

LIFE

The Incredible Year

68

SPECIAL
ISSUE



WATTS BIG TRIANGLE
ON MICHAEL BUCH
OFF-3 TRAVELER
LINCOLN W. DAVIS

with a baby
in space,
the outline of
South America

JANUARY 10 • 1969 • 40¢

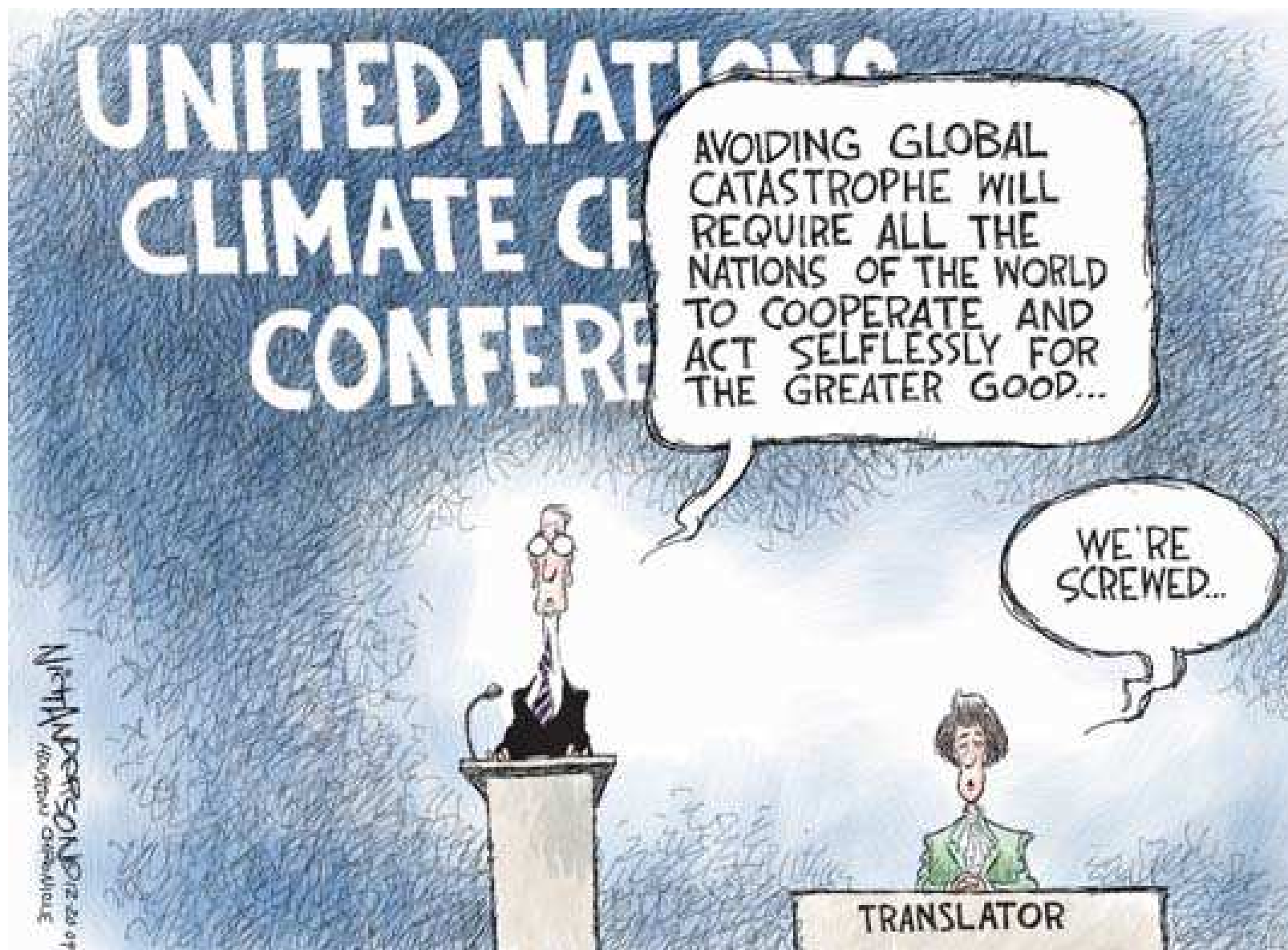
LSE, March 2010



Adapting to Climate Change (within a new economic framework)

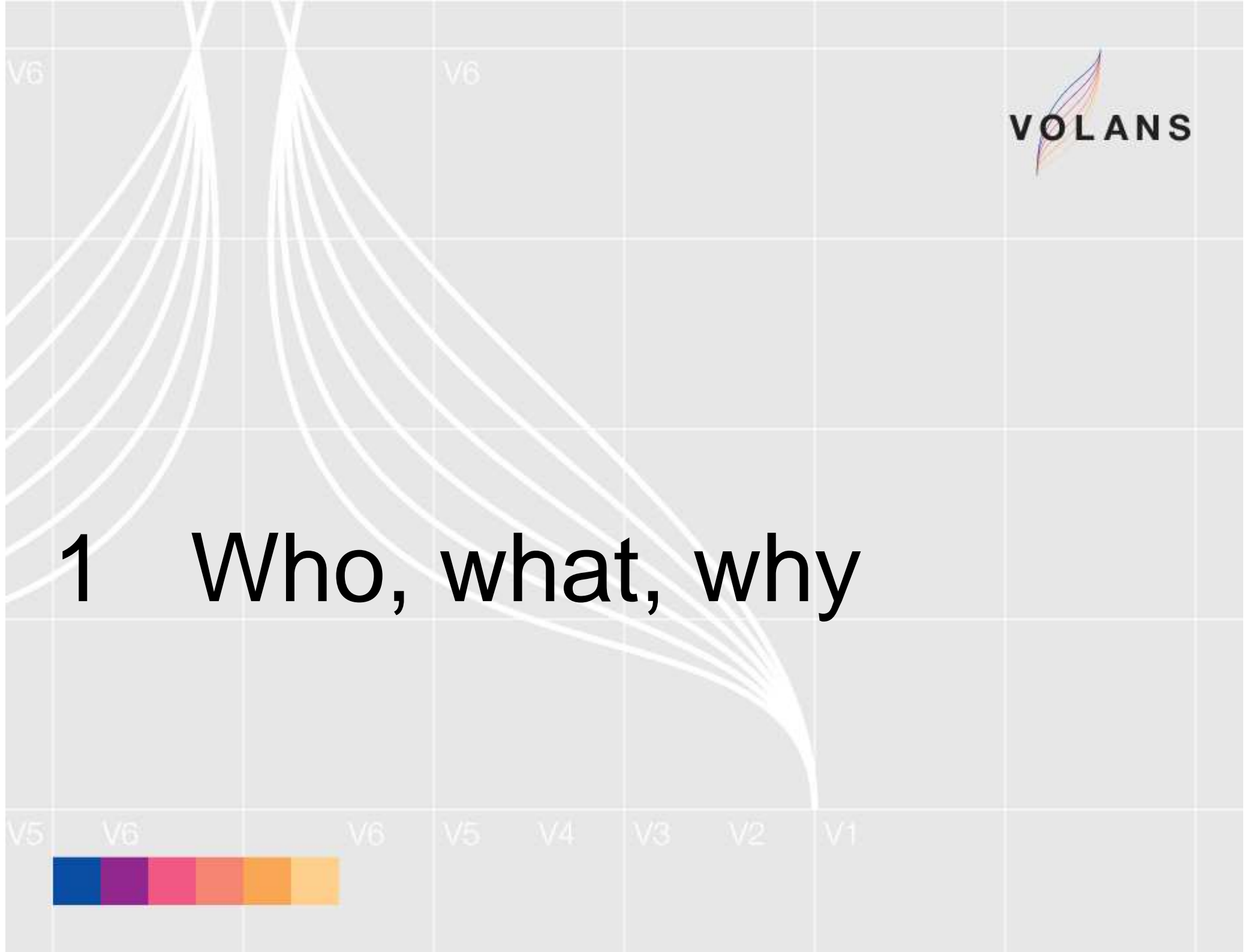


Picking up the pieces

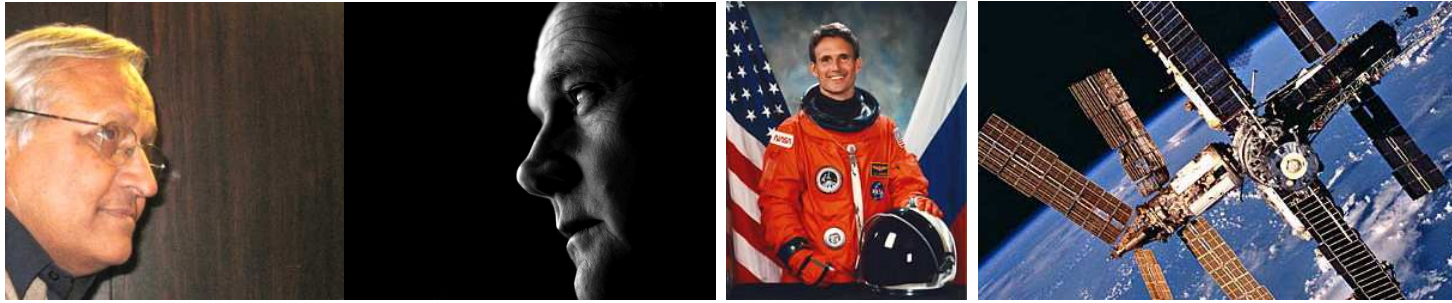


Today's **menu**

- Introduction
- Economic Context
- Climate Context
- Solutions & Pathways to Scale

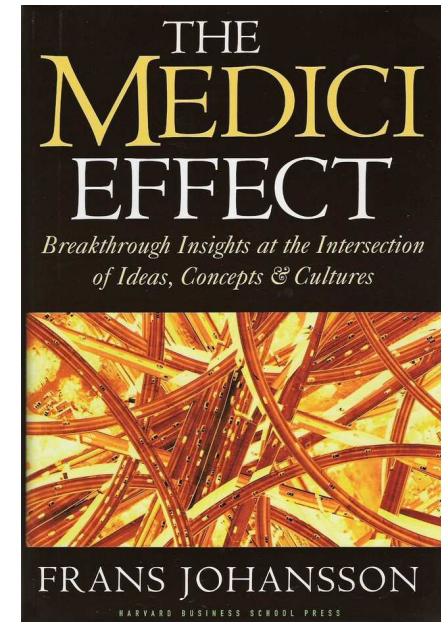


1 Who, what, why



Co-founder:

- **ENDS** (1978-83, ongoing)
- **SustainAbility** (1987-ongoing)
- **Volans** (2008-ongoing)
- A-to-Z of Boards and Advisory Boards, from **Aflatoun** to **Zouk Ventures**



Who?



Terms: climate **adaptation**

- International Panel on Climate Change (IPCC) defines adaptation as “**adjustment in natural or human systems to a new or changing environment.**”
- Limits to how far e.g. island states can adapt.

Who?

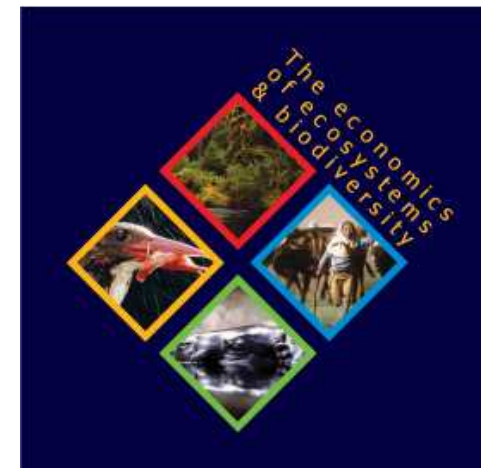




Terms: climate **mitigation**

- International Panel on Climate Change (IPCC) defines as: “**An anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse gases.**”
- The more mitigation, the less we need to adapt.

Who?



Climate cacophony

- “If we spent \$800 billion over the next 90 years solely on the Gore solution of mitigating carbon emissions, we would rein in temperature increases by just 0.3 degrees by the end of this century.” Bjorn Lomborg



Who?

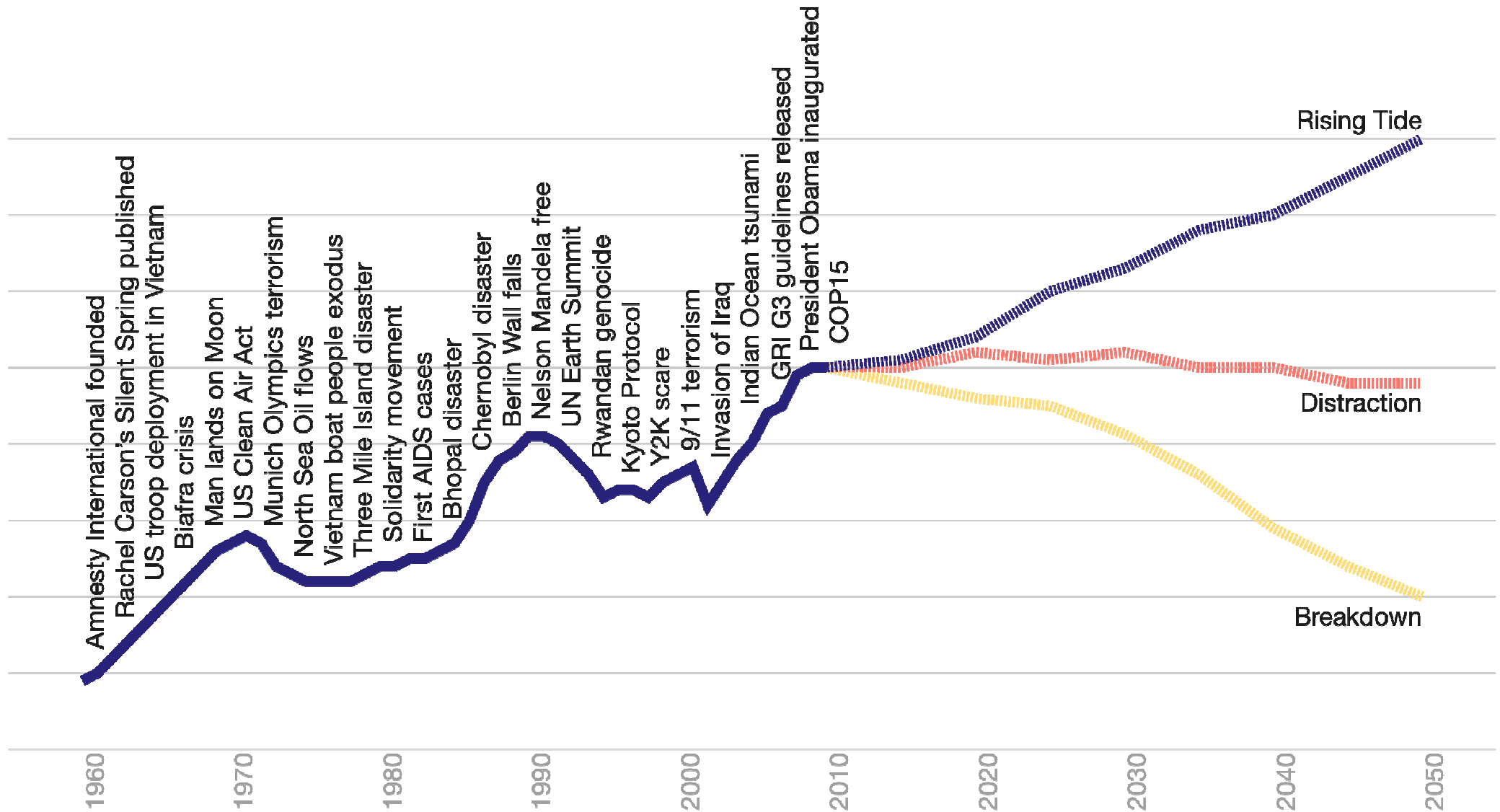
2 The Economic Context





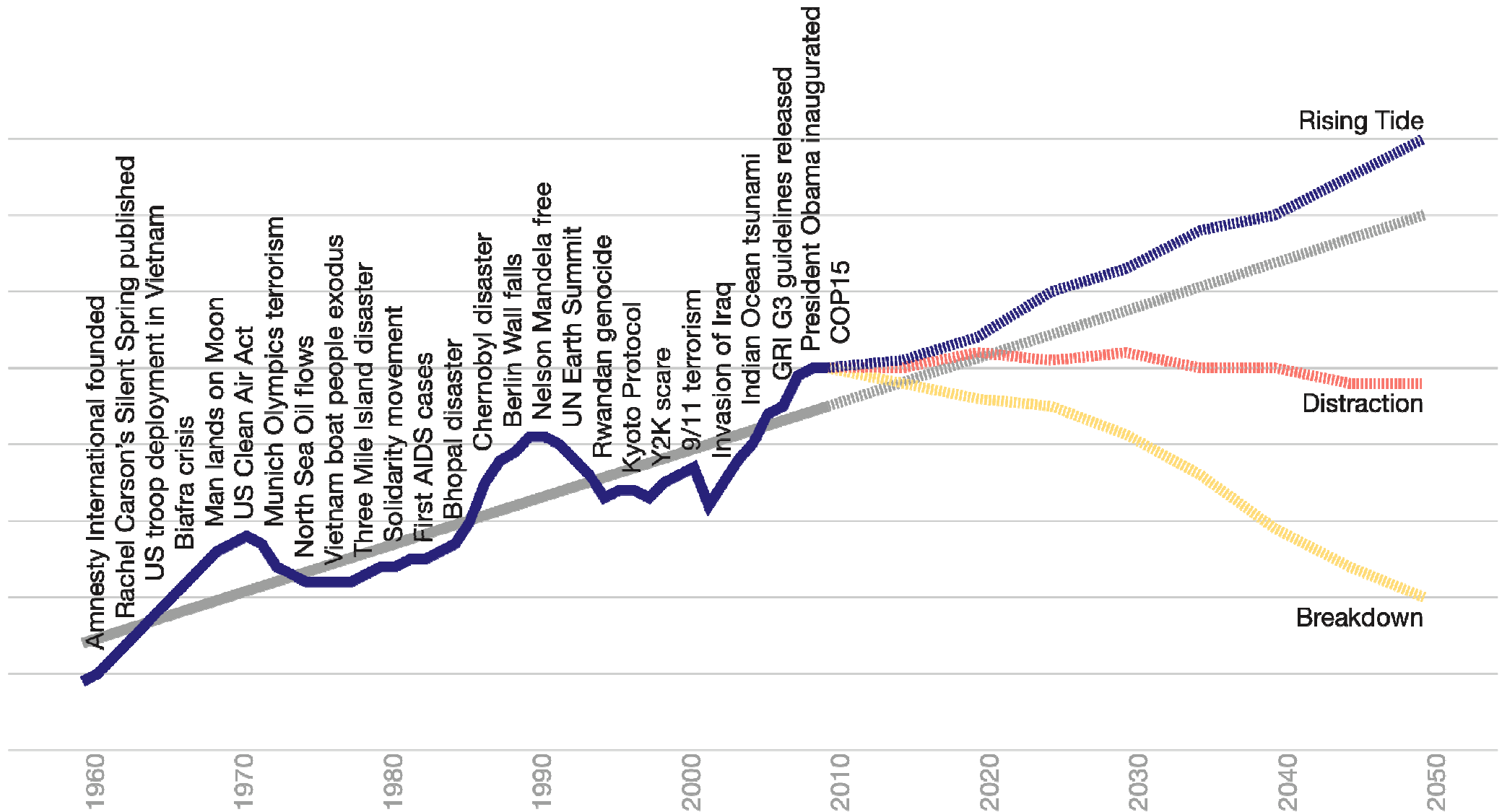
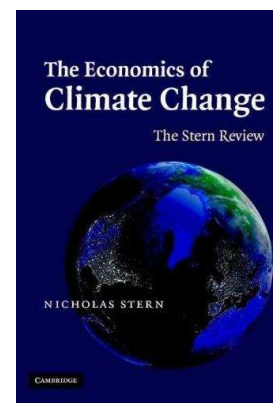
Upwaves and Downwaves

Interest in Sustainability



Upwaves and Downwaves

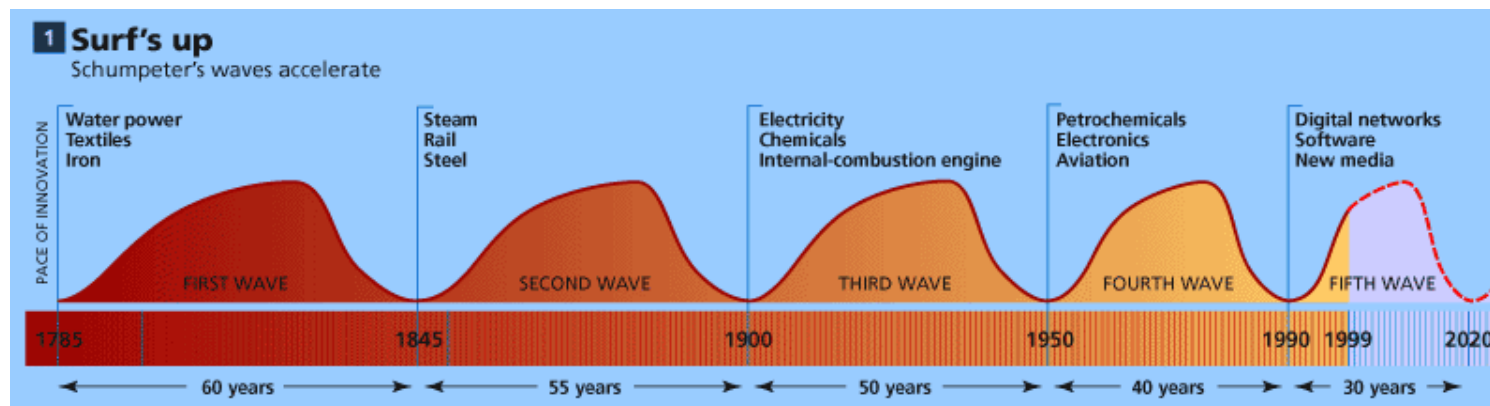
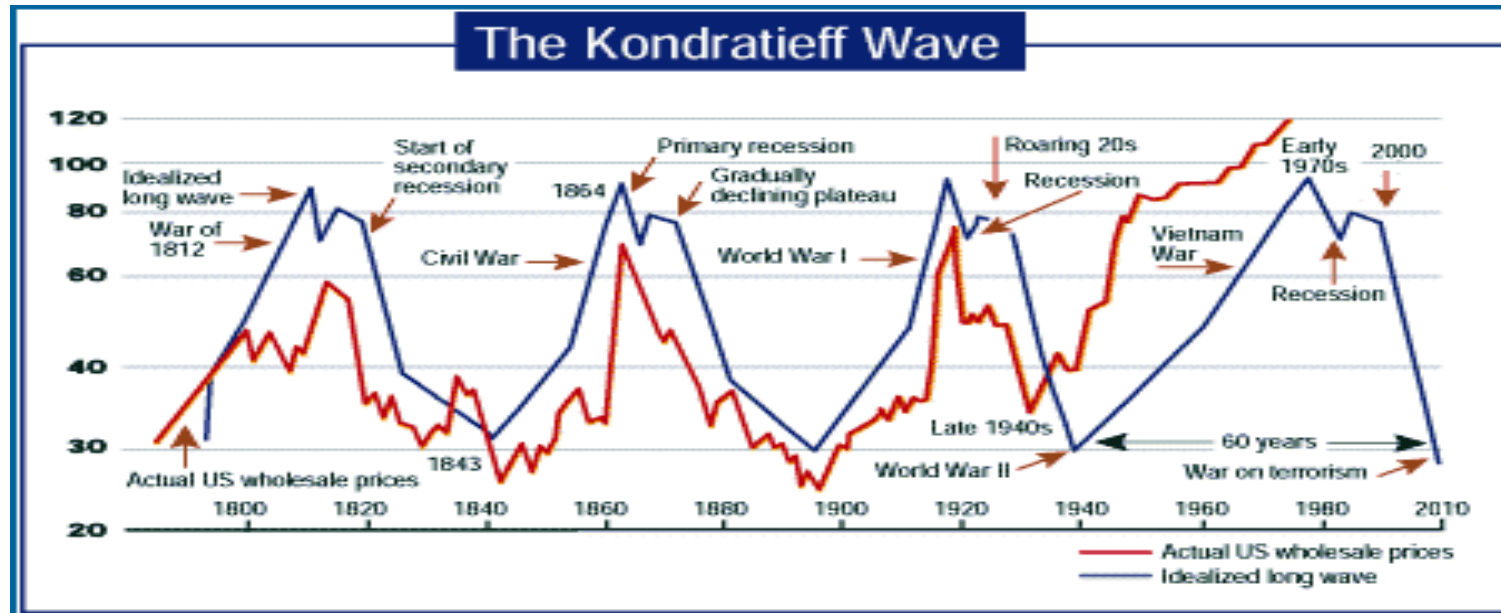
Interest in Sustainability







Where are we?

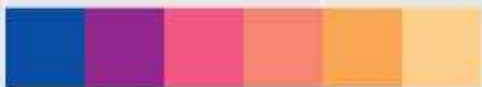


Economy

Forms of global capitalism



	Pessimism	Optimism
Decade 2: 2011-20	A traditional Chinese golden dragon with red and yellow scales, breathing fire, set against a dark red background.	A glowing, fiery phoenix with orange and yellow wings, set against a dark background with light rays.
Decade 1: 2001-10	A man in a suit running away from a large brown bear, with a financial market board in the background.	A large, bronze bull statue standing on a cobblestone street, symbolizing market optimism.

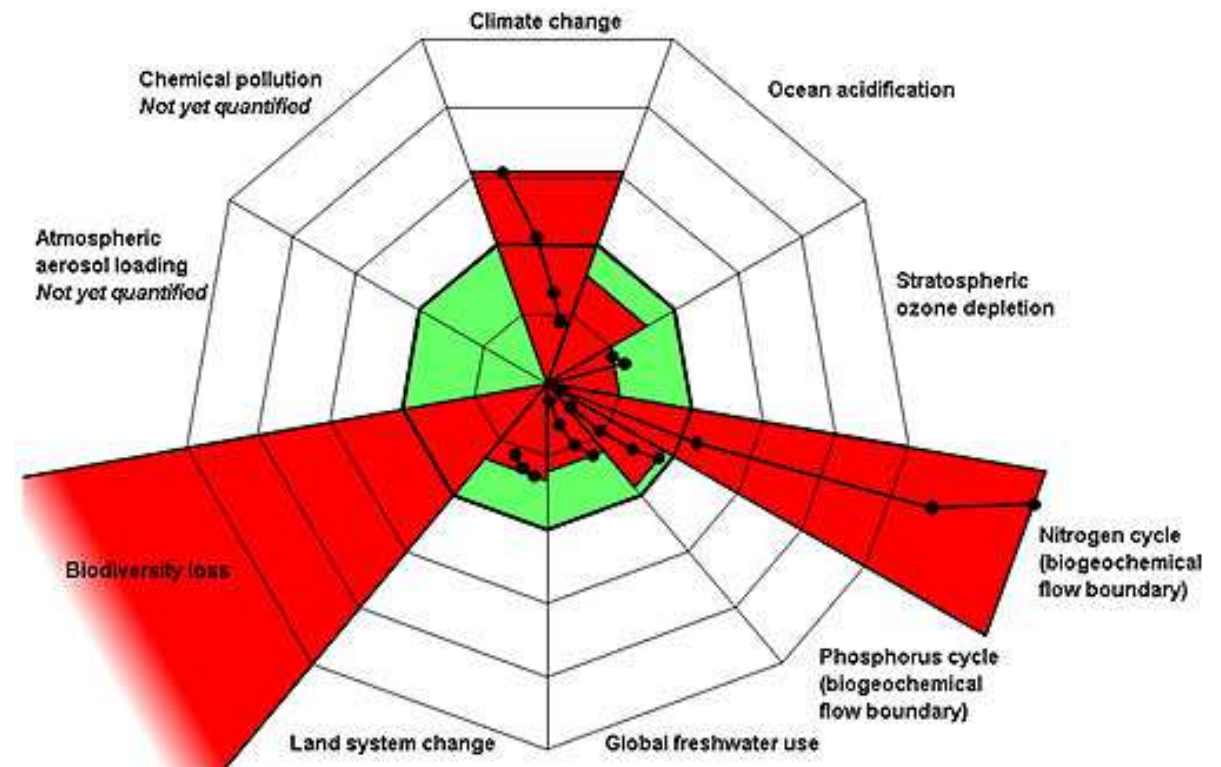


3 The Climate Context

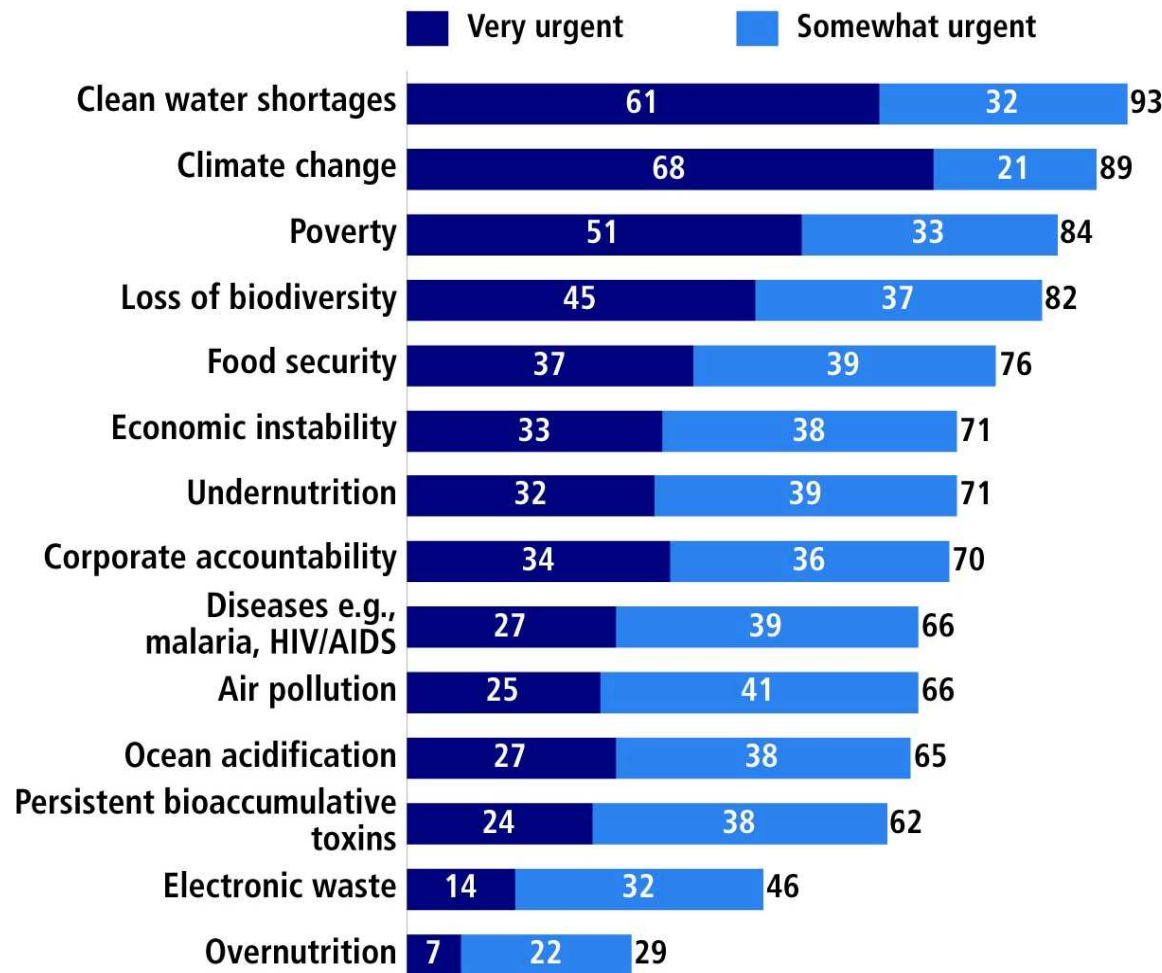


9 critical boundaries

1. Stratospheric ozone layer
2. Biodiversity
3. Chemicals dispersion
4. Climate change
5. Ocean acidification
6. Freshwater and global hydrological cycle
7. Land system change
8. Nitrogen and phosphorus cycles
9. Atmospheric aerosol loading



Clean water, climate change, poverty, and biodiversity are seen as the most urgent sustainability challenges

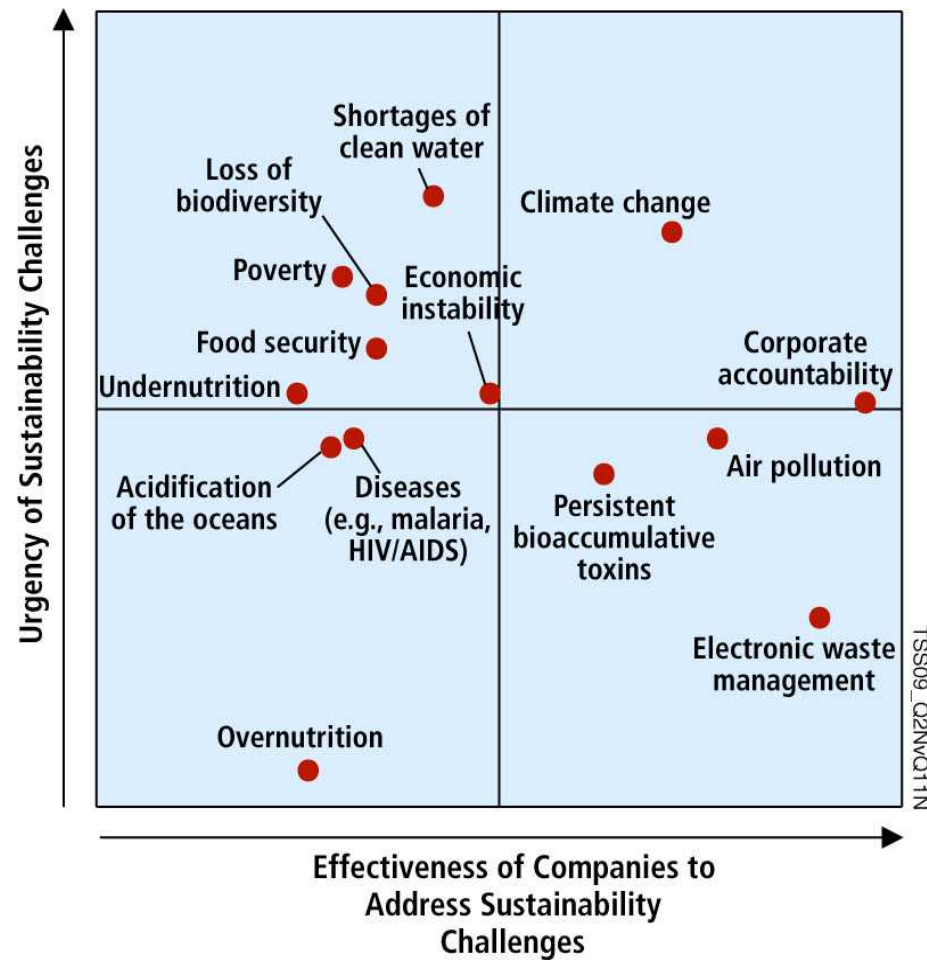


12 of the 14 issues tested are seen as urgent by experts. Among them are various social and economic issues such as poverty, food security, and disease.

This suggests the emergence of a highly complex agenda where many diverse issues will compete for attention and resources.

Climate

There is a large divide between the urgency of and companies' effectiveness in addressing challenges



Climate

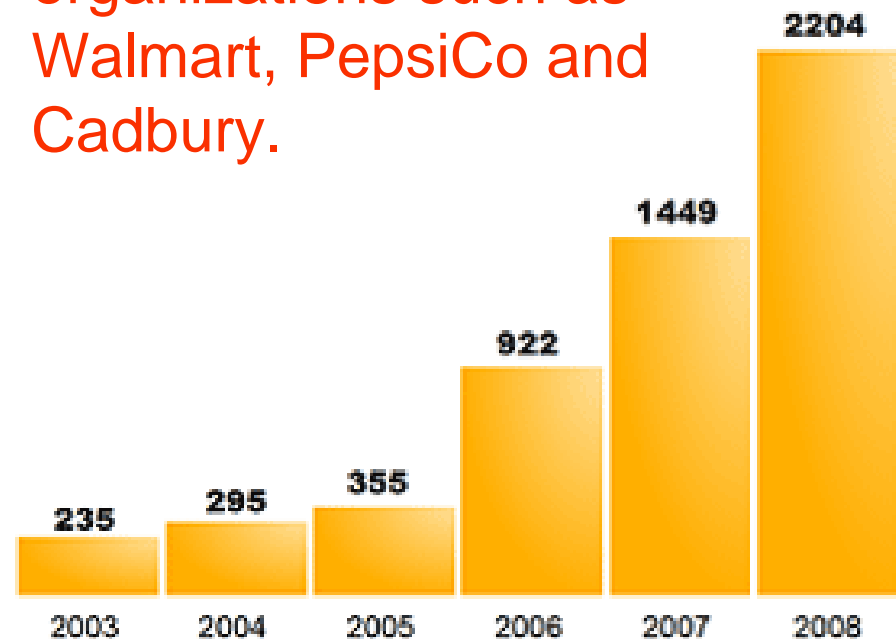
Carbon Disclosure Project

- 'Climate change is like the Internet; it arrives one day and gets bigger every year, it never goes away and you have to learn to make money from it.'

Paul Dickinson, CEO, CDP

Climate

We act on behalf of 475 institutional investors, holding \$55 trillion in assets under management and some 60 purchasing organizations such as Walmart, PepsiCo and Cadbury.





Phoenix 50: BYD



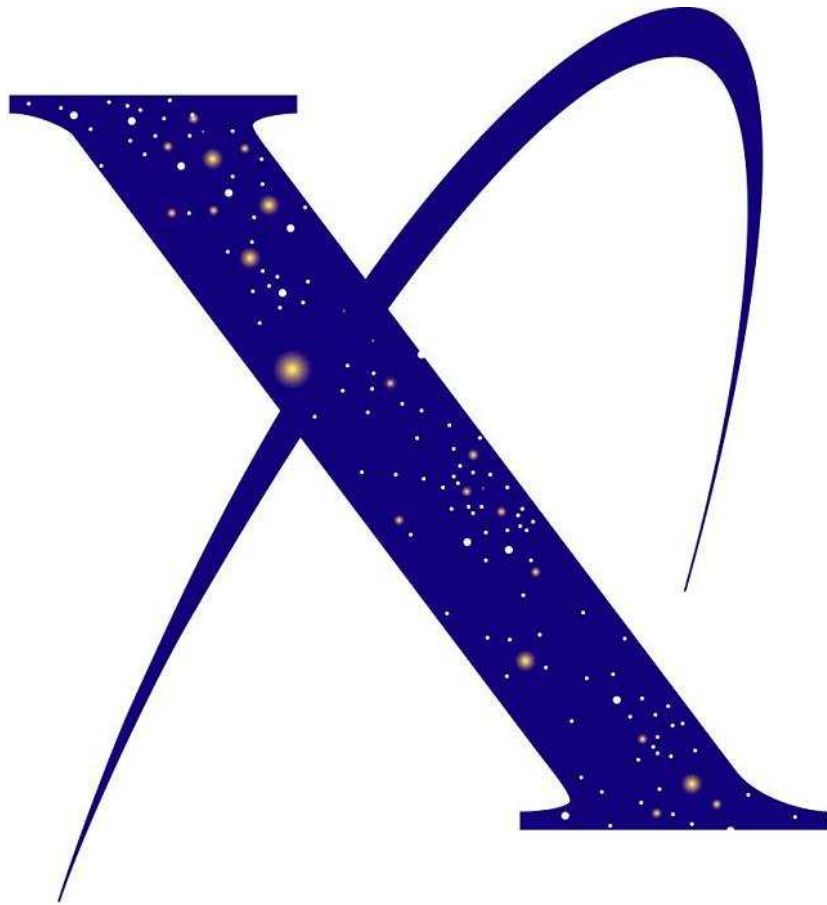
PHOTO: DAVID YELLEN



PHOTO: DAVID YELLEN

Climate

‘The impossible takes a little longer’



P R I Z E[®]

Climate

V1

V2

V3

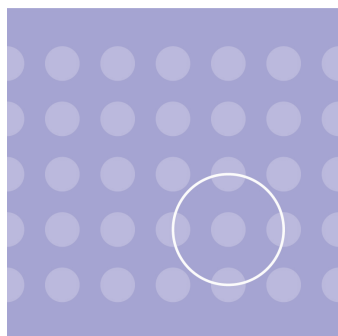
4 Pathways to Scale



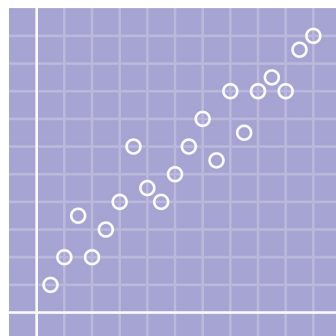
Pathways to Scale: **5 Stage Model**



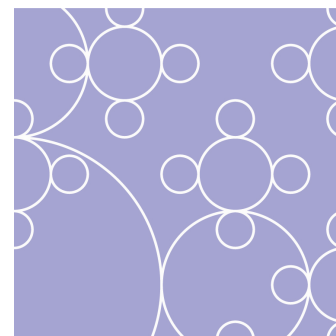
1: Eureka!



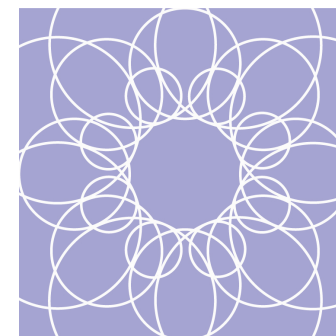
2: Experiment



3: Enterprise



4: Ecosystem



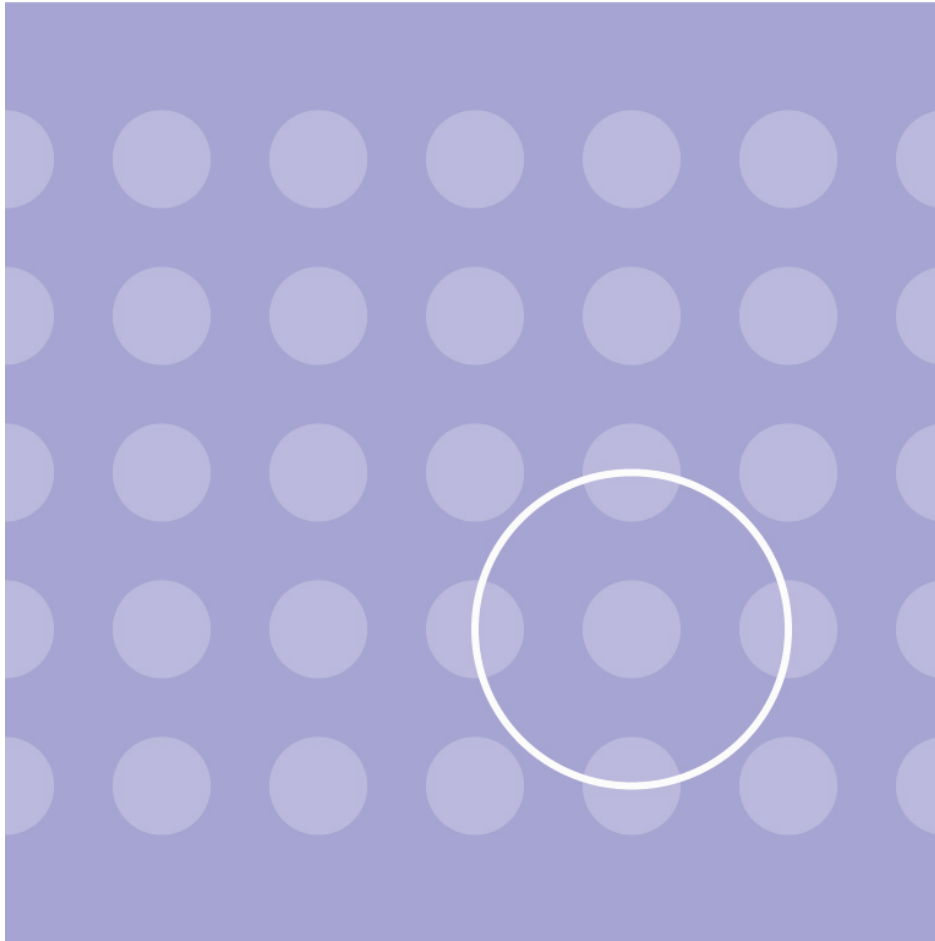
5: Economy

Stage 1: **Eureka!**



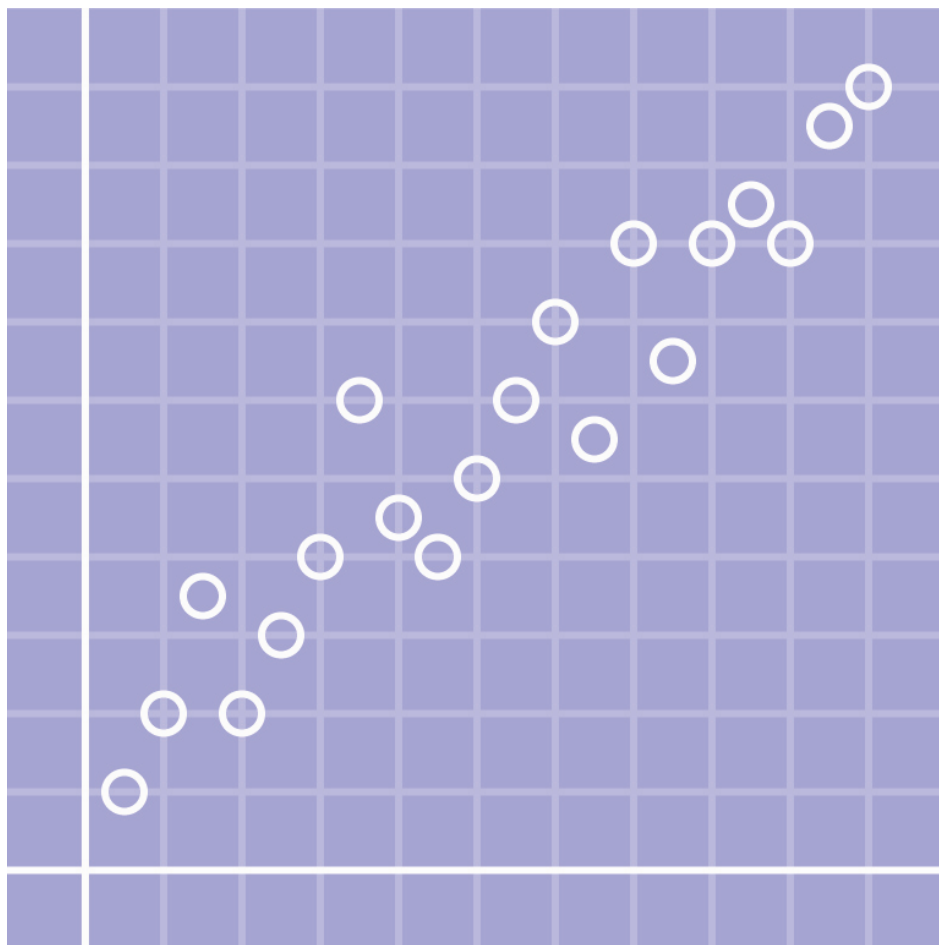
- Craig Venter
- Human genome
- *A Life Decoded*
- Algal biofuels + ExxonMobil
- Synthetic biology

Stage 2: **Experiment**



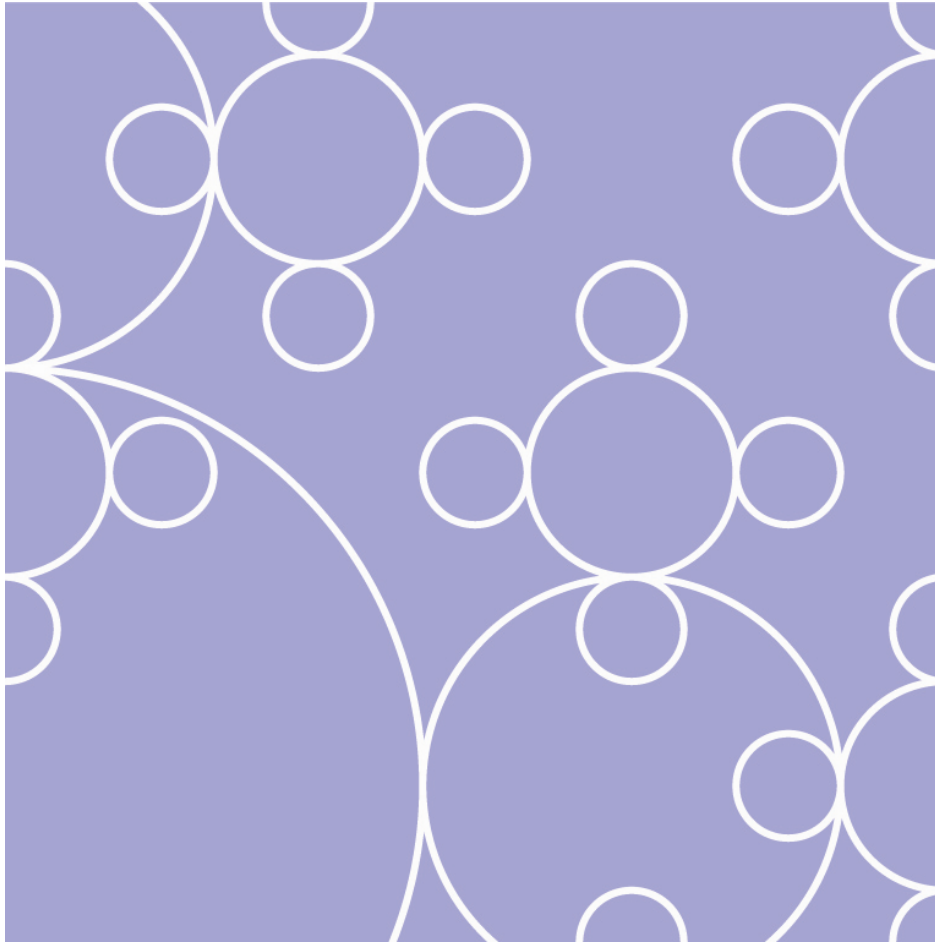
- Shai Agassi
- Better Place
- Israel
- Renault-Nissan
- Infrastructures

Stage 3: Enterprise



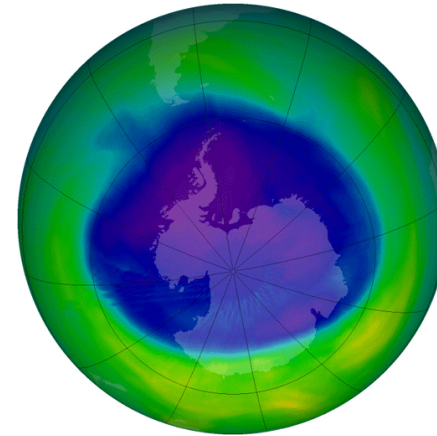
- General Electric
- Ecomagination
- \$6bn > \$12bn > \$17bn ('08)
- Forecast \$25bn, 2010
- Cut operational GHGs 41%

Stage 4: **Ecosystem**



- Desertec
- Munich Re, reinsurer
- Large-scale renewable energy
- Lowering risk
- EU policy (energy security)

Stage 5: **Economy**

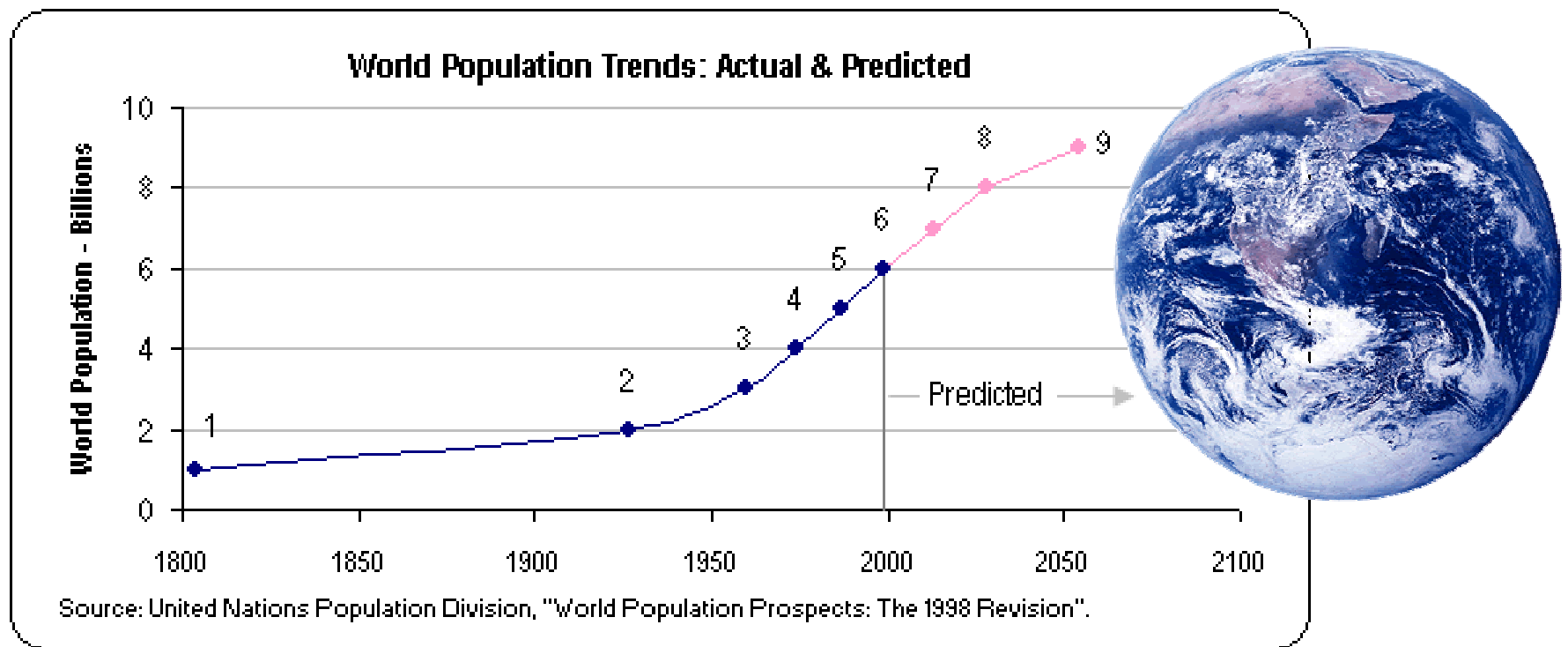


- Antarctic Ozone Hole
- DuPont, ICI
- BAS
- Montreal Protocol
- Black market (20%)

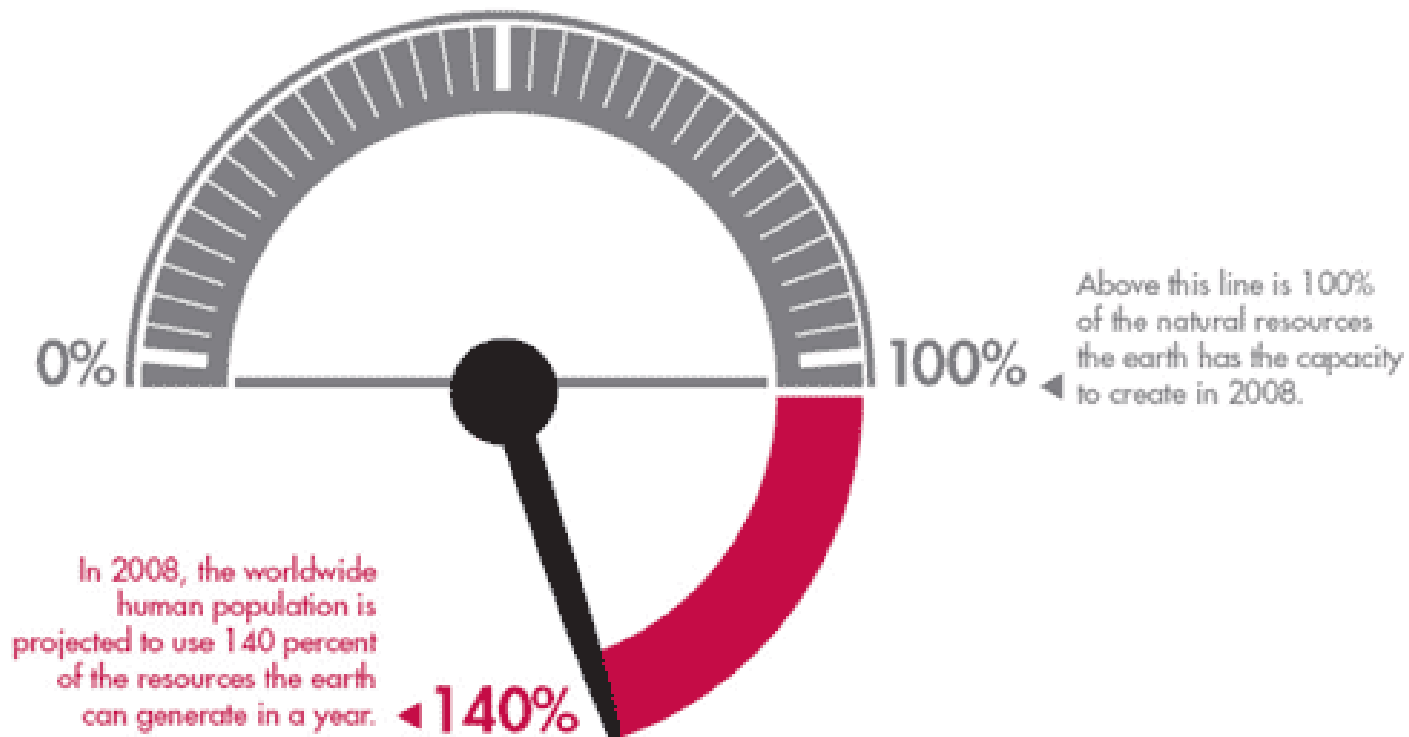
5 One Planet Economics



One Planet Paradigm: B29B

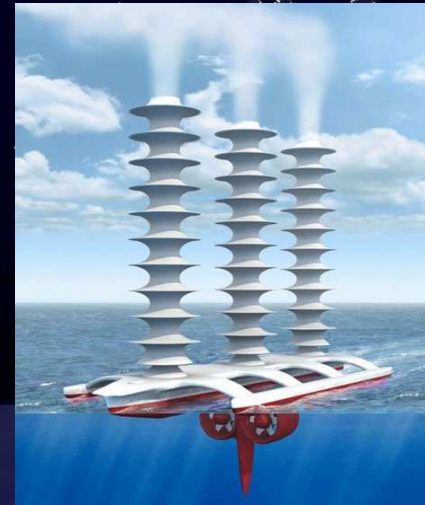
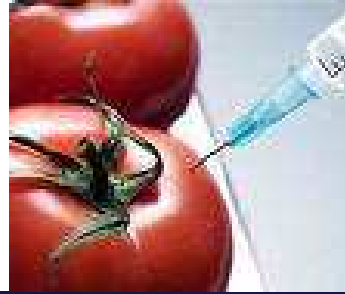


Global Footprint Network



One Planet

Time to **rethink**



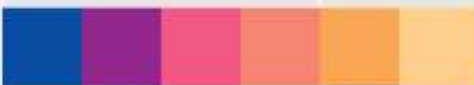
One Planet

WBCSD forecast



- Crisis = opportunity
- “In 2050, some 9 billion people live well, and within the limits of the planet”
- ‘Turbulent Teens’, 2010-2020, > ‘Transformation Time’, 2020-2050
- Green, brown, blue and red cities
- By 2030, \$40 trillion investment in cities

- Technological transformation, \$500B-\$1T a year
- 1-2% of GNP
- Step 1: price greenhouse gases





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