

# Sustainable and Regenerative Economics: Making the World a Better Place

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# Vocabulary evolves fast

- “Green” → footprint reduction;
- “Sustainable” → endurance;
- “Circular” → material re-use;
- “Regenerative” → net-positive ecological & social outcomes;



Net positive outcomes?





Net positive outcomes?





Net positive outcomes?





Net positive outcomes?





# Net positive outcomes?

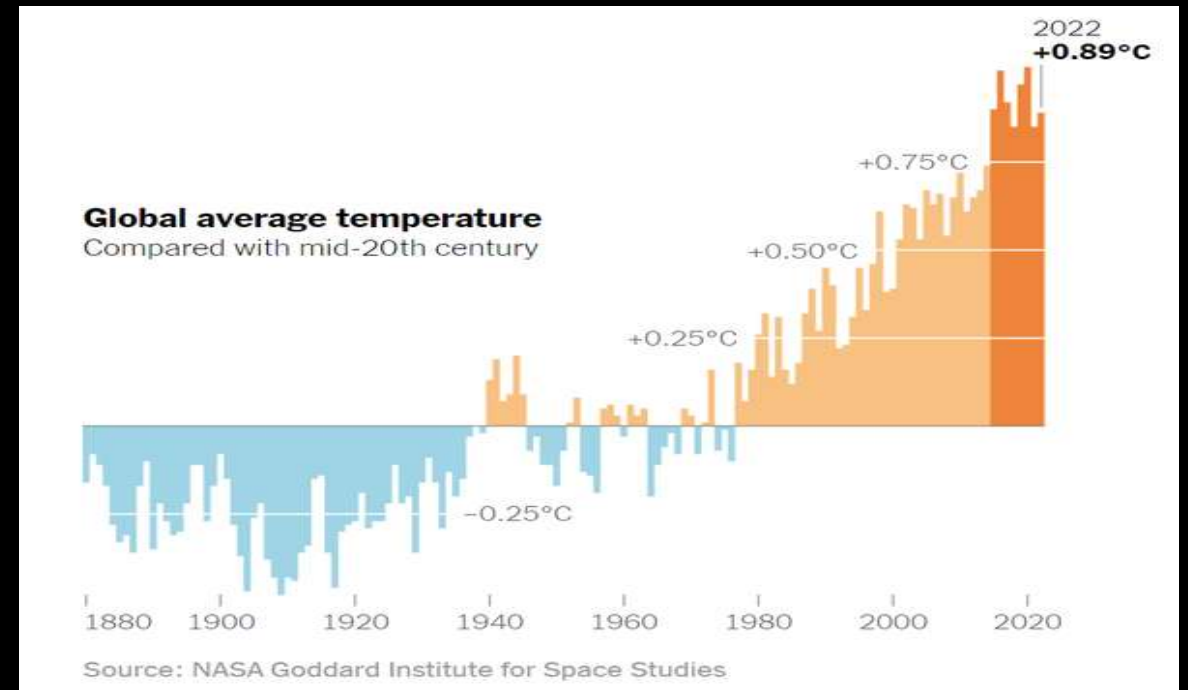
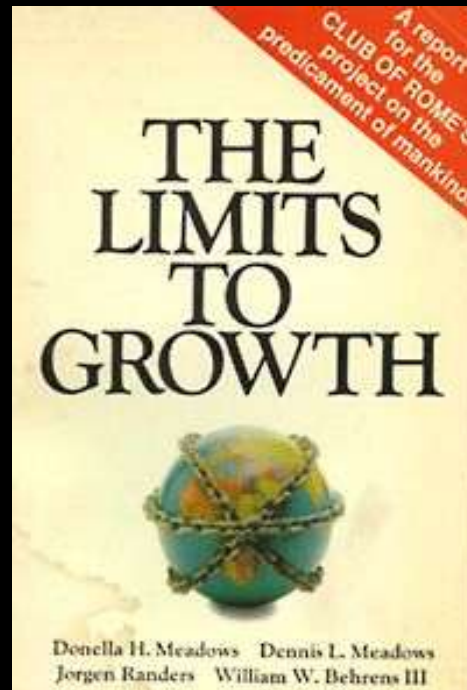
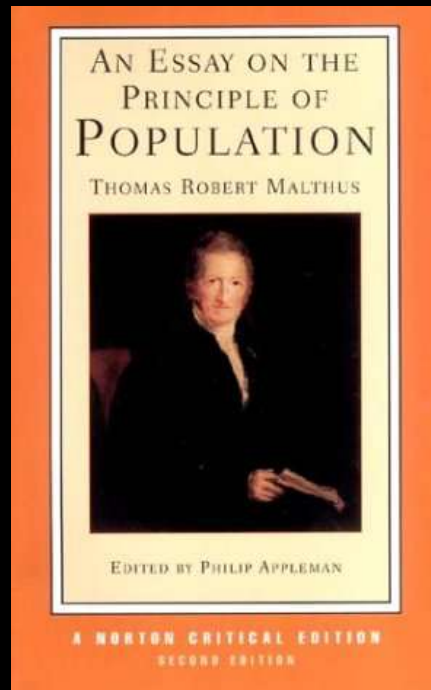
- Green?
  - no
- Sustainable?
  - no
- Circular?
  - no
- Regenerative?
  - no
- Net positive impact?
  - yes!



# Two main concerns

finite planet for infinite growth

global warming





# Warming?

## What we know

- It is getting warmer.
- Human activity contributes to warming.
- We have a lot of other problems.

## What we don't know

- Is colder better?
- How much exactly is the effect of humans?
- How to solve everything at once?



# We can't solve everything at once



## Lomborg's "Best Things First" Top 12 Interventions

	Related SDG(s)
1. Tackle <b>tuberculosis</b> through diagnosis and treatment	SDG 3
2. Scale up <b>malaria prevention</b> (bed nets, medicines)	SDG 3
3. Reduce <b>maternal mortality</b> via better obstetric care	SDG 3
4. Reduce <b>newborn mortality</b> with skilled birth attendance	SDG 3
5. Expand <b>immunization coverage</b> (e.g. measles, rotavirus)	SDG 3
6. Improve <b>nutrition in the first 1,000 days</b>	SDG 2; SDG 3
7. Boost <b>agricultural R&amp;D</b> to increase crop yields	
8. Expand <b>early childhood education</b>	SDG 4
9. Improve <b>primary education quality</b>	SDG 4
10. Expand <b>girls' education</b> (secondary schooling access)	SDG 4; SDG 5
11. Provide <b>family planning / contraception access</b>	SDG 3; SDG 5
12. Reduce <b>trade barriers</b> to boost global growth	SDG 8 SDG 10 SDG 17



# Who decides what to do first? Who knows what is good for humanity?

## Few brains



## All the brains together





# Planet is finite but what we don't know is infinite



What we know is not much.  
What we don't know is  
enormous.

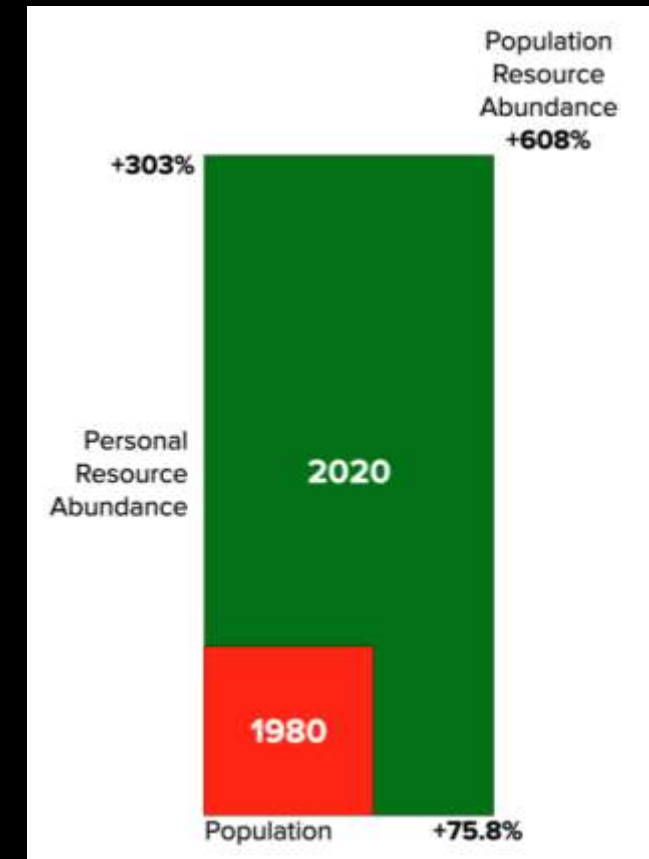
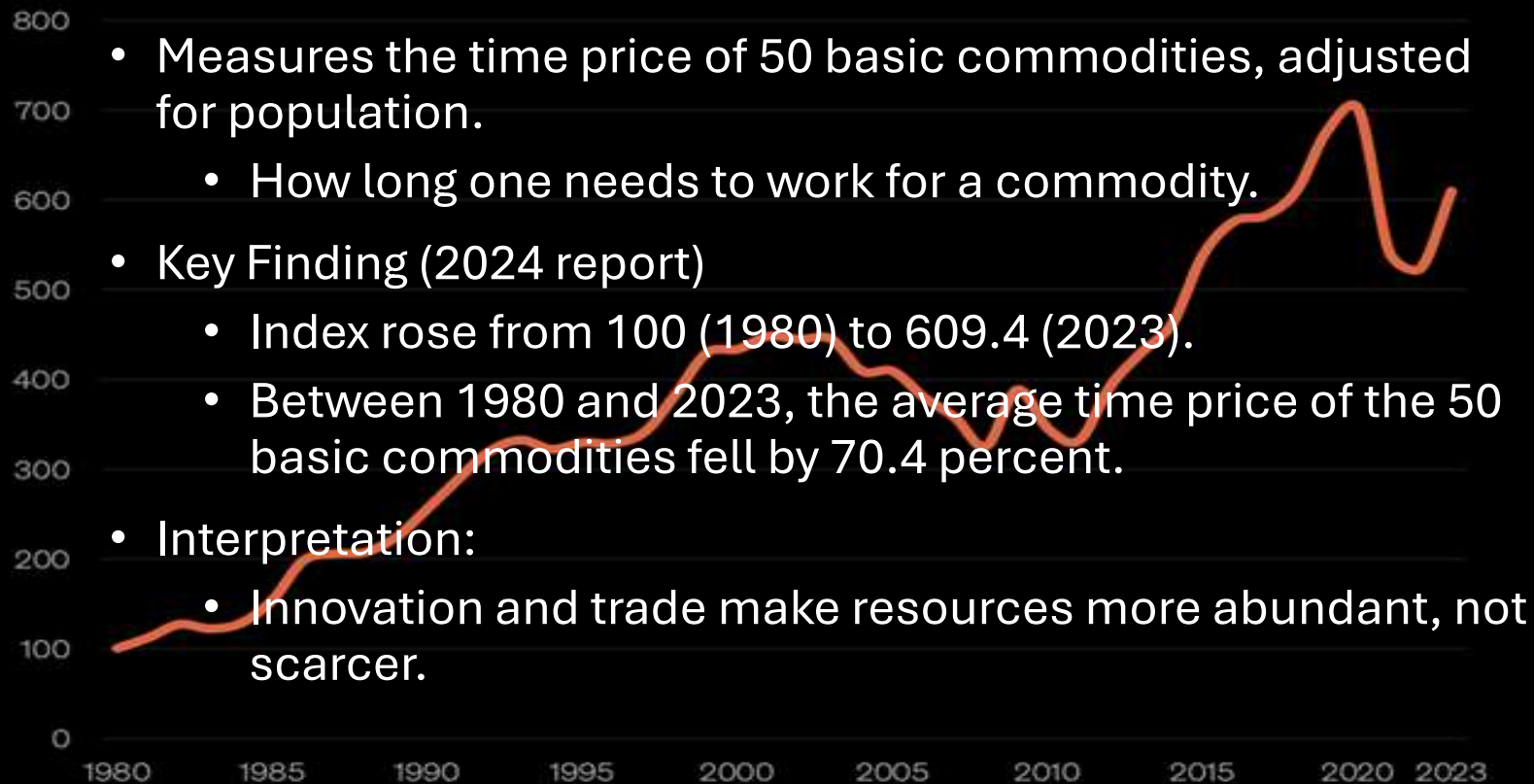
~ Pierre-Simon Laplace

AZ QUOTES

- Human creativity is boundless
- Scarcity drives innovation



# The Simon Abundance Index grew sixfold since 1980



# Engineers make the world a better place



- Made electric cars mainstream
- Drove down battery costs
- Promoted solar + storage integration for homes and grids.
- Pioneered reusable rockets, lowering waste and costs.
- Turned sustainability into innovation, attracting capital and attention.



# Civil engineering is about making life civil

- Because the natural environment is harsh, unpleasant and deadly.
- The industry that made Earth habitable: water, housing, cities, infrastructure.



# Good engineering is doing more with less



Paris 1889: 10.000 tons



Tokyo 1958: 4.000 tons



0 tons

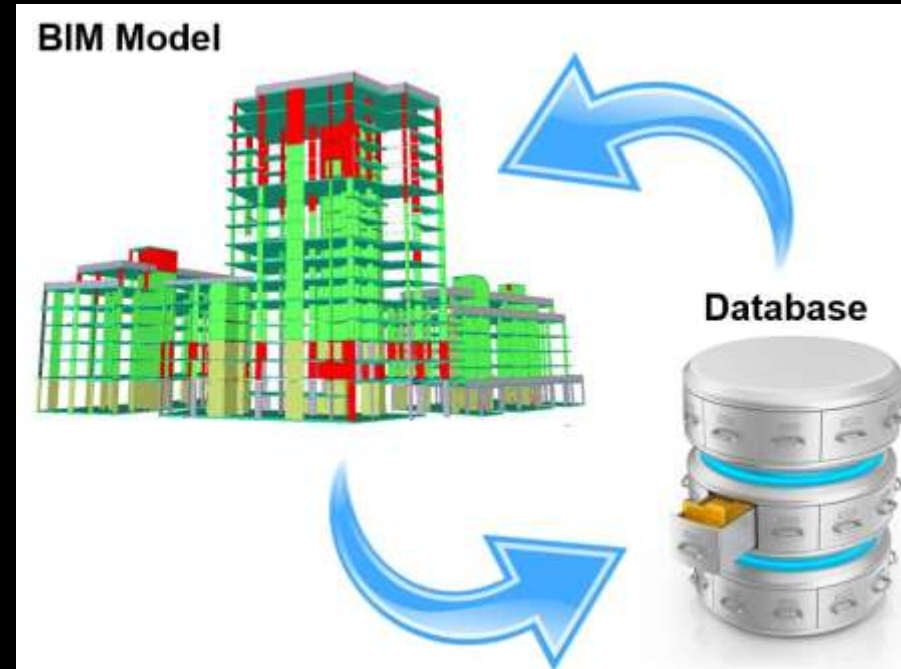
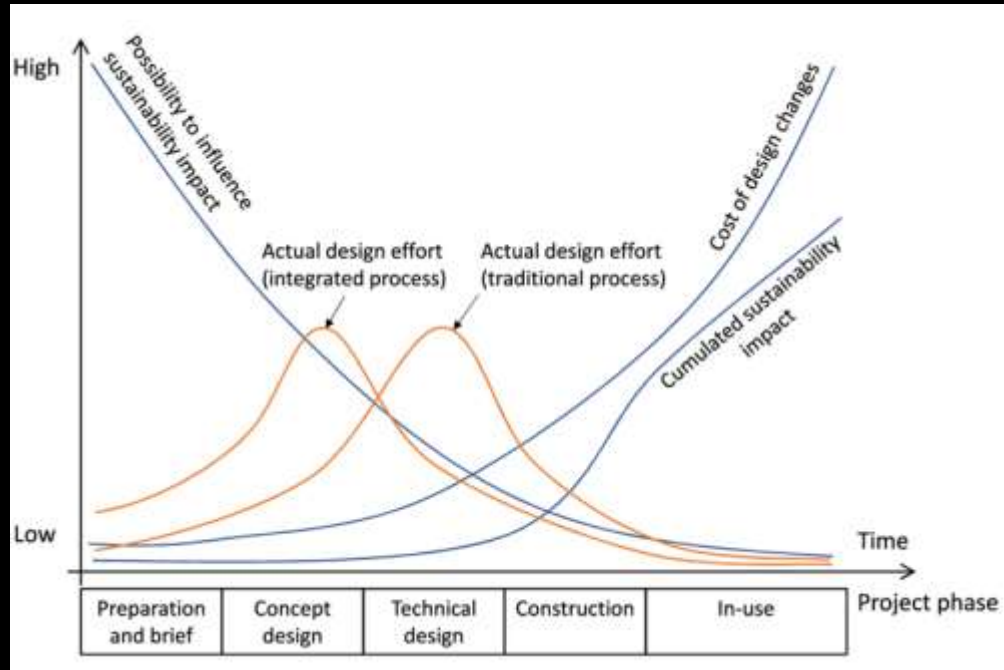


# We have been teaching good engineering before it was called sustainable

- Material efficiency is good engineering. Also cheaper.
- We have been *always* doing that.
- Low-carbon materials, AI-driven design, digital construction.
- Examples already cut embodied carbon by 20–30%; future potential even larger.
- It is only a matter of targets.
  - Costs are very good targeting mechanism.



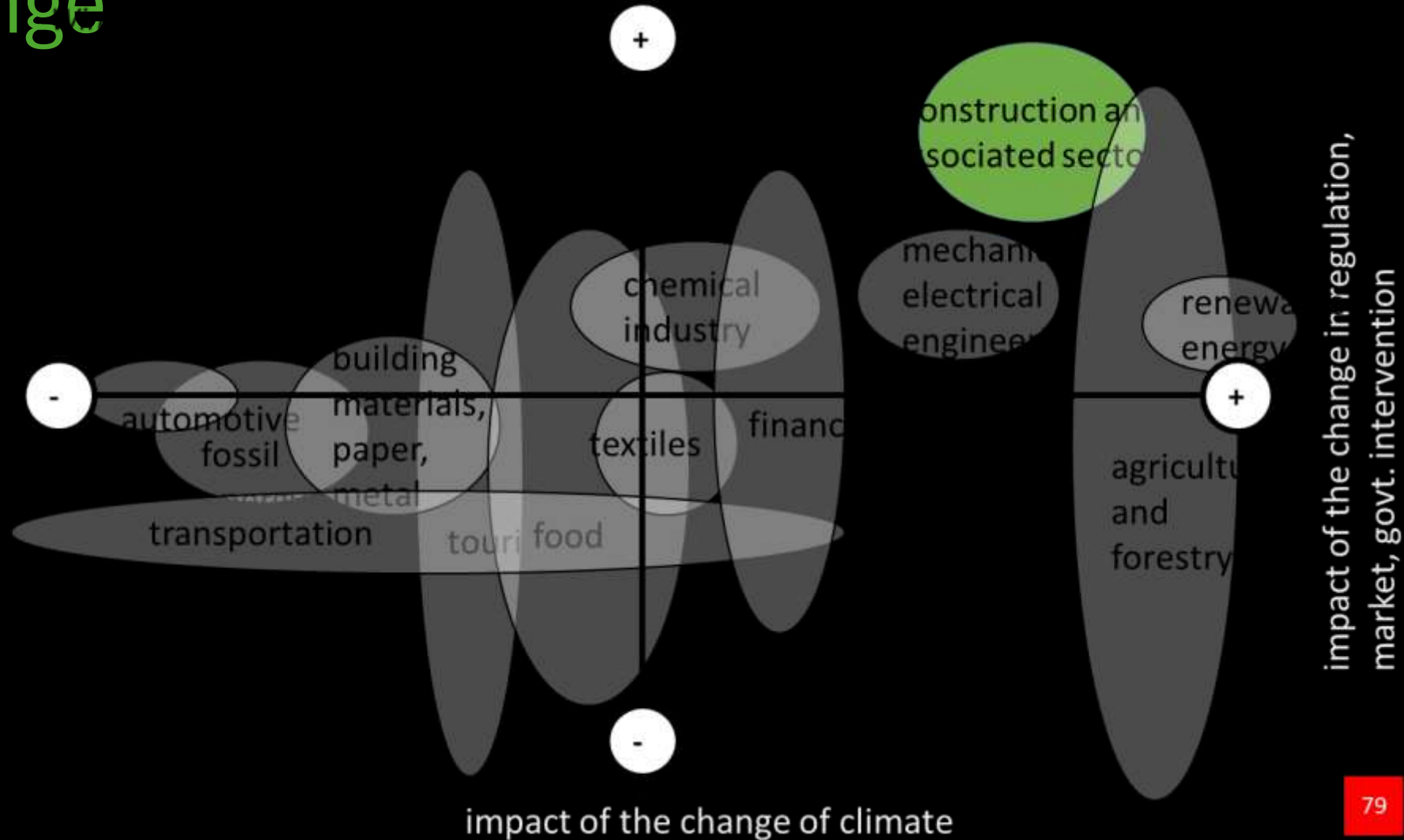
# Better Information, Better Decisions: Building Information Management



- My group applies BIM and Digital Twin technologies to optimize materials, costs, and sustainability.
- Sustainability not an afterthought but early design priority.



# Construction is the 'double winner' of climate change



# CROSS-REIS: building excellence for regenerative innovation

- Horizon Europe project
  - coordinator University of Niš, UL partner.
- Builds critical research network across Western Balkans + EU.
- Focus: construction, waste, urban biodiversity, entrepreneurship.
- Regenerative
  - leave the world a better place
- but also economics
  - production of wealth
  - for the people





# Journal of Regenerative Economics (JRE)

- Publishes original, high-impact research focused on the theory, development, and application of regenerative economic models.
- Its mission is to advance understanding of regenerative economics by providing a platform for scholarly discourse and practical insights that promote ecologic restoration, social equity, and economic resilience.
- ISSN: 3042-2523
- <https://crossreis.com/journal.html>



# Conclusions

about better world



**FGG**

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“People’s aspirations  
for a better life will not  
change”

— 习近平”

Human wellbeing, dignity,  
security, beauty, and purpose  
should guide policies.



**The aspirations of the people to  
live a better life must always be  
the focus of our efforts.**

# Humanity never had it so good as today!

- Never before fed so many billions of people.
- Never before schooled so many billions of people.
- Never before were commodities so abundant and accessible.
- Never before so many had access to so much knowledge (internet).
- Greatest danger is to destroy the mechanism that delivered that!



# And yet some people are doing just that!

- Policy must avoid de-growth romanticism.
- Economics should reward innovation that expands welfare.



# Make the world a better place?

## First acknowledge it is a good place already!

Replace alarmism with competence.

Search for truth not address slogans.

Carefully evolve rather than revolutionary destruct.

