

# **Anticipating Competitiveness: Foresight and Public Discussion in Finland**

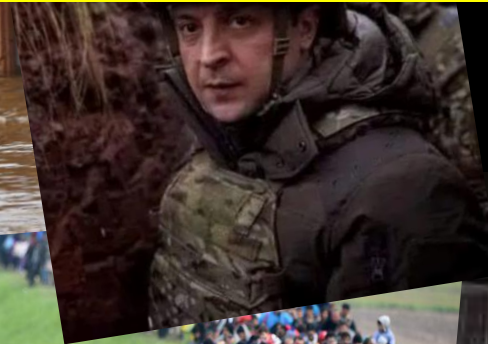
Timo Hämäläinen, Ph.D.  
Finnish Innovation Fund, Sitra

Conference of the Riigikogu Economic affairs committee and Competitiveness expert group  
Tallinn 24.9.2024



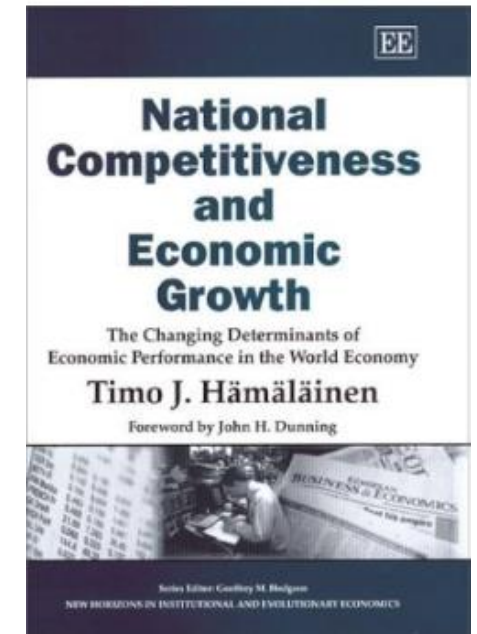
**VUCA = VOLATILE, UNCERTAIN, COMPLEX & AMBIGUOUS**

**BANI = BRITTLE, ANXIOUS, NONLINEAR & INCOMPREHENSIBLE**



# Paradigm shift in socio-economic cycles

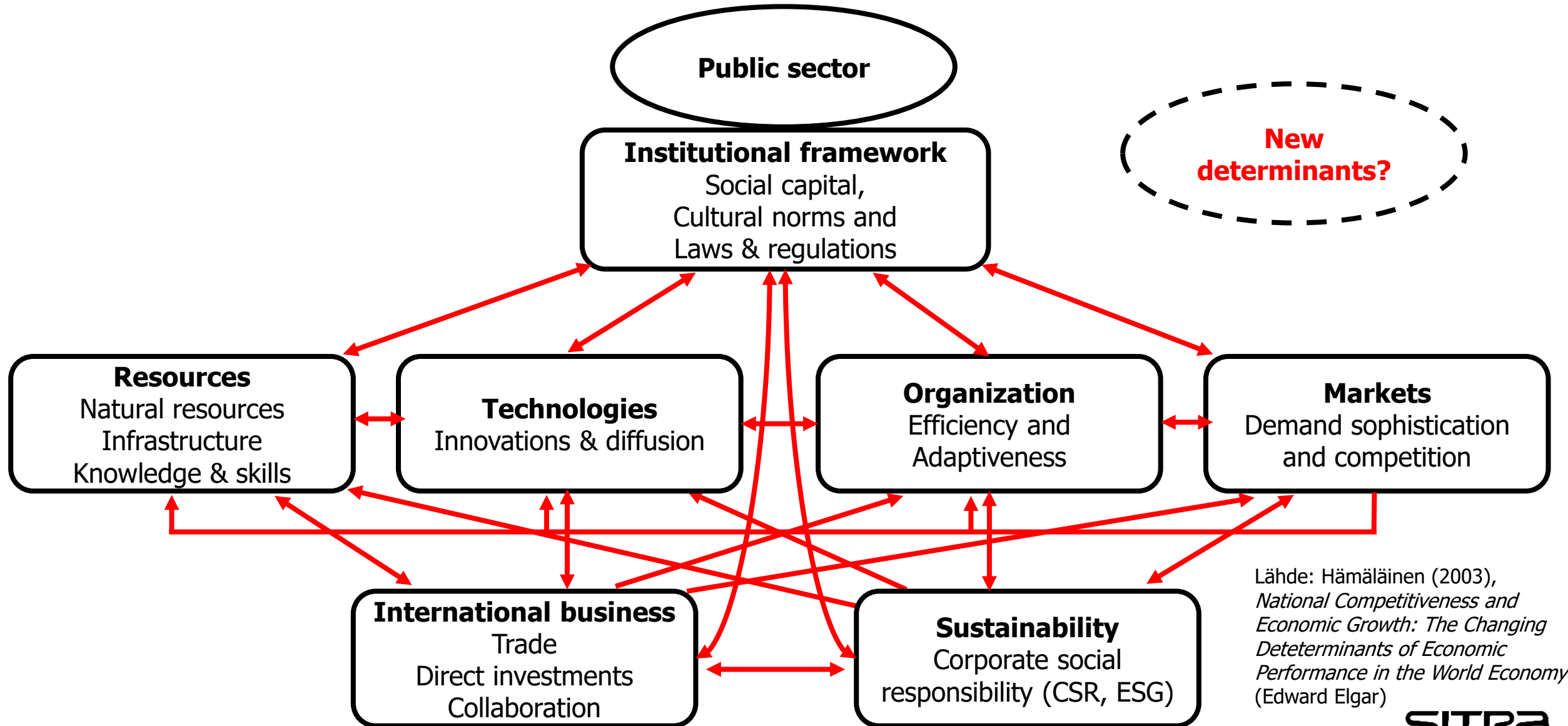
- Long economic cycles are driven by new **techno-economic** and **socio-institutional paradigms**. Historically, these paradigms have emerged sequentially and they have lasted 50-60 years.
- A new techno-economic paradigm is driven by **major new technological and organizational innovations** (such as steam engine & factory, electricity & mass production, digital technologies & networks/ecosystems/platforms).
- A new socio-institutional paradigm is driven by **new institutional and public governance innovations** (laissez faire, welfare state, networked governance?)
- The **growing tensions** between **new** techno-economic and **old** socio-institutional paradigms have created **increasing social polarization, economic crises, turmoil, revolutions, and wars**.
- The emergence of a new prosperous and relatively stable era, with new synergy between the two paradigms, has required a **socio-institutional innovations and paradigm shift**.



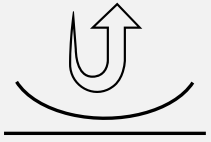
# Reasons for Sitra's competitiveness foresight

- 1. Historical transformation:** increased complexity and uncertainty of the world. Capitalism faces **major sustainability challenges**. → **All key determinants of national competitiveness are changing.**
- 2. Finnish economic discourse is macro-oriented, short-sighted** and focuses on **cost- and price competitiveness**. → It would benefit from a **longer-term, more holistic and value add-perspective.**
- 3. Economic and competitiveness foresight is scattered and dispersed** in different organizations. → Decision makers would benefit from the (a) **more collaboration** and (b) integration of foresight results into a **more holistic picture.**
- 4. Sitra's competitiveness foresight project in 2021-22.** It included interviews of economic and foresight experts, research of competitiveness frameworks and future trends, as well as **three workshops of 25 experts** from relevant fields.

# Determinants of national competitiveness



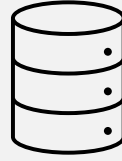
Lähde: Hämmäläinen (2003),  
*National Competitiveness and  
Economic Growth: The Changing  
Determinants of Economic  
Performance in the World Economy*  
(Edward Elgar)



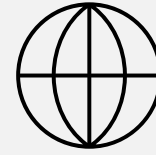
Resilience



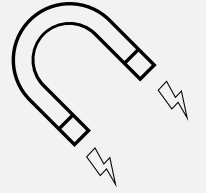
Renewal



Data economy



Global networks



Attractiveness

**Multidimensional competitiveness**

Business acumen



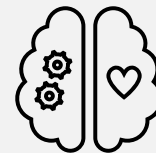
Sustainability



Welfare state

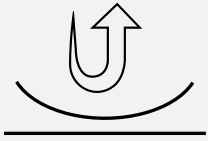


Competence



Participation

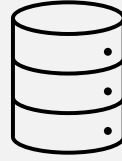




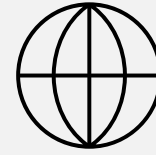
**Resilience**



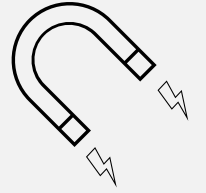
**Renewal**



**Data economy**



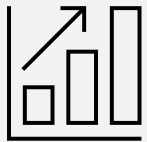
Global networks



Attractiveness

**Multidimensional competitiveness**

**Business acumen**



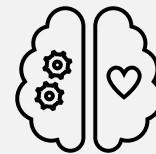
Sustainability



Welfare state



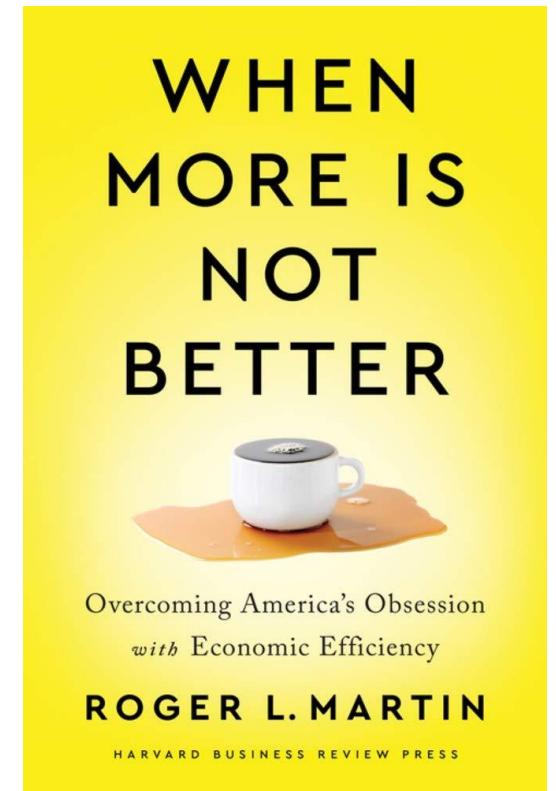
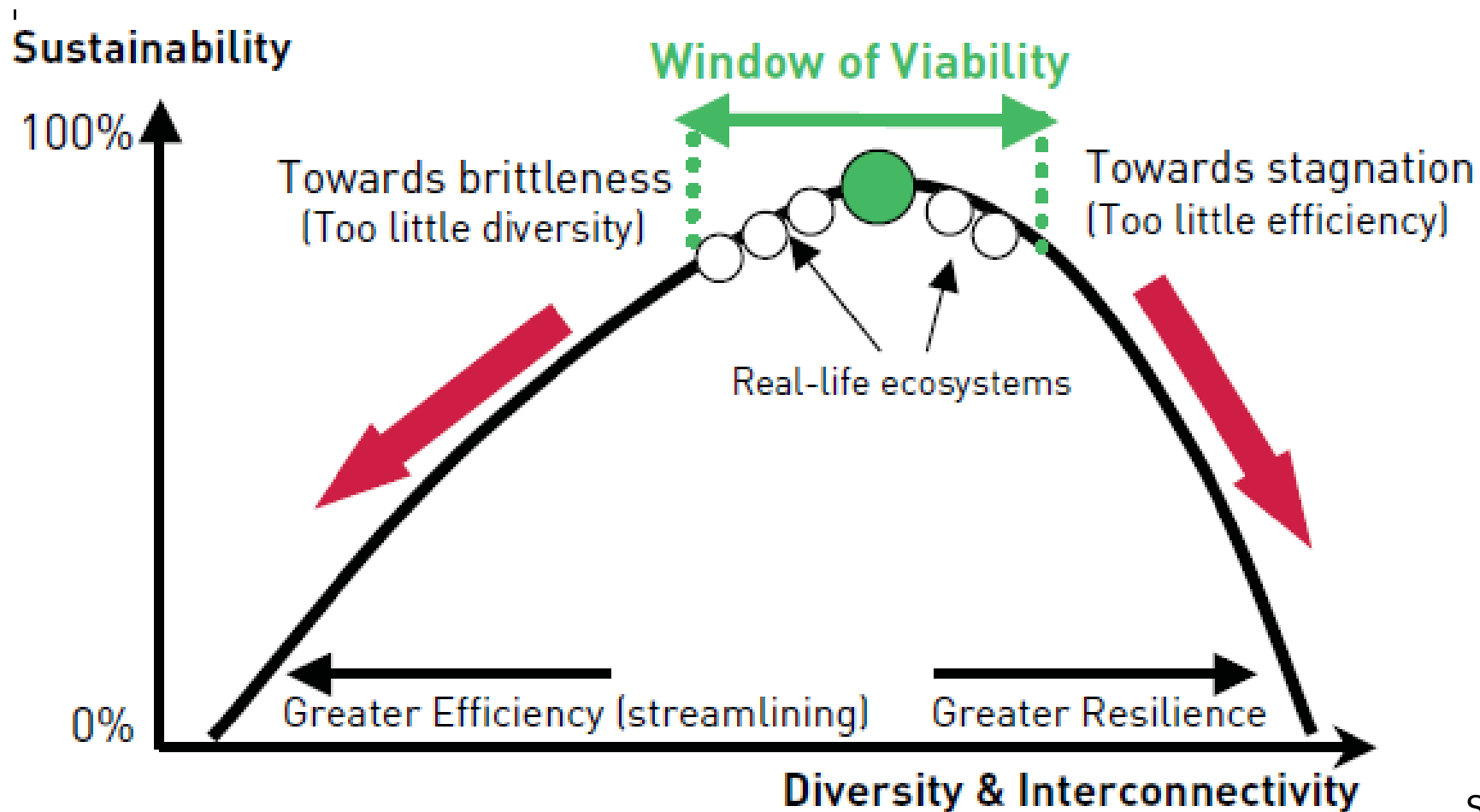
**Competence**



**Participation**



# Our systems have become fragile



Source: Ilmola, 2012,  
Zorach & Ulanowicz, 2003;  
Ulanowicz, 2008



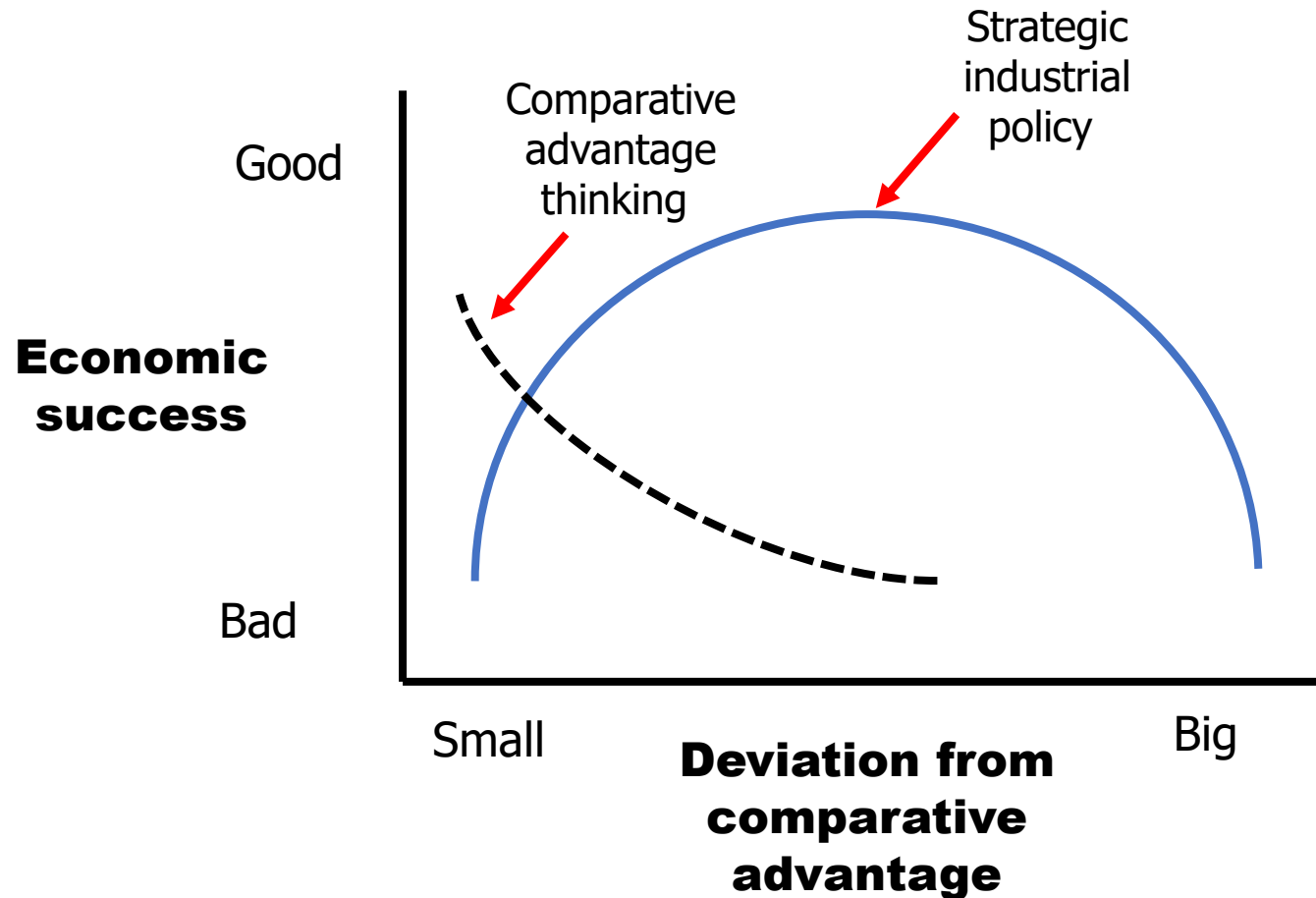
# **We need more transformative resilience**

(i.e. ability to “bounce forward” towards sustainability)

- 1. More cognitive diversity and dissonance** (foresight, evaluation, benchmarking, experimentation, transdisciplinary research, etc.)
- 2. Collective sense making and learning processes with stakeholders**
- 3. Close collaboration among diverse experts and organizations**
- 4. Development of real strategic alternatives**
- 5. Capacity to re-allocate resources and capabilities quickly**



# Renewal: sustainability transition and strategic industrial policy

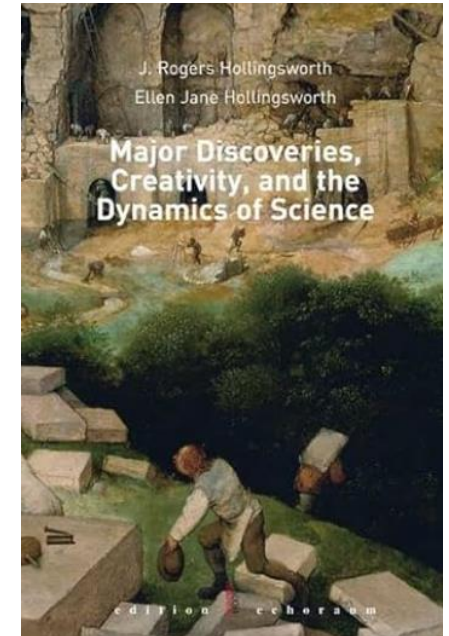
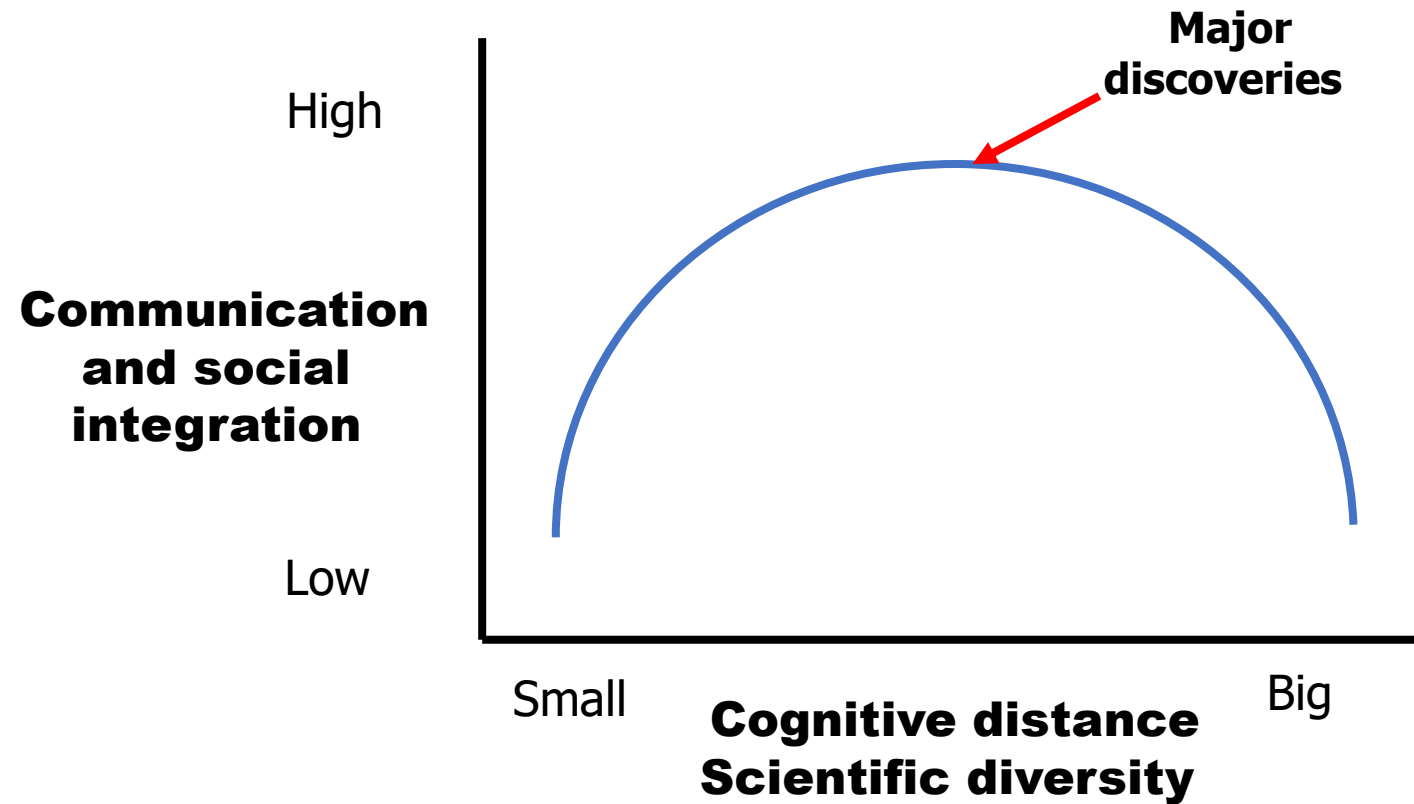


“Monkey jumps”



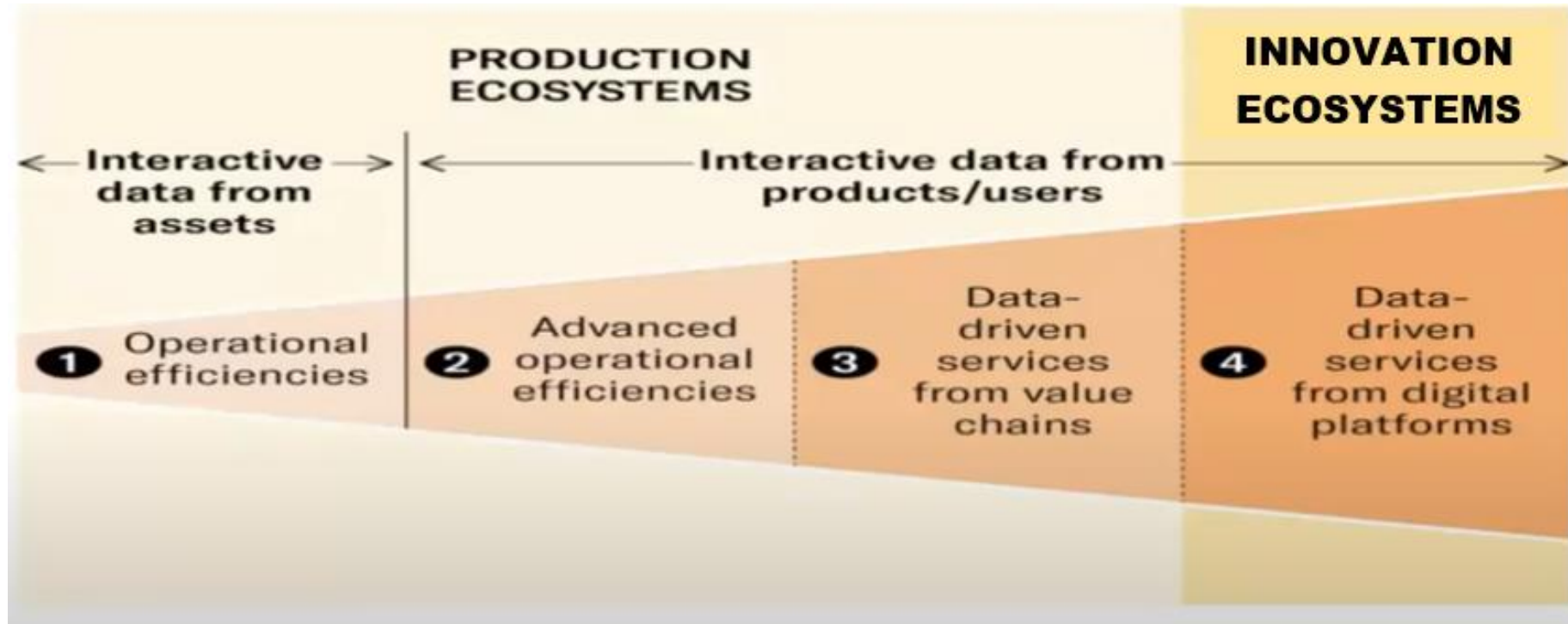
Source: Ha-Joon Chang (2013);  
Hausmann & Rodrik (2003)

# Environments that favor radical innovations



Sources: Nooteboom (2008),  
Hollingsworth & Hollingsworth (2011)

# Digital transformation of the innovation paradigm – New combinations become easier to make



Adapted from: Subramaniam (2022)

## Private sector organizational innovations

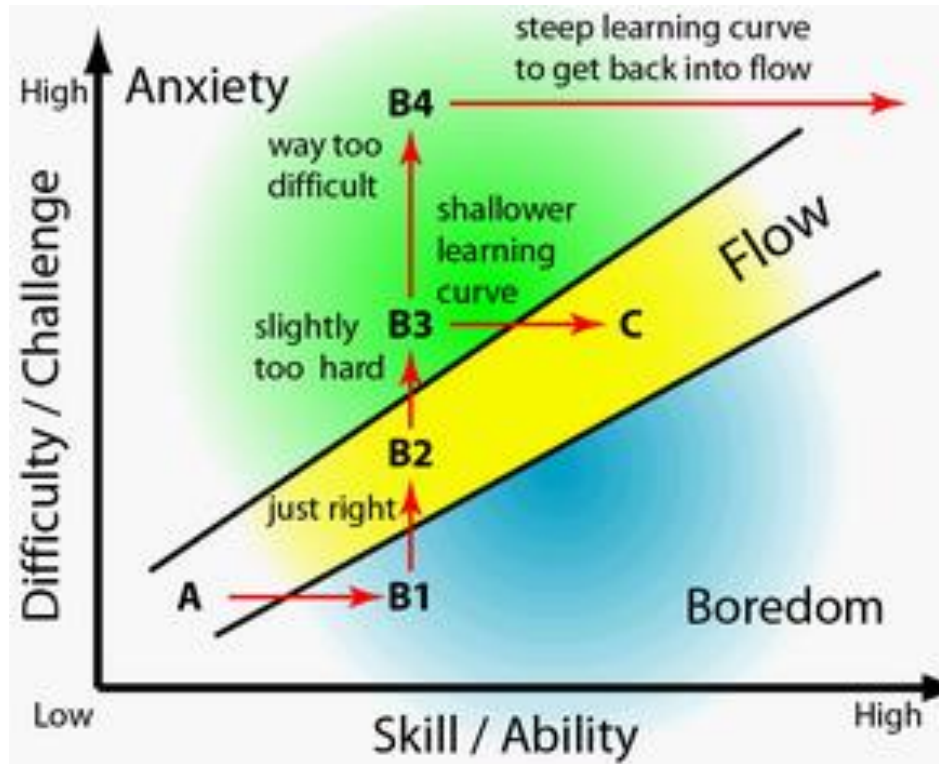
- Collaborative networks & strategic alliances (Powell, Contractor, Balwin, etc.)
- Dynamic capabilities (Teece)
- Ambidexterity (Duncan, March, Tushman, O'Reilly)
- Matrix organizations (Galbraith)
- Innovation processes in MNEs (Doz & Wilson)
- Open source, open innovation, crowd-sourcing & user-innovation (Chesbrough, Hippel)
- Ecosystems: innovation, entrepreneurial & business models (Moore, Powell, Autio, Möller, etc.)
- Platforms (Balwin, Gawer) & Industrial ecosystems (Rasmussen, Steinberg et al.)
- Decoupling: policy-practice & means-ends (Bromley & Powell 2012)
- Teal organizations (Laloux), Team-of-teams (McChrystal)
- Startup hubs & Lean startups (Ries)
- Triple & Quadruple Helix innovation (Etzkovitz, Salmelin)
- Service-dominant logic (Lusch & Vargo)

## Public sector organizational innovations

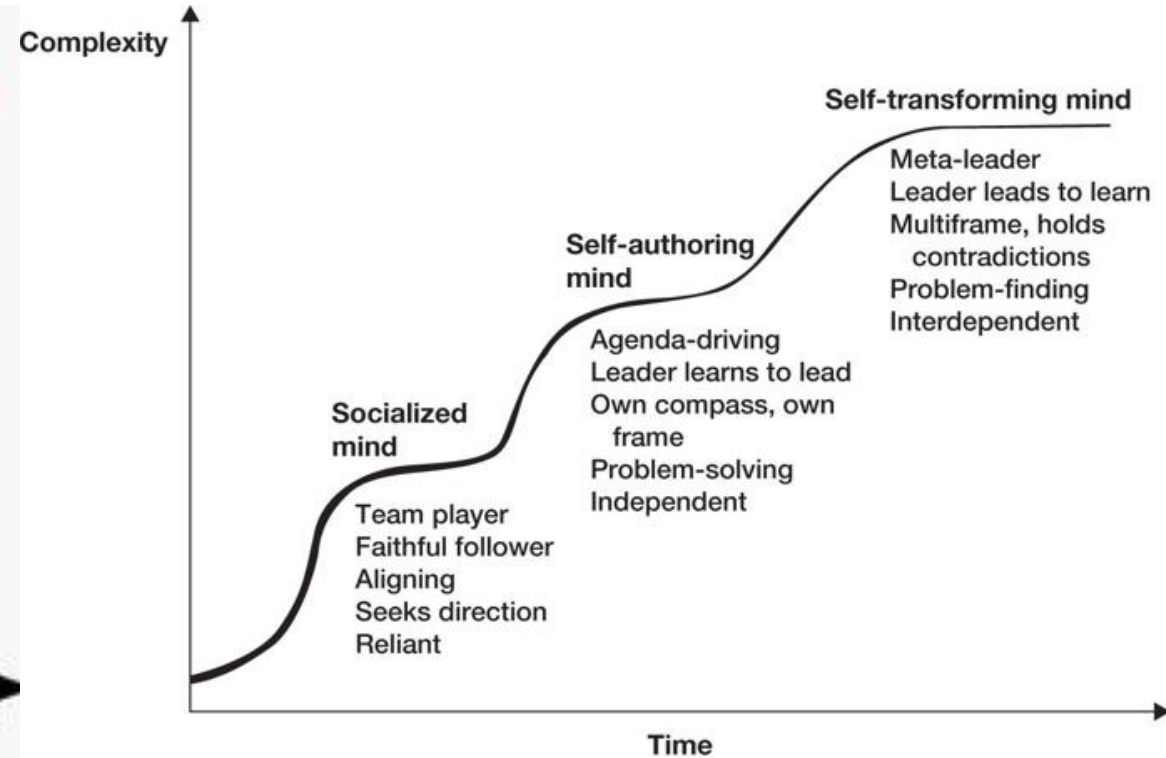
- New Public Governance (Peters, Torfing, Sorensen, etc.)
- Complexity management & governance (Seddon, Kulpers, etc.)
- Multi-stakeholder governance (Bob Jessop)
- Policy problems & Collective Impact (Ho, Kania, etc.)
- Policy innovation (Thaler & Sunstein 2008)
- Innovation & niche management (Rotmans, Geels, Kemp, etc.)
- Deliberative democracy (Rask etc.), participatory decision making & budgeting
- Devolution of public sector governance
- Governing the commons, natural ecosystems & Panarchy (Ostrom, Holling, Gunderson, etc.)
- Randomized controlled trials (RTCs) & Challenge prizes (Nesta)
- Public-private partnerships (PPPs), co-production, living labs
- Experimentalist governance (Sabel, Zeitlin, Kristensen, Unger)
- Evolutionary industrial policy & targeting (Teubal & Avnimelech); Ecosystem policies
- Sustainable development (Stirling)

**INCREASING VARIETY & ADAPTIVENESS!**

# From "re-skilling" the labor force to promoting life-long individual growth (mindset development)

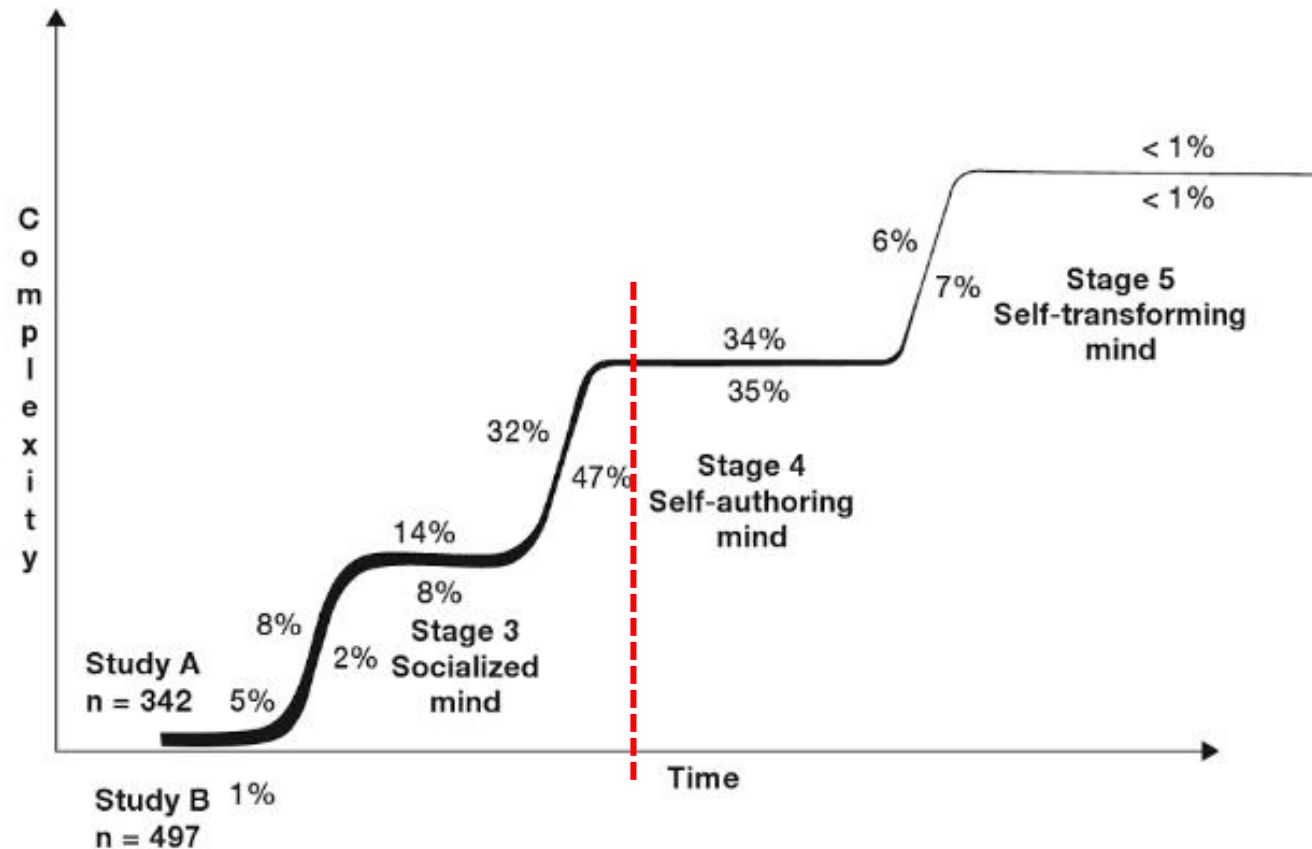


Lähde: Mihaly Csikszentmihalyi



Lähde: Robert Kegan, *In Over Our Heads* (1994)

# Development phases vary among adults



- Human development has many dimensions (cognitive, moral, social, ego.)
- A person can progress further in some dimension of development than in another.
- Increasingly complex world would require more developed mindsets (self-authoring, self-transforming).

# Participation – Creating a “Good jobs economy”

- Dani Rodrik & Roberto Unger (Harvard) and Charles Sabel (Columbia)
- Today’s policy tends to focus on leading-edge firms and new innovations.
- Advanced technologies, organizational innovations and required skills **do not diffuse** throughout the economy and outside of big cities
- New technologies, organizational arrangements and skills should be **systematically transferred to SMEs and smaller towns.**
- Historical examples (e.g. American land grant universities) and Ireland today.





## **“Old paradigm”**

- Macroeconomic focus
- Cost and price competitiveness
- Linear innovation process (RDI)
- Incremental technological innovation
- Focus on large corporations' R&D
- Scale economies and process efficiency
- Innovation policy for the “leading edge”
- Re-education and re-skilling

## **Enriching the discourse**

- Microeconomic focus
- Superior value add competitiveness
- Complex and iterative innovation process
- Radical combinatory & business model innovation
- Focus on startups and innovation ecosystems
- Strategic alternatives and transformative resilience
- Innovation policy for diffusion and “Good jobs”
- Individual development and “mindshift”

**Thanks!**

