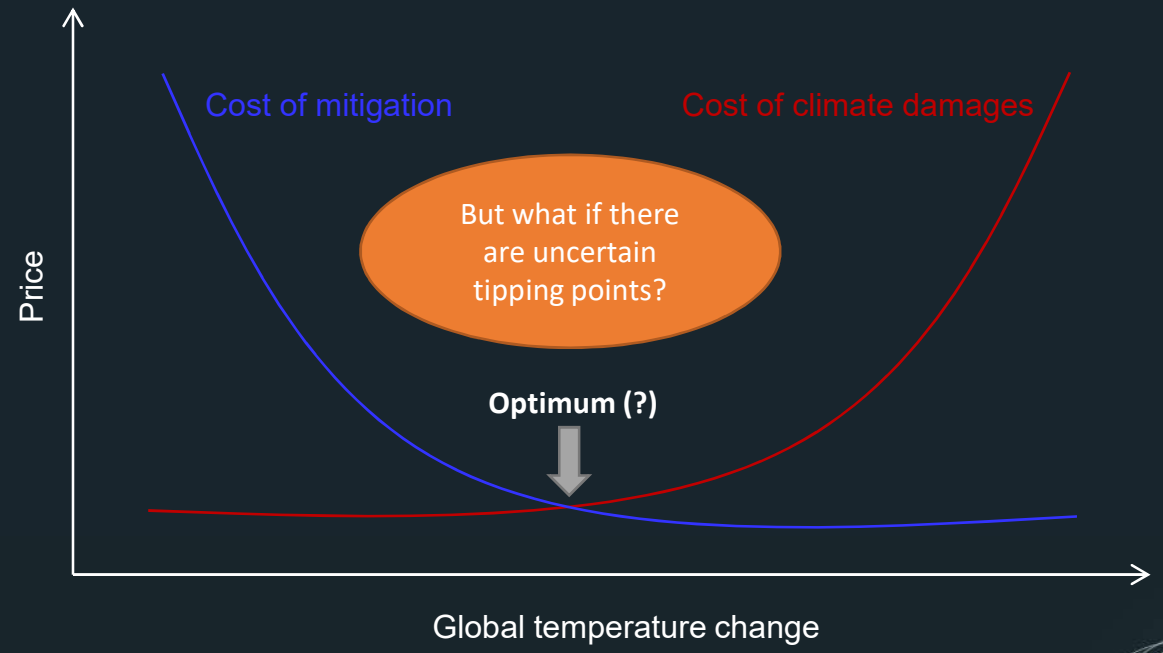
What should we do about tipping point risks?



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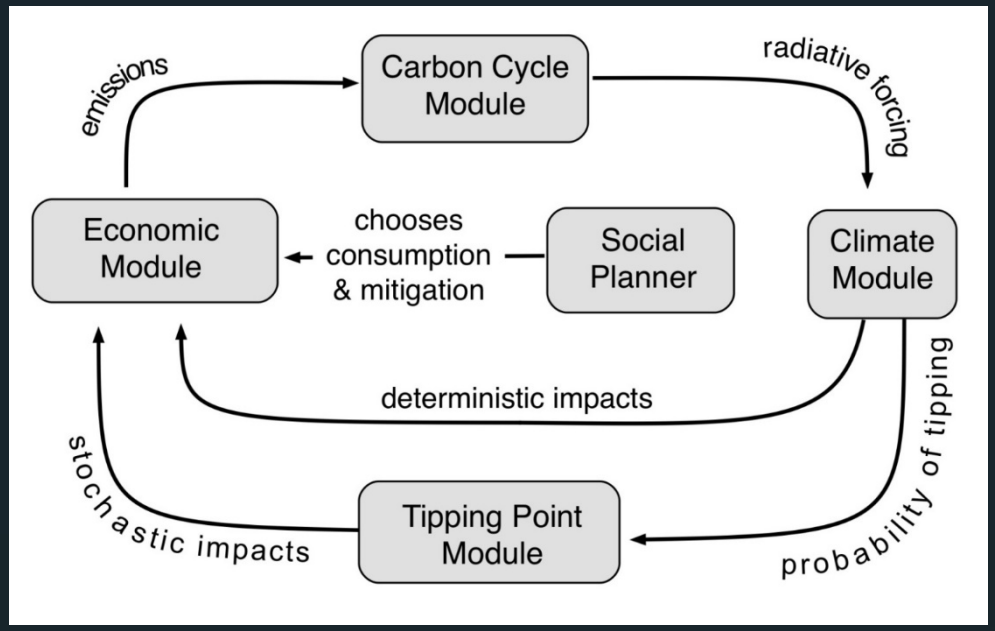
Adding uncertain tipping points to DICE model



Lontzek, Cai, Judd, Lenton (2015) *Nature Climate Change* 5(4): 441–444

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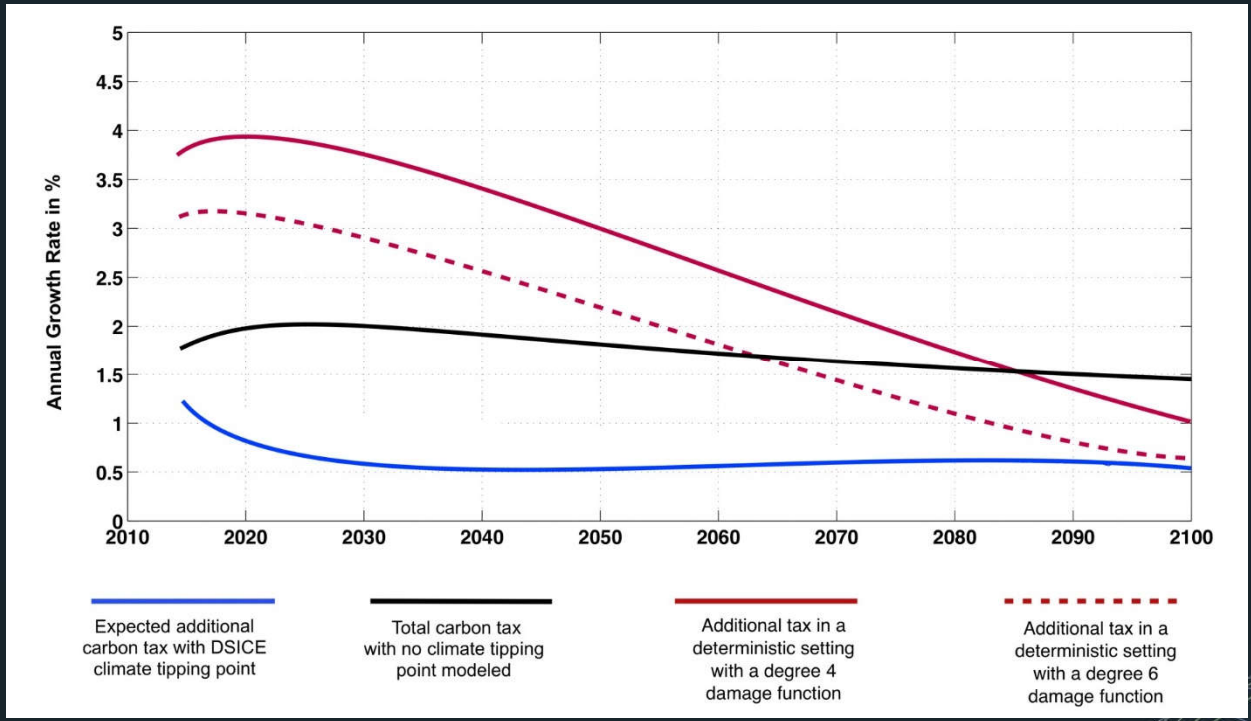
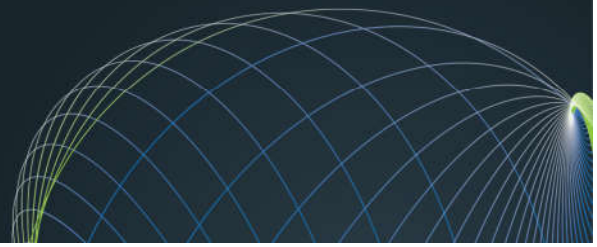
Effect on carbon tax growth rate (=discount rate)



Lontzek, Cai, Judd, Lenton (2015) *Nature Climate Change* 5(4): 441–444

Why the low discounting of tipping damages?

- Stochastic uncertainty over future damages produces a variance on expected future consumption (as well as a direct negative impact upon it)
- The 'social planner' wants to reduce the variance on future consumption (as well as try and limit the reduction in magnitude of future consumption)
- This leads to a precautionary, insurance-type policy response: we discount future tipping point impacts much less and hence are willing to pay a high premium now to try and avoid future tipping points



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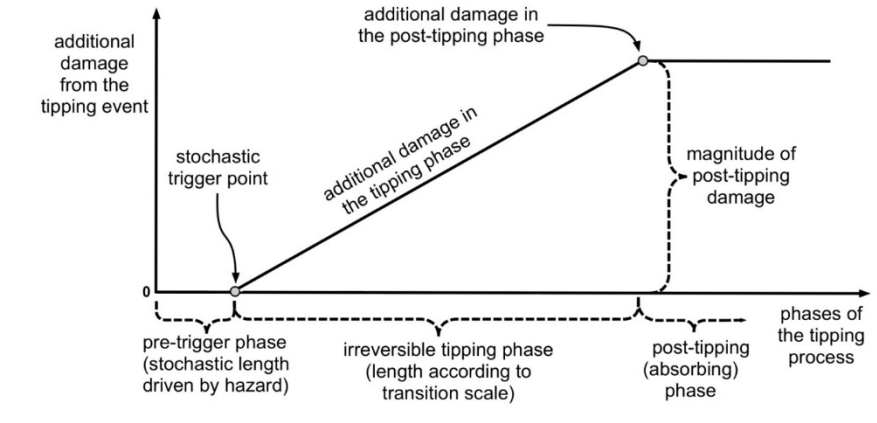
Lontzek, Cai, Judd, Lenton (2015) *Nature Climate Change* 5(4): 441–444

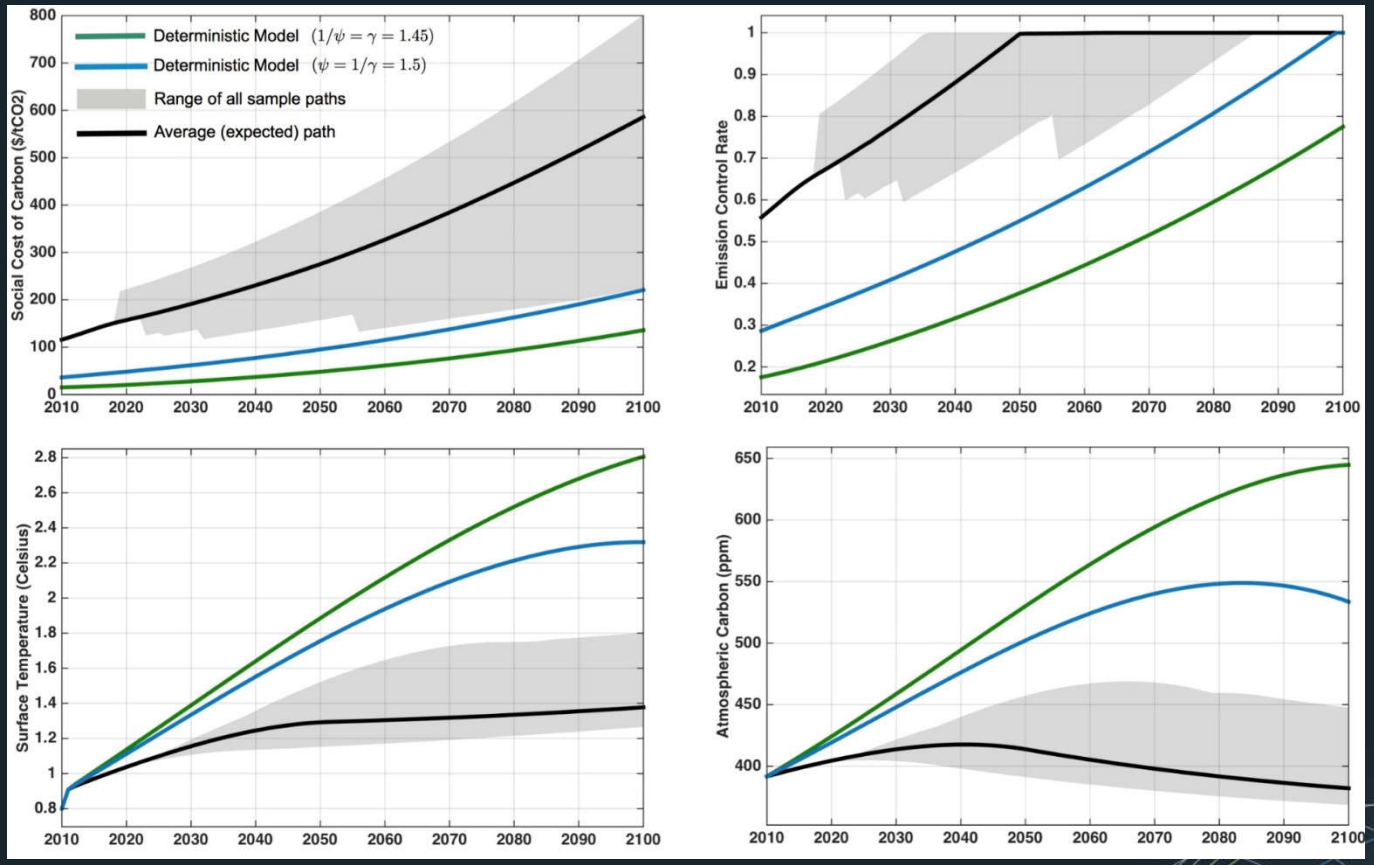
Representation of tipping points



Tipping element	Hazard rate (%/yr/K)	Transition time (years)	Final damages (% world GDP)
Atlantic overturning (AMOC)	0.063	10-50-250	10-15-20
Greenland ice sheet (GIS)	0.188	300-1500-7500	5-10-15
West Antarctic ice sheet (WAIS)	0.104	100-500-2500	2.5-5-7.5
Amazon rainforest (AMAZ)	0.163	10-50-250	2.5-5-7.5
El Nino (ENSO)	0.053	10-50-250	5-10-15

Global Syste

Lontzek, Cai, Judd, Lenton (2015) *Nature Climate Change* 5: 441–444; Cai, Lenton, Lontzek (2016) *Nature Climate Change*



Cai, Lenton, Lontzek (2016) *Nature Climate Change* 6(5): 520–525

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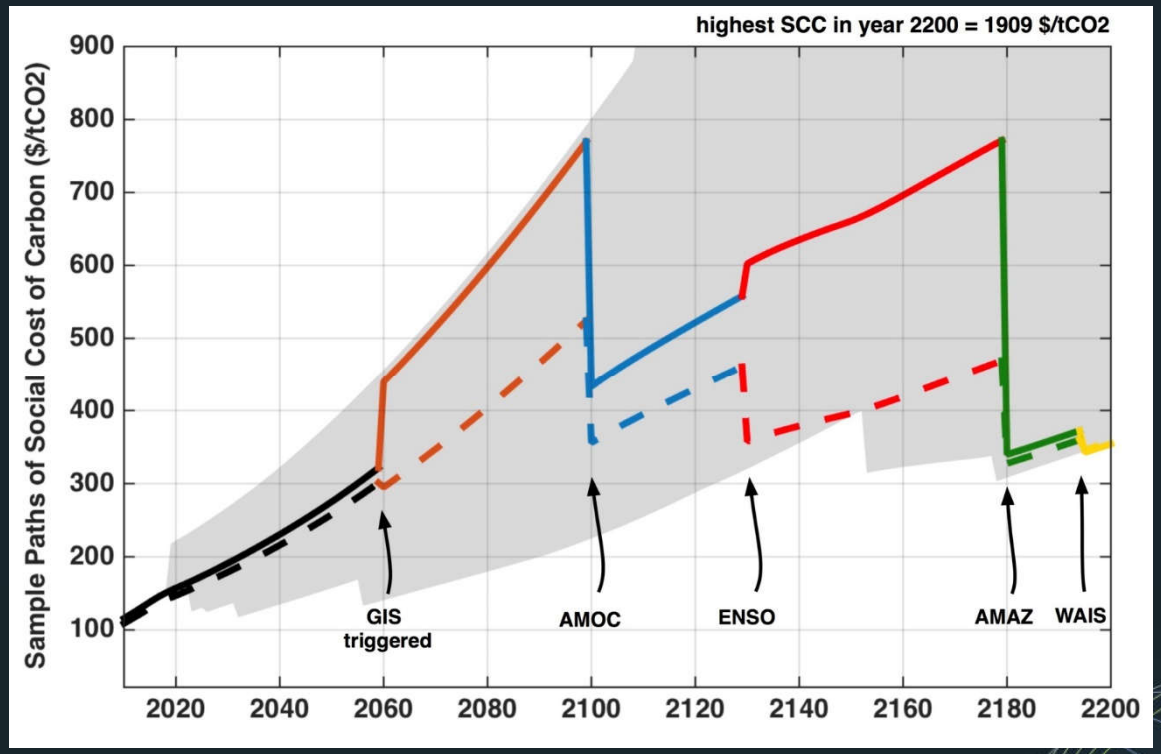
Example cascade of tipping points



Cai, Lenton, Lontzek (2016) *Nature Climate Change* 6(5): 520–525

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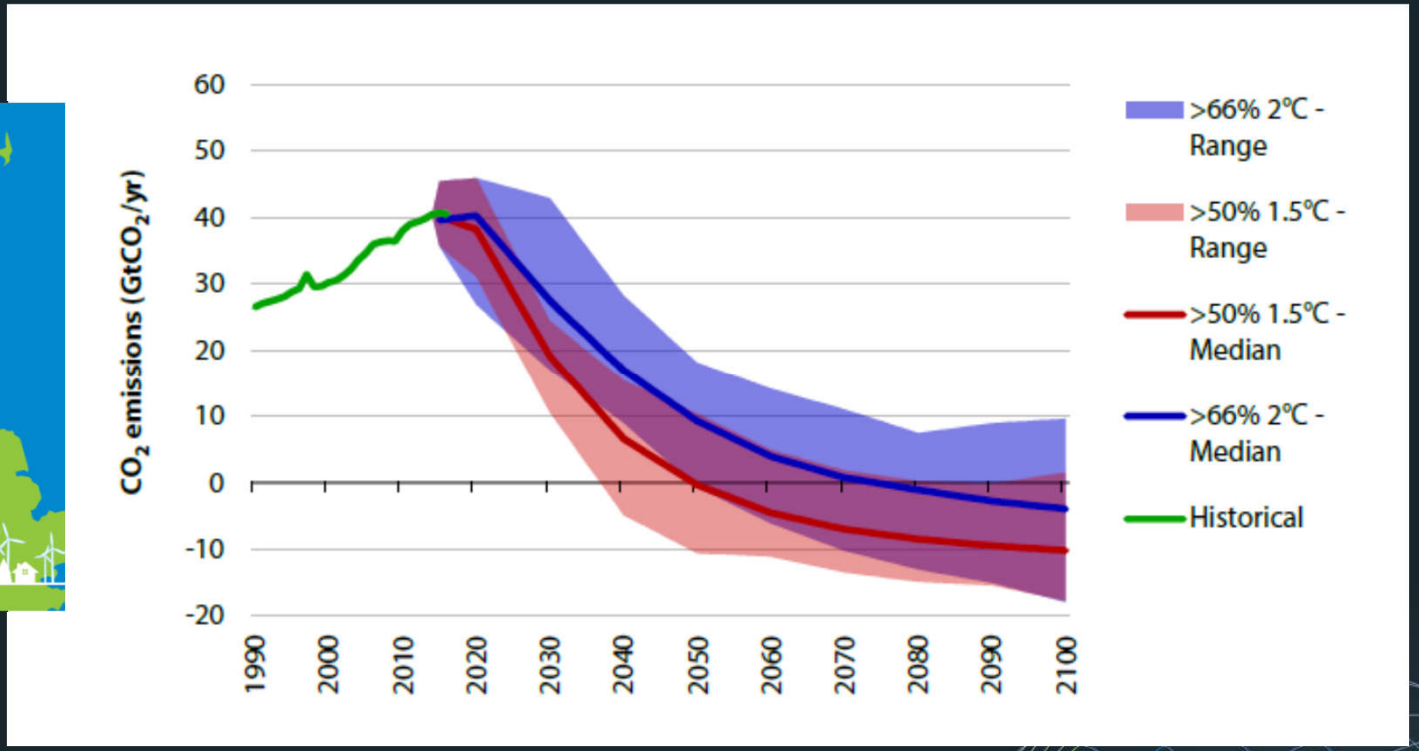
Global CO_2 emissions to meet Paris goals



Committee on Climate Change (2019) *Net Zero: The UK's Contribution to Stopping Global Warming*

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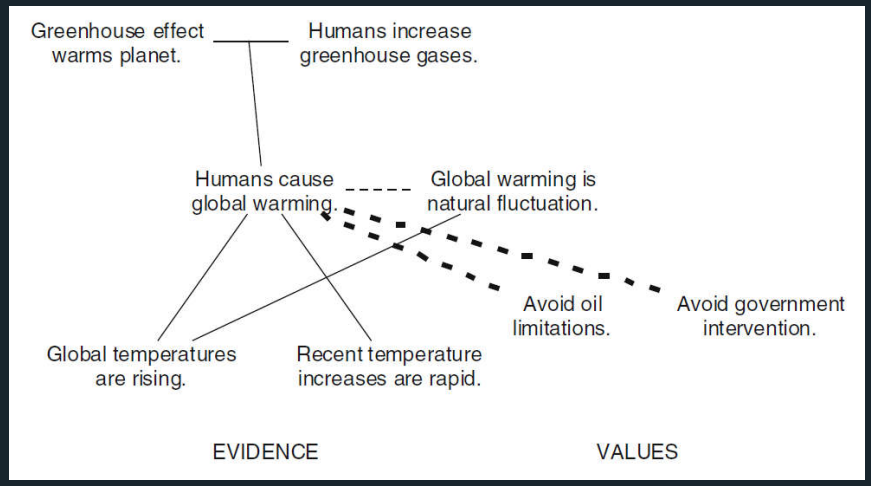
Tipping mindsets

- Theory: Humans hold coherent worldviews so when we change our mind it happens abruptly
- One worldview is coherent from purely evidence based thinking
- An alternative worldview is coherent if we include values and emotions

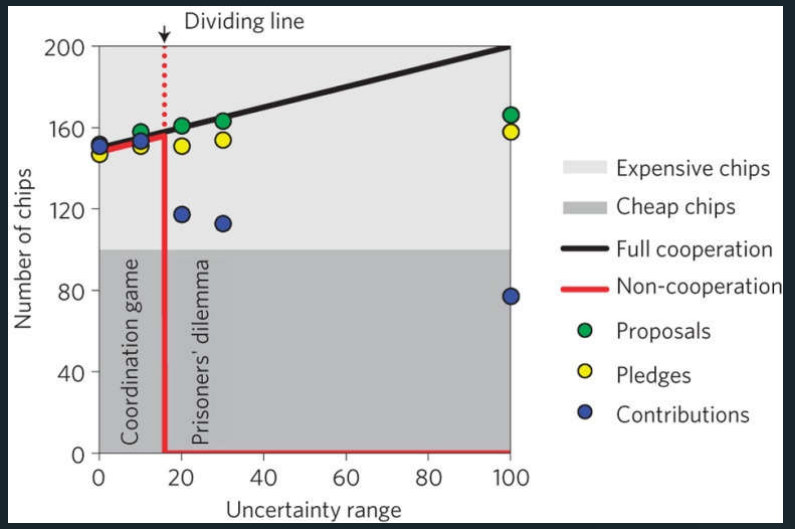


Solid lines are coherent relations,
Dashed lines are incoherent relations

Paul Thagard & Scott Findlay (2011) 'Changing minds about climate change: Belief revision, coherence and emotion'

Tipping collective action

- Uncertainty about the location of a tipping point can lead to failure to coordinate to avoid it
- If uncertainty can be reduced below a critical level, social dynamics are tipped from free riding to coordinating to avoid catastrophe



Barrett & Dannenberg (2014) *Nature Climate Change* 4: 36-39

Tipping social-technical change

Easter Parade, 5th Avenue, New York City

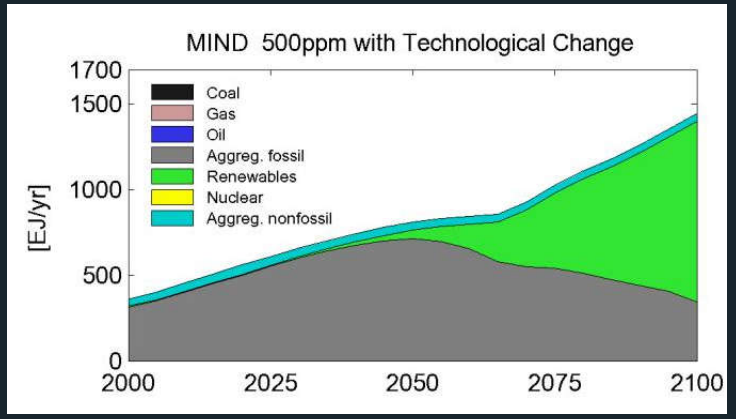
1900: Spot the automobile

Source: US National Archives.

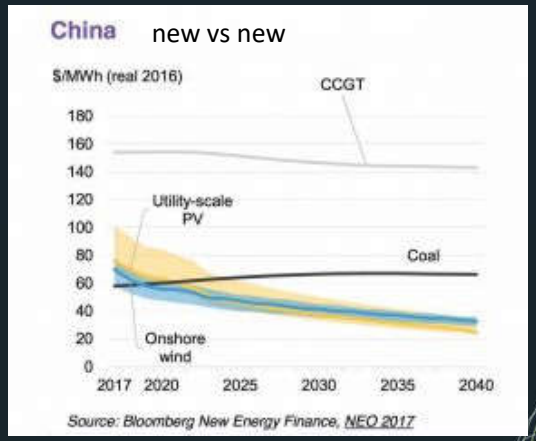
1913: Spot the horse

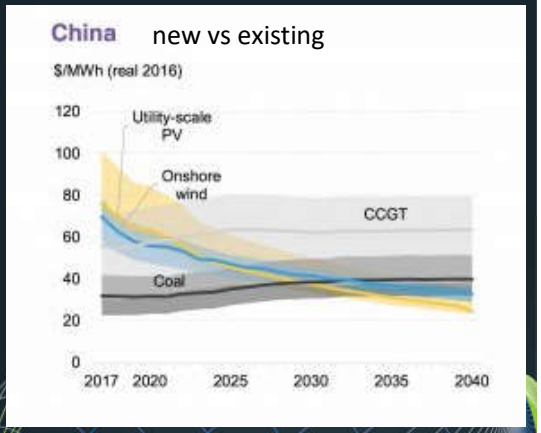
Tipping the energy system

- *Control variable:* Increase the carbon price
- *Interventions:* Technology transfer
- *Tipping point:* Shift in backstop energy source
- *Response:* Renewable energy share increases despite carbon price declining



Edenhofer *et al.* (2006) *The Energy Journal Special Issue*: 57-108





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Effect of EU increasing ambition from 20% to 30% reduction in GHG emissions by 2020

Macroeconomic features EU27

Variable in 2020	Green growth	Business-as-usual
GDP (billion $ 2004)	15,421	14,579
GDP growth rate (%)	2.8%	2.2%
Unemployment rate (%)	5.3%	7.6%
Investment (billion $ 2004)	3457	2685
Investment (% of GDP)	22.4%	18.4%
Emissions (MtCO2e)	3927	4414
Carbon price (euro/tCO2)	32.2	19.6

Sectoral production in 2020 (billions $ 2004)

Sector	Green growth	Business-as-usual	% change
Agriculture	520	508	2.5
Energy	714	701	1.8
Industry	10,935	10,052	8.8
Construction	2028	1623	25.0
Services	16,792	16,193	3.7

Tabara *et al.* (2013) *J. Env. Planning & Management* 56: 1180-1191

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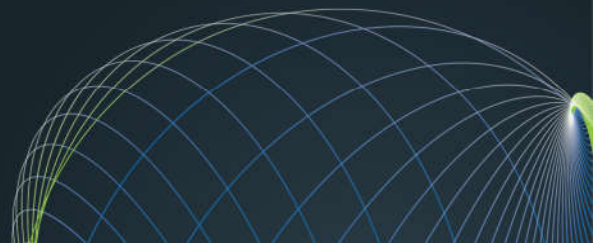

Conclusions

- We cannot rule out that ice sheet tipping points have already been passed and if business-as-usual continues then other climate tipping points will become high impact *high* probability events
- This is an existential threat! – we should be doing everything in our power to avoid irreversible, damaging tipping points, including setting a carbon price today of >$100/t$CO_2$
- The investment sector managing ~$90 trillion has ample leverage to tip the positive, transformative change now needed to avoid the most damaging climate tipping points

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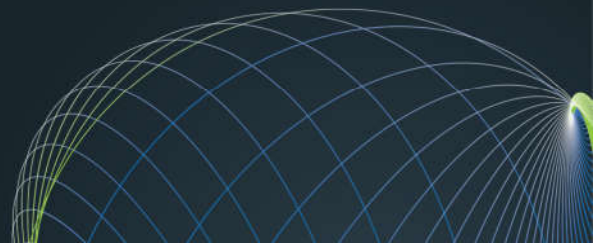


Spotlight topic 2 – corporate stewardship in pursuit of the SDGs

Mike Berners-Lee

Thinking Ahead Institute

Willis Towers Watson

Mike Berners-Lee

Author of *There is No Planet B;* Professor at Lancaster University

Mike Berners-Lee consults, thinks, writes and researches on sustainability and responses to 21st century challenges. He is the founder of Small World Consulting, an associate company of Lancaster University, which is a world leader in the field of supply chain carbon metrics and management. Small World works with organisations of all sizes and sectors, from the world's largest tech giants to SME's.

Mike is a professor at Lancaster University, where his research includes sustainable food systems and carbon metrics. He has made numerous speaking, radio and television broadcast appearances to promote public awareness of sustainability and climate change issues, and most notably appeared in *Climate Change: The Facts* alongside Sir David Attenborough. He is the author of three acclaimed books.

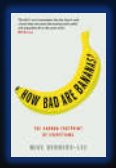
- His latest book, *There Is No Planet B: A Handbook for the Make or Break Years* is a practical and holistic tour of the 21st century's biggest challenges, laced throughout with practical guidance for individuals, businesses and politicians.
- About his first book, *How Bad Are Bananas? The Carbon Footprint of Everything,* Bill Bryson wrote "I can't think of the last time I read a book that was more fascinating, and useful and enjoyable all at the same time".
- His second book, *The Burning Question* , co-written with Duncan Clark, explores the big picture on climate change and the underlying global dynamics, asking what mix of politics, economics, psychology and technology are really required to deal with the problem. Al Gore described it as "Fascinating, important and highly recommended".

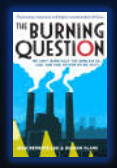
Mike has a degree in Physics from Oxford University, a PGCE in Outdoor Education and Physics from Bangor, and an MSc in Organisational Development and Consulting from Sheffield Hallam University.

There is No Planet B

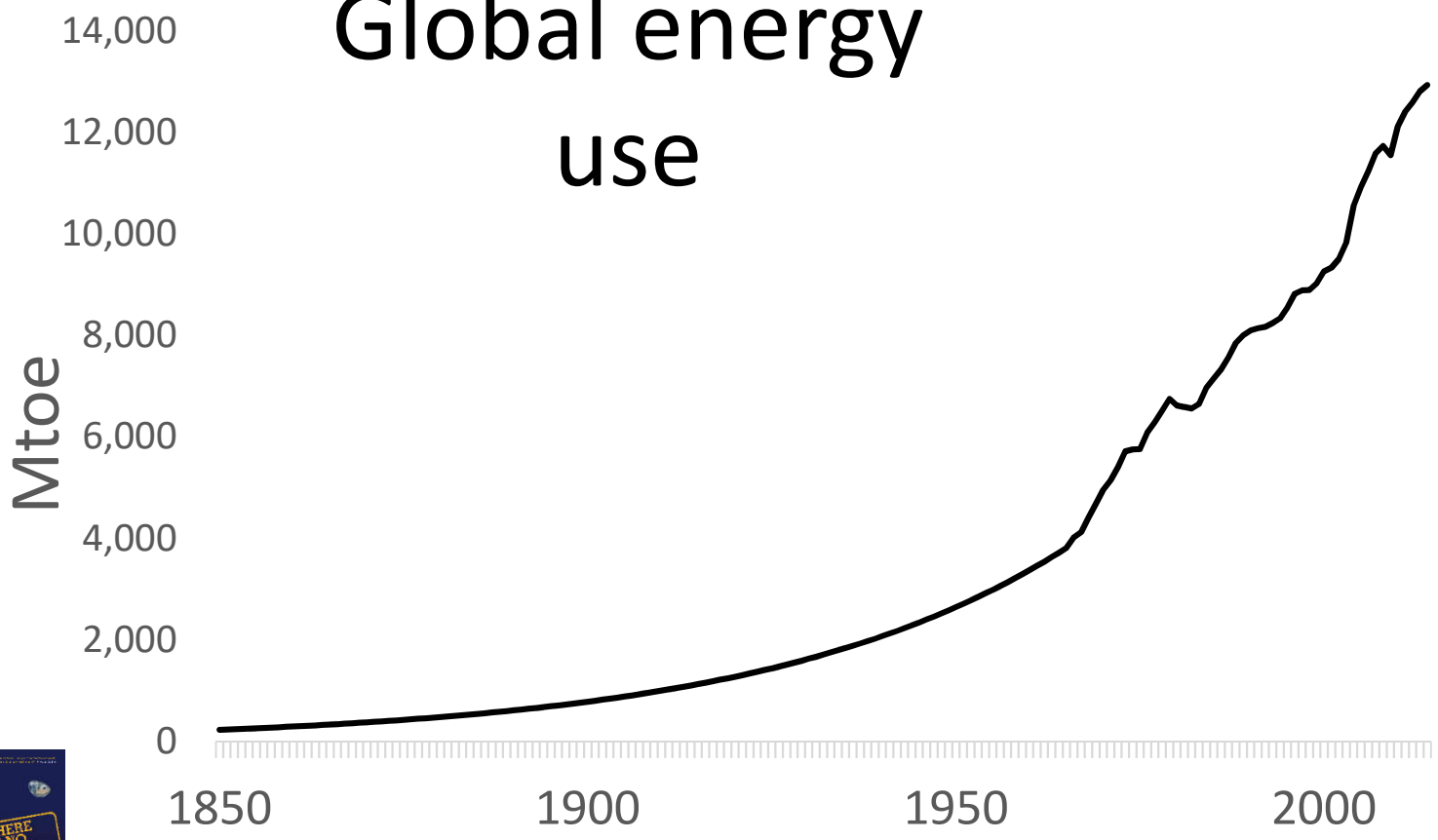
and the implications for investors

Mike Berners-Lee



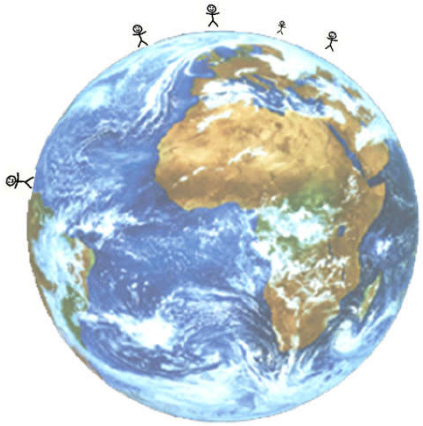


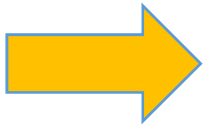
Global energy use

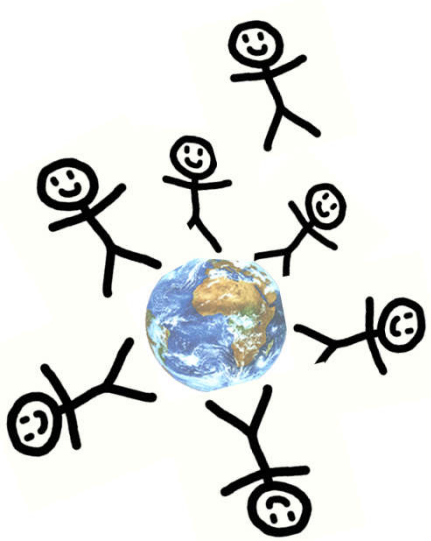


Here we are in the Anthropocene

- *For better and worse*
- *Like it or not*
- *Ready or not*







We might be able to live better than ever – if we don’t blunder into living worse…

…or not living at all.

Interlinked physical challenges

Energy

Climate Emergency

Biodiversity

Plastics

Food

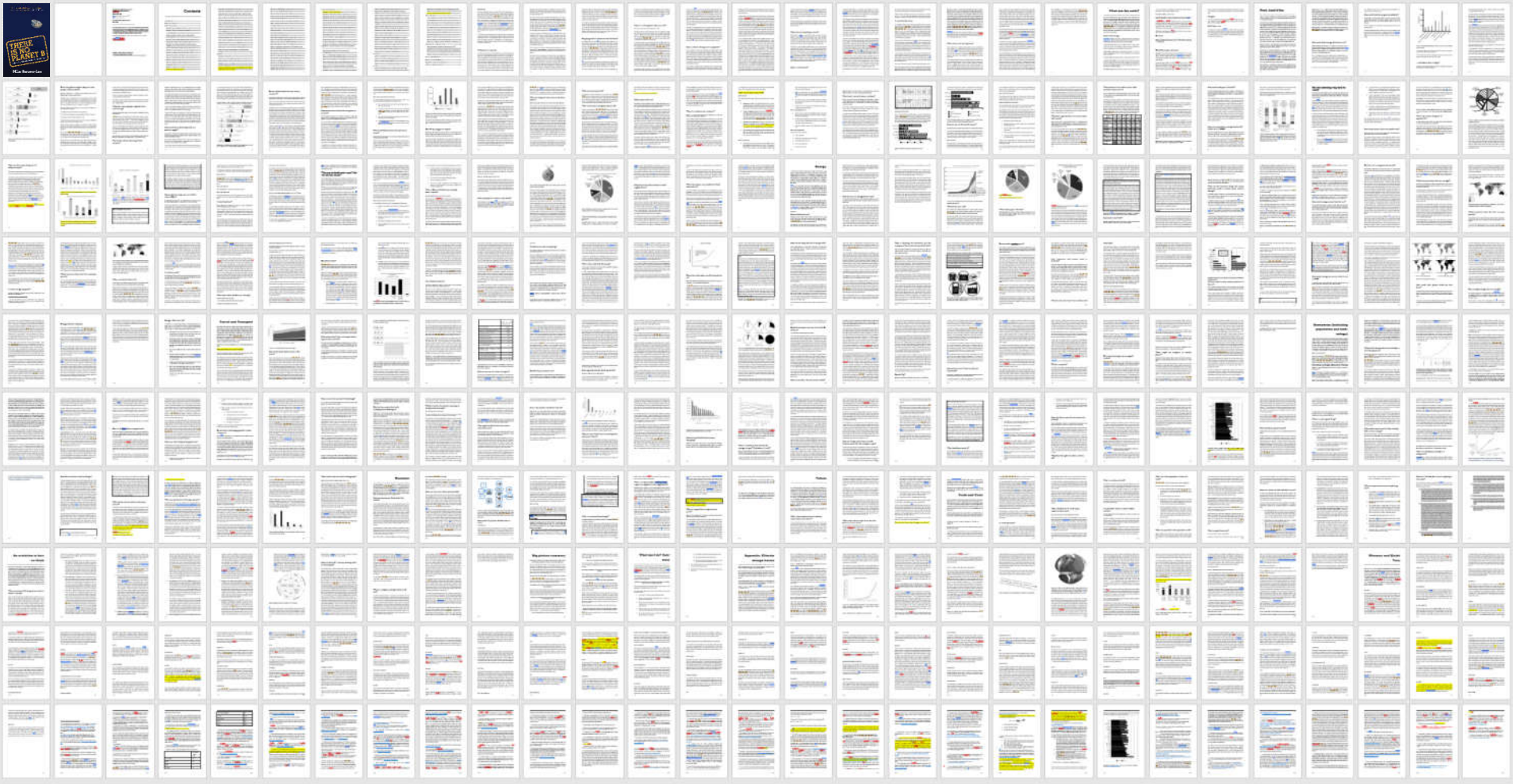
Other Pollution

Ocean Acidification

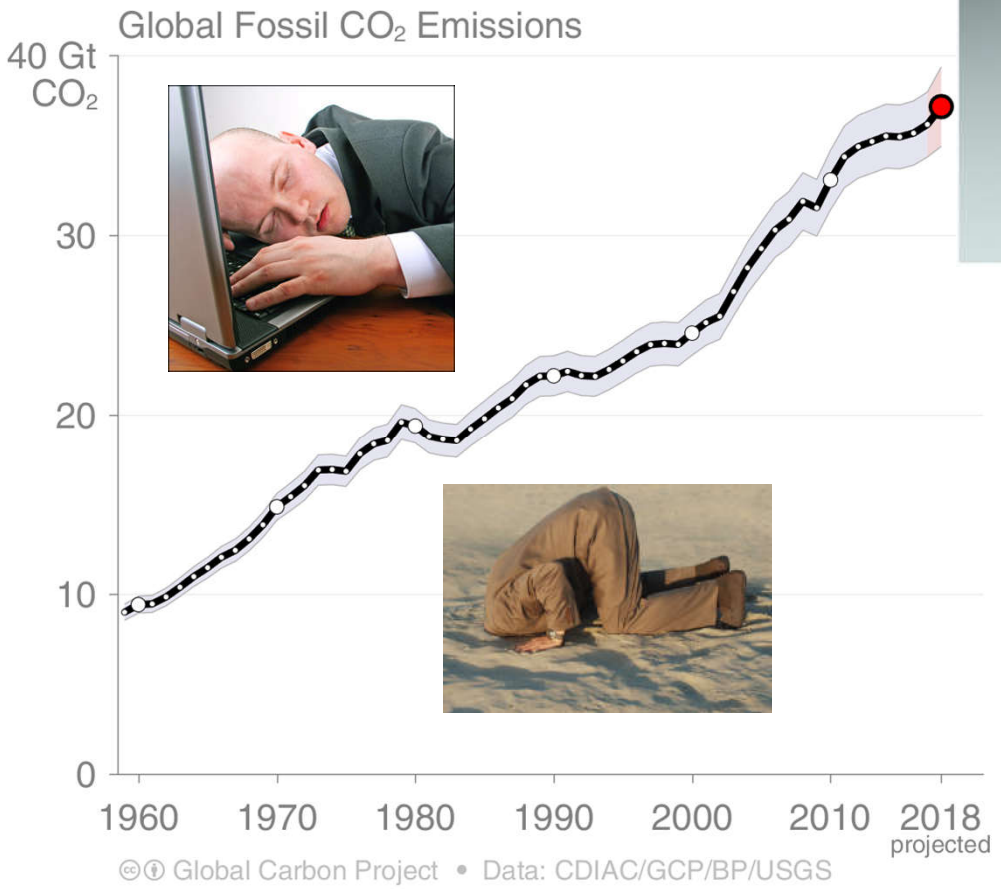
Transport

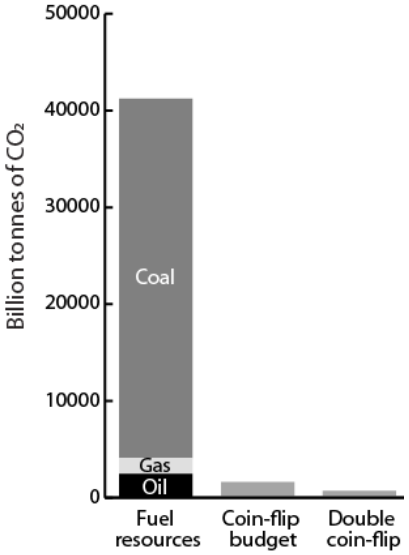
Antibiotics

Population


THERE IS NO PLANET B
Contents

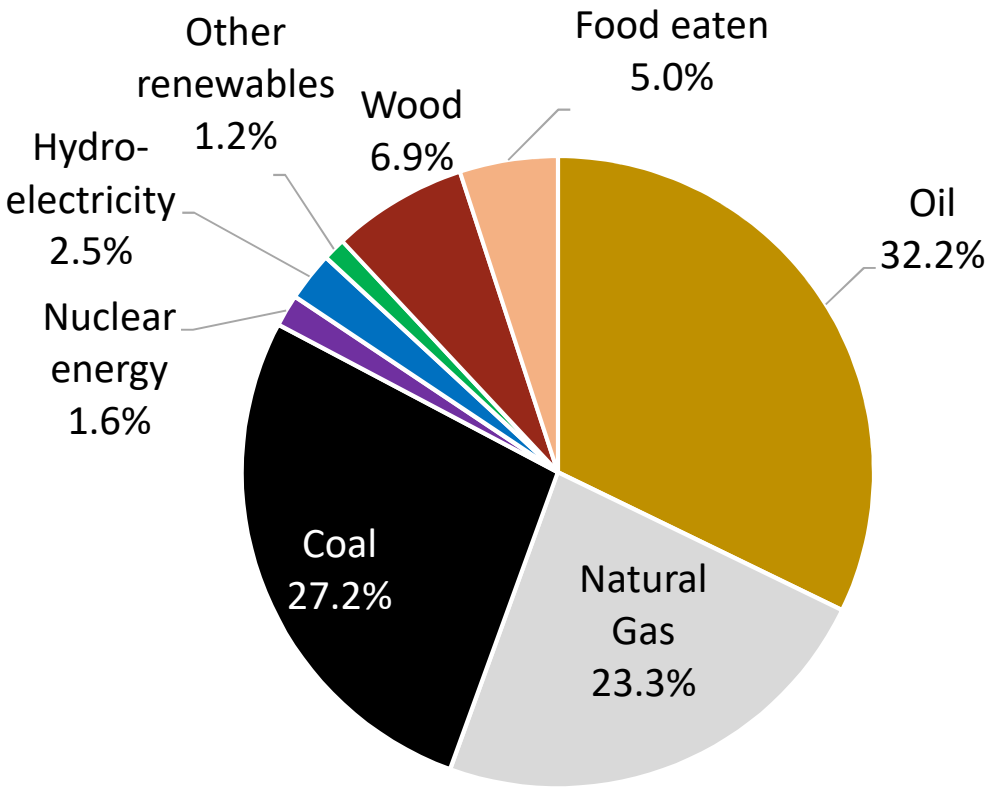
Climate emergency in one slide



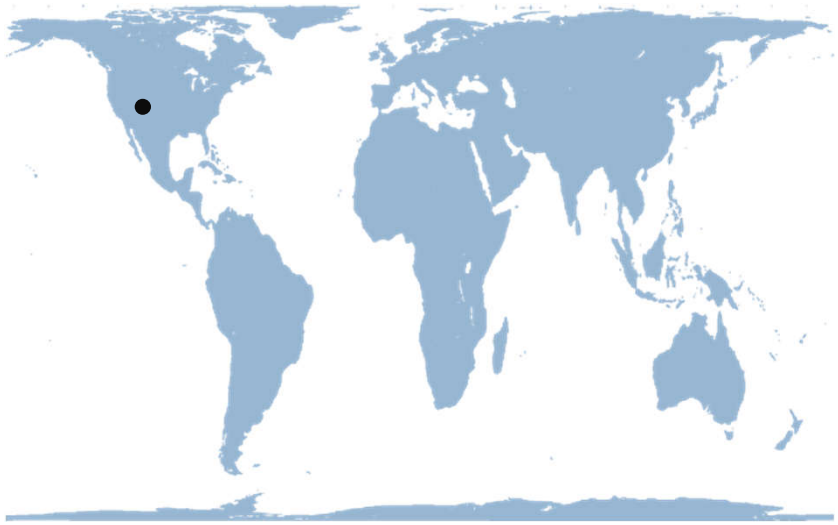


A race between tipping points?

Today's global energy supply



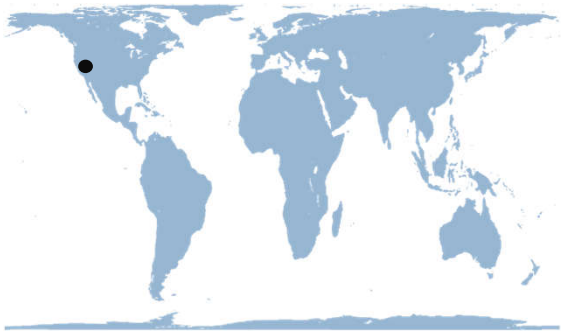
How much of the world's land area would need to be covered in solar panels to meet today's human energy needs?



2017

0.1% = 228 miles square

But if we keep growing our supply ….



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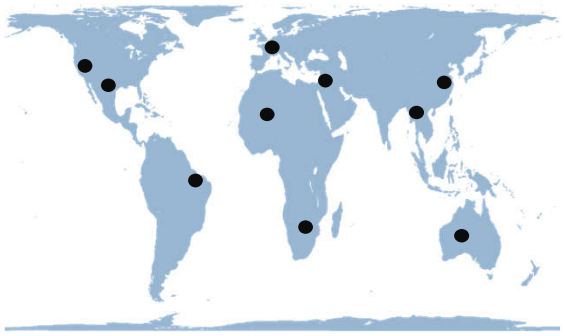
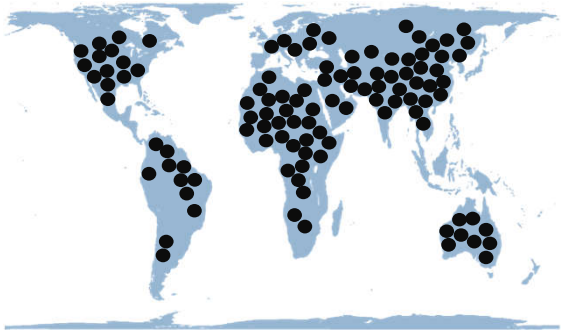


2117

1.0% = 2280 miles square



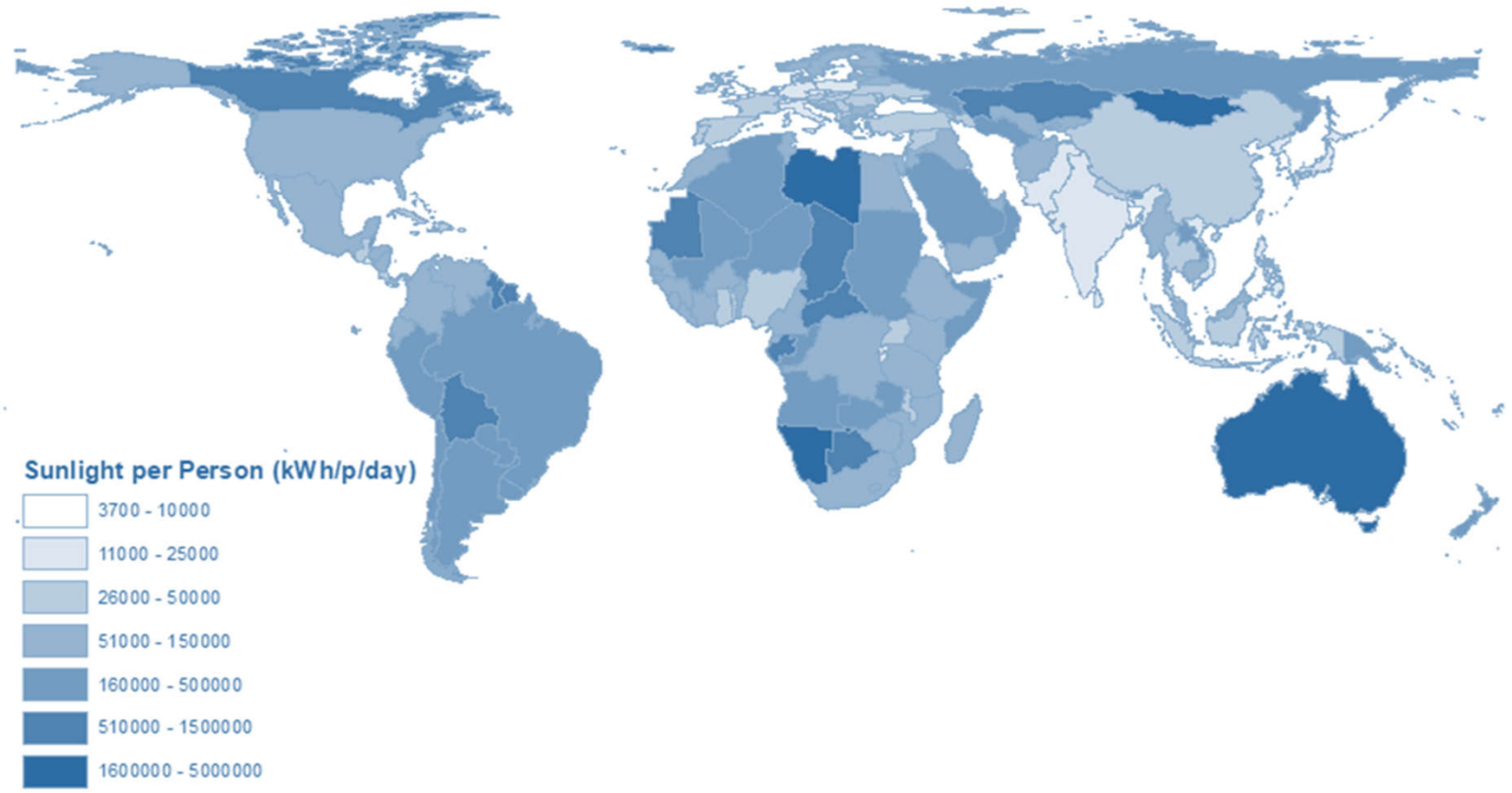
2217

10.4% = 2445 miles square

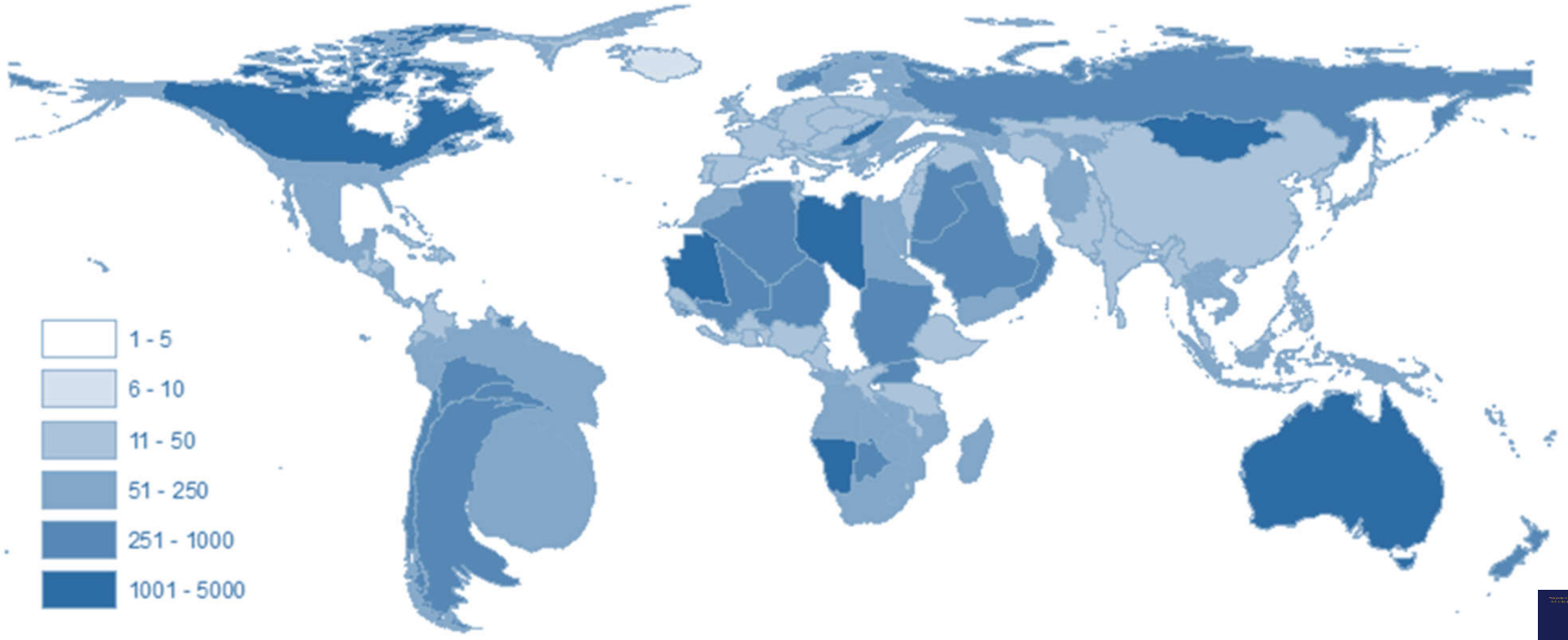
2317

111.8% = 8004 miles square

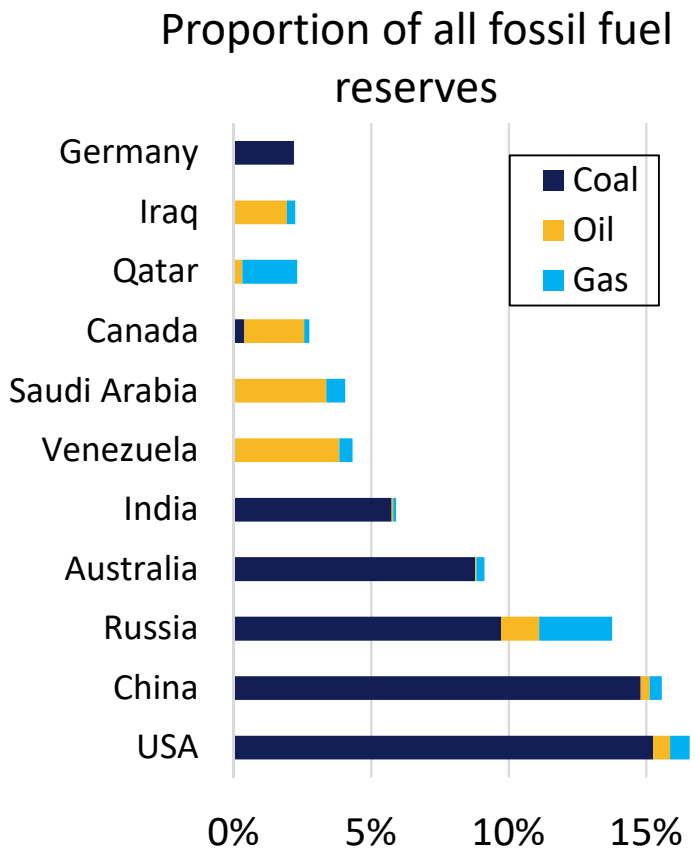
Who gets the sunlight?

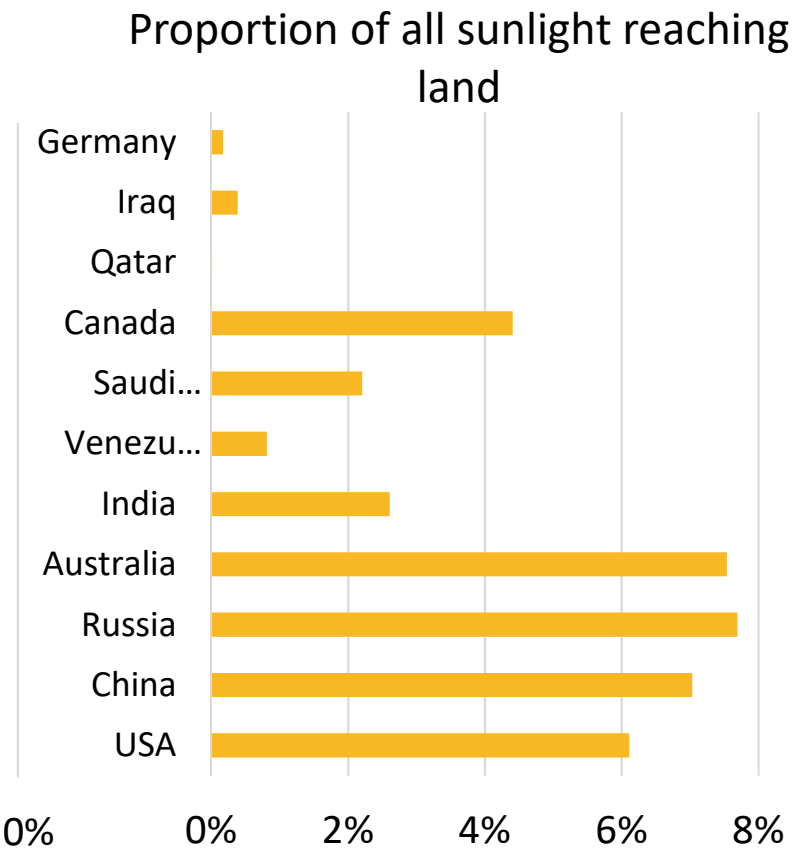


Who has the wind?

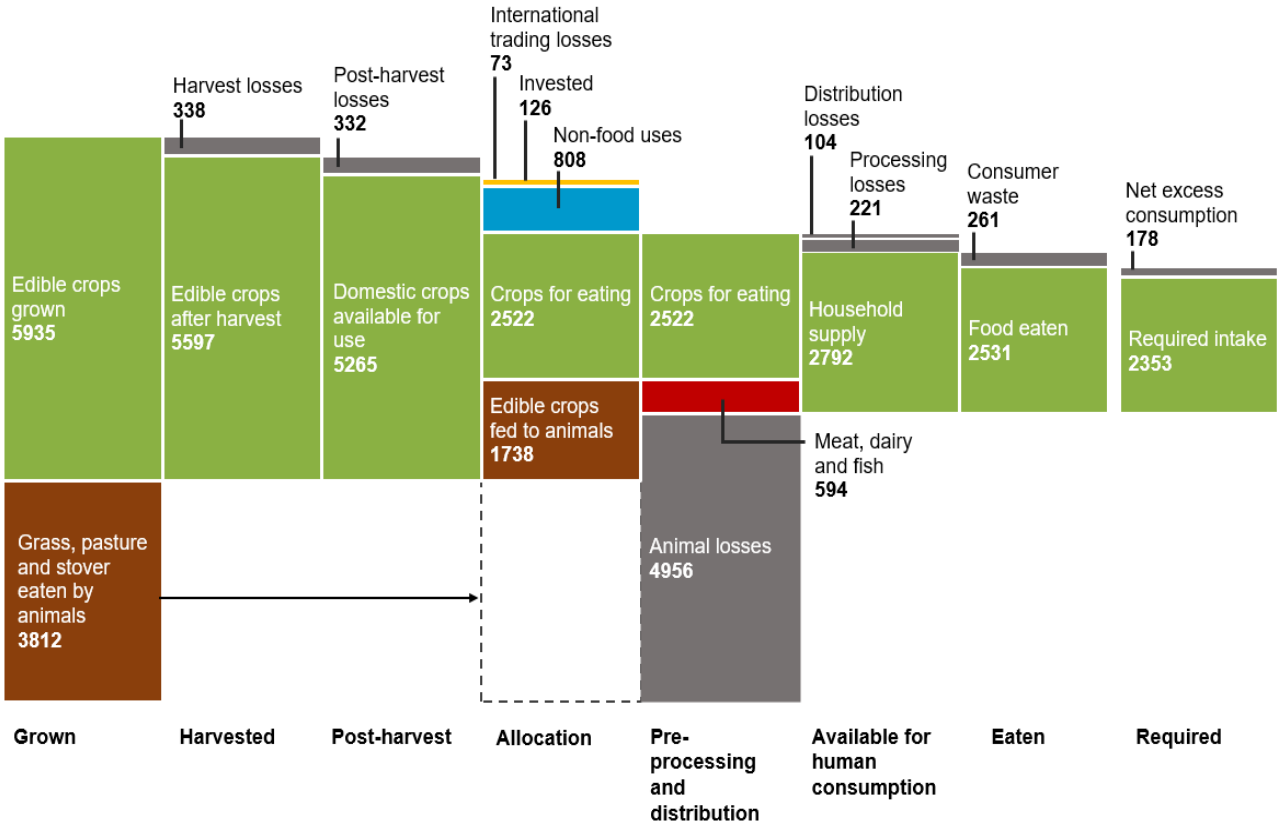


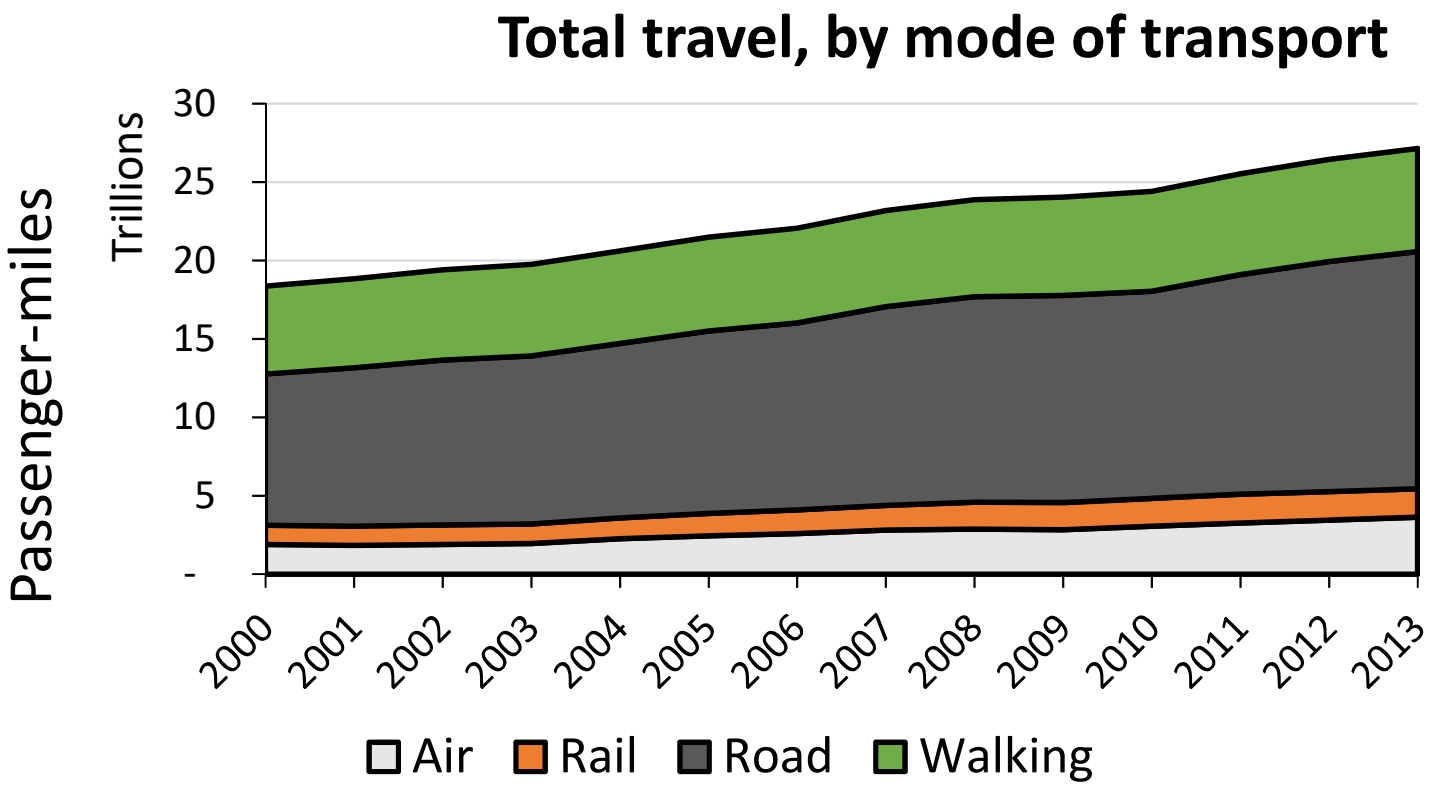
Those with fossil fuels usually also have sun





Where do the world's calories go?




Total travel, by mode of transport
Passenger-miles
Trillions
30
25
20
15
10
5
-
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
Air
Rail
Road
Walking

There Is No Planet B: A Handbook for the Make or Break Years

Energy

Climate Emergency

Biodiversity

Growth

Plastics

Economics

Technology

Food

Other Pollution

Money

Business

Ocean Acidification

Metrics

Investment

Transport

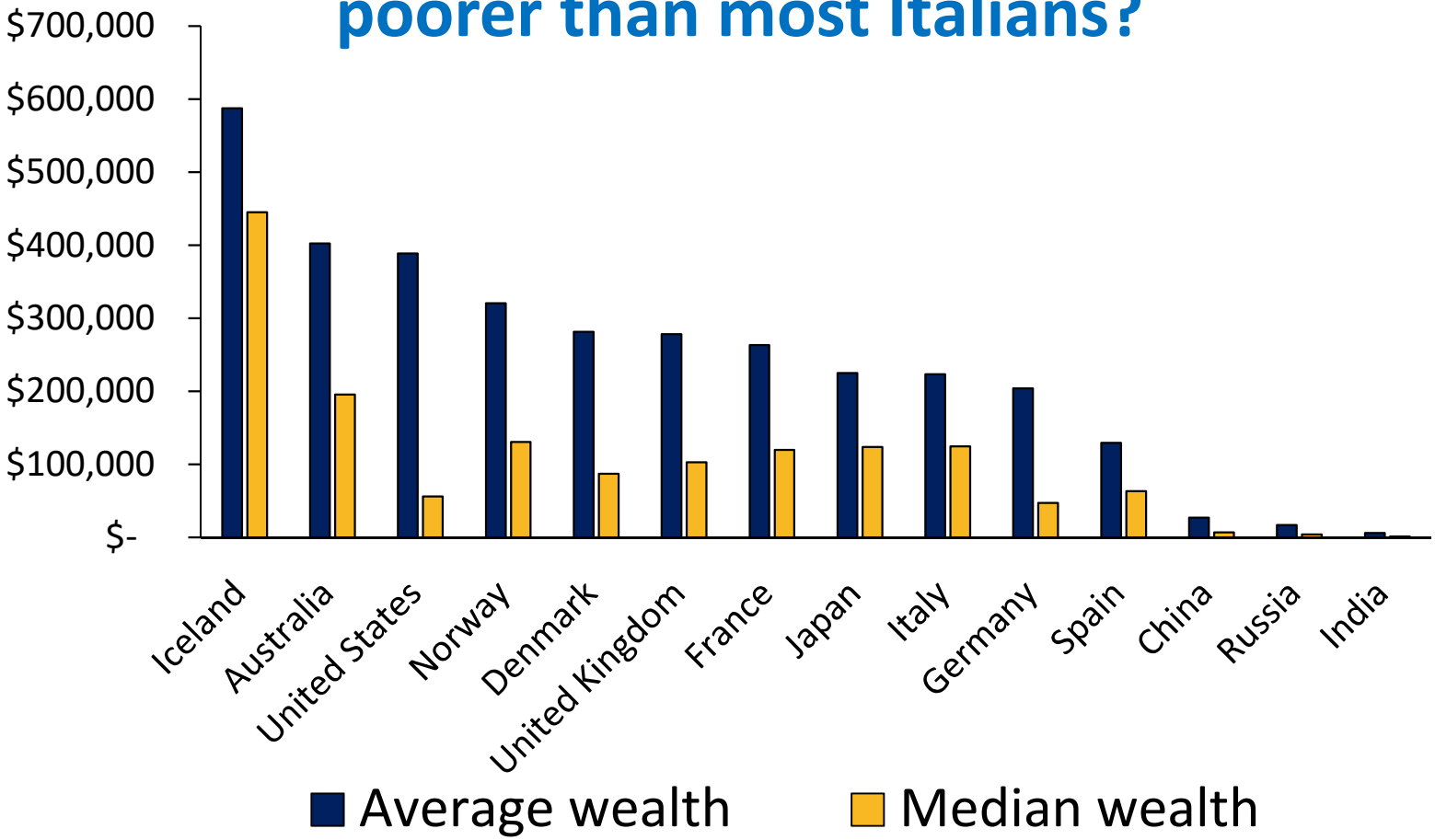
Inequality

Politics

Antibiotics

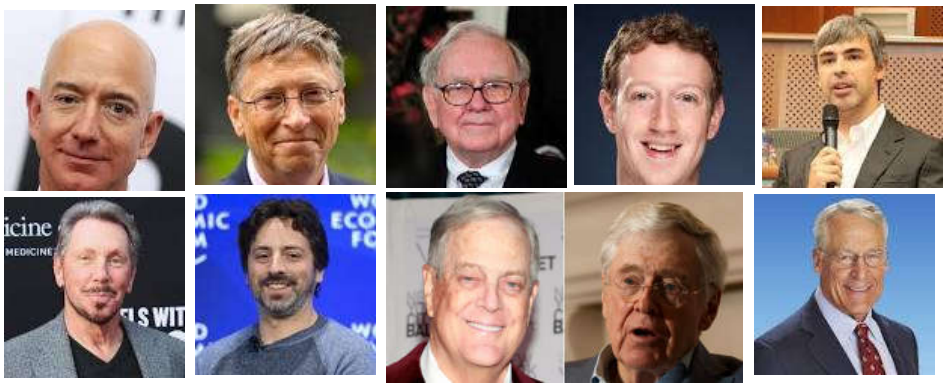
Population

Why are most Americans so much poorer than most Italians?

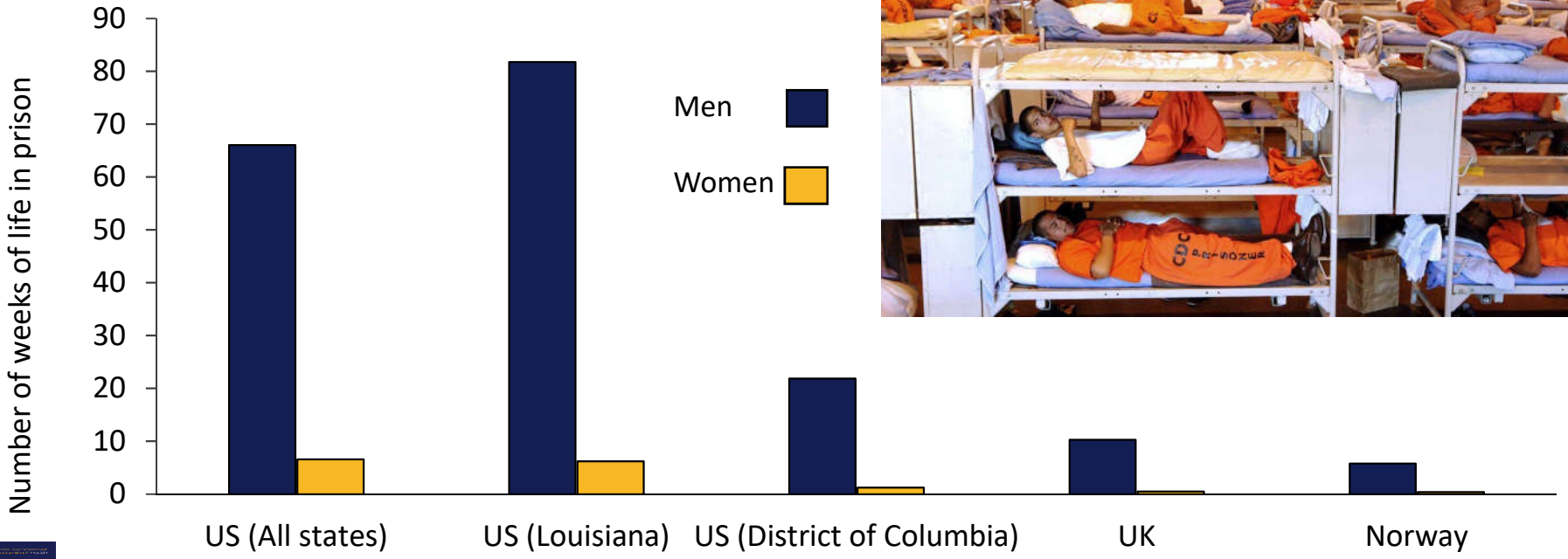


The ten wealthiest Americans could quadruple the wealth of the poorest half of Africa

- and still be billionaires



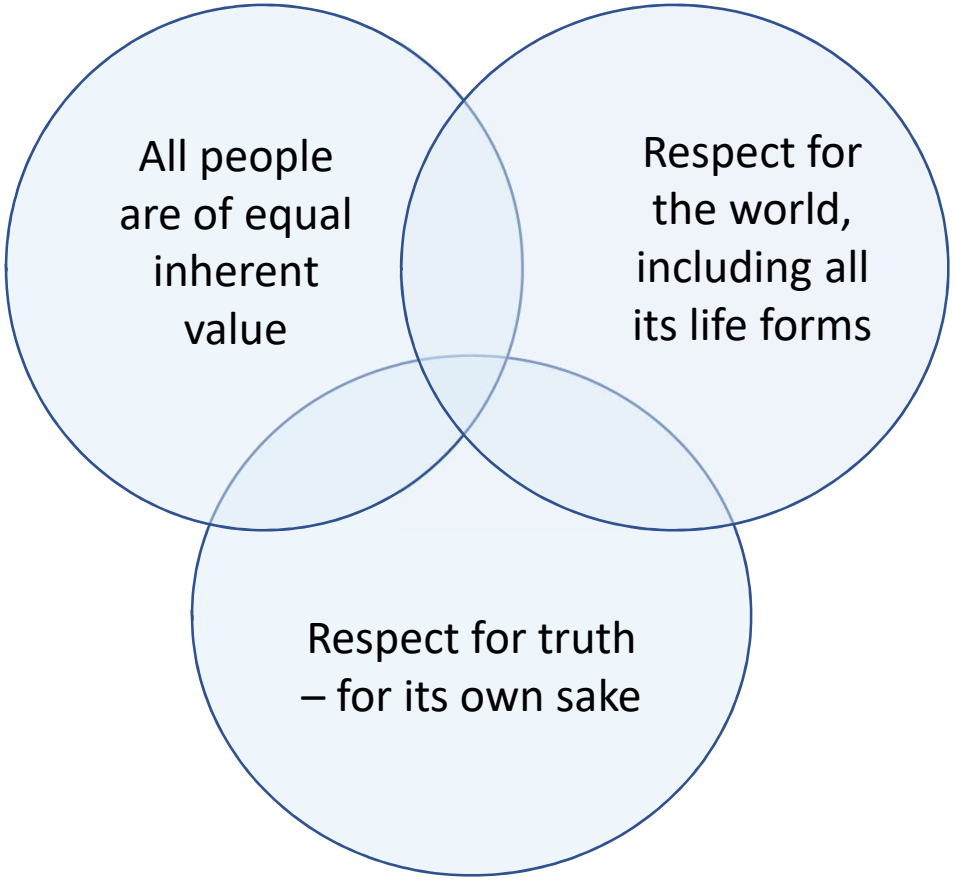
How many weeks can we expect to spend in prison during our lifetime?



There Is No Planet B: A Handbook for the Make or Break Years

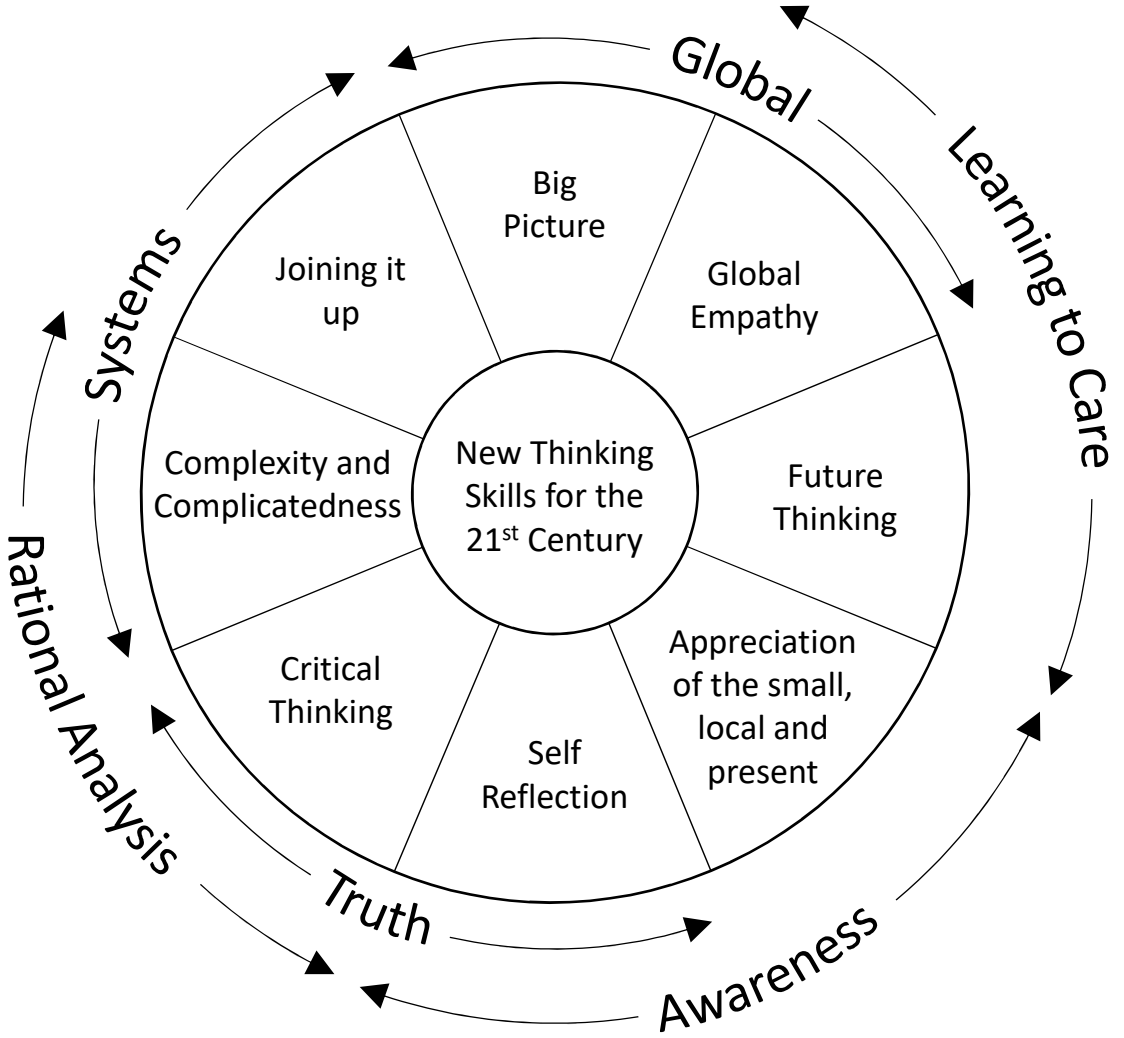
Energy
Climate Emergency
Biodiversity
Growth
Plastics
Economics
Technology
Food
Values and thinking skills
Other Pollution
Money
Business
Ocean Acidification
Metrics
Investment
Transport
Inequality
Politics
Antibiotics
Population

Three values we can no longer live without



Truth and Trust

Eight new thinking skills for the 21st Century



When it's all so global, what can *we* do?

Imagine

What might we aim for?

When it's all so global, what can *we* do?

Imagine

Influence

Insist

Role model

Develop Skills and values

Protest

Anthropocene-fit investment

- Every time we spend or invest we steer the future
- Every divestment creates an investment opportunity
- Investments now need to be as **transparent** as product supply chains need to be
- **'Fiduciary duties'** must include more than financial returns
  - Non-financial criteria must have **quantified weighting**
  - In general this will financial require **preparedness to compromise** financial returns.
  - Asset managers need to feel ESGs are part of core responsibility
- **Value boundaries** must include all people and species
- **Trust** and **trustworthiness** will be critical

What might you do now?

- Ensure an Anthropocene-fit investment is available to all.
  - E.g. 1.5 degree compatible
  - Other criteria
  - Find a way of being trusted and trustworthy
- Create transparency for customers
- Put weighted ESG criteria into all investment assessments
- Engage staff, customers and other stakeholders
- Lobby for a new interpretation of fiduciary duty
- Set the culture by integrating sustainability into everything you do

Divest or stay engaged?

DivestInvest Criteria

- Zero lobbying or promotion (directly or indirectly) of messages that are inconsistent with 1.5 degrees or other ESGs
  - Tough scrutiny is required here
- Zero spend on exploration
- Zero investment in extraction infrastructure
- Remuneration incentivises strategy for 1.5 degrees and ESGs
- Coherent strategy for transition in a timescale in line with the science

Scrutinise and publicly expose the greenwash

There is No Planet B

A Handbook for the Make or Break Years

Thank you for listening

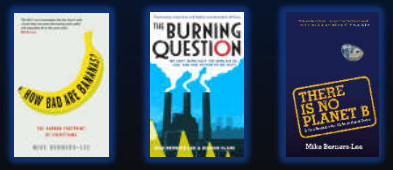
Any questions?

What do *you* think?

Pease send thoughts, improvements and collaboration ideas to

Mike@TheresNoPlanetB.net

Twitter: @MikeBernerslee



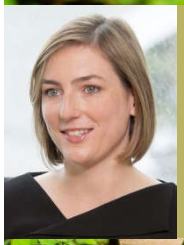
Practitioner panel

Thinking Ahead Institute
Willis Towers Watson

Panelists

Aled Smith

Investment Director
J O Hambro Capital Management



Catherine Flockhart

Client Service Director
Baillie Gifford

Russell Picot

Chair of the Trustee board
HSBC Bank (UK) Pension Fund

Concluding remarks

Tim Hodgson

Thinking Ahead Institute

Willis Towers Watson

nature
International journal of science

Letter | Published: 01 July 2019

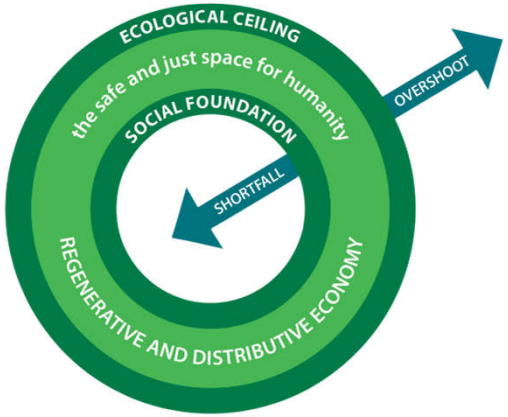
Committed emissions from existing energy infrastructure jeopardize 1.5 °C climate target

Dan Tong, Qiang Zhang ✉, Yixuan Zheng, Ken Caldeira, Christine Shearer, Chaopeng Hong, Yue Qin & Steven J. Davis ✉

Nature **572**, 373–377 (2019) | Download Citation ⬇
14k Accesses | **3** Citations | **4410** Altmetric | Metrics »

Here's the gig

'We' have built an economic machine that runs 24x7



The economic machine is making the rich richer,
and is dumping its waste into environmental sinks

Our past returns were overinflated – because we
didn't pay the true cost of production

EITHER | we maintain the machine and risk a future collapse in profits / returns — Spectate

OR | we risk current profits / returns and re-plumb the machine — Participate

The world NEEDS a +1.5C economy

…what would that look like?

- What should stewardship / engagement look like?
- What role should exclusions play?
- Do we need to deliberately strand some of our assets?
- What 'inevitable policy response' (PRI) should we anticipate?
- How do we invest in / build a circular economy?
- How do we select which technologies to fund and scale?
- When is too late?
- How do we redefine fiduciary duty?
- How should we structure manager mandates?
- How should we change monitoring and reporting?

Future research agenda

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Call to action

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Who's in?

Limitations of reliance

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