

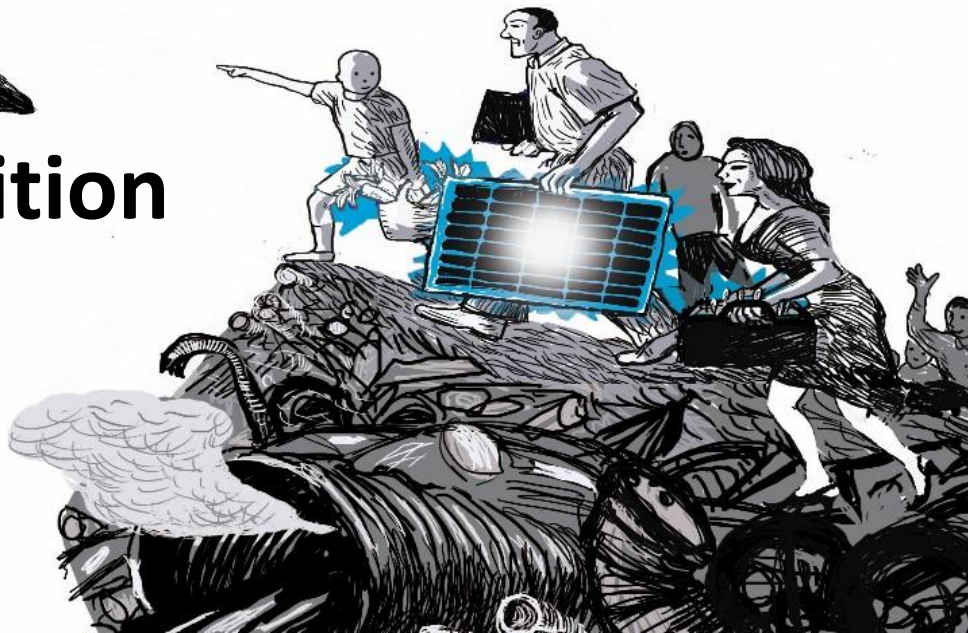


Universities in Transition

society as living lab

Prof. dr. Derk Loorbach

Online, 02-12-2020



Dutch Research Institute For Transitions

Institute of Erasmus University
Rotterdam, the Netherlands

Academic education, research,
consultancy and engagement

40+ employees

Founded in 2004

mission

Guiding and accelerating
sustainability transitions

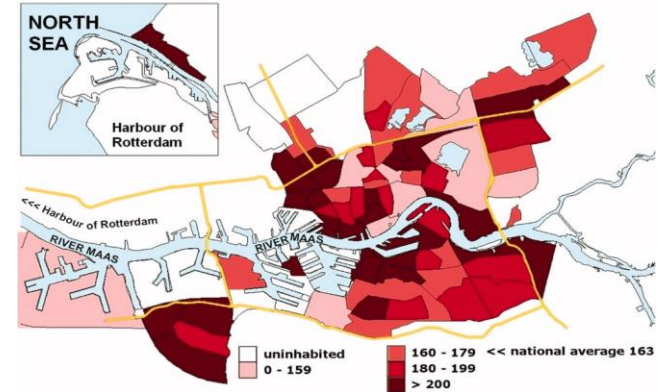
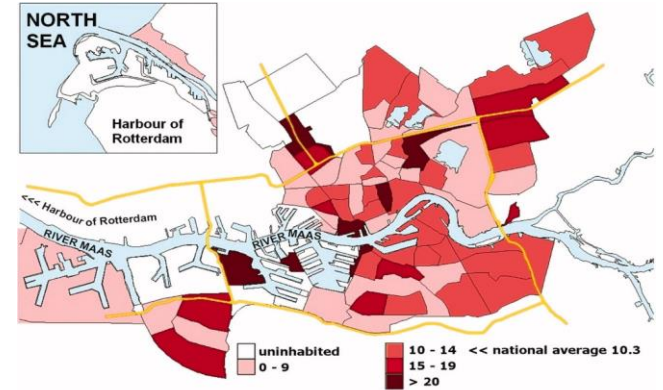
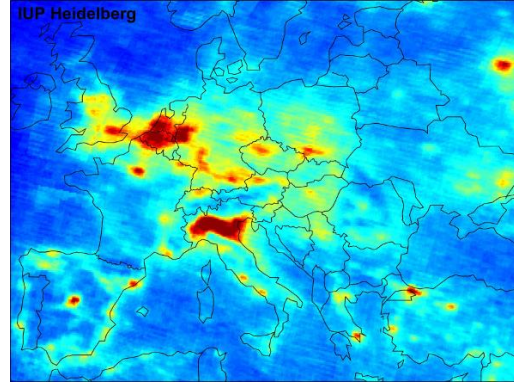




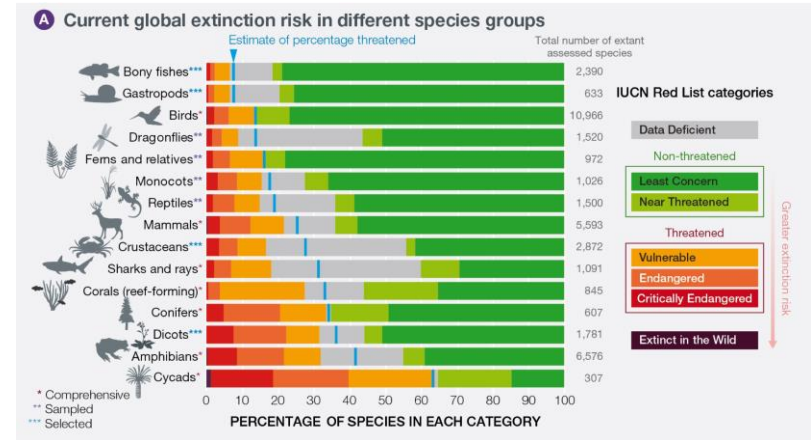
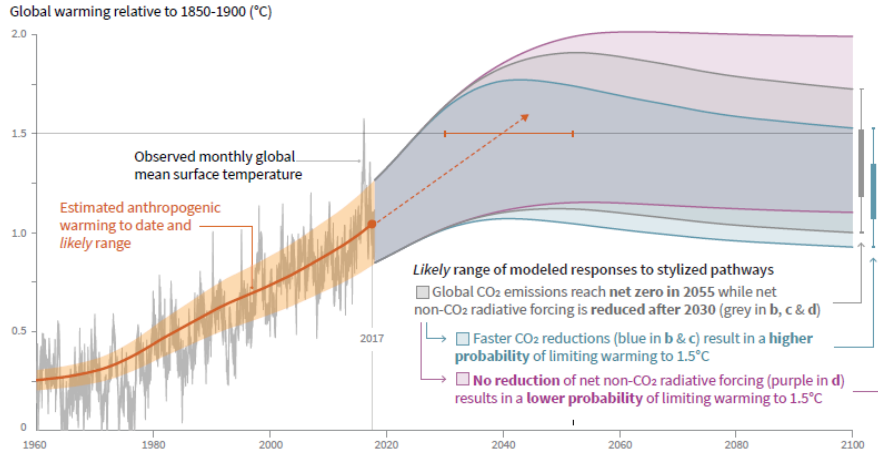
We are locked into unsustainability

(climate change, collapse of nature and biodiversity, growing social and economic inequalities)

Sustainable (urban) development?



Persistent *UN*sustainability: lock in



Regime

Dominant and shared ways of **thinking, organising and doing** in a societal (sub)system

cultures: shared values, paradigms, worldviews, discourses

structures: institutions, economic structures, physical infrastructures

practices: routines, behavior, action, lifestyles

Lock-in and knowledge regime

‘Innovation policy’ and ‘sustainable development’ are focused on optimization

Dominant actors, including policy, have an interest to improve the existing rather than to transform

Academic structures, cultures and practices evolved around disciplines, linear knowledge transfer and problem-solving (through technology)

The way knowledge is developed, organized, appreciated and practiced is changing but within existing regimes

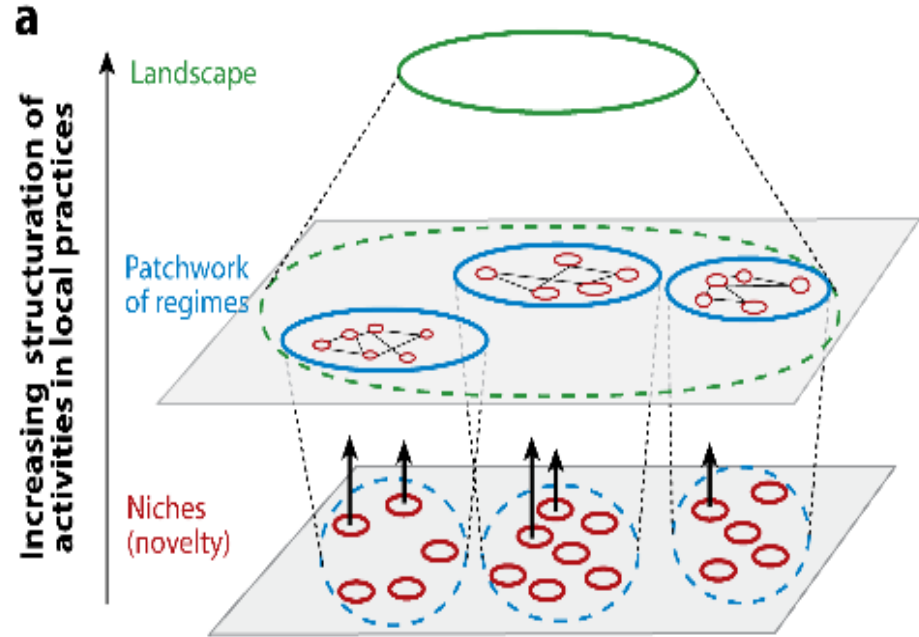


Destabilisation and transition

(lock in combined with global changes makes societal regimes vulnerable for disruption)

Transition

A process of structural, non-linear systemic change in dominant regime that takes place over a period of decades (Rotmans et al, 2001, Grin et al, 2010)

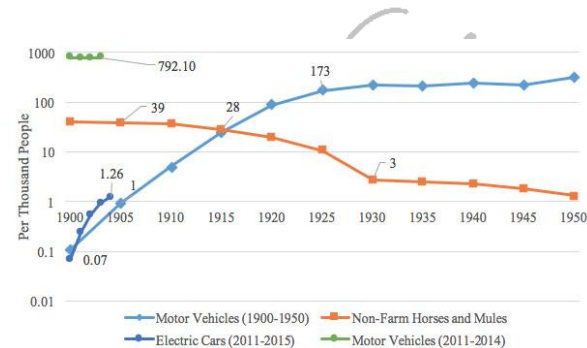


Historic transitions

Easter morning 1900: 5th Ave, New York City. Spot the automobile.



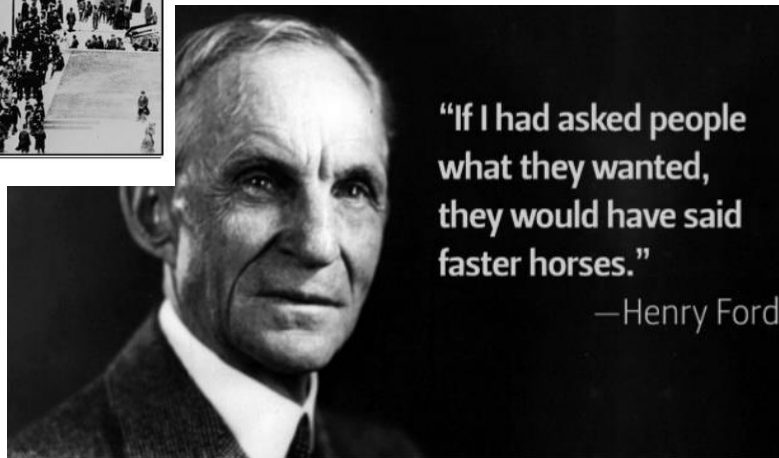
Source: US National Archives.



Easter morning 1913: 5th Ave, New York City. Spot the horse.



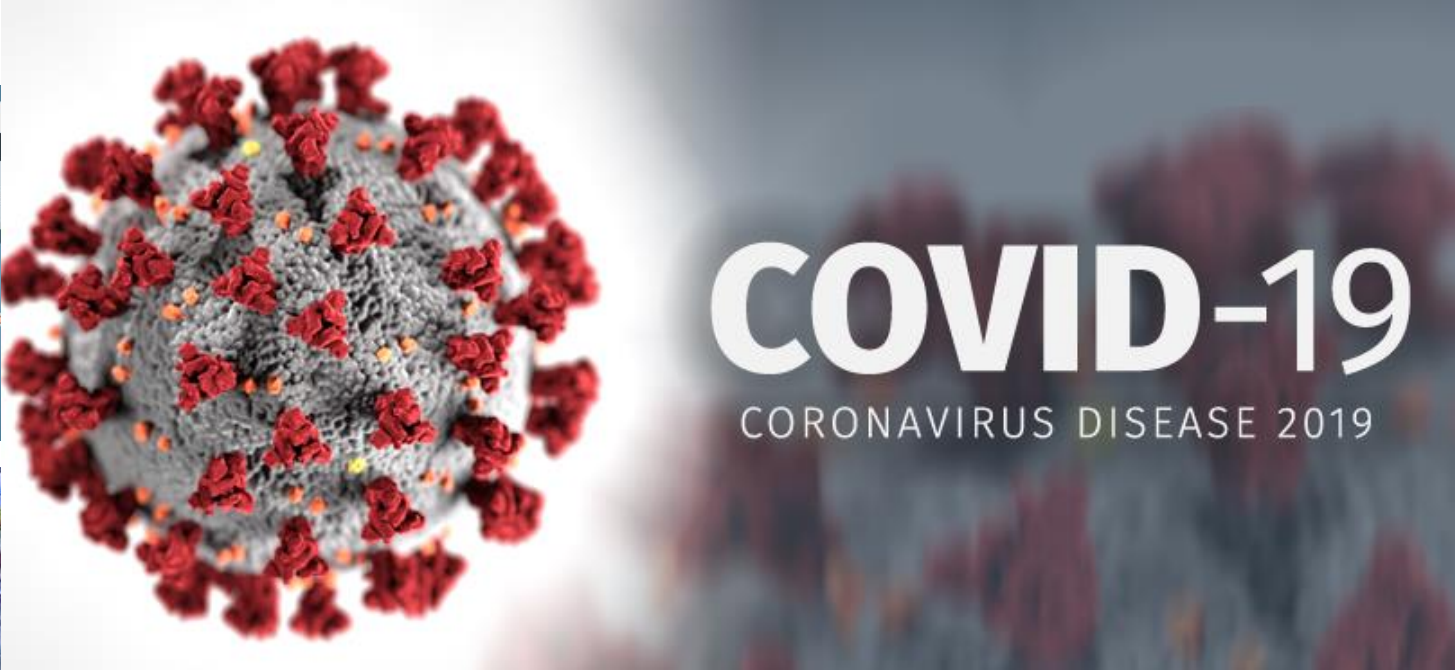
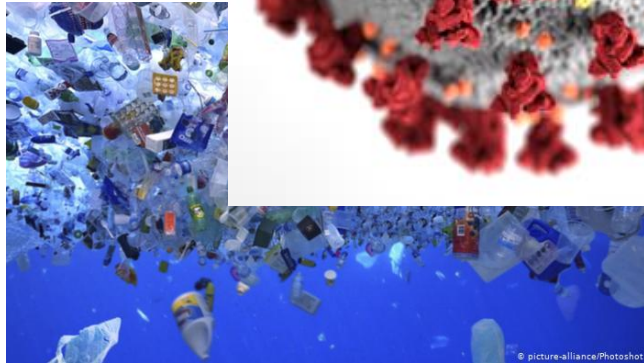
Source: George Grantham Bain Collection.

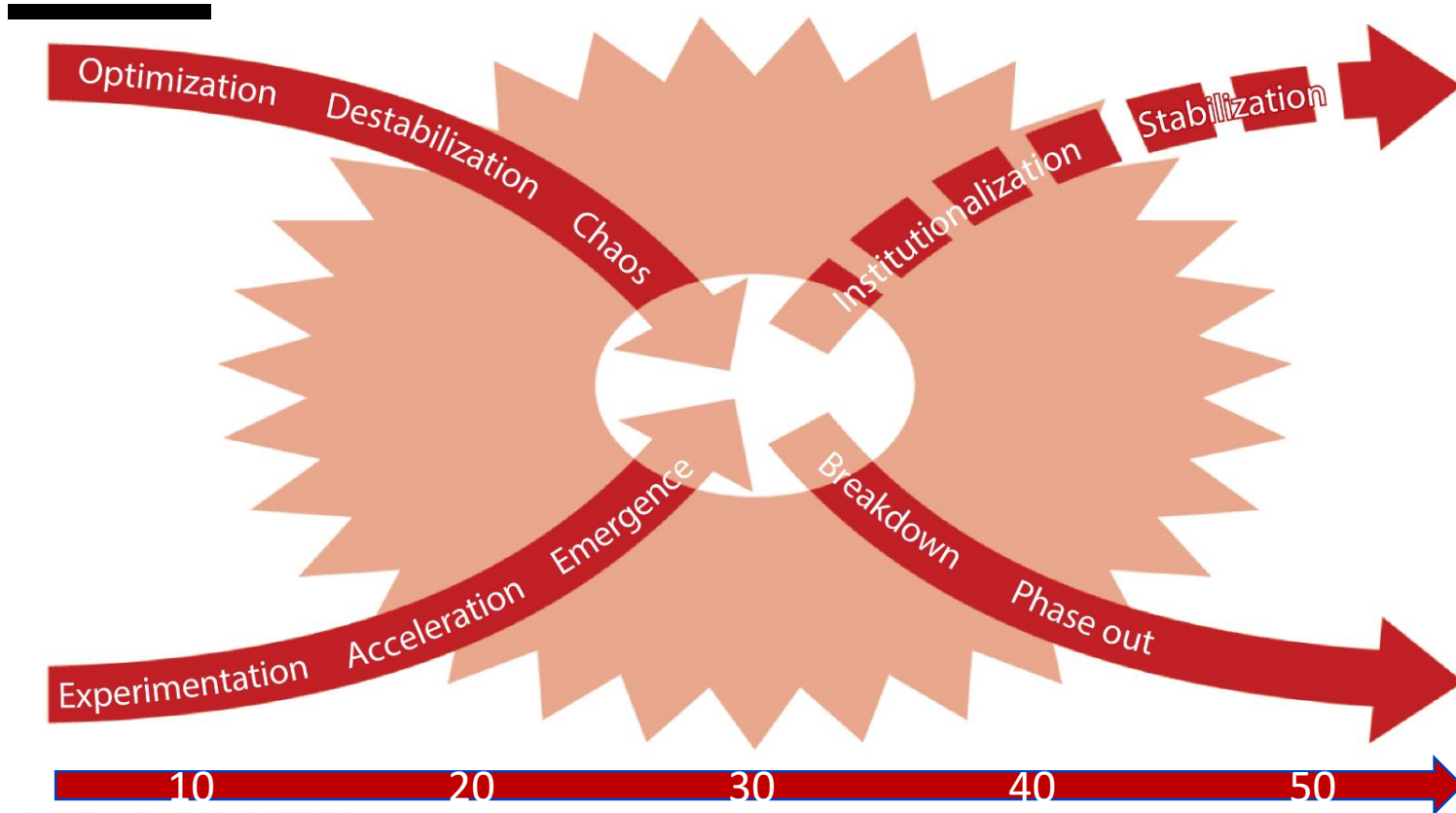


"If I had asked people what they wanted, they would have said faster horses."

—Henry Ford

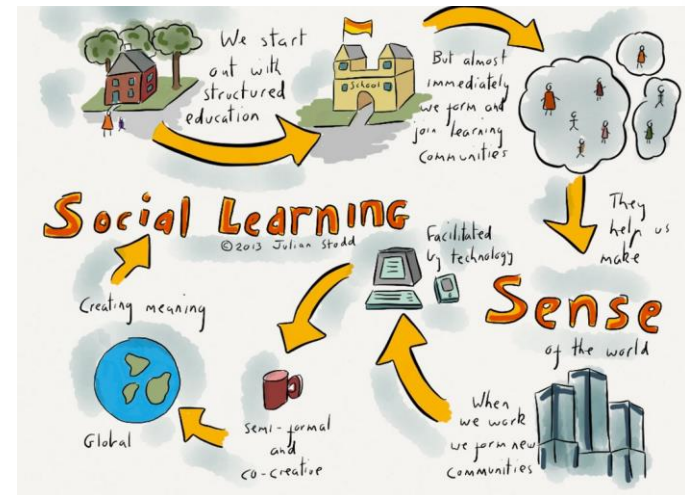
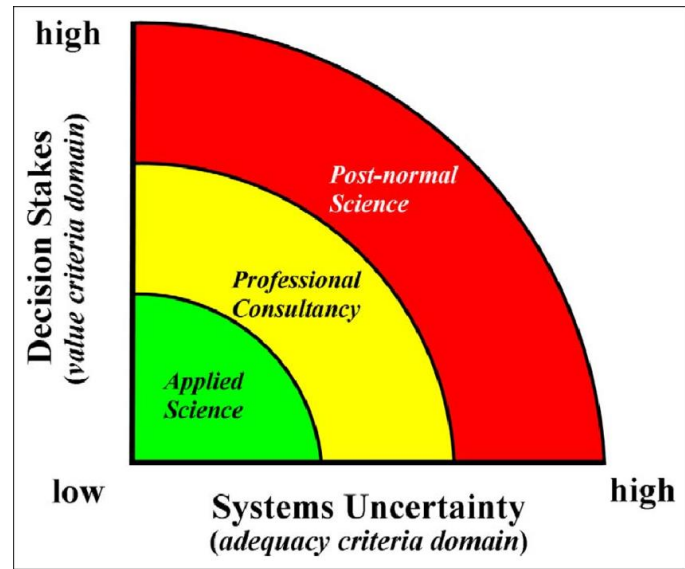
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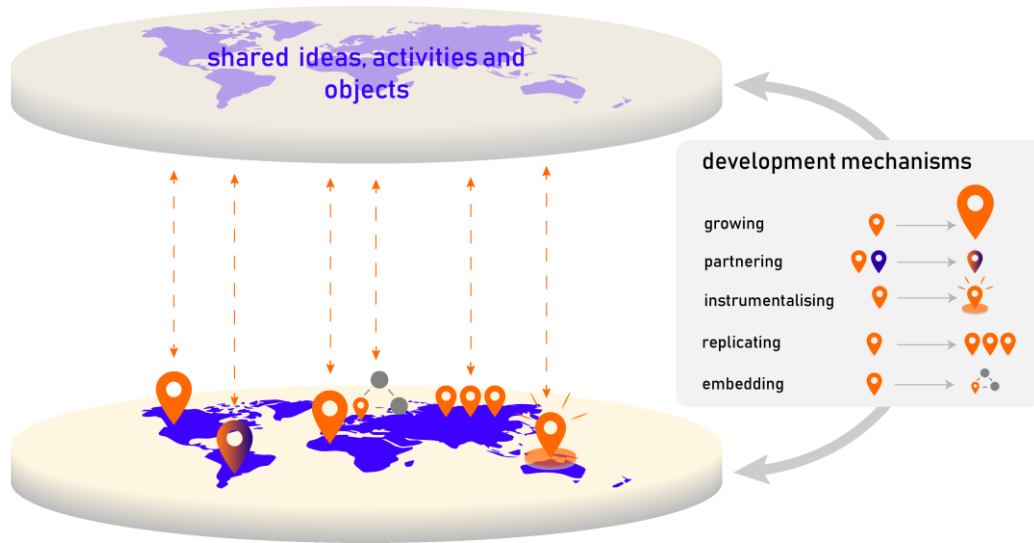


Transformative knowledge perspective

- Unstructured problems and uncertainties: a lot we don't know
- Transdisciplinarity: different types of knowledge and knowing are needed
- Social constructivism: co-creating knowledge and meaning
- Reflexivity: experimentation and (social) learning as mechanism for change



Transformative social innovation



Loorbach et al, 2020

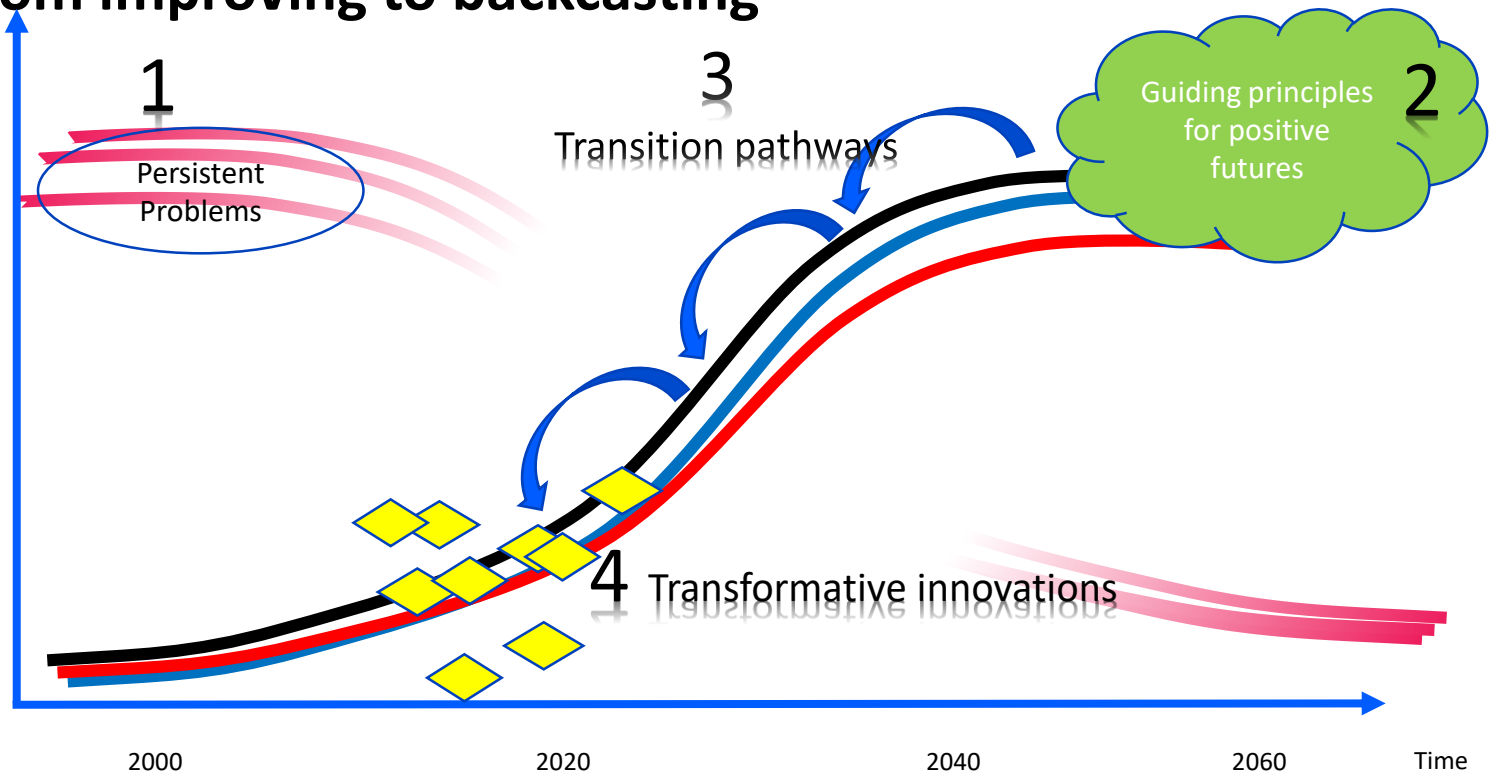
- New ways of doing, thinking and organizing that challenge, alter or replace regimes (Avelino et al, 2020)
- People and place based experimentation leading to learning, development and growth
- Diffuses rather than scales: transfers from place to place through people and institutionalisation



Transition research and governance

(guiding and accelerating emerging *desired* transitions)

From improving to backcasting



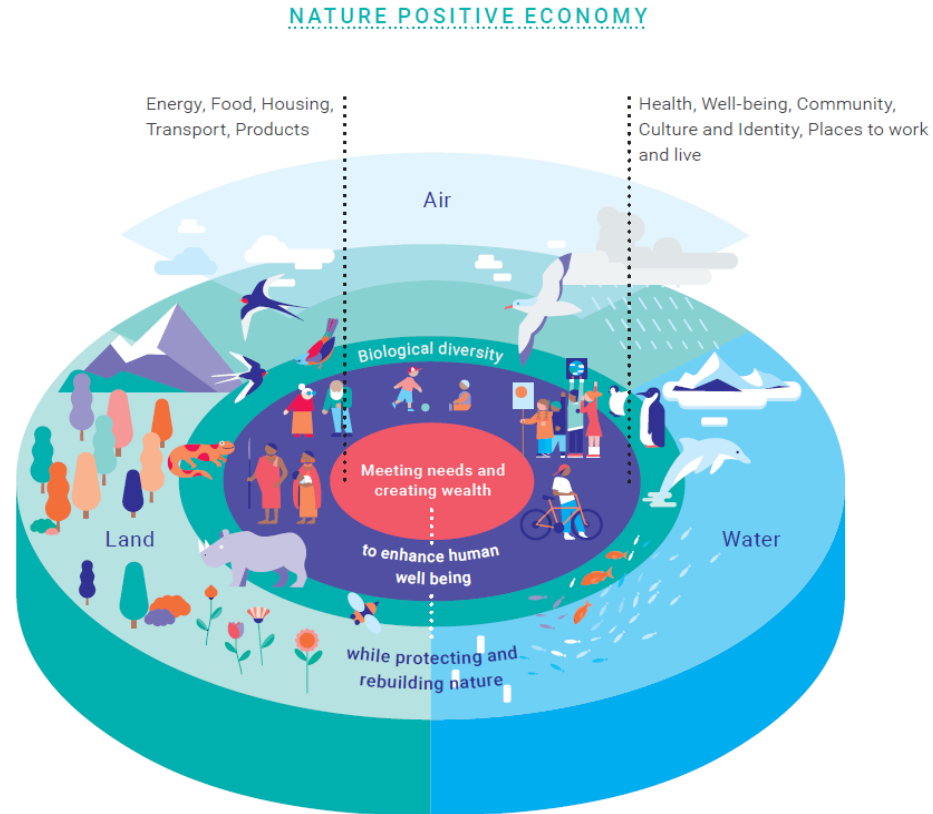
Transition research

Normative and critical in questioning business as usual

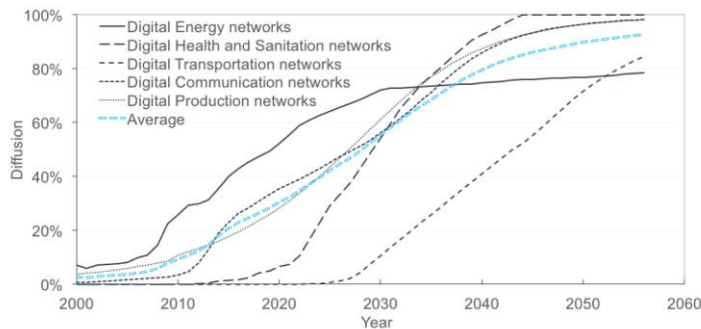
Experimental and explorative to develop and test hypotheses

Inter- and transdisciplinary to develop new meaning and insight

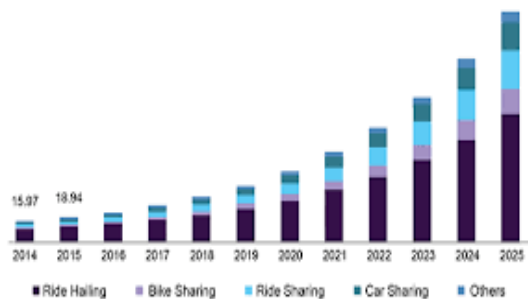
Strategic and impact-oriented to achieve transformative change



Emerging sustainability transitions

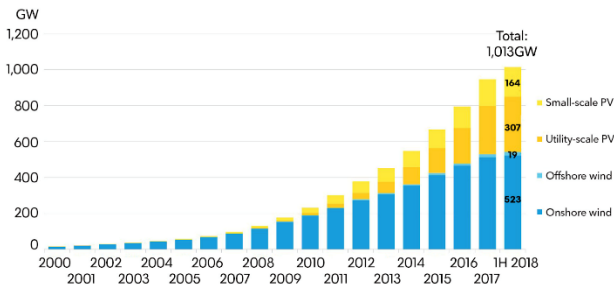


China Shared Mobility Market Size, by Service Model, 2014 - 2025 (USD Billion)



Source: www.gandienresearch.com

Global wind and solar installations, cumulative to June 30, 2018



Source: Bloomberg NEF. Note: 1H 2018 figures for onshore wind are based on a conservative estimate; the true figure will be higher. BNEF typically does not publish mid-year installation numbers.

Assets in ESG funds surge

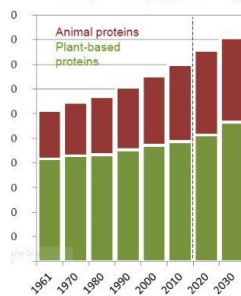
Total assets in environmental, social and governance and socially responsible ETFs (\$bn)



Source: EPFR Global
© FT



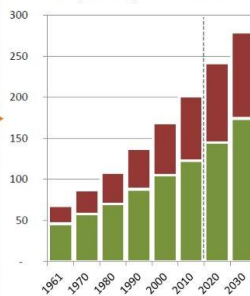
Daily worldwide demand for plant-based and animal proteins (in g/person/day)



Source: BIPE based on FAO data

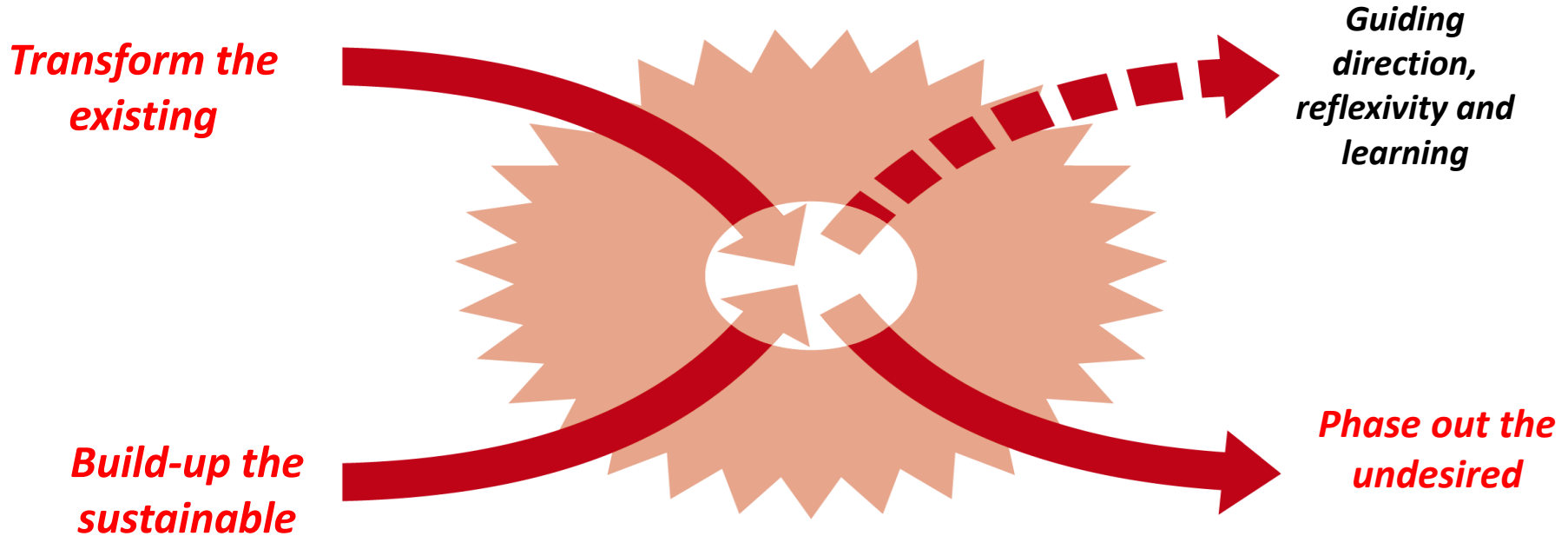


Annual worldwide demand for plant-based and animal proteins (in millions of tonnes/year)



Source: BIPE based on FAO data

Governance mix for transitions





Transforming universities

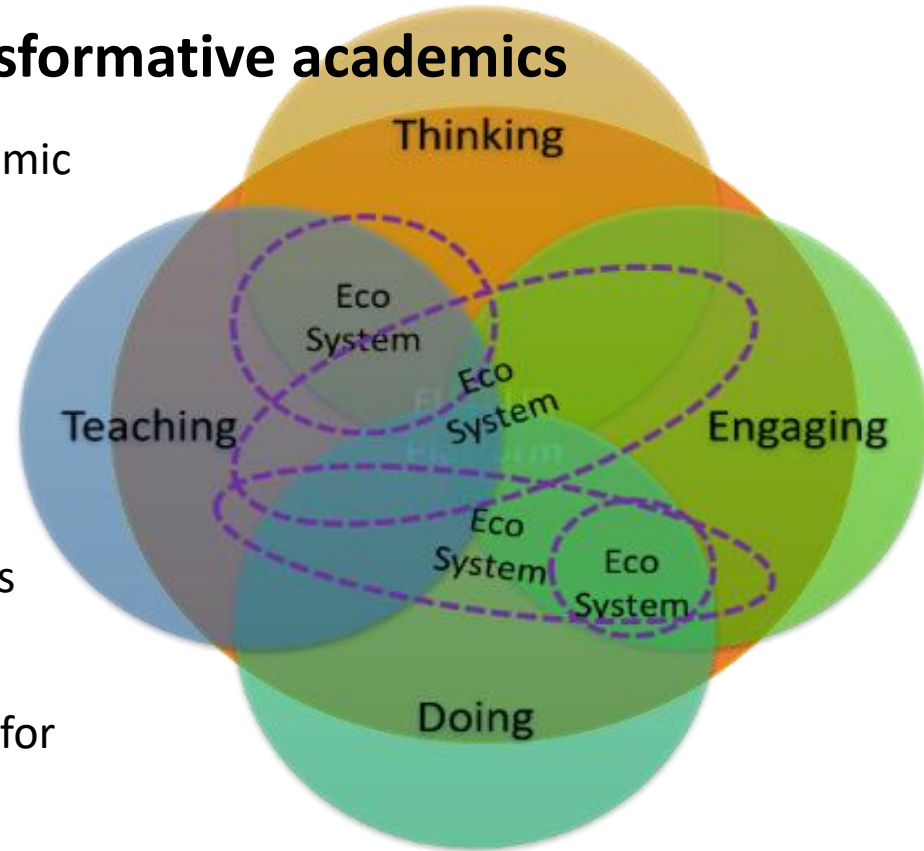
(proactively engaging with desired transitions in higher education)

Erasmus University strategy



Institutional solutions for transformative academics

- Organizing 'spheres' with their own academic leadership
- Create conditions, spaces, incentives and capacities for transdisciplinarity
- Invest in new methods, tools and practices
- Design career paths, evaluations, funding for impact and transition



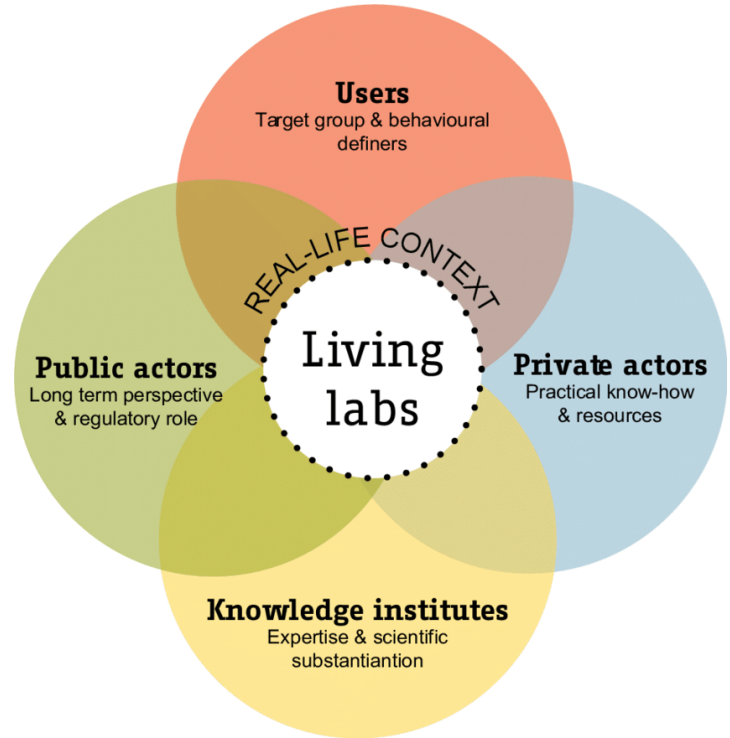
Urban Living Labs as example

“**Sites in cities** devised to **design, test and learn** from social and technical innovation in real world settings.”

Voytenko et al. 2016

“An institutionally bounded environment (...) to make material **interventions in the city and learn** from them.’

Evans & Karvonen 2014



The transformative university

- Will facilitate different knowledge logics: multi-inter- and transdisciplinary
- Will combine objective and descriptive with engaged and explorative approaches and methods
- Will empower communities of academics to engage with desired futures in a design oriented and normative way
- Will have different types of funding, incentives, settings and organizational forms to accommodate a diversity of disciplines, capacities and attitudes



Making transition together

(use transition principles to work together in creating a future knowledge regime for sustainable societies now)