

Prima Conferenza Nazionale SNPA

Secondo evento preparatorio

Roma, 19 ottobre 2018

Environmental Challenges in the Full World

Prof. Ernst Ulrich von Weizsäcker

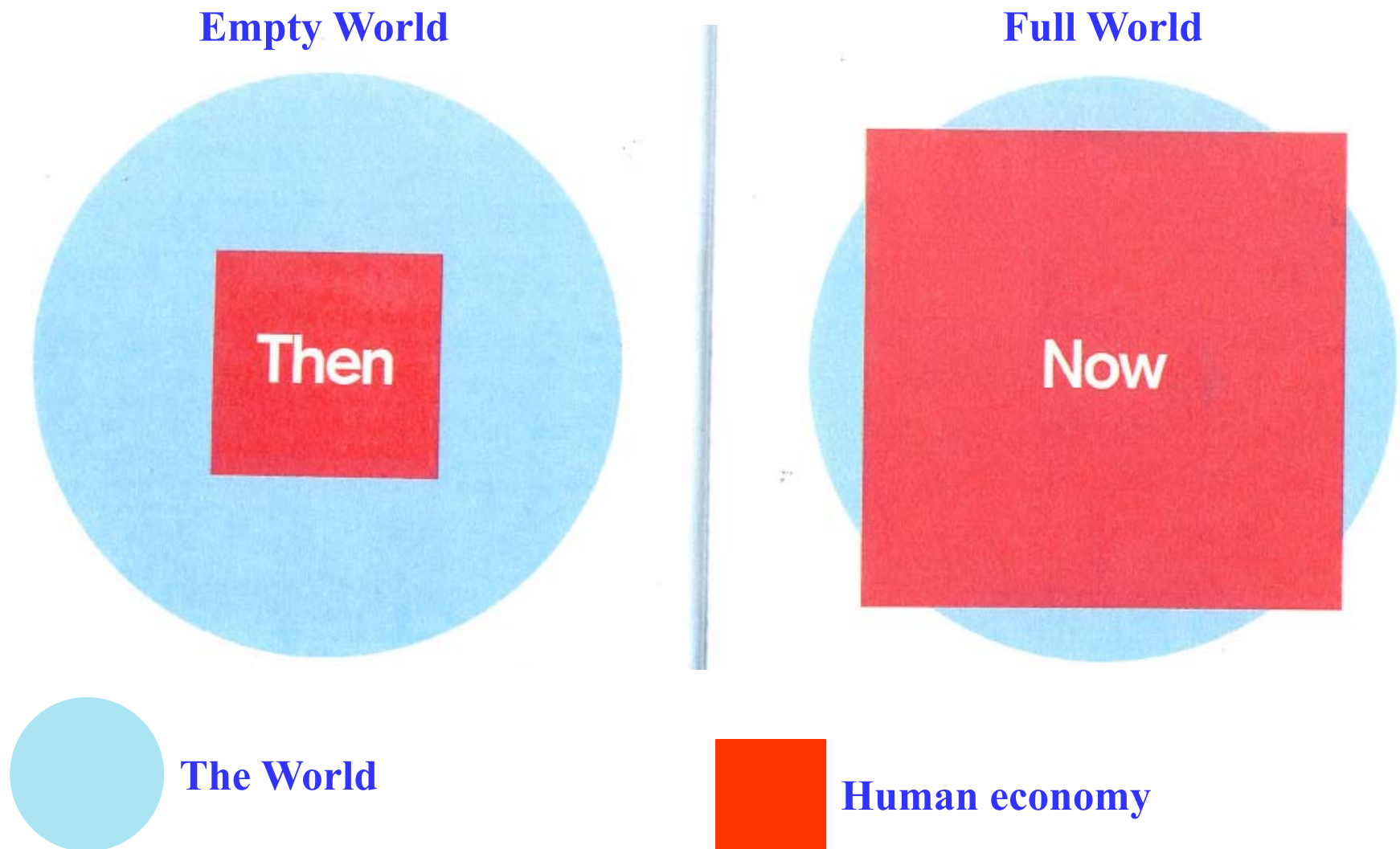
Honorary President



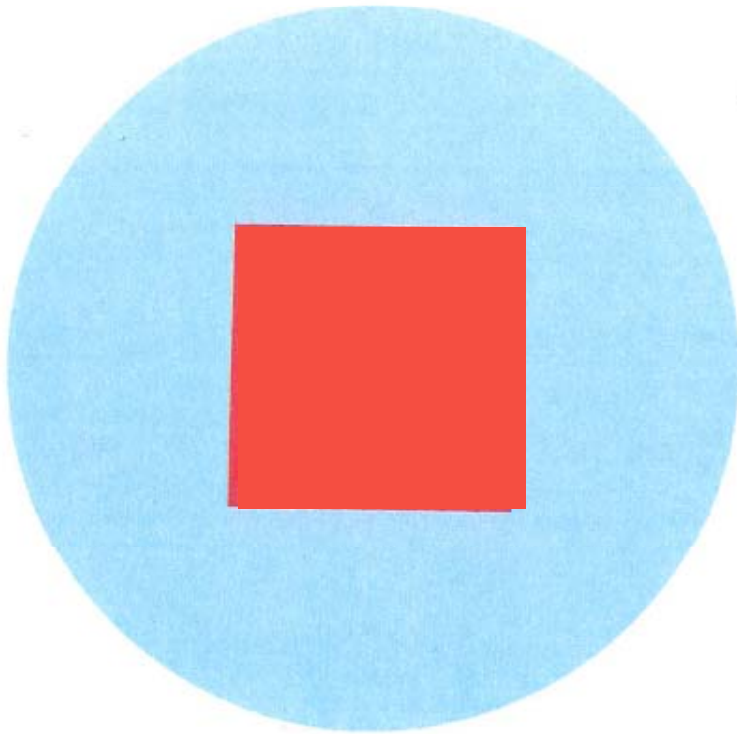
**The Club of Rome highly appreciates
the core work of SNPA.**

But our own focus is somewhere else.

Let me start with a shock: the difference between the *Empty World* and the *Full World* (Herman Daly) .



From the empty world originated

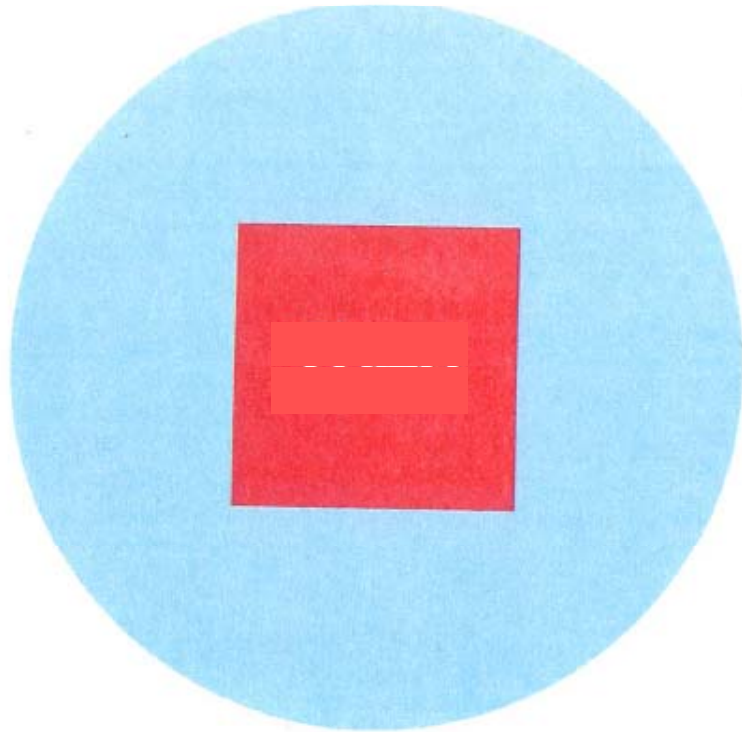


- all our instincts
- all religions
- all languages of the world
- the European Enlightenment
- the economy of ,mining‘
- population increase
- adoration of growth

You may appreciate that the *concepts of the empty world* may be outdated

One example: The economy of mining.

You want more fish in the Empty World. What will you do?

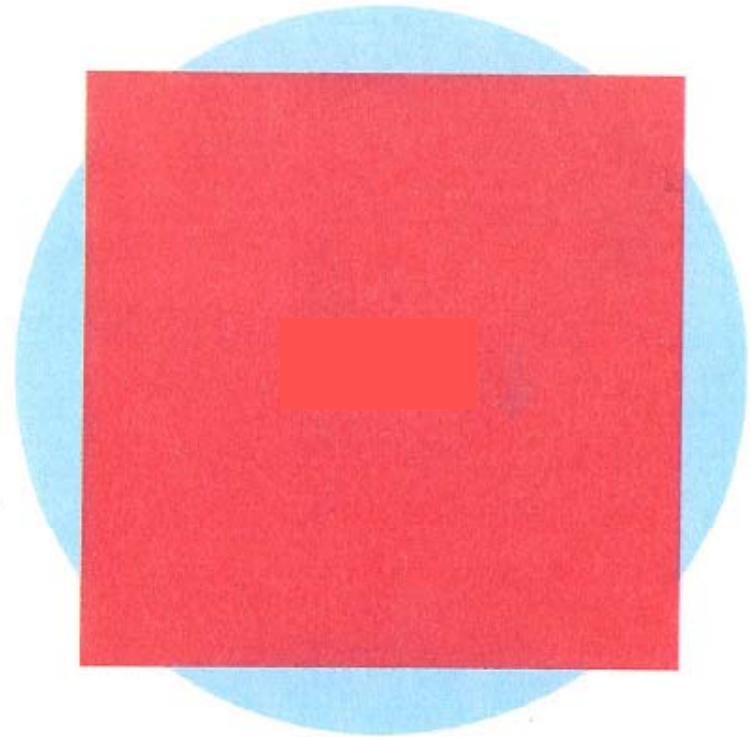


**More fishermen,
More nets,
More boats...**

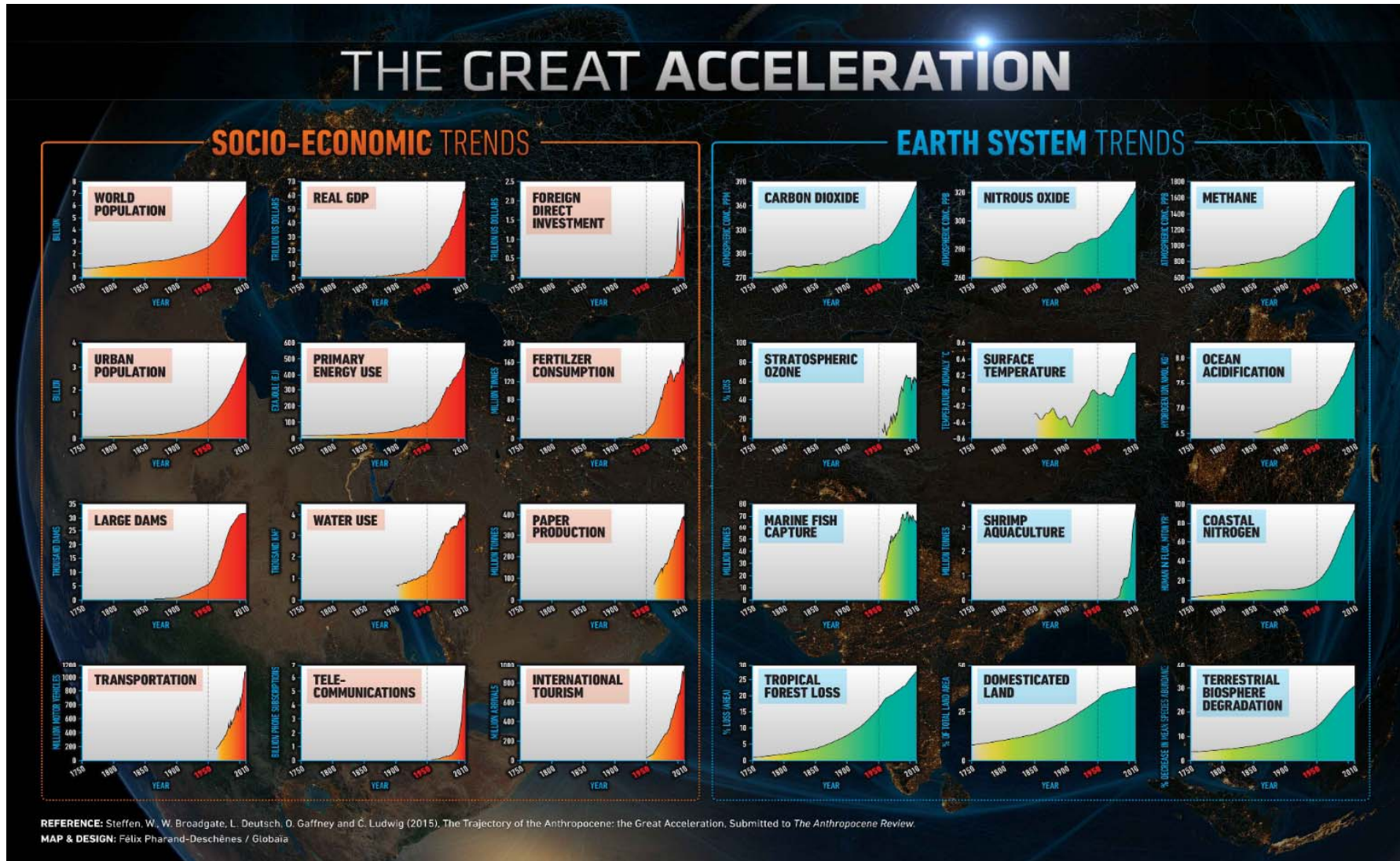
You want more fish in the Full World. What will you do?

**Marine protection zones,
(fishing highly restricted).
Fish farming.
Save female fish.**

**Almost the opposite recipes
from those valid in the
Empty World!**



The Anthropocene: mega-growth since 60 years! Jumping from Empty World Then to Full World Now



Source: Globaia 2011. Bilder aus Will Steffens, Paul. J. Crutzen, John R. McNeill. 2007. The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature? *Ambio* 36

**Not only the scare of fullness.
Climate change ca be a lot scarier!**

**Italy during the last
Ice Age (20 000 years ago)**



**.... and during a Hot Age
(2 million years ago)**



Source: Atlante Geografico Moderno. Mondadori, Milan 1985

We were happy with the Paris agreement. But how is it handled in the capitals of the world?

„Boy – let’s do more for our climate. But that will cost a huge lot of money. So we need much more growth!“

Is that the right answer??



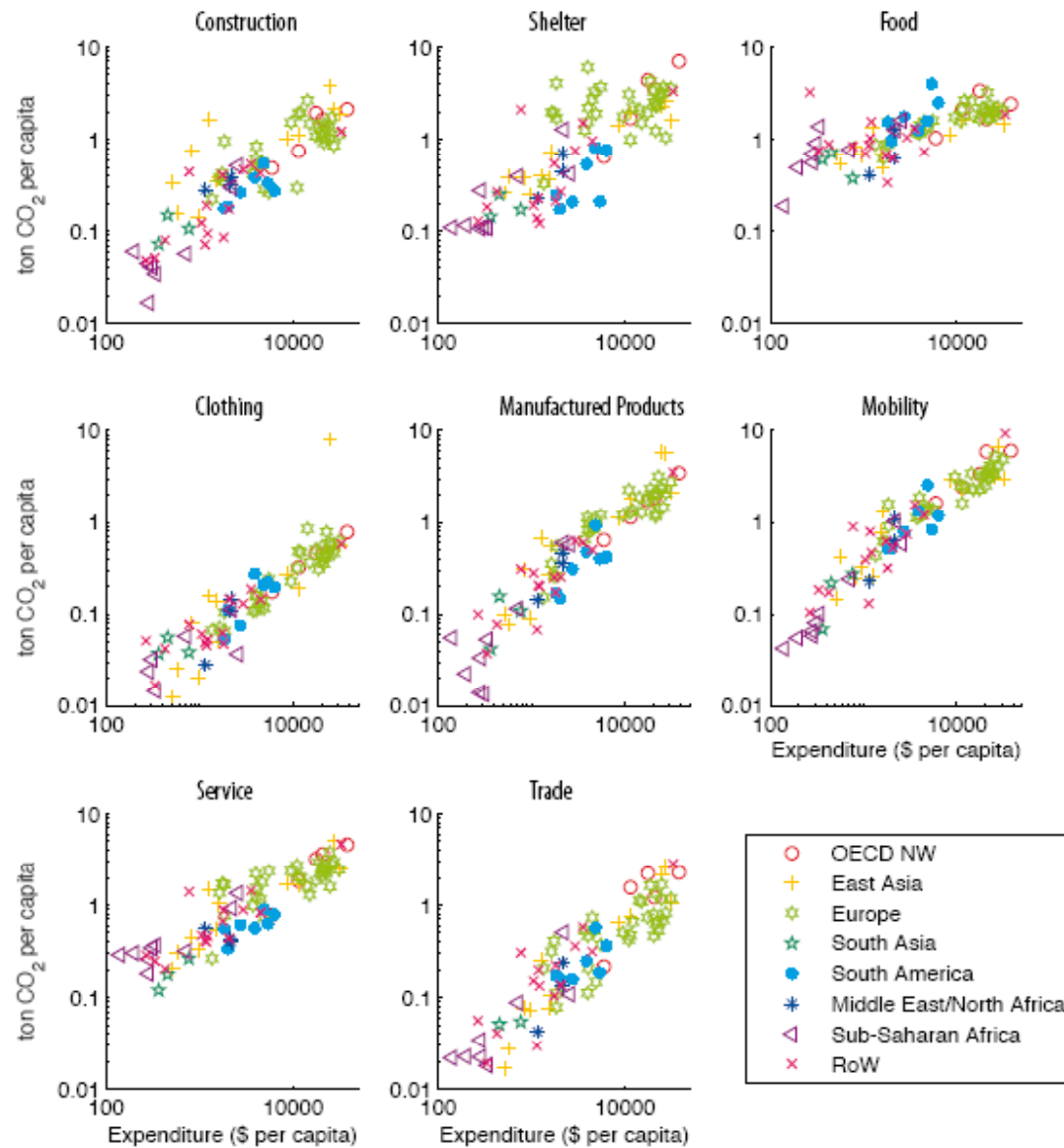
COP21 • CMP11

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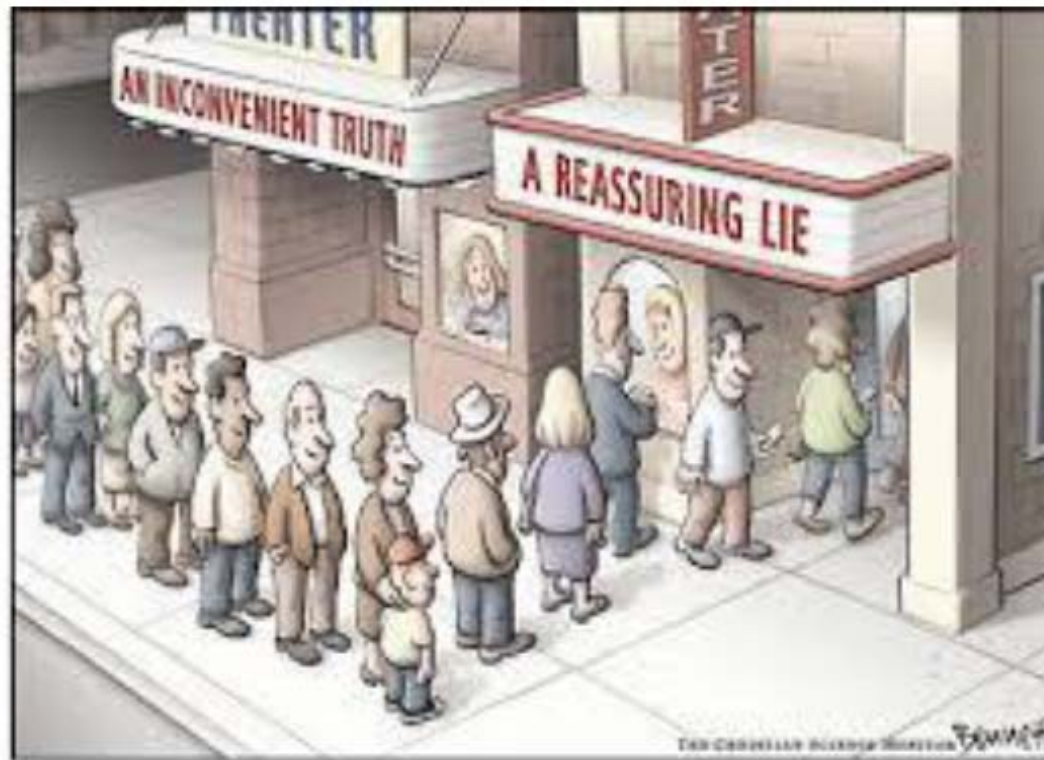
Hardly the right answer.

8 economic sectors show a clear correlation between GDP and CO₂ emissions!



Quelle: Hertwich, E.; Peters, G. P. Carbon Footprint of Nations: A Global, Trade-Linked Analysis
Environ. Sci. Technol. 2009, 43 (16) 6414– 6420

**Trouble is: People seem to have
a strong preference for reassuring lies
over inconvenient truth**



Come On! goes a little deeper



ERNST ULRICH
VON WEIZSÄCKER
ANDERS WIJLMAN



COME ON!



COME
FERMARE LA
DISTRUZIONE
DEL PIANETA

Rapporto al Club di Roma
per il suo 50° anniversario



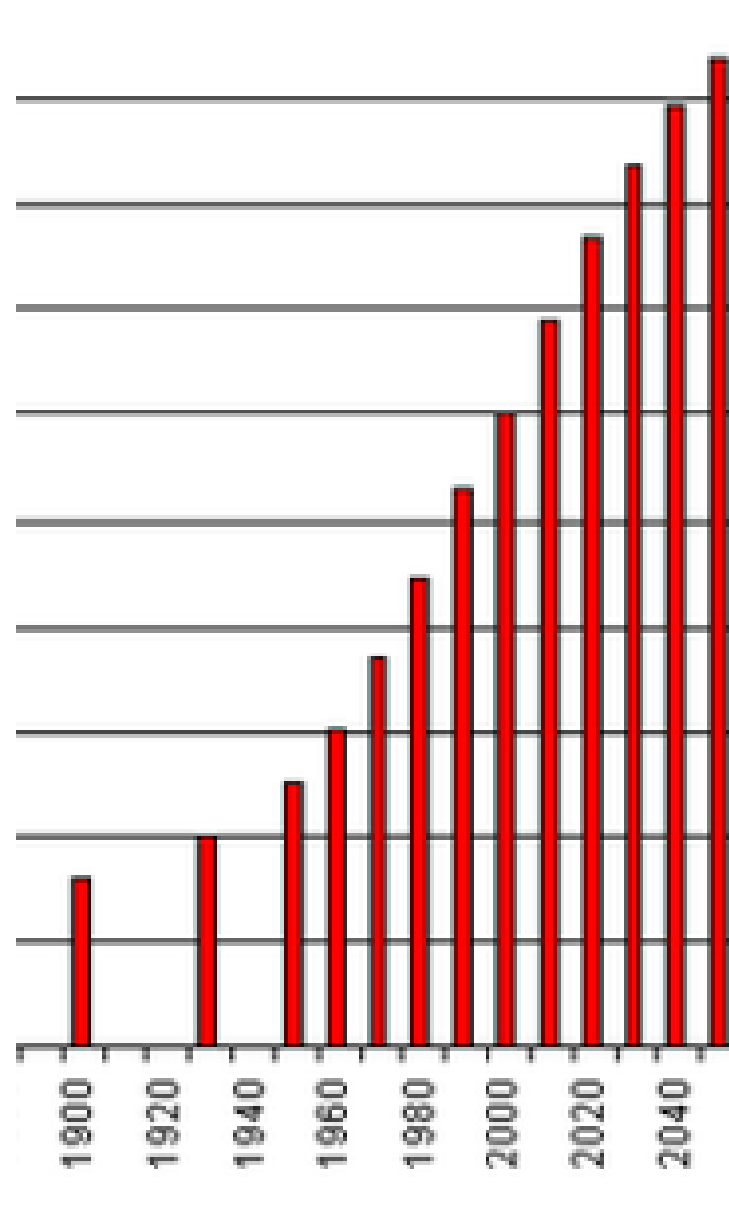
Come On! consists of three parts:

- 1. C'mon! Don't tell me the current trends are Sustainable!**
- 2. C'mon! Don't stick to outdated philosophies!**
- 3. Come On! Join us on an exciting journey towards a sustainable world!**

A flagship report of the Club of Rome for its 50th Anniversary



**Population increase
is at the core of the
„full world“
problems!**



Weltbevölkerung

**A great encouragement comes from
Pope Francis' Encyclical *Laudato Si'*.**



**Greed, selfishness, brutal competition, purely
utilitarian economics destroy our Common Home.**

The heroes of modern economics are massively misinterpreted and abused to legitimate destructive „growth“.



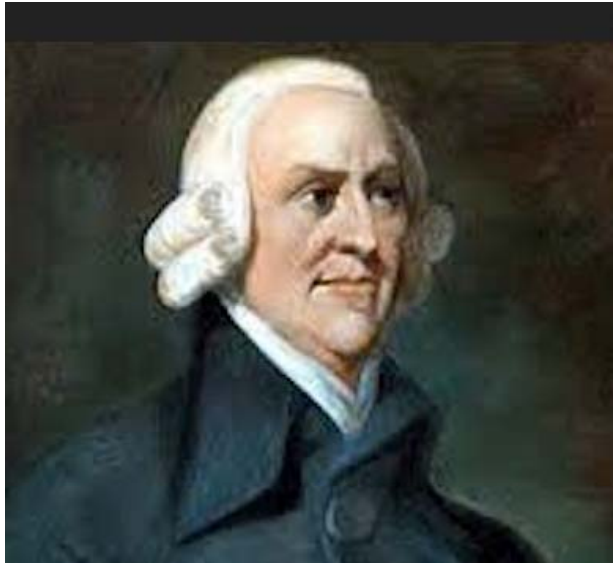
Adam Smith



David Ricardo



Charles Darwin



Picture: Blogs.telegraph.co.uk

For Adam Smith it was clear that the geographical reach of the markets (,invisible hand‘) was identical with the reach of the law and of morale!

But today, markets are global, and the law remains mostly national!

**For David Ricardo,
capital was not moving
across borders, but
goods and traders were
moving, - creating „com-
parative advantages“.**



picture: david-rick.blogspot.com

**But today, capital is racing around the
world in milliseconds and is enslaving the
real economies of the world. Ricardo would
turn in his grave if he was seeing it!**



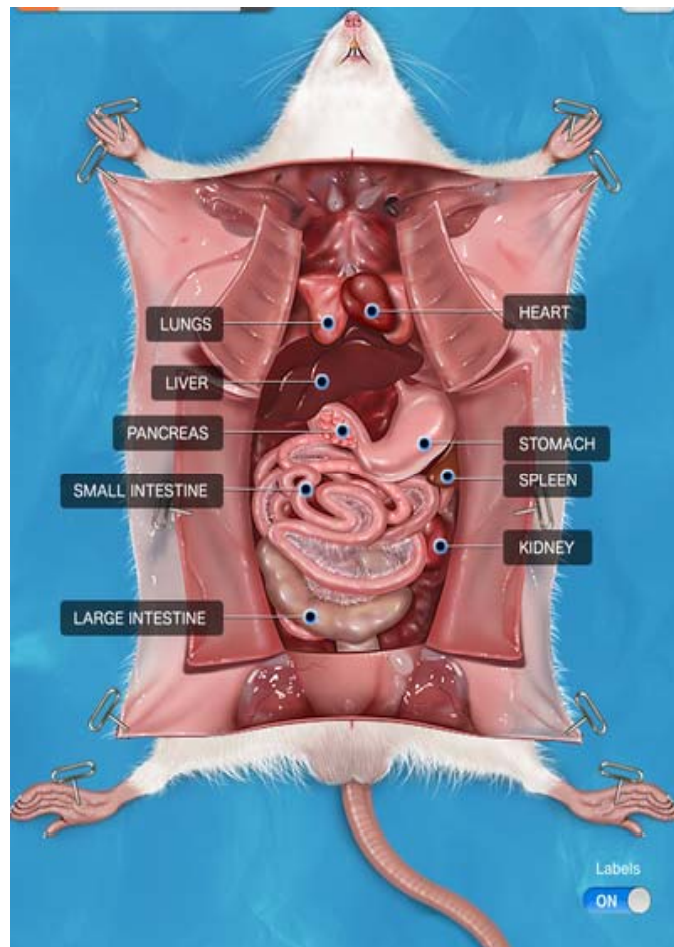
Picture: falmouthartgallery.com

**For Charles Darwin,
competition was mostly
a local affair.**

**Geographical borders
he saw as *helpful for
evolution.***

**Magnificently con-
firmed on Galápagos.**

Anglosaxon philosophy mostly means *reductionist philosophy*. That is good at dissecting but cannot say much about life, the future, and complex systems.
What does anatomy tell you about ecosystems?



Responding to the „Philosophical crisis“, we suggest to engage in a new Enlightenment:

**Enlightenment 2.0
for the Full World**



Balance could become a key notion for the new Enlightenment,

e.g. between

- **humans and nature**
- **heart and brain**
- **short term and long term,**
- **public and private (state and markets),**
- **religion and state,**
- **feminine and masculine,**
- **equity and rewards for achievement,**
- **speed and stability (innovation and reliability)**

Balance between Innovation und Reliability. It's a disaster for *civilisation*, if the fastest is always the winner!



Quelle: Australian Institute for Business

Western thinking tends to lean to dogmatism.
Asian thinking usually celebrates balance.



One piece out of Part Three of Come On! Increase efficiency.



(Six out of fifteen languages)

(Two out of seven languages)

But then there is the rebound effect, or „Jevons Paradox“: Efficiency is eaten up by added consumption.

William Stanley Jevons in **The Coal Question** (1865) showed that coal consumption *skyrocketed* after the discovery and introduction of the then superefficient steam engine by James Watt.



Fighting the rebound effect:

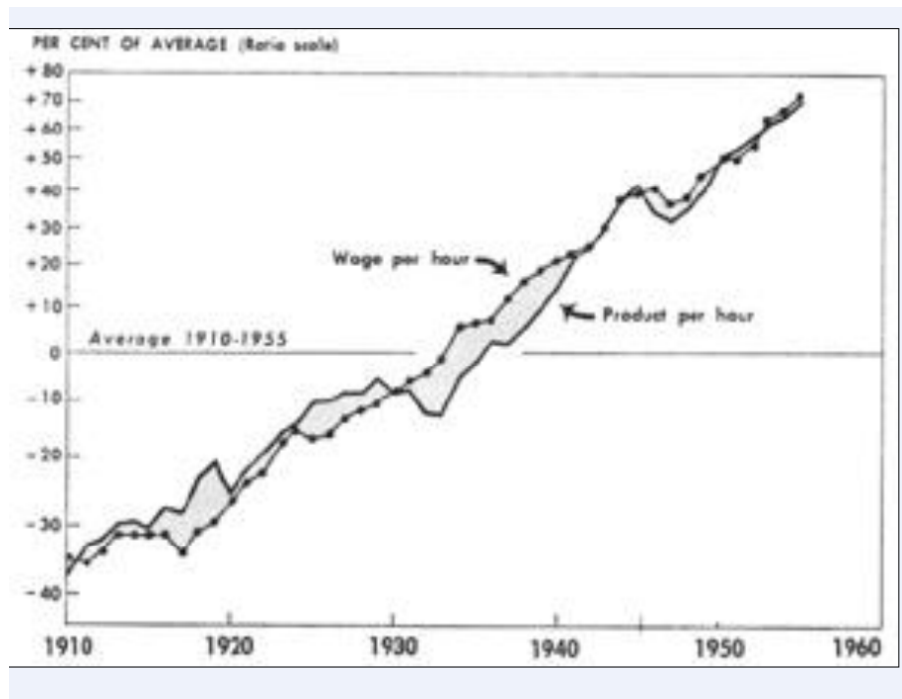
The „ping-pong“ idea:

Make energy and resource prices rise *slowly*, in proportion to the documented average efficiency increases .

... meaning a ping-pong, similar to the one we had in the Industrial Revolution



Labour productivity rose roughly twentyfold in 150 years, - and so did wages!



Example from the USA from 1910 – 1960 showing how wages followed labour productivity

The „resource ping-pong“ could cause a steady increase, perhaps five-fold, of average resource productivity, in 40 years. Perhaps tenfold in a hundred years.

That would greatly help overcome much of the conflicts between economy and ecology.