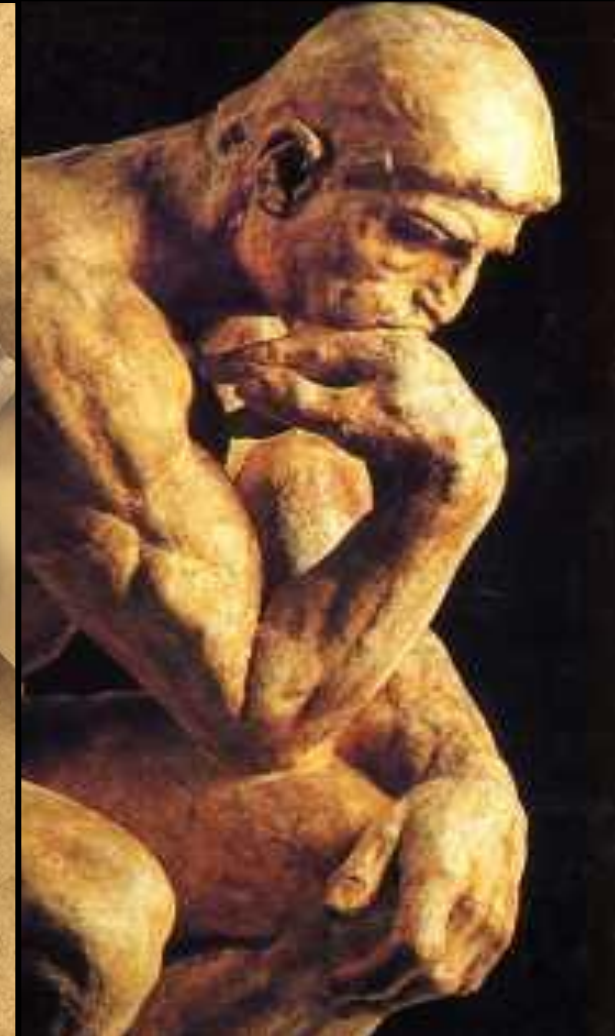


Sustainability Transition Governance

Dr. Flor Avelino, GLOCAL, Cascais, 3 July 2013





Dutch Research Institute for Transitions



www.drift.eur.nl
www.transitionsnetwork.org
www.ksinetwork.nl

POWER IN TRANSITION

*Empowering Discourses on
Sustainability Transitions*

Flor Avelino

On-going Research

*self-organisation by civil society
citizens & social entrepreneurs*

*grassroots innovations
social innovation*

*eco-community initiatives
social movements*



why? (un)sustainable development

what are transitions?

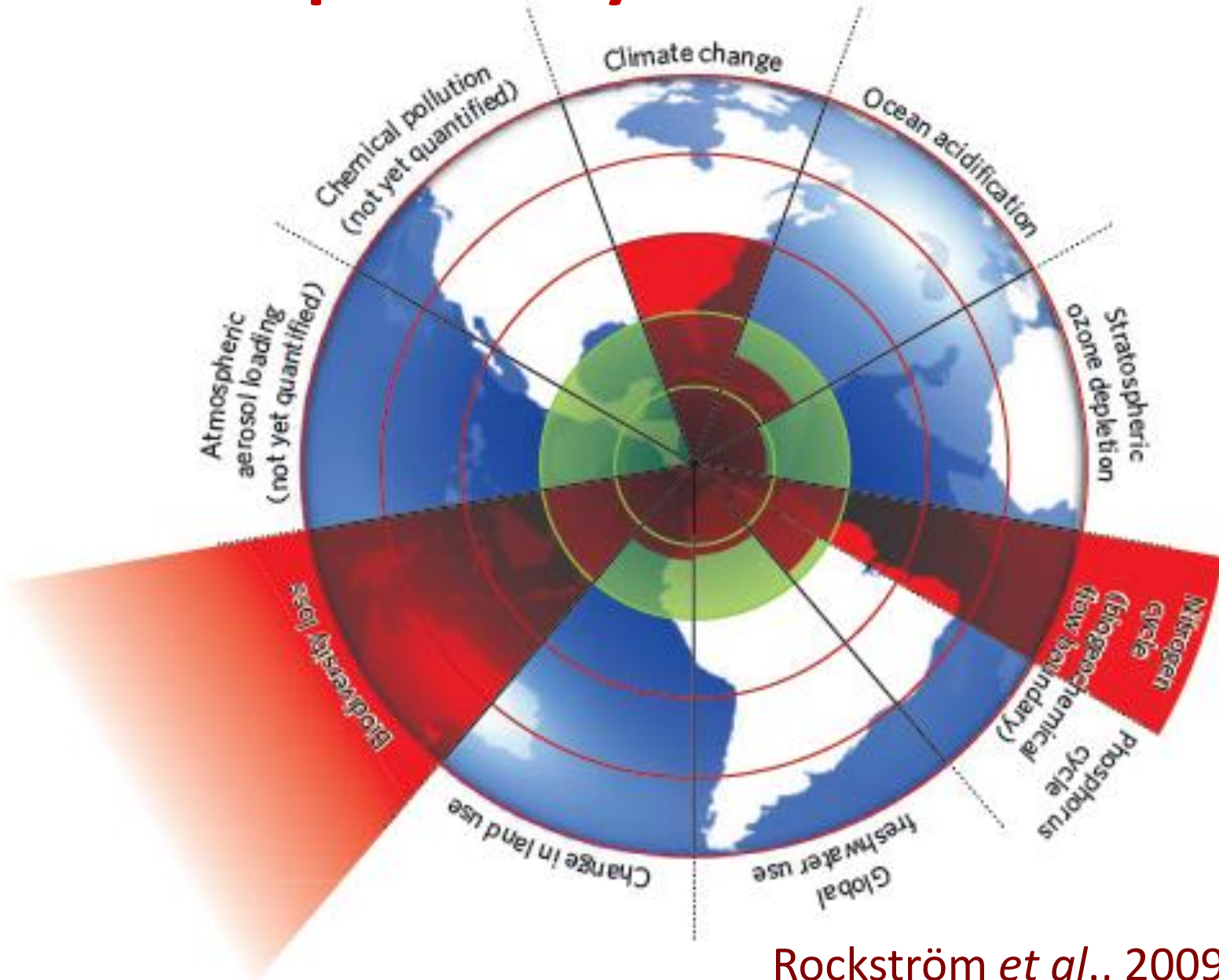
complex system thinking

transition governance

governance by who? empowerment

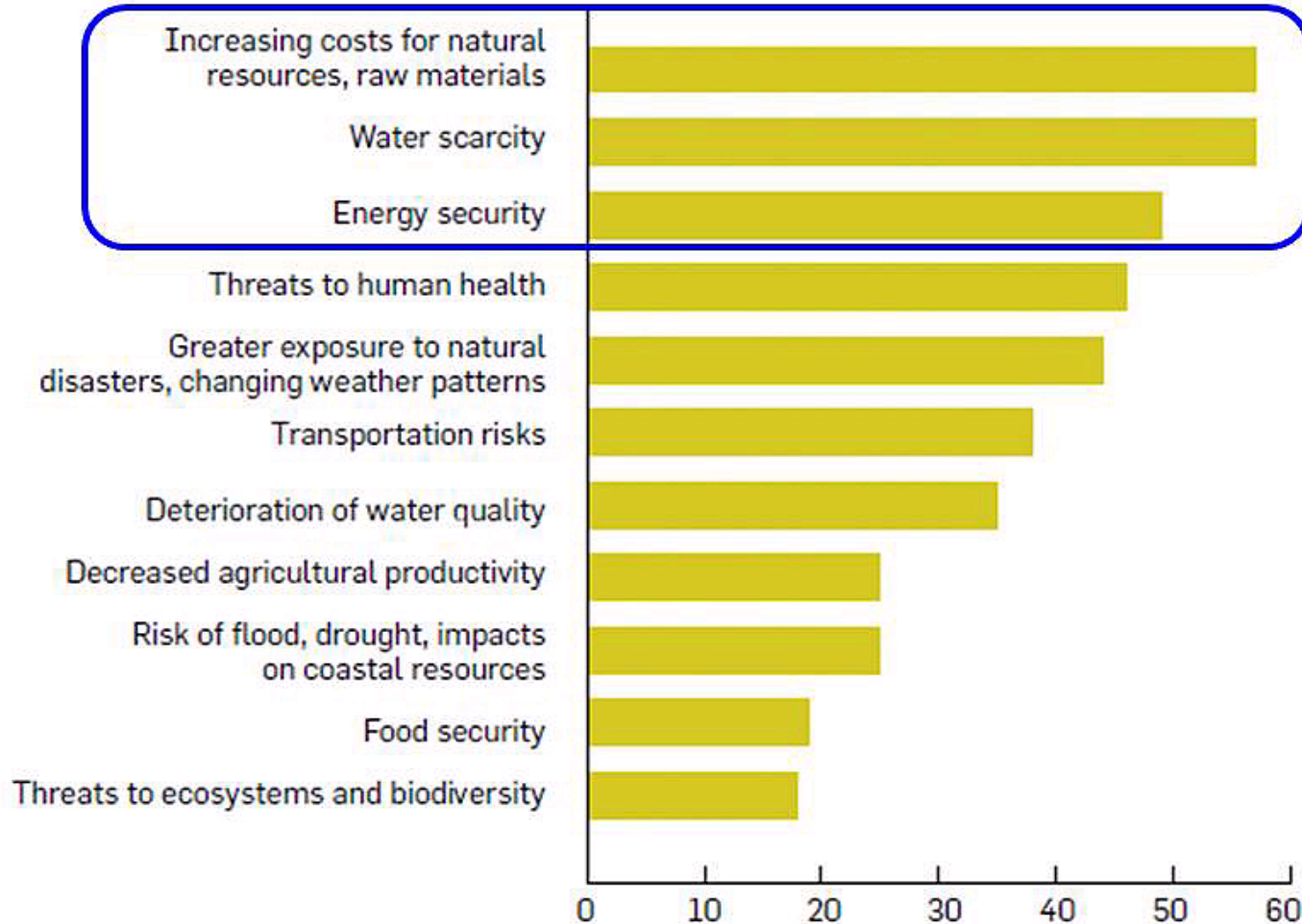
why? (un)sustainable development

“planetary boundaries”



Rockström *et al.*, 2009 (Nature)

Climate Change-Related Risks



Source: "Adapting for a Green Economy,"

UN Global Compact, UNEP, Oxfam and World Resources Institute, 2010, p. 19.

sustainable development

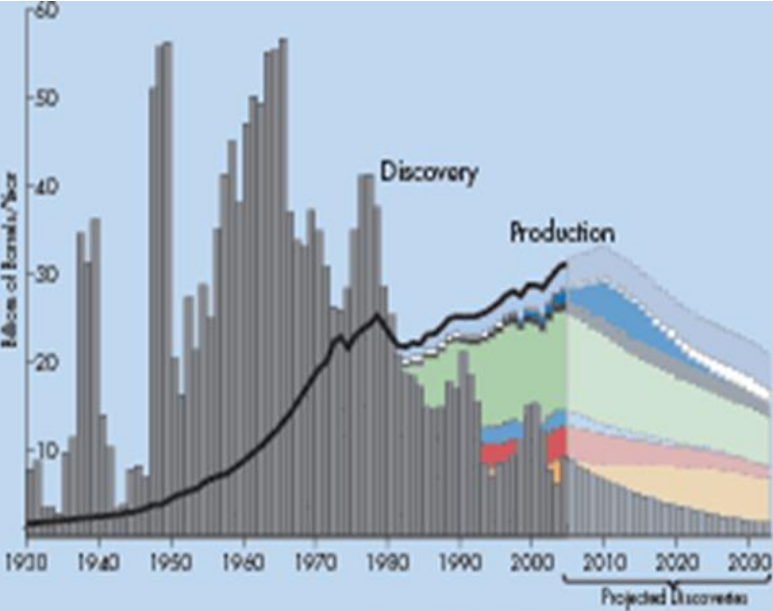
- *balancing the social, ecological, and economic*
- *people, planet, profit ('Triple bottom line')*
- *"... development that meets the needs of the present without compromising the ability of future generations to meet their own needs..."*

Brundtland Report UN 1987

future generations



multiple "crises"...



“solutions”...?

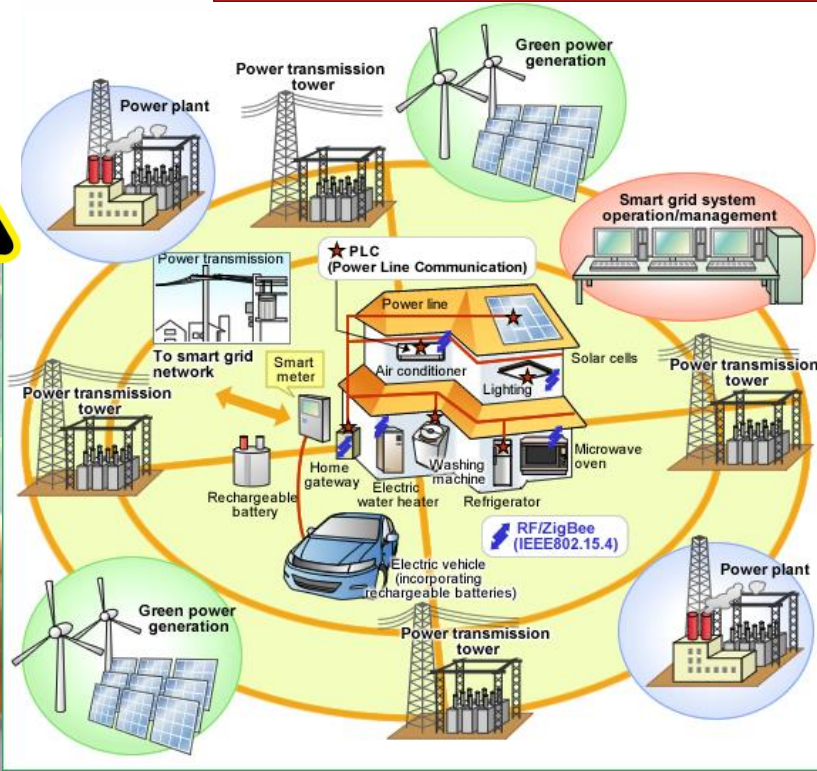
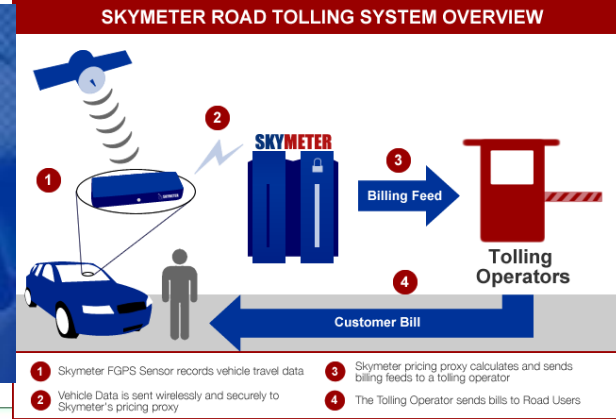
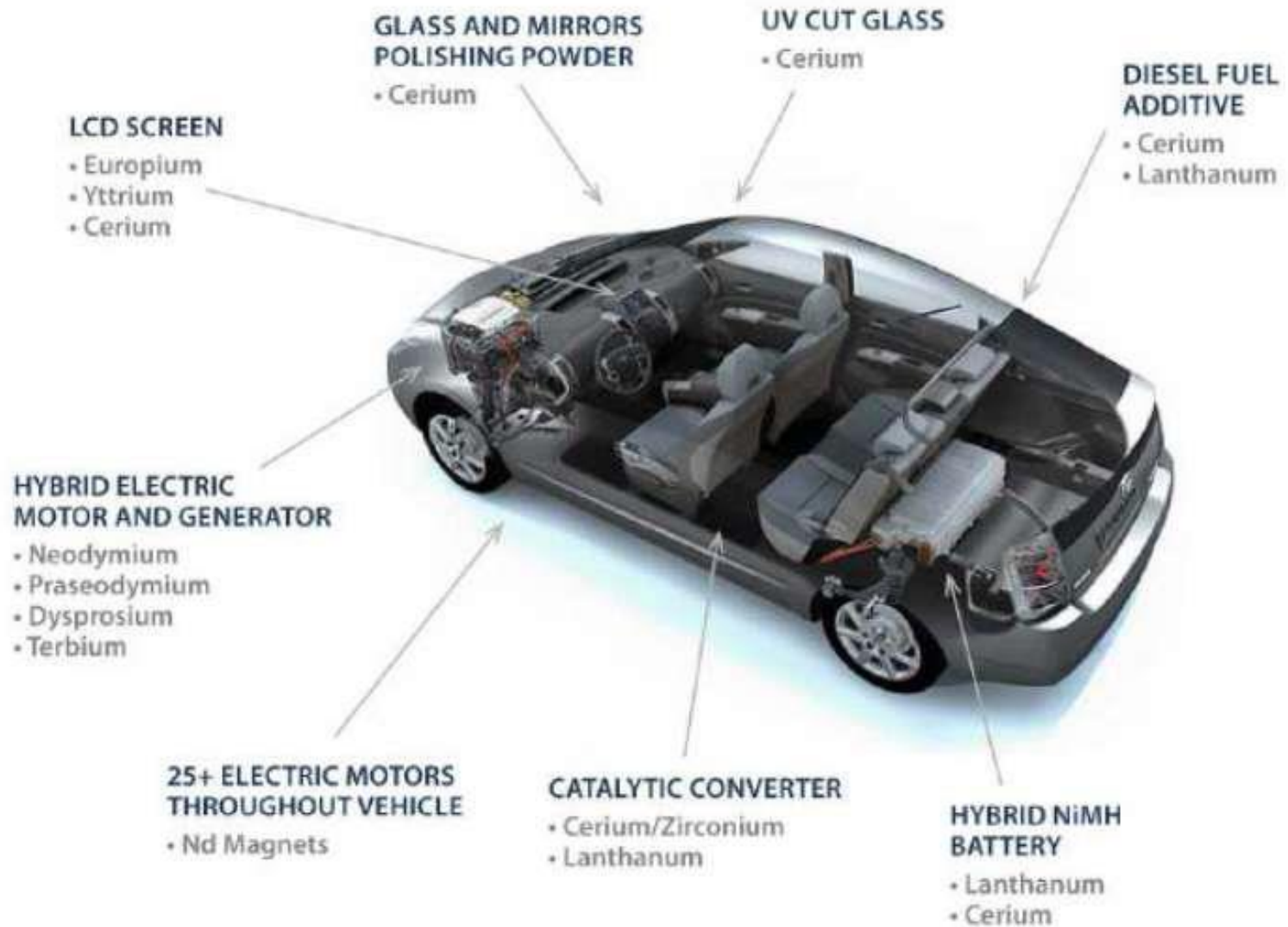


Figure 15: Rare Earth applications in a hybrid



Source: 'The Automotive Industry: A Major Rare Earths Consumer', 3rd International Rare Earths Conference, Dudley J Kingsnorth, November 2007

Critical raw materials for the EU

Report of the Ad-hoc Working Group on defining critical raw materials

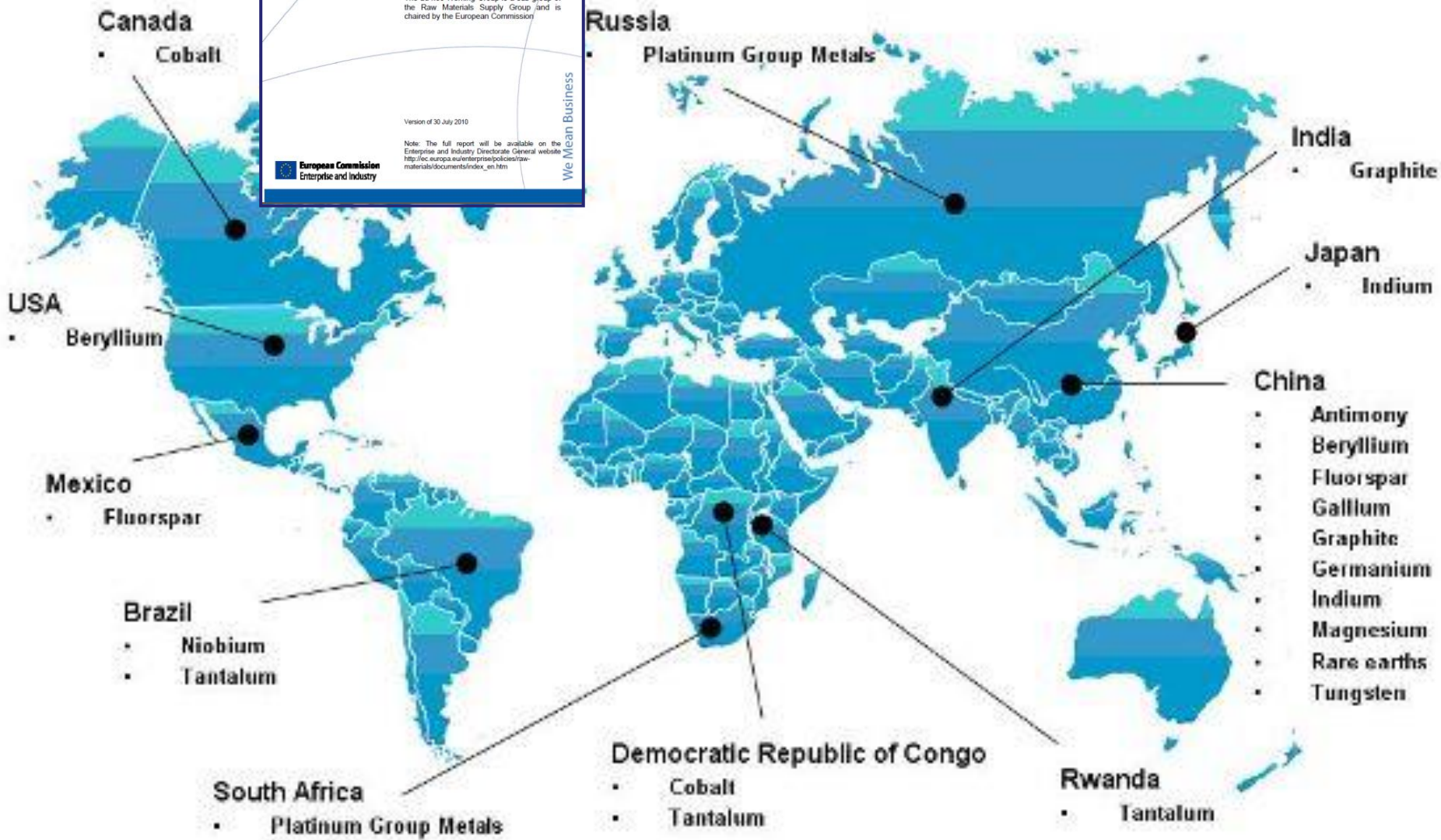
The ad-hoc Working Group is a sub-group of the Raw Materials Supply Group and is chaired by the European Commission

Version of 30 July 2010

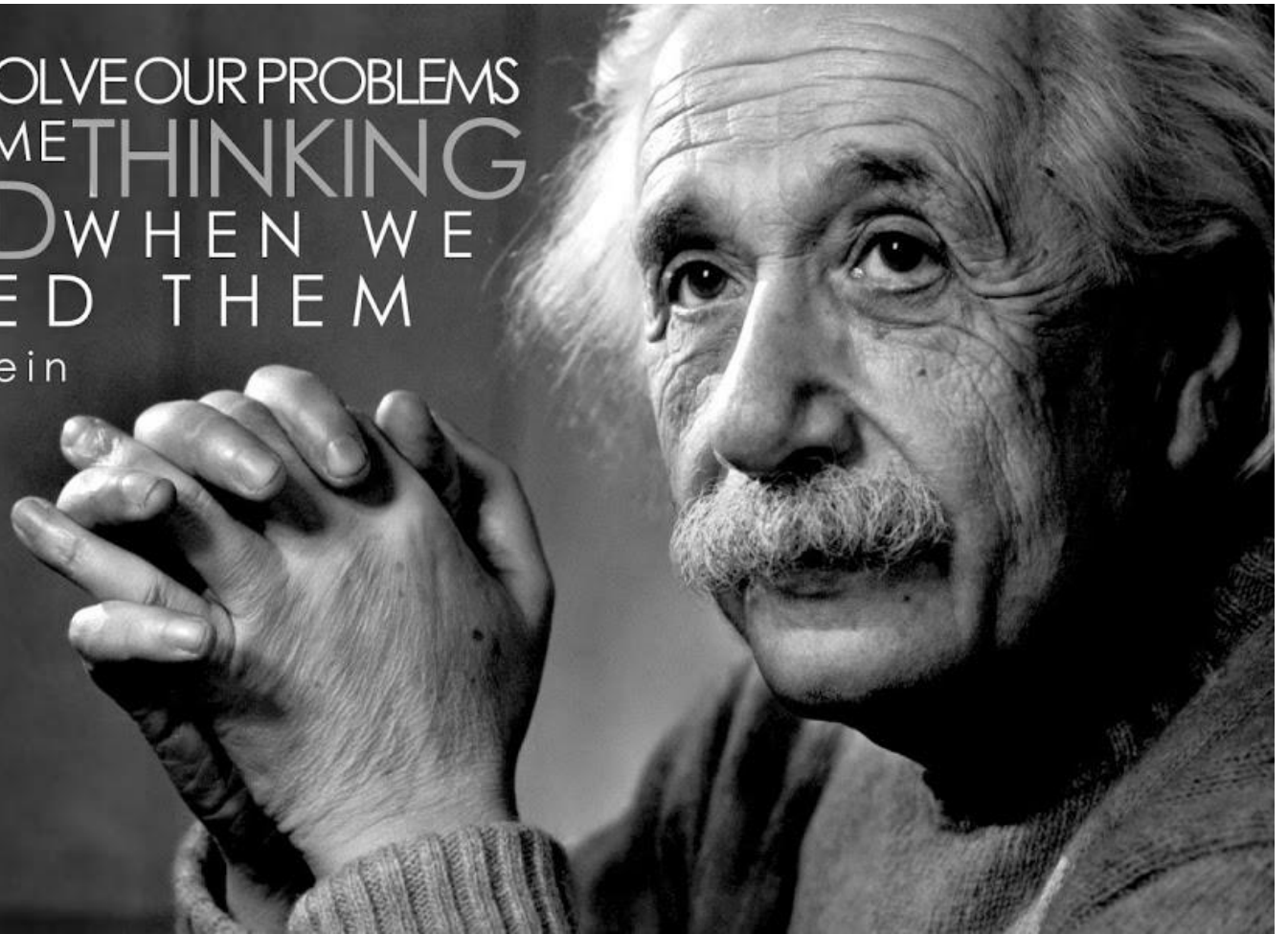
Note: The full report will be available on the Enterprise and Industry Directorate General website: http://ec.europa.eu/enterprise/policies/raw-materials/documents/index_en.htm



We Mean Business



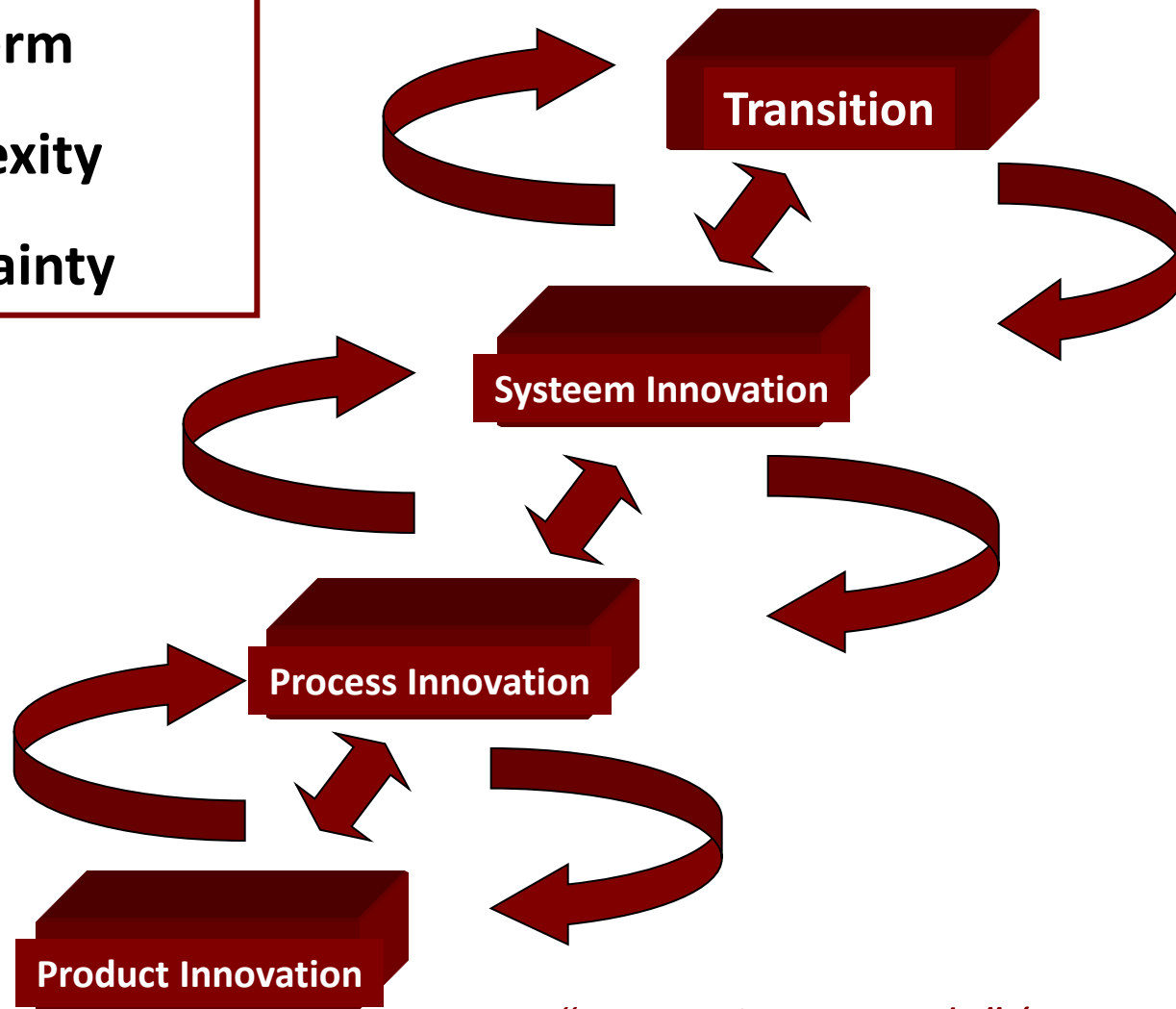
WE CANNOT SOLVE OUR PROBLEMS
WITH THE SAME THINKING
WE USED WHEN WE
CREATED THEM
-Albert Einstein



transitions

what is a transition?

- long-term
- complexity
- uncertainty



"Innovation Cascade" (Rotmans 2005)

definition (sustainability) transitions

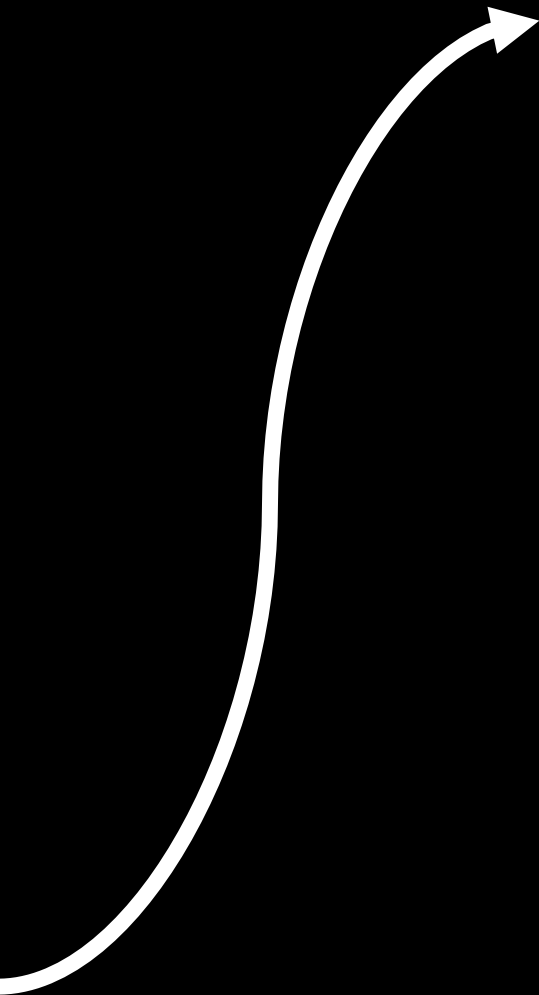
Transitions ≈

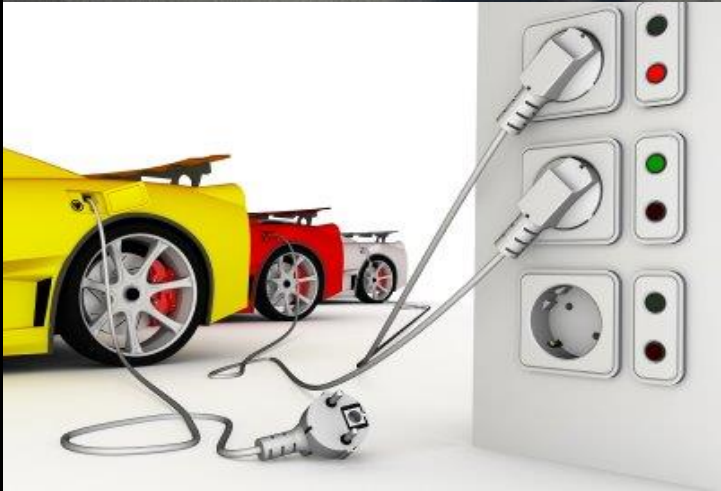
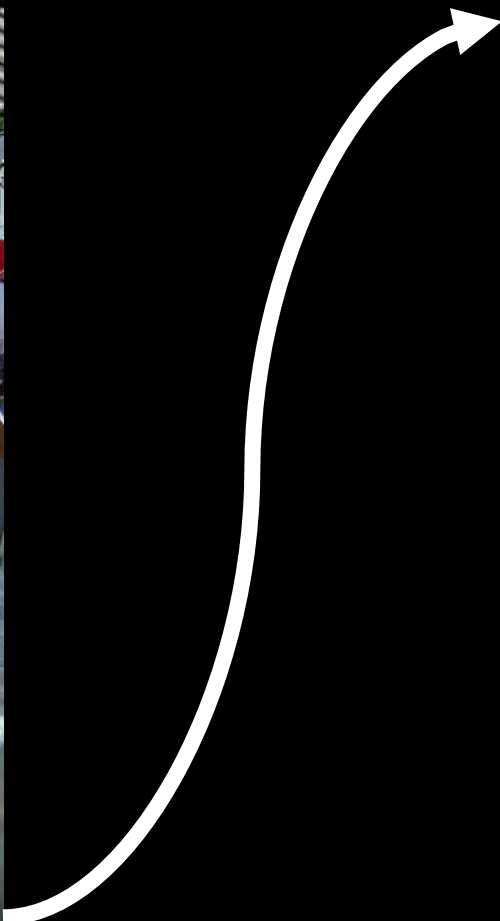
- long-term process (1-2 generations, 20-50 years)
- radical and structural change
- high levels of complexity and uncertainty

Sustainability transition ≈

- “radical transformation towards a sustainable society”
- “response to persistent problems in modern societies”

(Grin, Rotmans and Schot 2010)





complex system thinking

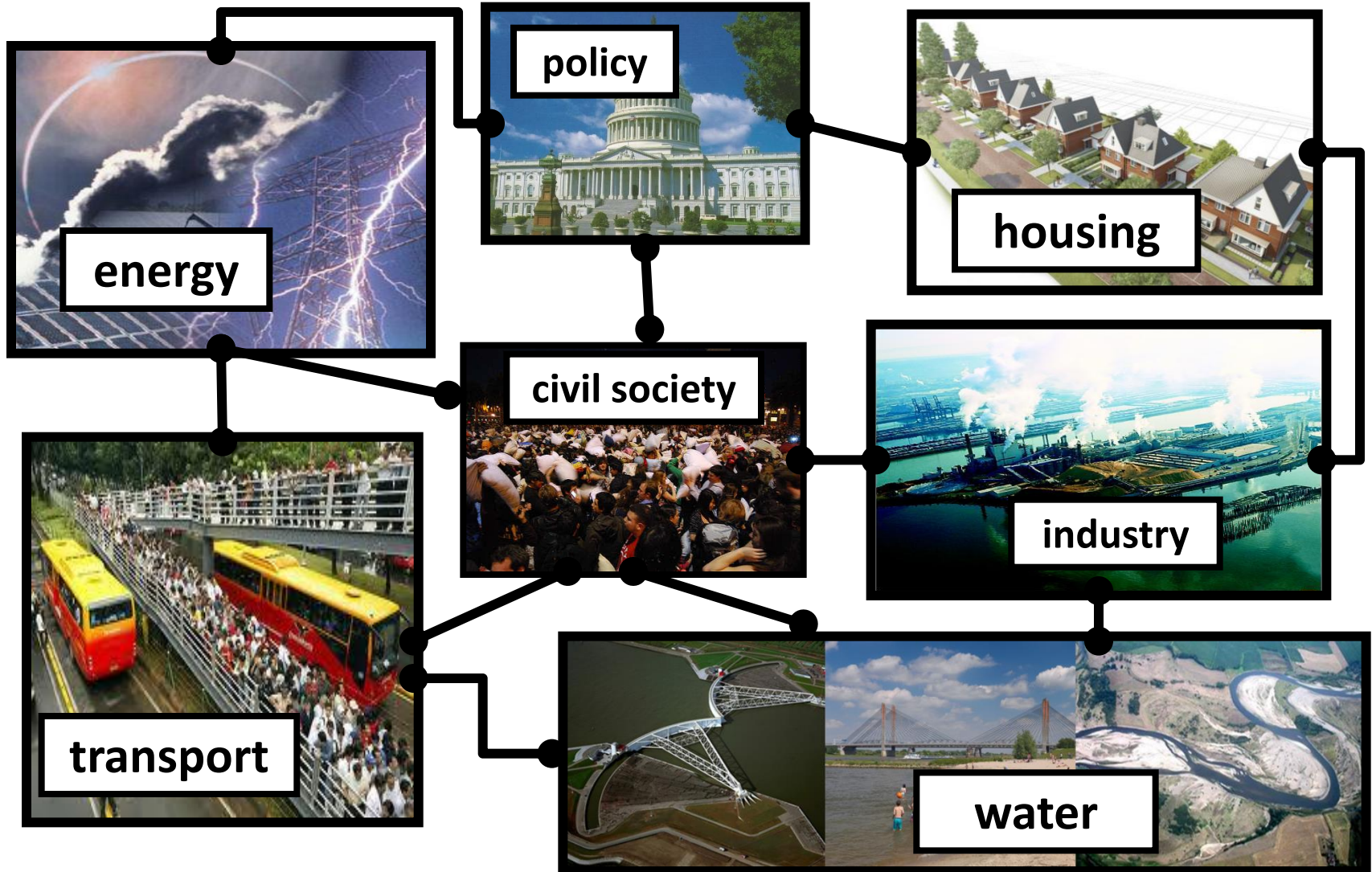
societal systems

Object of study in transition studies \approx **societal** systems

- **sectors** (*e.g. mobility, energy, water*)
- **regions** (*e.g. Algarve, Serra da Estrela*)
- **cities/towns** (*e.g. Lisboa, Porto, Cascais*)
- **districts** (*e.g. Bairro Alto, Expo, Centro*)

complex adaptive systems

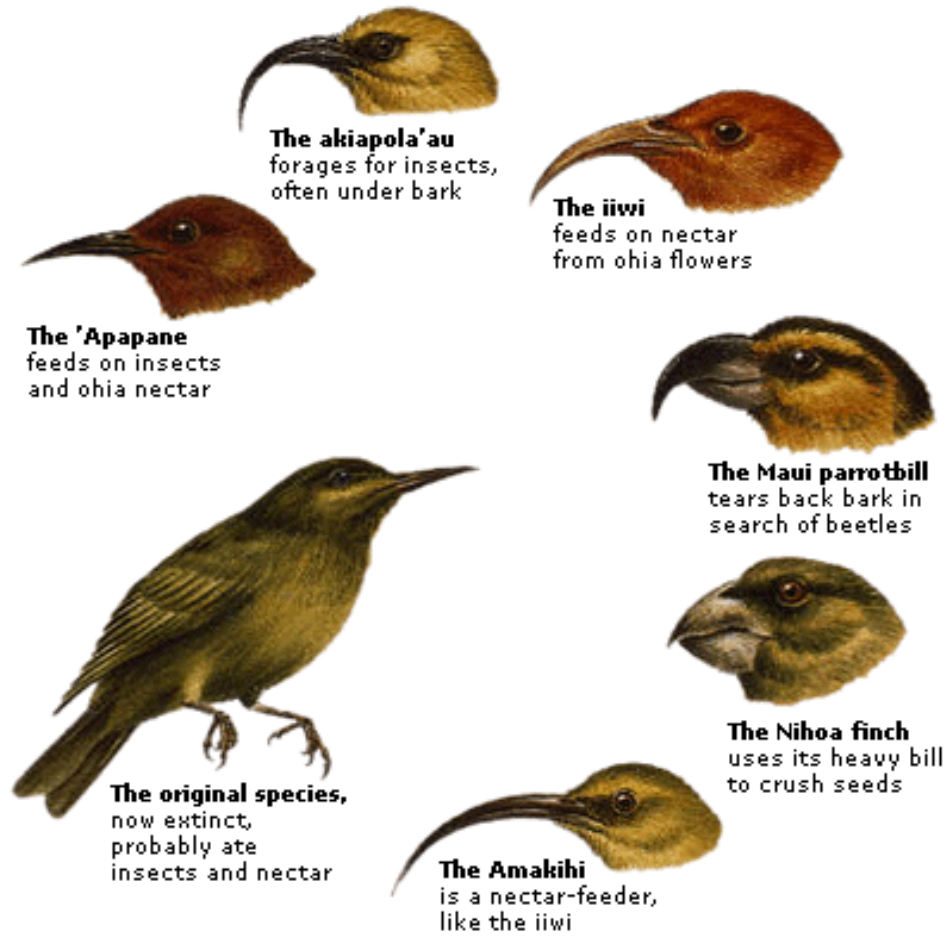
a city as a complex adaptive system



co-evolution



variation & selection

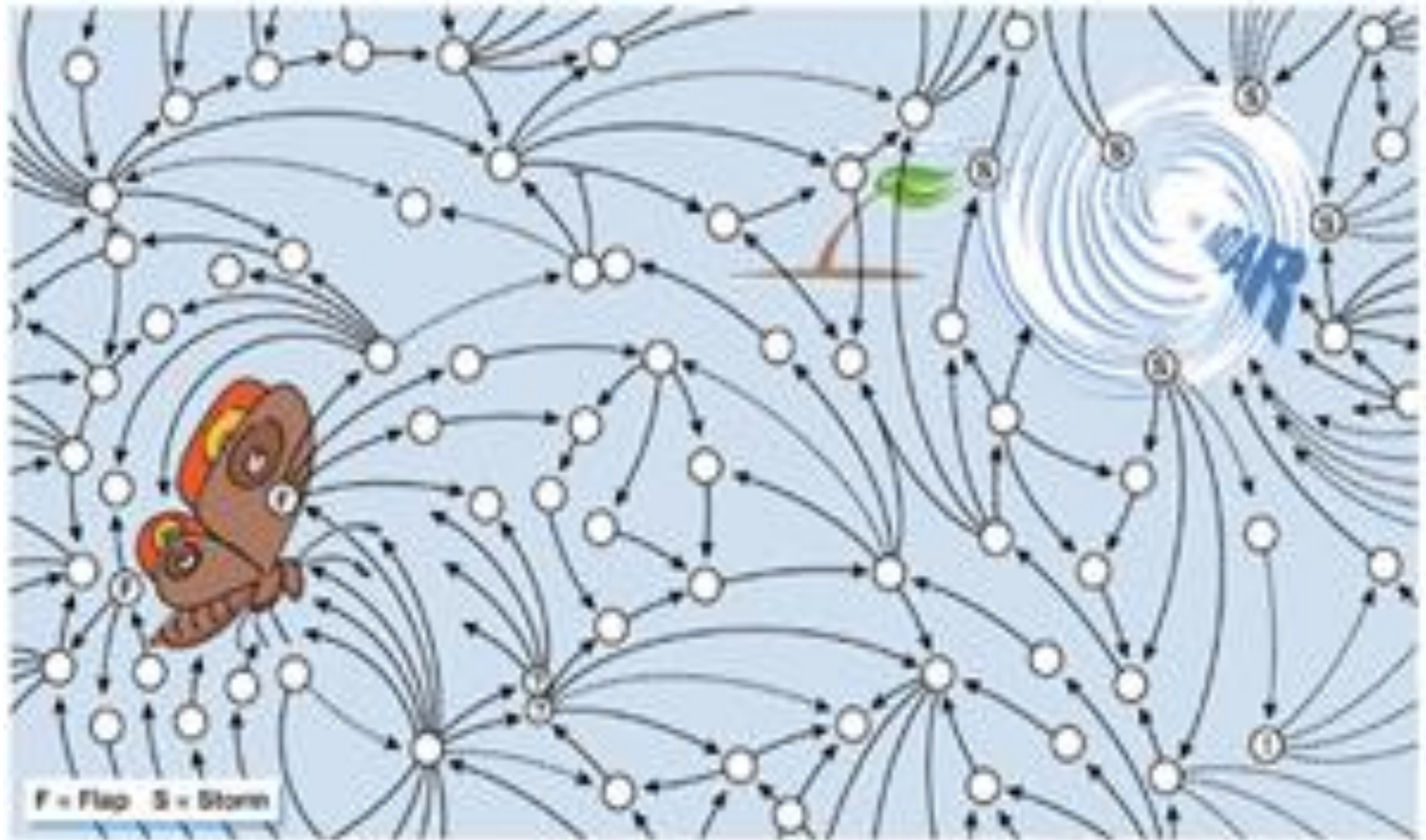


“Survival of the fittest” ≈

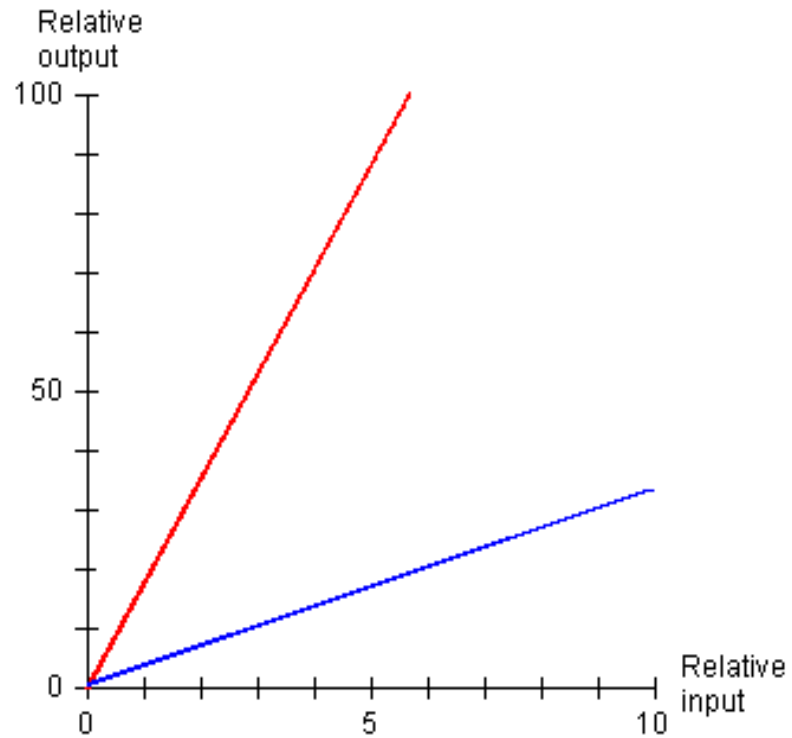
species that are best adapted to their (changing) environment

also applies to ideas, technologies, systems

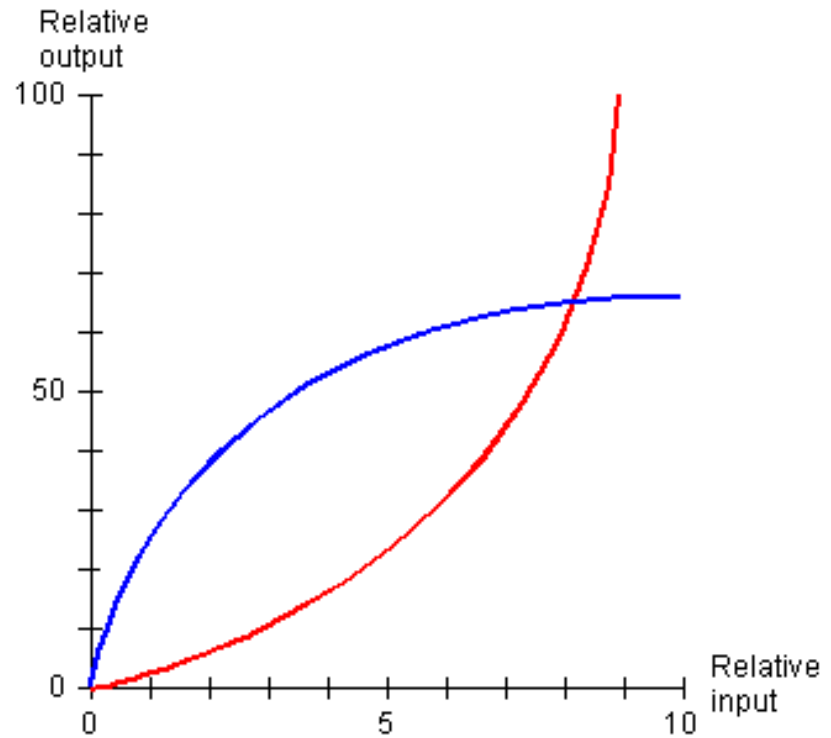
the “butterfly effect”



non-linearity

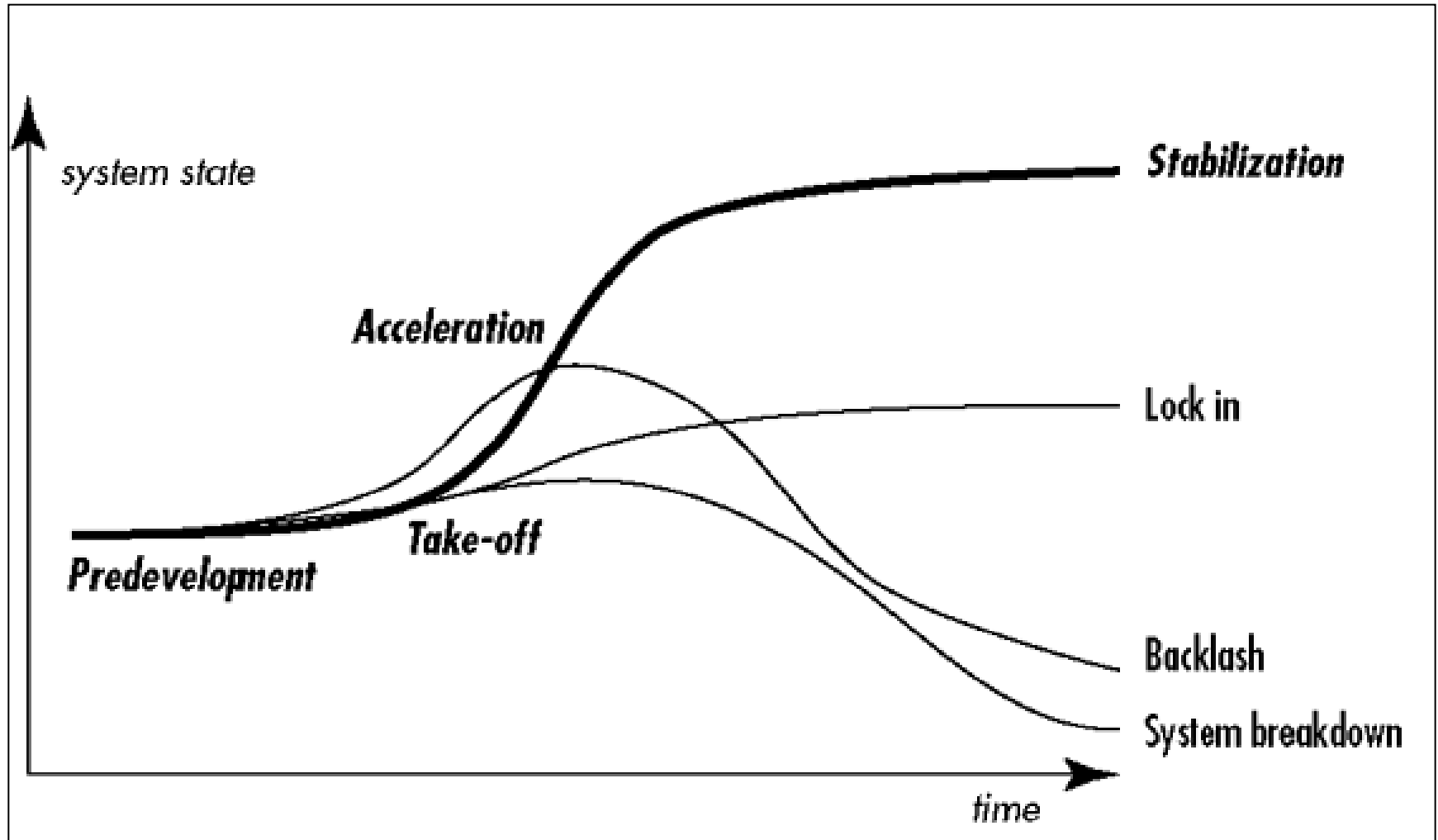


Examples of linearity



Examples of nonlinearity

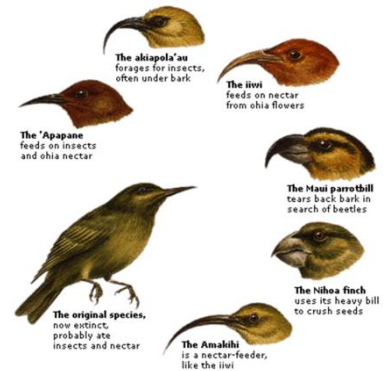
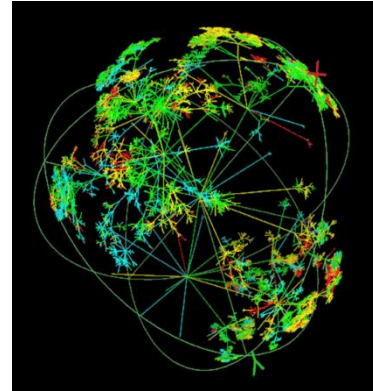
transitions = non-linear



properties of complexity

- interdependencies
- co-evolution
- variation and selection
- non-linearity
- uncertainty

... wat does this mean for human action?



transition governance

complexity and evolution

means...

- society cannot be 'managed'
- societal change cannot be planned
- effect & cause = uncertain and unpredictable

but also...

- a small intervention can make a very great difference
- power of diversity => learning and experimenting
- insight into the long-term dynamics of societal systems

transition governance

“new mode of governance for sustainable development”

(Loorbach 2007, 2010, Loorbach & Rotmans 2010, Grin 2010)

can **NOT** ‘command and control’ transitions, but:

- trigger & accelerate transitions by
- playing into existing dynamics of change in society
- taking complexity as an opportunity

philosophy of transition governance

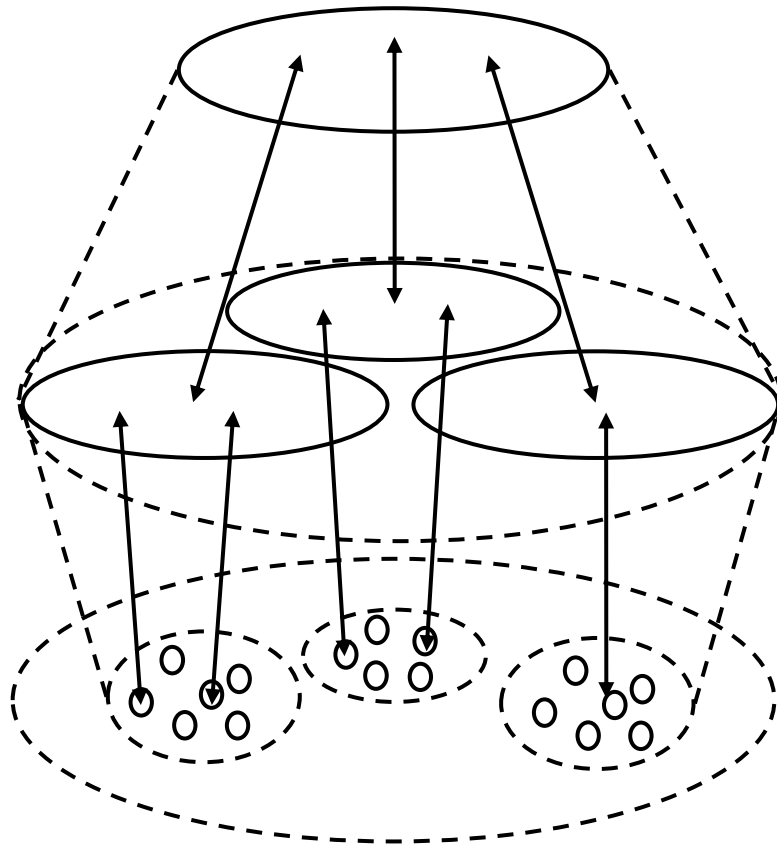
different transition governance **approaches**:

- “transition management” (*e.g. Loorbach, Rotmans*)
- “strategic niche management” (*e.g. Raven, Schot*)
- “reflexive governance” (*e.g. Grin, Voss*)

commonalities of the underlying philosophy:

1. multi-level perspective
2. two-track strategy
3. participatory process

multi-level perspective



Landscape
(macro-level)

*exogenous macro-
developments*

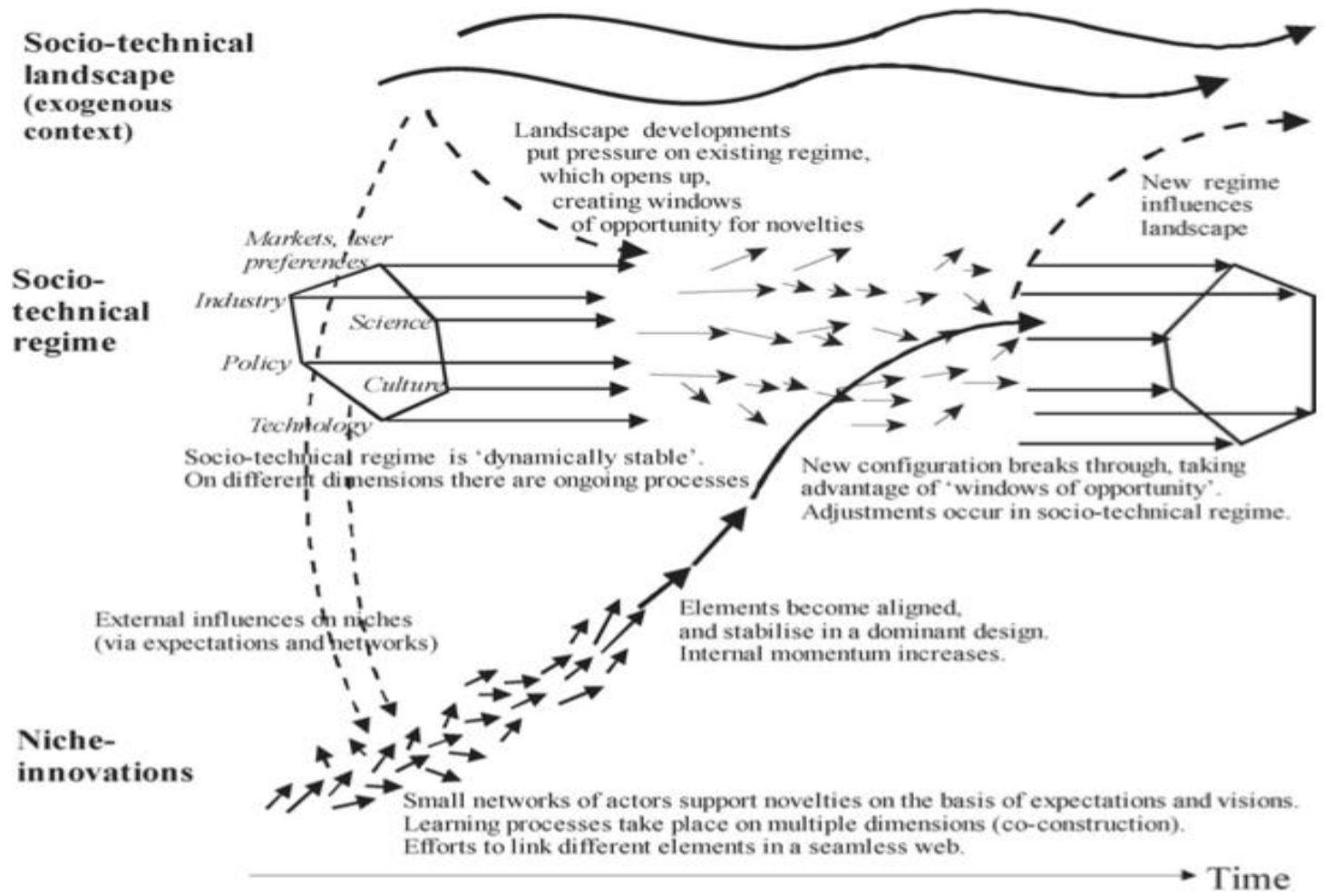
Regimes
(meso-level)

*dominant structures
& institutions*

Niches
(micro-level)

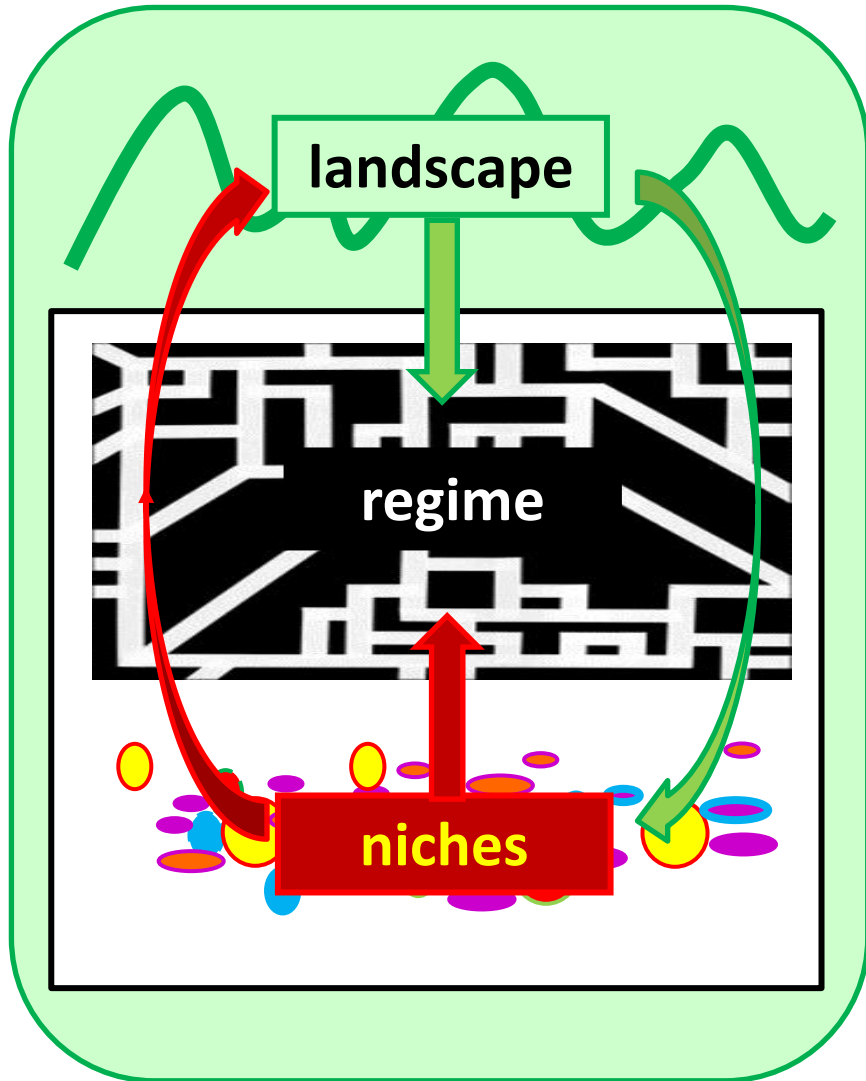
*spaces for
innovation*

Geels & Kemp 2000



Geels 2010

Example Energy



globalisation, climate change,
environmental awareness, worries
about geo-political dependence

fossil fuel regime: oil companies,
governments with fossil interests,
mainstream energy consumption

solar energy, wind energy etc.
energy saving practices, low
carbon life-styles

multi-level strategy for transition governance

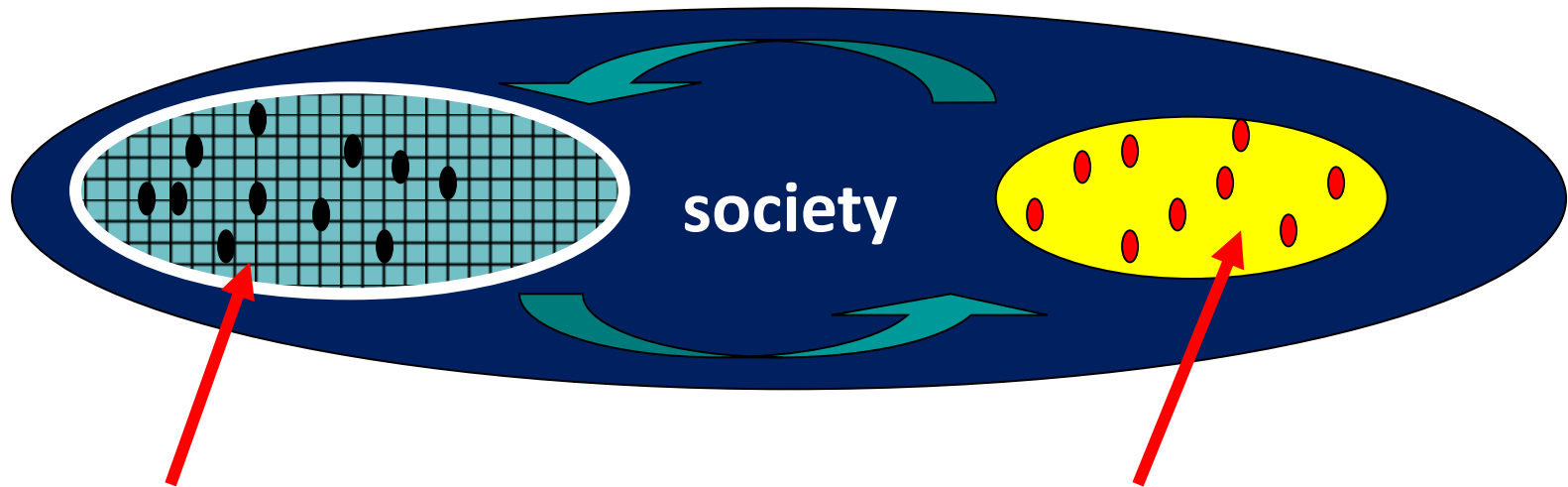
- top-down & bottom-up **pressure on regimes**
- **playing into landscape** developments
- protecting, nurturing and **empowering niches**

(Smith & Raven, 2012)

two-track strategy

- does **NOT** replace other types of governance (!)
 - parliamentary processes
 - laws and regulations
 - risk- and crisis-management
 - project management
- transitions is **NOT** a revolution
- “more evolution than revolution” (*Rotmans et al. 2001*)
- joining in with dynamics rather than forcing changes

two-track strategy



regular governance

- *Short term*
- *Incremental change / optimization*
- ***Pre-given*** problem and goal
- ***Implementing*** proven solutions

- ***Aggregative, formal democracy***

regular policy arena

transition governance

- *Long term*
- *System innovation*
- *Problem- and goal searching*
- ***Experimenting*** new approaches

- ***Radical, informal democracy***

> "transition arenas"

transition management & transition arenas

organising **transition arenas** ≈

- network of sustainability pioneers
- different backgrounds

develop **alternative, action narratives** ≈

- make **participatory** system analyses
- develop **future sustainability visions**
- conduct **transition experiments**

combine **reflection, vision** and **action**

strategic, tactical and **operational** approaches

InContext Final Conference & Informed Cities Forum 2013 present:

How to create space for change? Rediscovering the power of community

On 6 - 7 June in Berlin (Germany)



What we do?

What is a transition? What is transition research? Can transitions be managed? Who are the Drifters? Find out more about the Dutch Research Institute for Transitions (DRIFT) by clicking the infosign.



Featured Course

In samenwerking met Erasmus Academie organiseert DRIFT de Masterclass Transitie management, een postacademisch leertraject met transitie-experts uit heel Nederland.

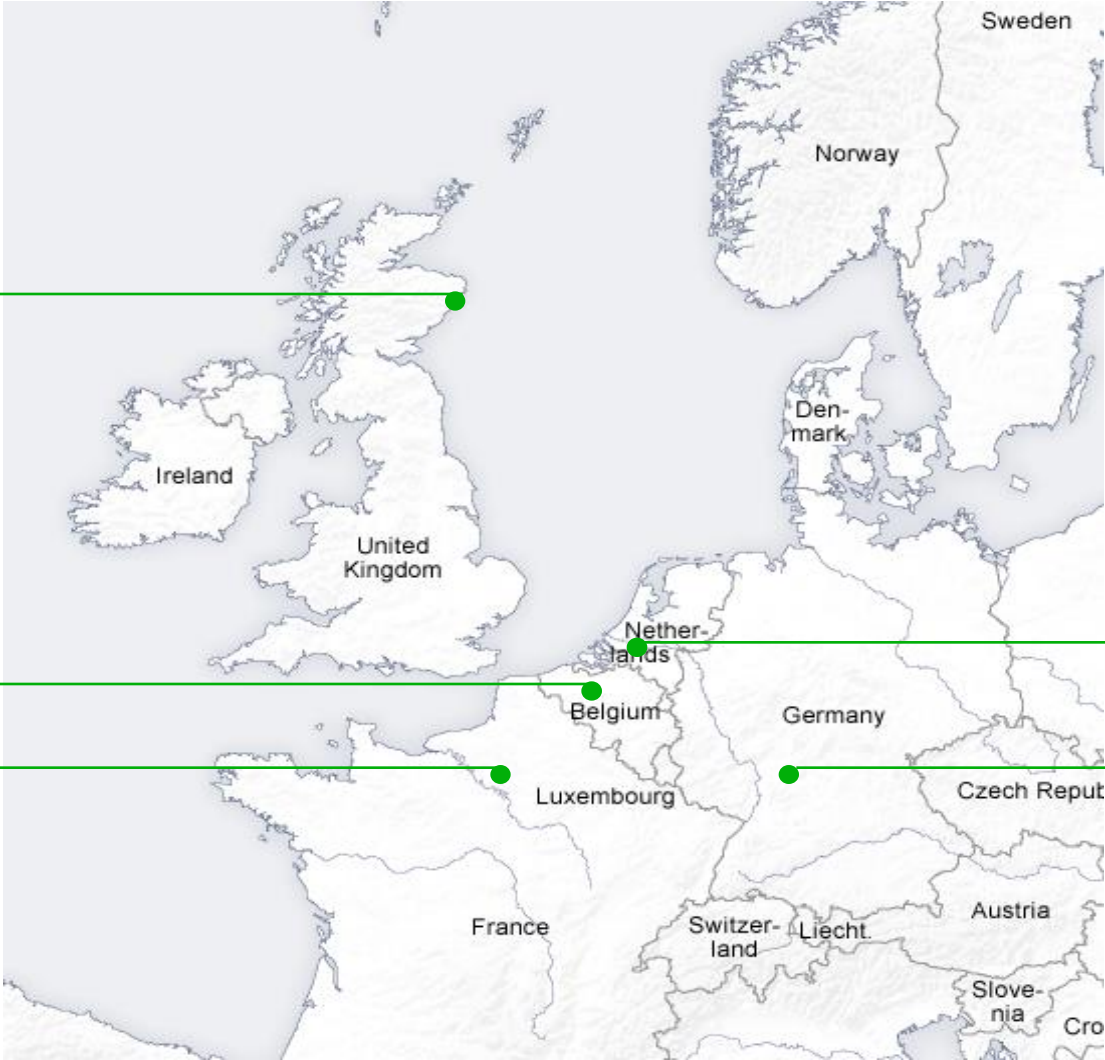


Featured publication

Since 2012 Drift started their brand new Essay-series. Take a look at the first contributions on the state of transition studies, the social economy and transition politics.

MUSIC project

www.themusicproject.eu



Aberdeen
(United Kingdom)

Ghent
(Belgium)

Montreuil
(France)

Rotterdam
(The Netherlands)

Ludwigsburg
(Germany)

November 2012



REPORT

Transition Management in Urban Context

Guidance manual - collaborative evaluation version

This report is aimed at inspiring and guiding city officers who work on creating a sustainable future of their city. It introduces Transition Management, a governance approach that aims at influencing the pace and direction of societal change dynamics. It illustrates the approach by experiences from five European cities. This is a collaborative evaluation version. You can contribute by sending your feedback.

Authors

Chris Roorda
Niki Frantzeskaki
Derk Loorbach
Frank van Steenberg
Julia Wittmayer



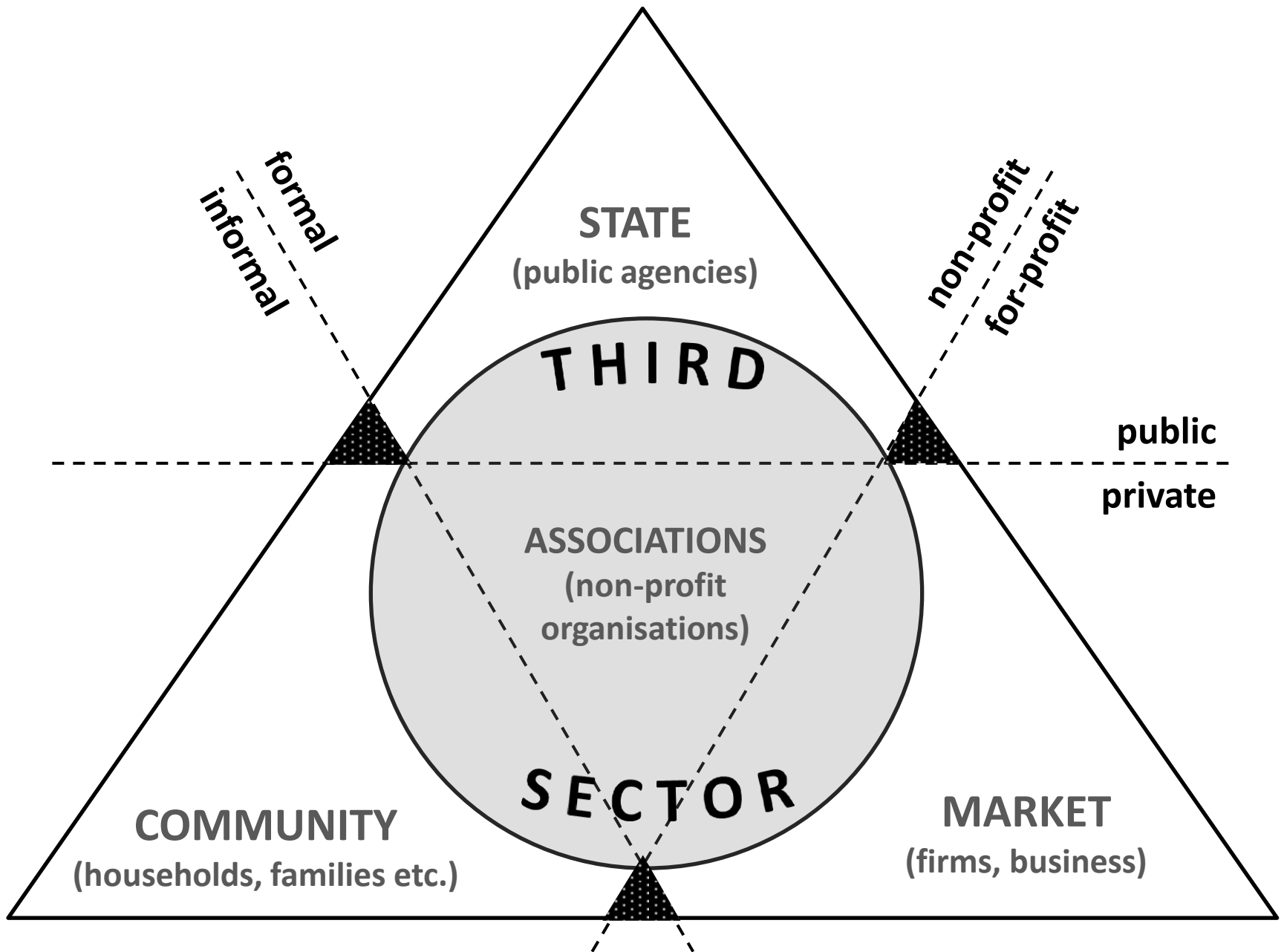
LINK:

<http://www.drift.eur.nl/wp-content/uploads/2012/05/DRIFT-MUSIC-Transition-Management-In-Urban-Context.pdf>

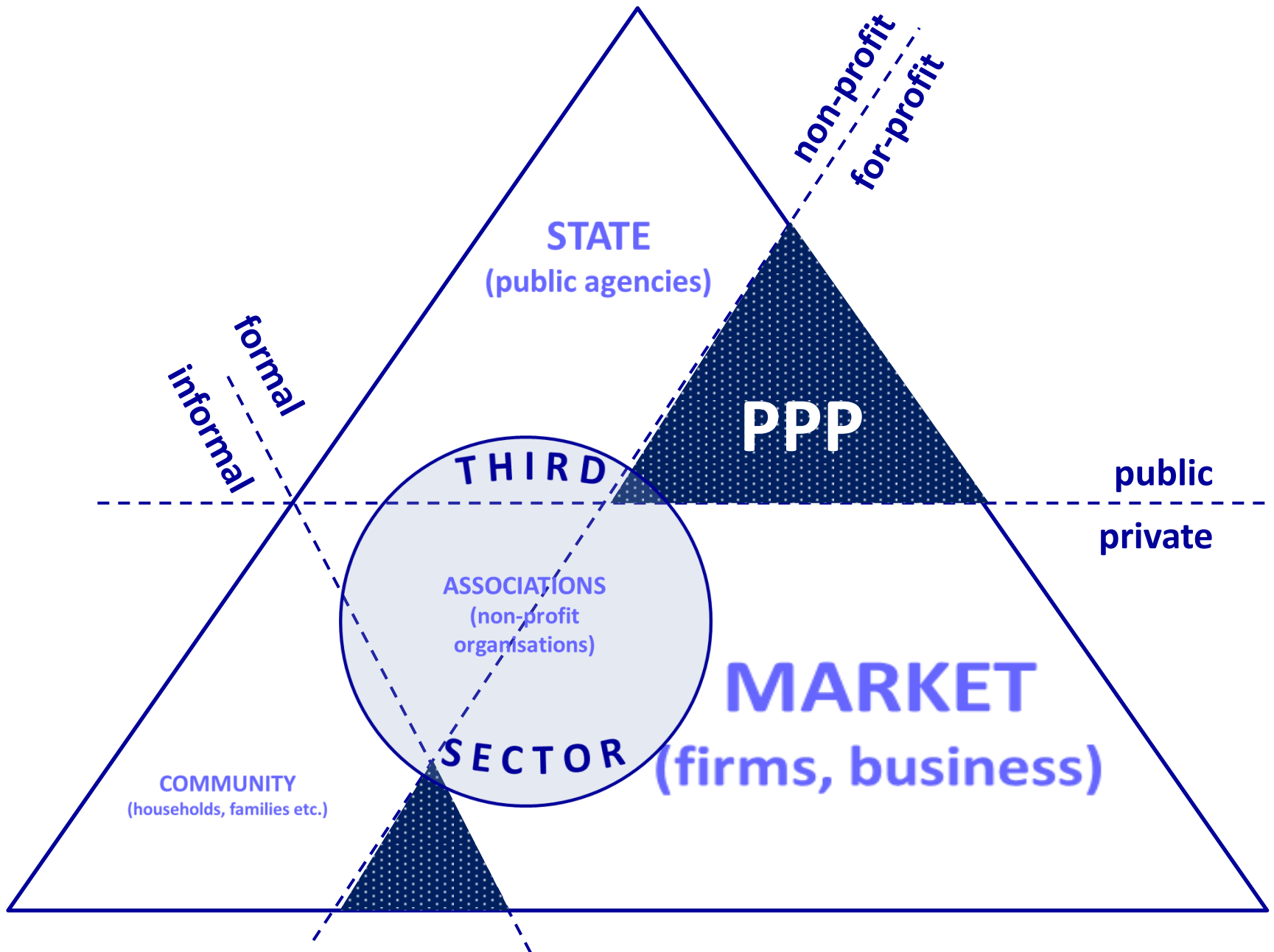
participatory process: governance ≠ government



empowerment



Avelino 2013, based on Evers & Laville 2004, Pestoff 1992



The Times They Are a-Changin'...?



Planet Repair Institute Presents


URBAN PERMACULTURE DESIGN COURSE

2015 Portland OR

with Mark Lakeman, Mighk Simpson and friends!

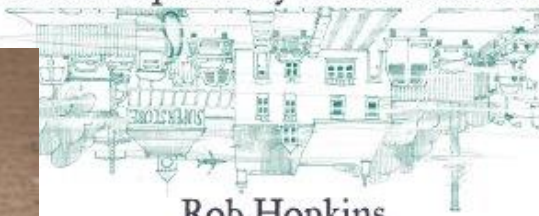
Learn the skills to transform your neighborhood into a food forest.





THE TRANSITION HANDBOOK

From oil dependency to local resilience



Rob Hopkins
Founder of the Transition movement



VOLUNTARY SIMPLICITY

A poetic alternative to consumer culture

"If your town is not yet a Transition Town, here is the guidance for making it one. Time, and much to accomplish." — Richard Heinberg, author of *Peak Everything*

SLOW MOVEMENT

Para quê viver tão depressa?




GLOBAL ECO-VILLAGE NETWORK



onderdeel van
Transition Network.org

ENERGY COOPERATIVES



COOP*e***RATIVES**
Europe

rescoop.be



CROWD FUNDING/ CROWD SOURCING

“ Don't start a crowdfunding campaign without it! ”
- Brian Fargo, Creator, Wasteland 2

THE Crowdfunding BIBLE



HOW TO RAISE MONEY FOR ANY STARTUP, VIDEO GAME, OR PROJECT

By **SCOTT STEINBERG**

with **RUSEL DeMARIA**

Edited by **JON KIMMICH**

Foreword by **ERIC MIGICOVSKY**, Creator, Pebble: E-Paper Watch

MONEY FROM THE CROWD

brought to you by
SeedingFactory.com

sources (sept 2012)
crowdsourcing.org
kickstarter.com

CrowdFunding activity in the world



\$1,5B
raised worldwide

+90%
expected growth in 2012

# CrowdFunding Platforms	208	186	58
# Campaigns Launched	532,000	654,000	1,000

Canadian Top Funding



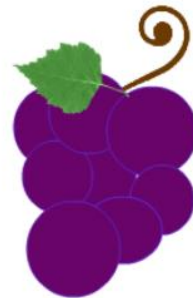
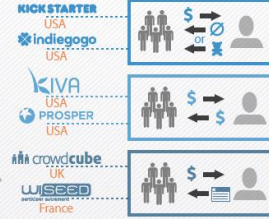
JOBS Act overview

- Timeline**
- April 2012: Signed by Obama
- January 2013: Goes into effect
- Rules for Start-up**
- Can sell up to \$1 M of stocks a year to unlimited investors.
- Rules for Investors**
- <\$100K: max \$2000/year
- >\$100K: max 10% of income

The **JOBS Act** signed by the US is a strong driver

Equity-based model is the less common but most promising one.

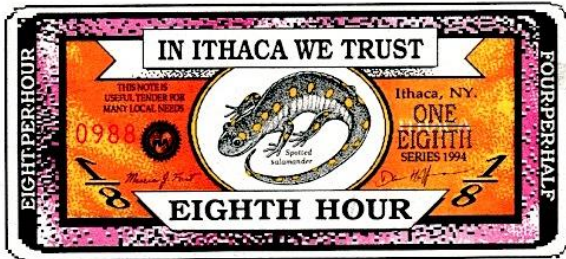
+300% growth in 2012



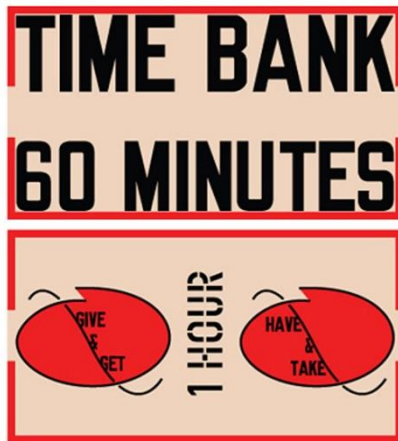
Adopt a Vine

Fred, Cindy, or Lou? What ever your name,
get a vine named after you!

COMPLEMENTARY CURRENCIES



time/bank



ADVANTAGES/ AIMS

COMPLEMENTARY CURRENCIES

1. hold on to local investments
2. stimulate desirable products/ services
3. anti-cyclical effect > mainstream economy
 - *compensate 'market failures'*
 - *unemployment & socio-economic exclusion*
 - *increasing the scope of the informal economy*

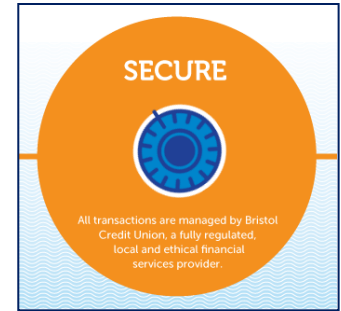
LOCAL MONEY [COMPLEMENTARY CURRENCIES]



The Brixton Pound



BRISTOL POUND
OUR CITY. OUR MONEY.



what is the B£? B£ Pay-by-text B£ Events why

Home > how does B£ work?

To begin using the B£ all you need to do is:



ALL DESIGN TECHNOLOGY LIVING TRANSPORTATION

City's Local Currency Is Accepted for Paying Taxes



Sami Grover
Business / Corporate Responsibility
February 16, 2012

RELATED



WORLD'S FIRST LOCAL CURRENCY LAUNCHES IN BRIXTON, LONDON



LOCAL CURRENCY CAUSES A STIR IN LONDON: THE



[Kurt Thomas Hunt/CC BY 2.0](#)

From being [voted the UK's greenest city](#) to an [awesome wood recycling project](#), my old home town of Bristol, England, has a lot going for it. It's latest innovation is particularly worthy of note. The BBC reports that [Bristol is](#)



made for Bristol. It
ent businesses in
multiplying the
ordinary people

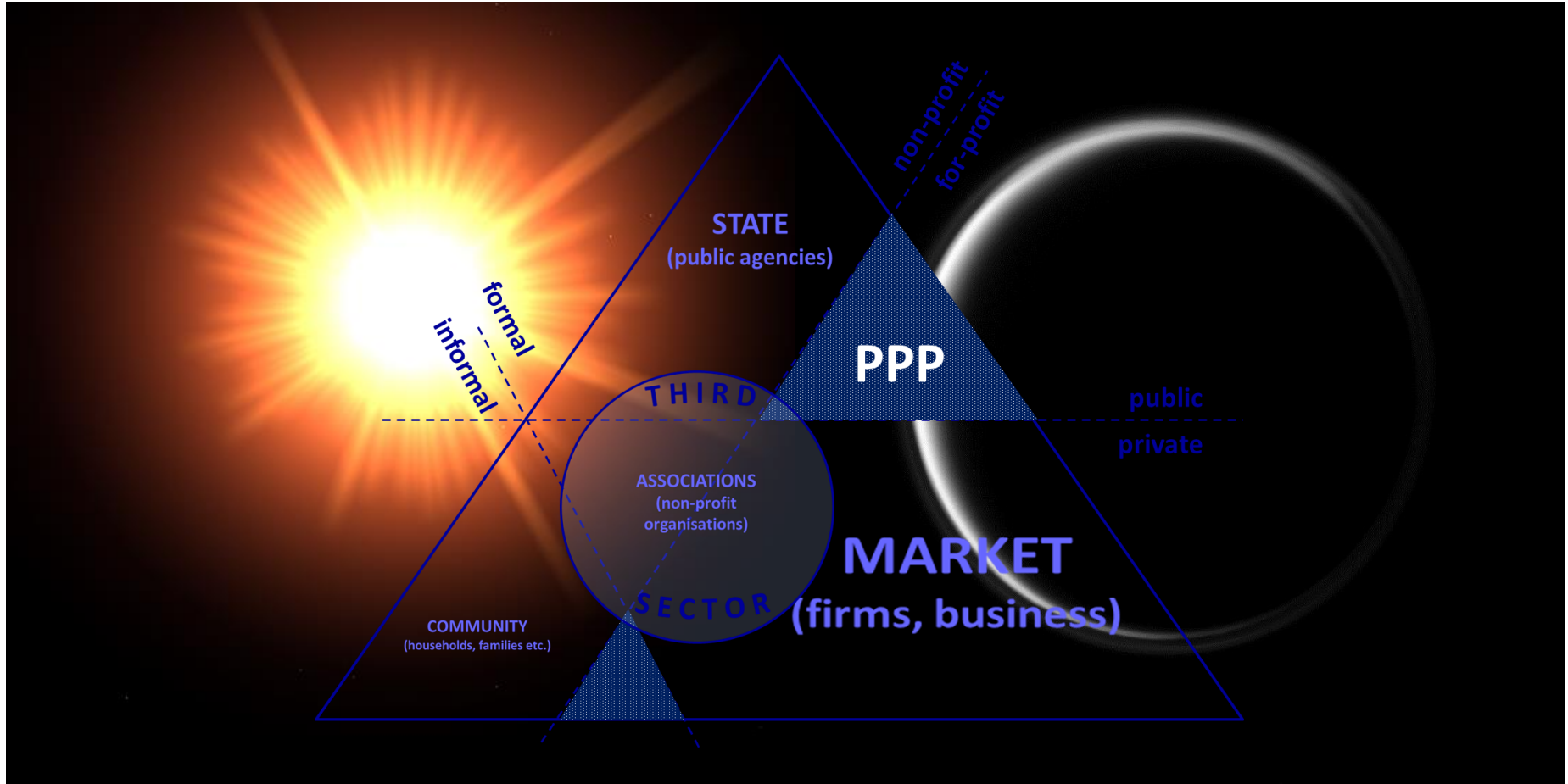
Design our currency!

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ications.



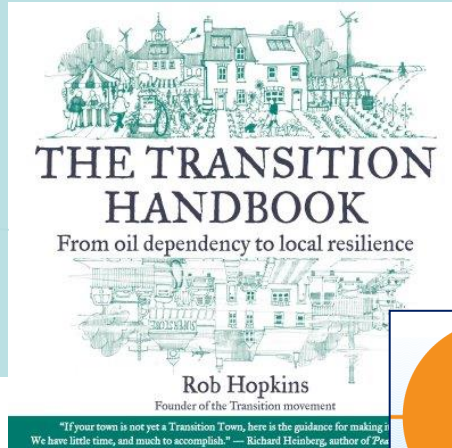


(DIS)EMPOWERMENT PARADOXES

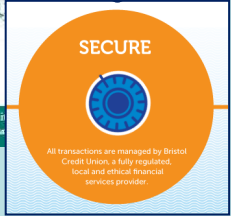
- unpaid work > “volunteer fatigue”
- new dependencies and inequalities
- (mis) used as excuse for budget cuts “austerity”
- increasing neo-liberal dominance market
- big society requires big government!!!
- need for structural, professional support



time/bank

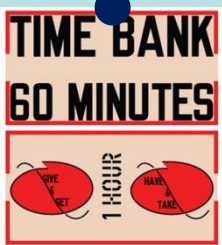


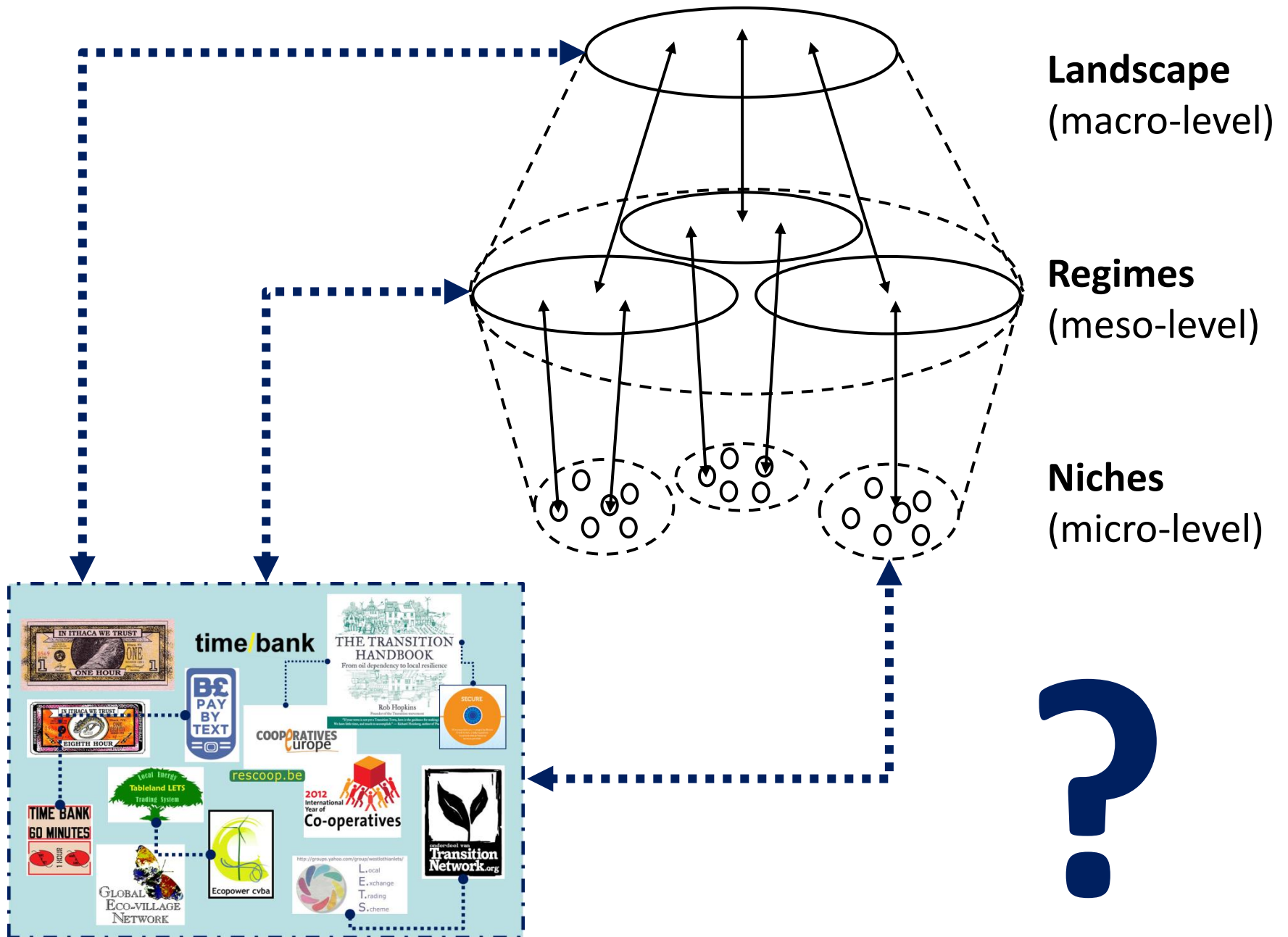
"If your town is not yet a Transition Town, here is the guidance for making a start. We have little time, and much to accomplish." — Richard Heinberg, author of *Picoeconomics*



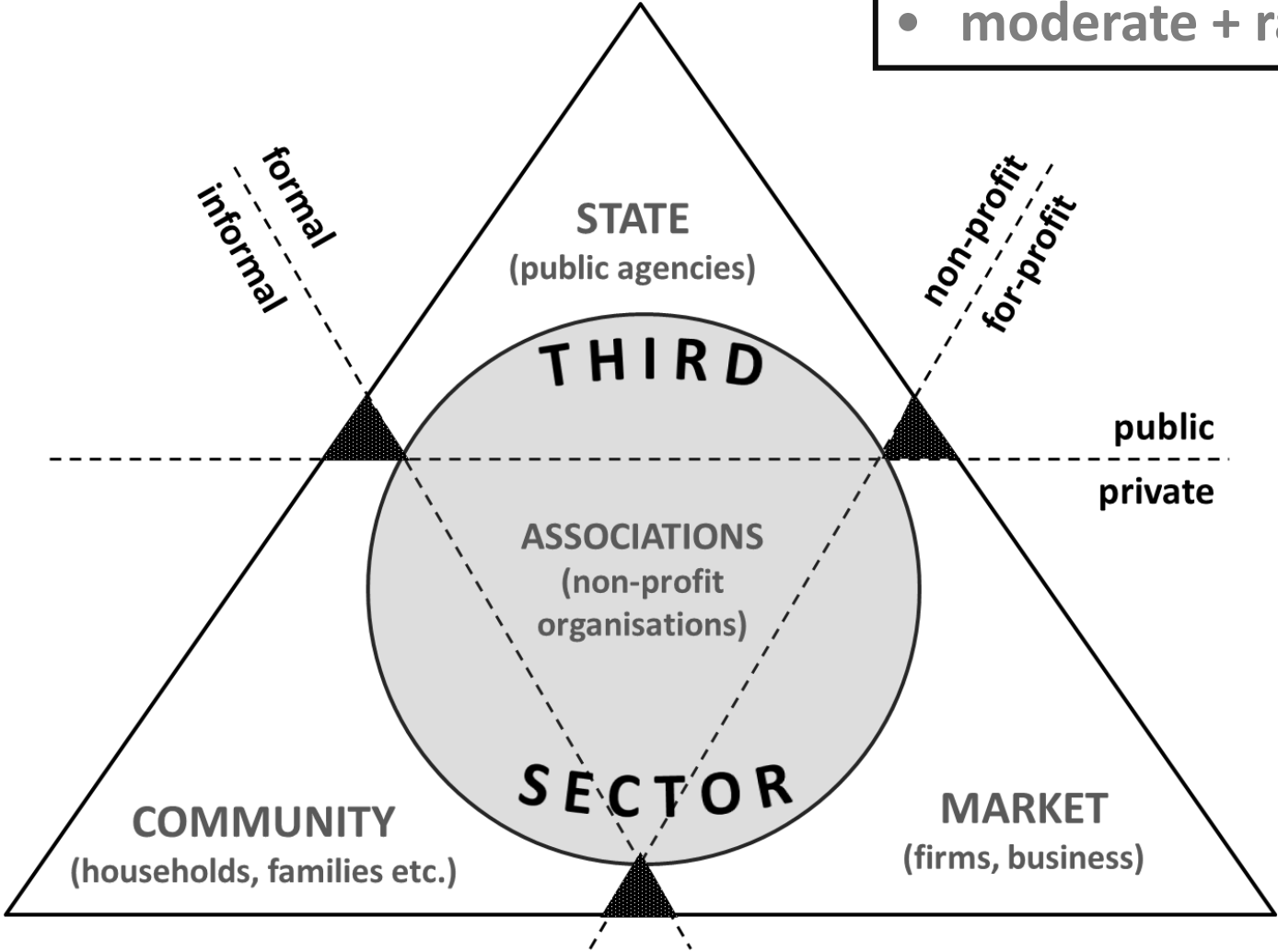
INITIATIVES Europe

robbop.be





- top-down + bottom-up
- mainstream + grassroots
- moderate + radical change



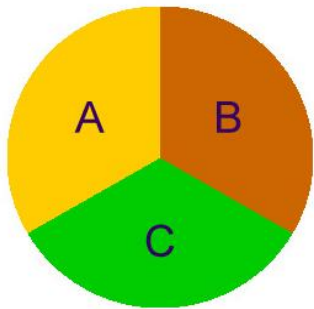
Avelino 2013, Based on Evers & Laville 2004, Pestoff 1992

transition 'butterfly effect'

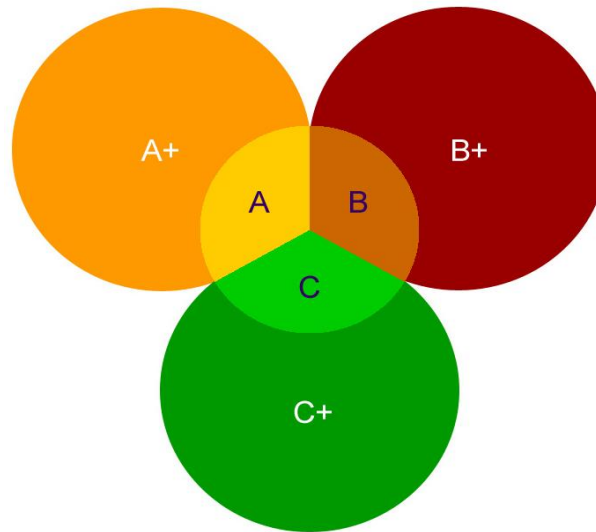
A: Civil society: Community + Third Sector

B: Business

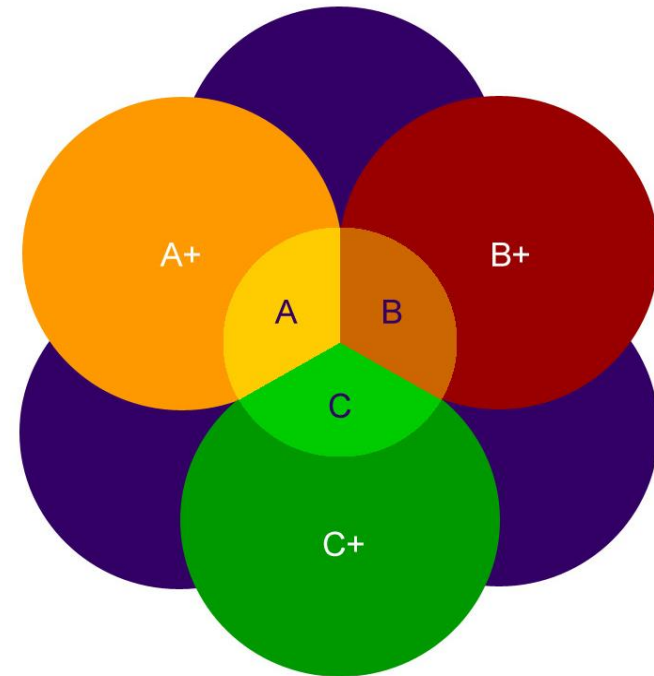
C: Government



transition arena
analysis + vision
+ experiment



coalitions
networks



social movement
... transition?



OBRIGADA

*Twitter: @FlorAvelino
website: www.drift.eur.nl
email: avelino@drift.eur.nl*

Never doubt that
a **small group**
of thoughtful,
committed citizens
can **change the world.**
Indeed, it is the only
thing that ever has.

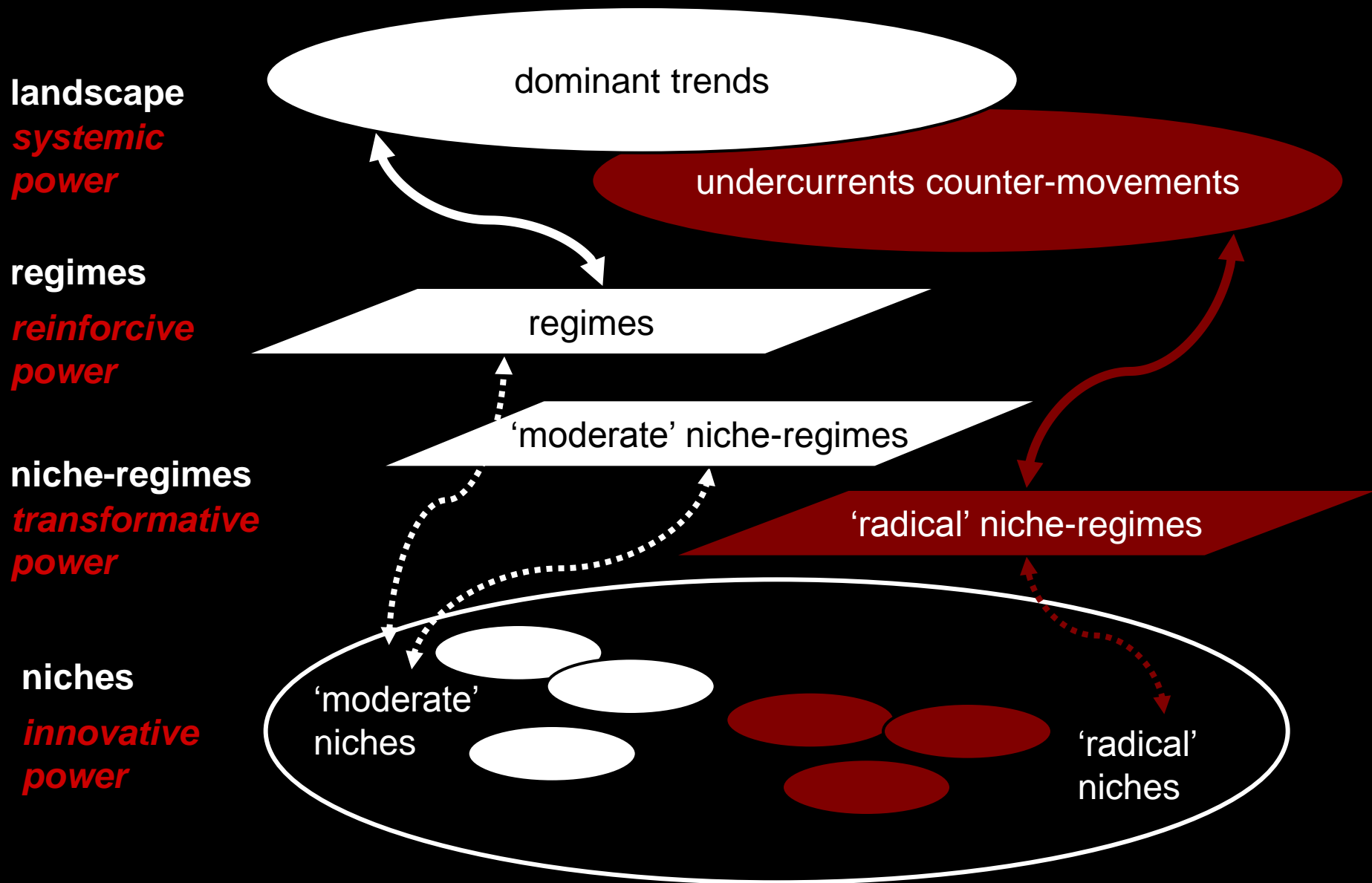
- MARGARET MEAD

WWW.VERYBESTQUOTES.COM

4 levels of transition management

- 1. strategic:** structuring problems, vision for the **long term**, creating alternative scenarios for the future
- 2. tactical:** formulating transition agenda for the **mid-term**, identifying strategies and transition paths
- 3. operational:** conducting projects and experiments on the **short-term**
- 4. reflective:** evaluate, monitor, learn and adapt

Multi-level Power-in-Transition Framework (multi-PIT)



EMPOWERMENT

Empowerment \approx *people come to believe that they **can** and **want** to exercise power*

Empowerment \approx **“intrinsic motivation”**

Thomas & Velthouse 1990

Empowerment ≈ intrinsic motivation

IMPACT ≈ *“I can make a difference”*

COMPETENCE ≈ *“I am good at what I do”*

MEANING ≈ *“I believe in what I do”*

CHOICE ≈ *“I can determine what I do”*

Transition governance ≈ increasing collective intrinsic motivation

IMPACT ≈ *“WE can make a difference”*

COMPETENCE ≈ *“WE are good at what WE do”*

MEANING ≈ *“WE believe in what WE do”*

CHOICE ≈ *“WE can determine what WE do”*

Transition in multi-level terms

Transition ≈

- a long-term shift in power
- in which the old regime in a system
- is replaced by a new, alternative regime

Sustainability Transitions ≈

- when an unsustainability regime is
- replaced by a regime (more) sustainability-oriented

The Challenge of Mainstreaming Niches...

- “absorption” and “Trojan Horse”-strategy

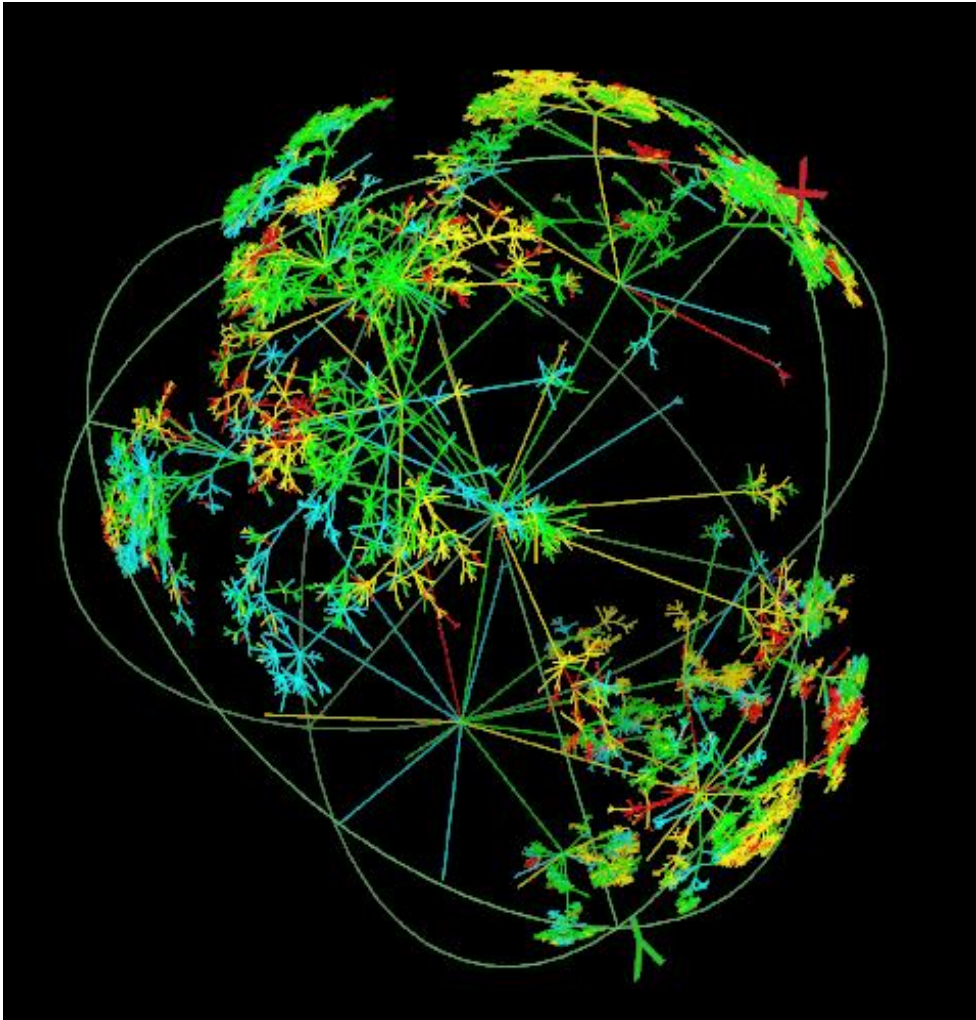
system thinking

System ≈

- delineated whole, compounded of parts
- certain level of integration & interdependency

*human body, organs, law, ecosystems, an organization,
nation-state, the earth, the universe, a molecule*

complex adaptive systems (CAS)



Complex \approx

when the whole
(= the system)
exhibits properties
that cannot be
traced back to the
individual parts

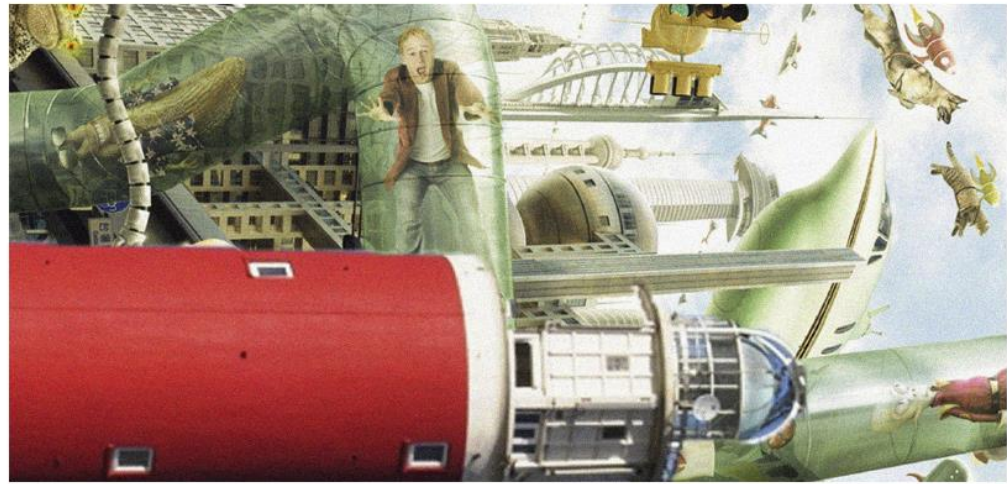
Adaptive \approx

open and adaptive
to environment

Nederland - Provinces



Texel



“Tested & Tried on Texel”



“Oplaadstation Texel”

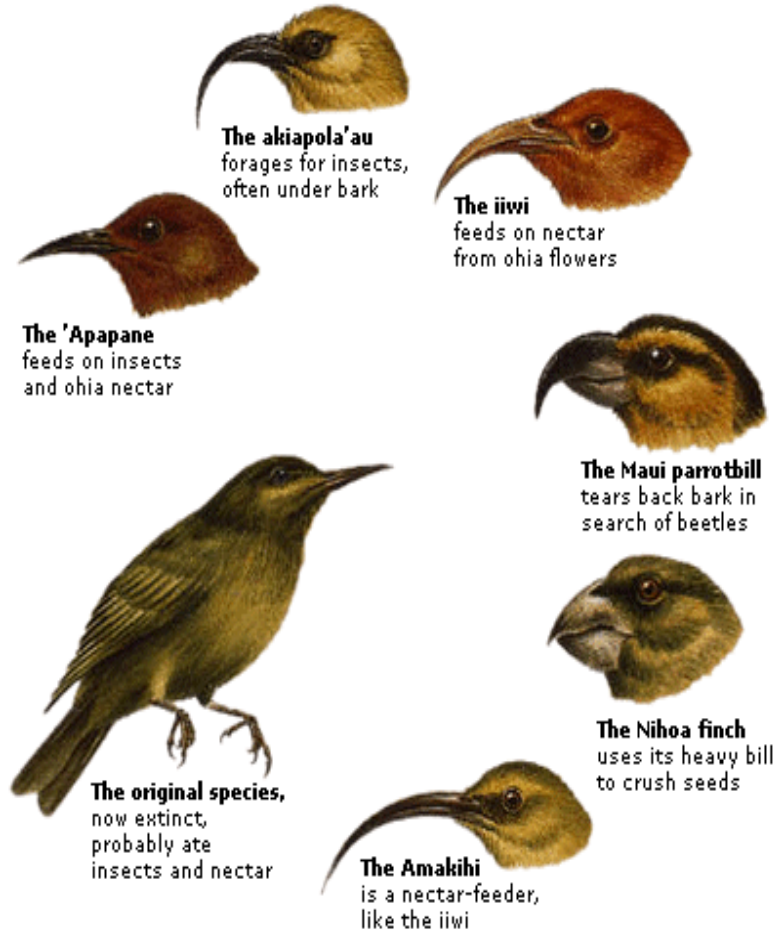
“Het eiland dat energie levert”

Artist Impressions “Texel geeft energie” 2009)
Zie ook: Burgermeesterboek van Pepik Henneman, 2011

NL's first energy cooperative: **Texel Energie**



Strategic Niche Management (SNM)



PROTECTION of niches

- *Shielding*
- *Nurturing*
- *Empowering*

arena \approx niche

creating a (new) niche
by connecting decoupled niche-actors

different from regime
no usual suspects
no business-as-usual combinations

protected space
in the shadow and informal

STORE
THE
IMPOSSIBLE.



reading

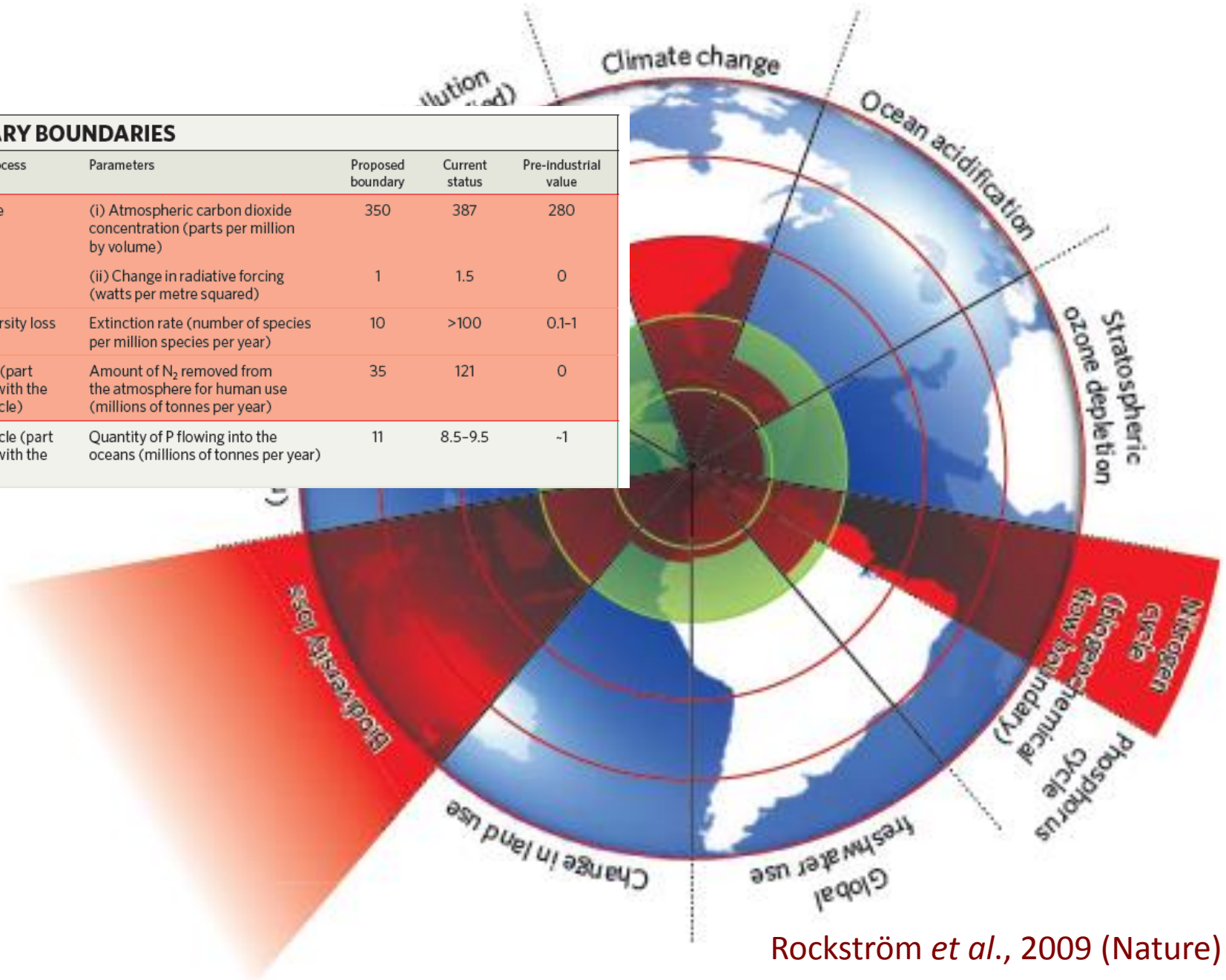
PhD-thesis

“*Power in Transition. Empowering Discourses on Sustainability Transition*”
online te downloaden via: <http://repub.eur.nl/res/pub/30663/>

Scientific Articles

- Avelino, F. and Rotmans, J. (2011) “A dynamic conceptualization of power for sustainability research”, *Journal of Cleaner Production*, 19(8):796-804
<http://www.sciencedirect.com/science/article/pii/S0959652610004464>
- Avelino, F. (2009) “Empowerment and the challenge of applying transition management to ongoing projects”, *Policy Sciences*, 42(4):369-390
<http://link.springer.com/article/10.1007%2Fs11077-009-9102-6>
- Avelino, F. and Rotmans, J. (2009) “Power in transition. An interdisciplinary framework to study power in relation to structural change”, *European Journal of Social Theory*, 12(40):543-569
<http://repub.eur.nl/res/pub/18412/>

PLANETARY BOUNDARIES				
Earth-system process	Parameters	Proposed boundary	Current status	Pre-industrial value
Climate change	(i) Atmospheric carbon dioxide concentration (parts per million by volume)	350	387	280
	(ii) Change in radiative forcing (watts per metre squared)	1	1.5	0
Rate of biodiversity loss	Extinction rate (number of species per million species per year)	10	>100	0.1-1
Nitrogen cycle (part of a boundary with the phosphorus cycle)	Amount of N ₂ removed from the atmosphere for human use (millions of tonnes per year)	35	121	0
Phosphorus cycle (part of a boundary with the nitrogen cycle)	Quantity of P flowing into the oceans (millions of tonnes per year)	11	8.5-9.5	-1



Rockström *et al.*, 2009 (Nature)

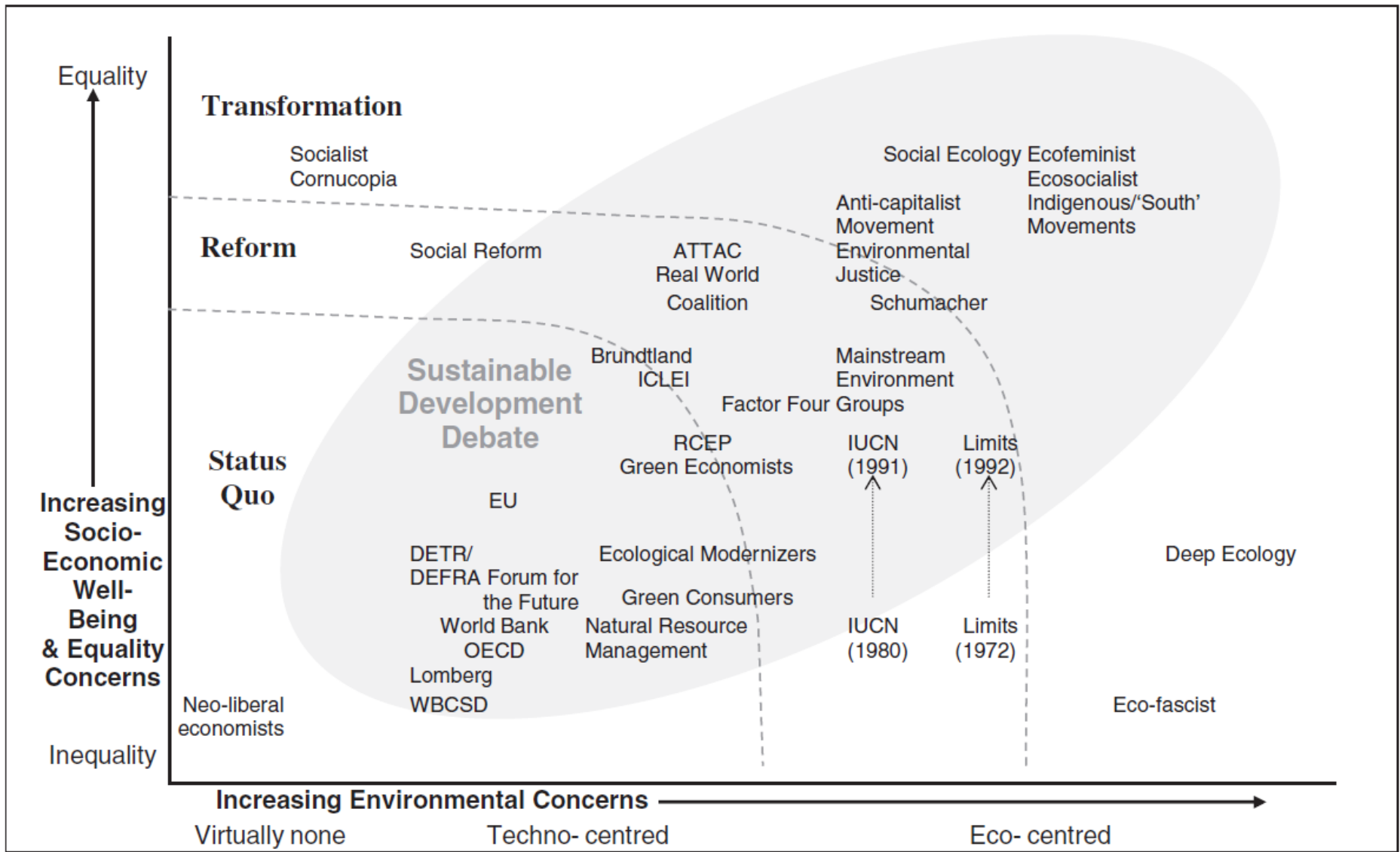


Figure 1. Mapping of views on sustainable development

source: Hopwood, Mellor and O'Brien (2005)

Transition studies approach sustainability as:

- *an essentially contested notion (Lukes 1974)*
- *complex, normative, subjective, ambiguous (Kasemir et al 2003, Rotmans 2003)*
- *context-specific (Grin 2004)*
- *a few generic properties...*