

Discovery-oriented industrial policies: could they be adopted in Portugal?

Manuel Laranja

ISEG – Lisbon School of Economics and Management, University of Lisbon

mlaranja@iseg.ulisboa.pt

contents

- The return of industrial policies
- The need for new a new approach to industrial / innovation policies
- Discovery-oriented policies
- Exploring and operationalising discovery-oriented policy processes: the research approach
- Key insights:
 - what needs to be discovered
 - why use discovery processes
 - How is it to be discovered
 - policy capacity
- Conclusions
- Recommendations

The return of industrial policies

- Erosion of the social acceptance of globalisation in some advanced economies,
- Reduction in greenhouse gas (GHG) emissions - Green Industrial Policies
- Covid-19 and resilience considerations
- Place-based strategies fostering a more equitable economic development
- National security and geopolitical considerations e.g CHIPS and Science Act in the US; strategic autonomy in the EU

See: Hausmann and Rodrik, 2003; Rodrik, 2008, Foray et al., 2009, Aghion et al., 2011; Radošević, 2017; Renda, 2023; Mollica, 2024

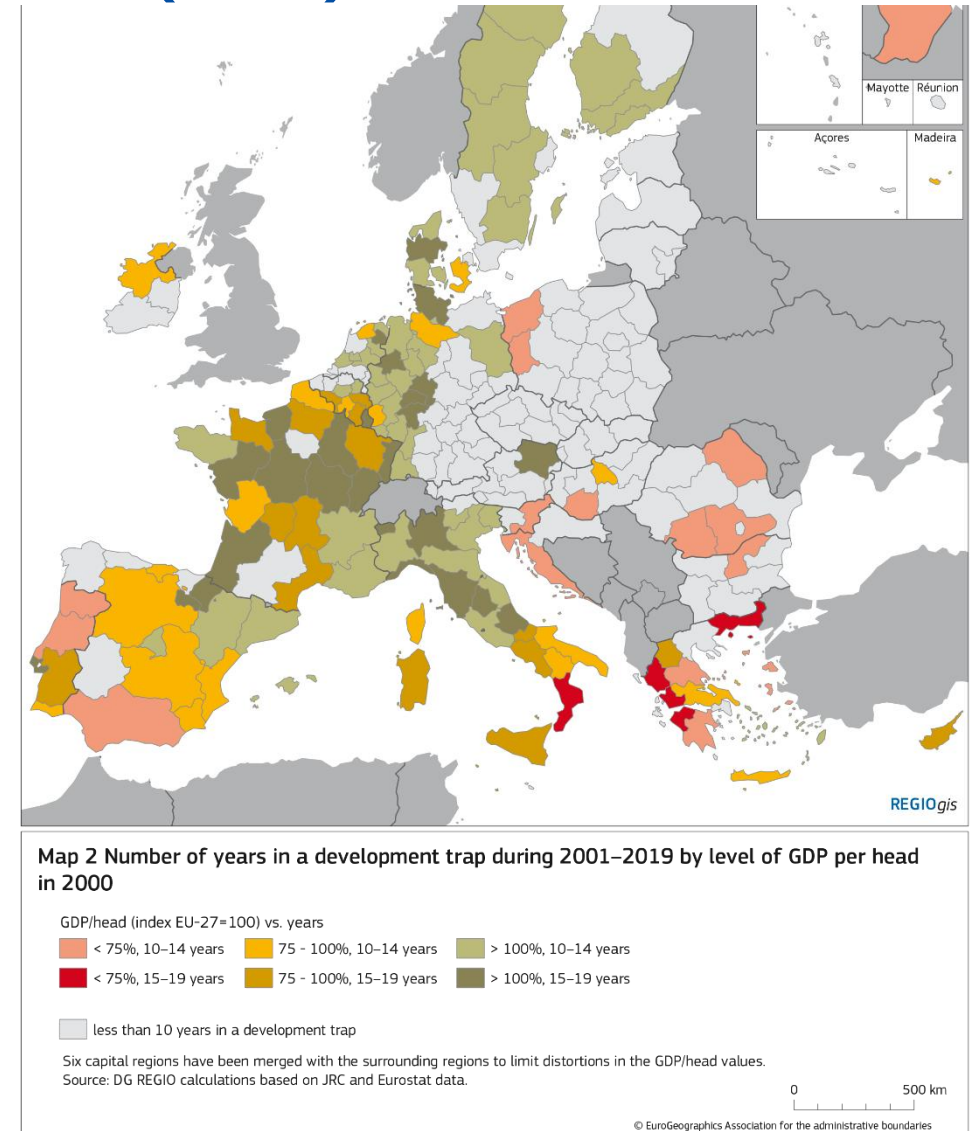
The need for a “new” approach to industrial / innovation policies (1/4)

In Europe and in Portugal Cohesion Policy is used as a testing ground for a proxy of new industrial policy known as smart specialisation strategies or S3s

ERDF R&Di funding instruments does not induce behaviour changes, therefore it is difficult to see **how ERDF R&Di funding alone contributes to “untrap” regions caught by the “the development trap”**

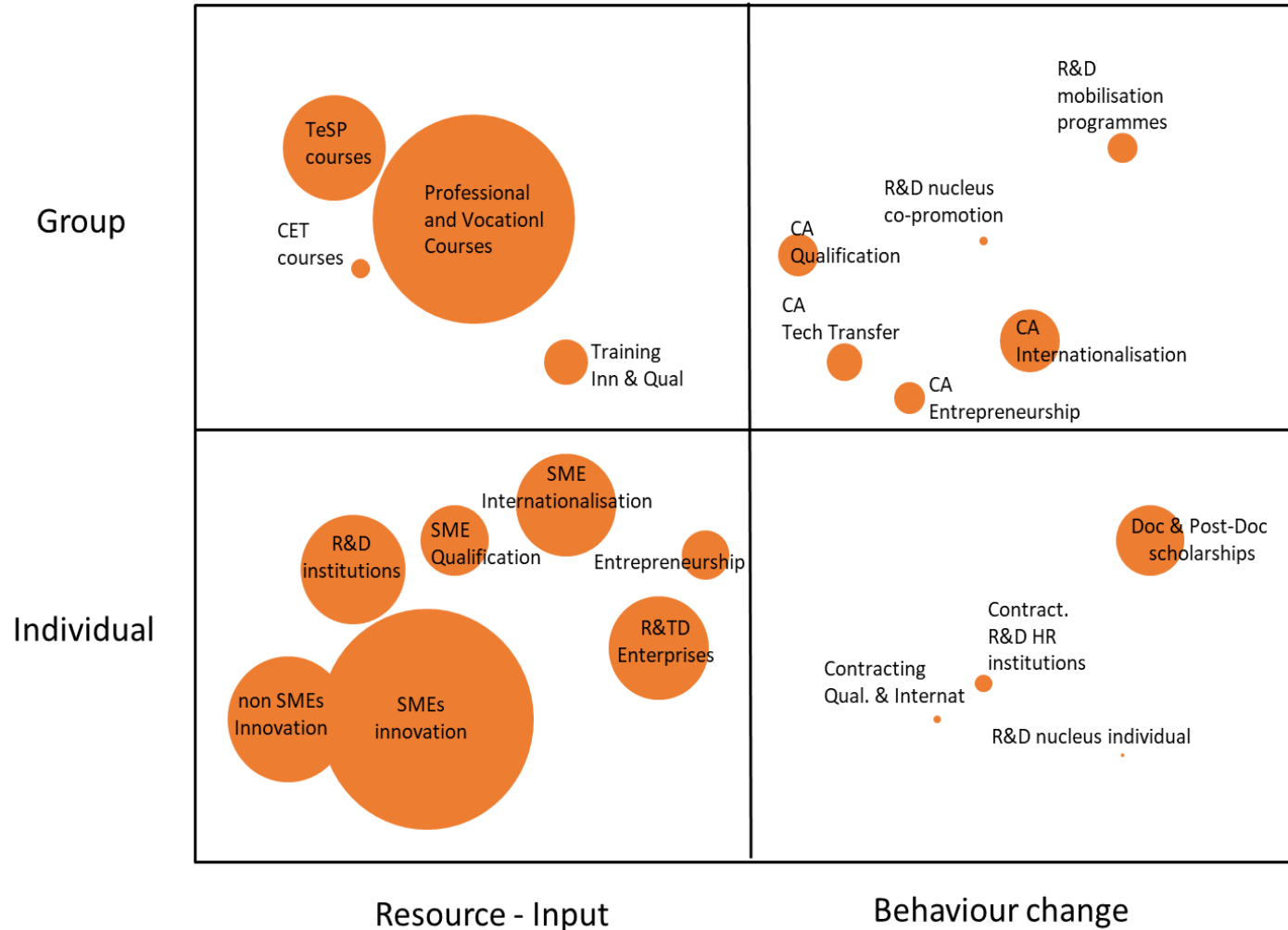
- Induces **de-risk strategies**
- **Does not** push innovation to zones of higher risk /reward
- Higher participation of large firms may counteract de-risking, but instruments for SMEs should induce behaviour change

Diemer, Andreas and Iammarino, Simona and Rodríguez-Pose, Andrés and Storper, Michael, The Regional Development Trap in Europe (June 2022). CEPR Discussion Paper No. DP17371,



The need for a “new” approach to industrial / innovation policies (2/4)

PORTFOLIO OF
POLICY
INSTRUMENTS
USED BY PT2020
UNDER TO1,
TO3 AND SOME
INSTRUMENTS OF
TO8 AND TO10



No shortage of
funding instruments

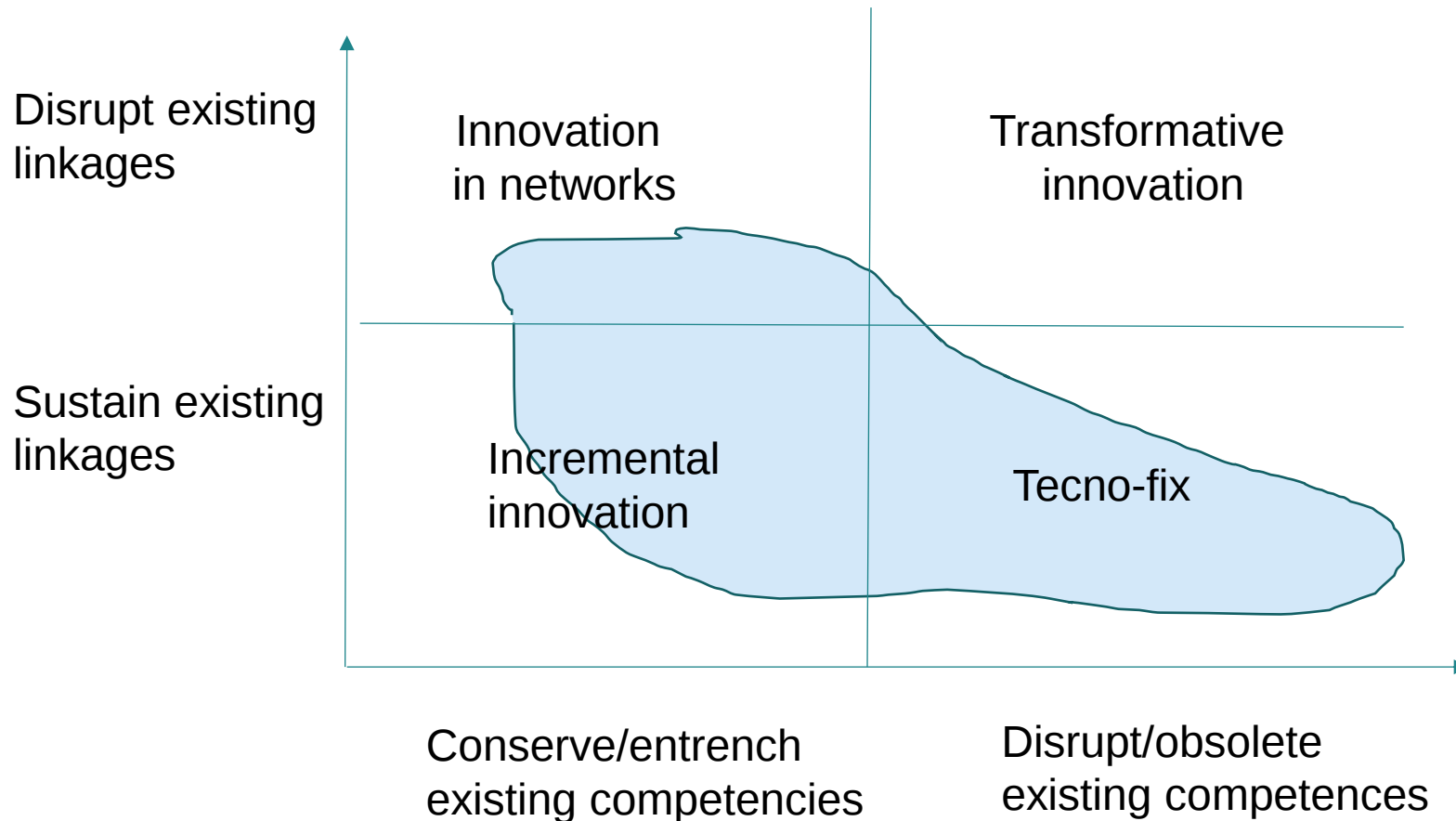
BUT ...

Unbalanced use. Biased
towards resource-input.

**Do not target behaviour
change.
Trapped in low risk
incremental
Improvements**

“the development trap”

The need for a “new” approach to industrial / innovation policies (3/4)



What current practices of supported innovation deliver?

Enlarge the focus of support ?
Need a new focus on:

behaviour change

systems change

“Challenge-led” or mission oriented policy

Transformative innovation policy

The need for a “new” approach to industrial / innovation policies (4/4)

- **Frame 1 - 1960s/80s R&D and regulation**

“Science leads to immense social benefits” Vannevar Bush, *Science the Endless Frontier*. **The linear model supported by neo-classical market failure rationale for public funding**

- **Frame 2 – 1990s/today National/Regional innovation systems**

Linkages and systems. **The Innovation System Paradigm as the basis for policy**, but with concerns for accountability, evaluation, clear priorities, higher selectivity, encourage industrial innovation

- **Frame 3 – emerging ... Transformative Innovation Policy**

Discovery-oriented policies (1/5)

- To be effective (new) industrial policies require policy makers to have extensive knowledge about specific problems in their own contexts, which in most cases is impossible to obtain.
- Hence, industrial policies need **“self-discovery”** of **“what one is good at producing”**, **“listening mechanisms”**, **“flexible response processes”** ...

See: Haussman and Rodrik 2003; Chang and Andreoni, 2020; Andrews and Harrington, 2023

Discovery-oriented policies (2/5)

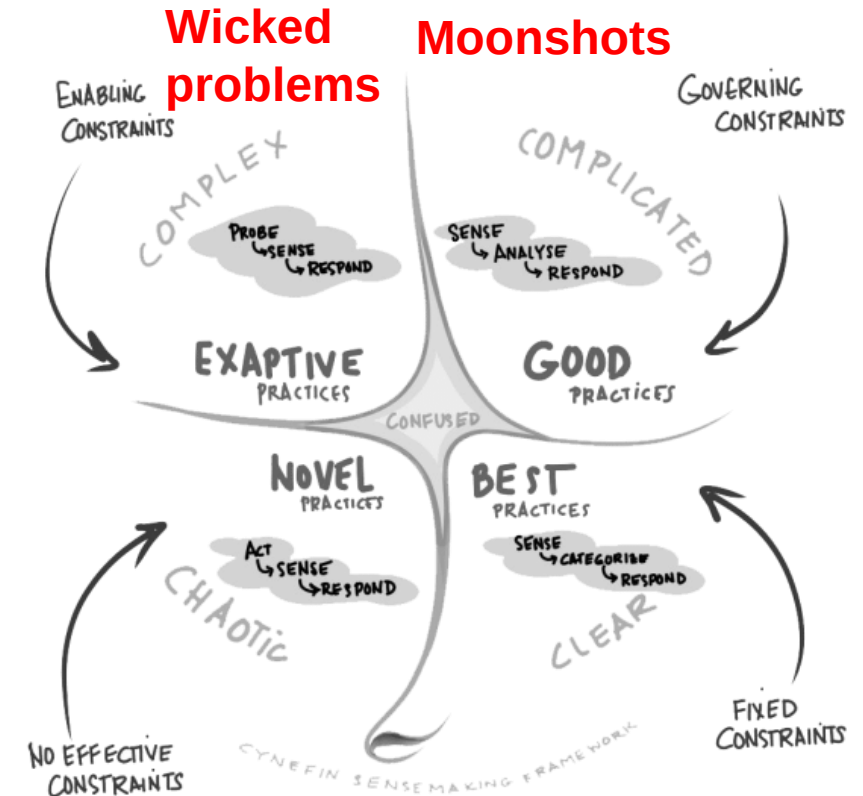
- “Policies are not to be top-down designed by experts, consultants or inside cabinets
- Instead they are to be designed and implemented as **collective policy-making processes** (which have been named “self-discovery”, “entrepreneurial discovery” ...)
- **i.e. designed and implemented through truly participatory process (not just participated!)**

Discovery-oriented policies (3/5)

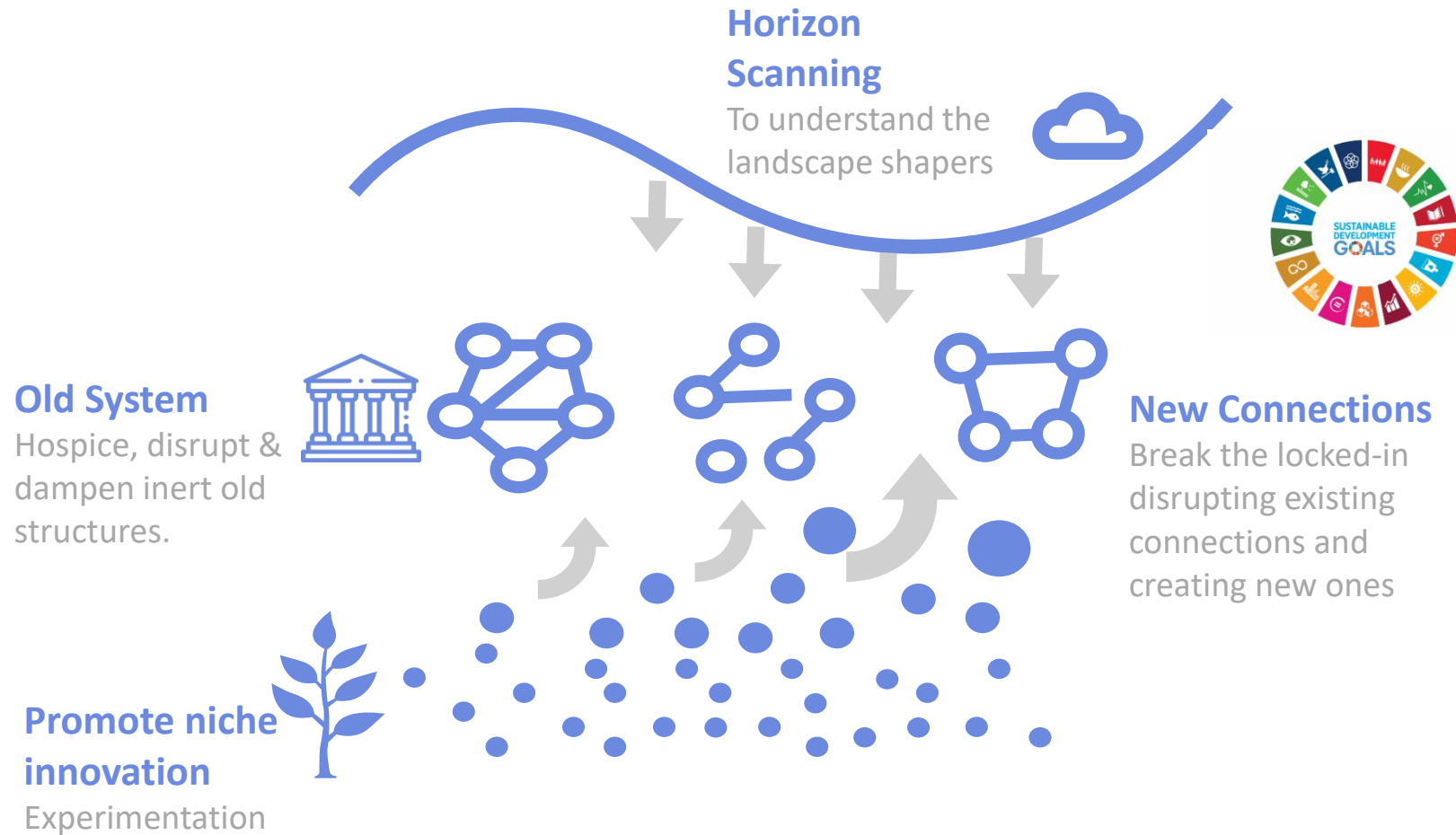
- What is the discovery about? What needs to be discovered?
- In S3 and Cohesion funding is about defining R&D and innovation priority domains to concentrate efforts on projects and activities leading to industrial structural change ...
- More broadly ... is about “**what one is (*could be*) good at producing**”

Discovery-oriented policies (4/5)

- However “Discovery” is a mechanism needed to address **wicked problems** – such as policies which aim to address industrial structural change
- Why ? From systems thinking and complexity science, we know that “Complex Systems” are **dispositional not causal** i.e. they have no predictive causality. Evolve through “**emergent innovative behaviour**”



Discovery oriented policies (5/5)



Shot et al., 2019

- “discovery” is therefore as a mechanism to break the lock-in and promote niche innovation
- “discovery” also associated to the policy processes, themselves through **EPEs - Experimental Policy Engagements**

Exploring and operationalising discovery-oriented policy processes: the research approach

- Interviews with 5 regions
 - Catalonia – Spain,
 - Dalarna – Sweden,
 - Emilia Romagna – Italy,
 - Northern Netherlands Alliance - Netherlands
 - Västerbotten – Sweden
- Key insights: Why, What, How are regions using “discovery processes”?
Policy capacity needed

Key insights: **why** use discovery processes

- **Follow up** from previous practices
- Because the **policy-problems are perceived as “complex”** societal changes that may take 20 or 30 years to accomplish, and there is the perception that these problems cannot be tackled by “traditional” policy-strategy formulation, but require, “discovery”
- Policy makers referred to a “**transformer mission**” approach and the need to involve a wider set of stakeholders

Key insights: **what** needs to be discovered

- **Policy (problem) discovery** – going from general, broad societal challenges to local specific, place-based “transformational goals”, “shared agendas” or “common goals”,
- But not set as precise goals but as “**future landing-zones**”
- “top-down alignment” i.e. a focus on regional and multi-level government coordination, which nevertheless seeks to open up the process to wider participation of the local communities

Key insights: **what** needs to be discovered

- **System discovery** - knowing **who is who**, who is interested in the challenges, who is doing what
- Knowing what is already going on and how to enhance collaboration, i.e. identification of “**pockets of the future found in the present**”
- The “system” to be discovered (object of change) is a sector, cluster and all associated public and semi-public support infrastructures e.g. technology and education

Key insights: **how** is it to be discovered?

- Implementation remains an **emerging experimental practice** and a challenging prescription for the regions
- **There is no “one way”** to start the discovery process. In general regional authorities “own” the problem, initiate the process.
- Implementation relies essentially in **regular meetings, workshops or “innovation camps”, “policy labs”**
- Implementation has risks of **“challenge-drift”**. Top level politics. Dominant regional actors taking control of the process

Key insights: policy capacity

- Not just government or policy capacity. Capacities for “systems level” transformation are needed in agencies, intermediaries private sector, all actors involved
- **“Facilitation”, “communication”, “ability to adapt”, “creativity” ...**
- Universities may have an important role in helping to capacitate the actors by setting **“action research” initiatives, “policy labs”** to support policy experimentation and discovery following up and monitoring of the systems change processes.

Conclusions

- Industrial policy making processes in some EU regions are turning to **flexible discovery mechanisms** and using different types of **listening mechanisms**
- However, these new discovery-oriented policy practices require explicit use of **experiments with the intention of policy-learning** and identification of **“emergent behaviours”**
- Absence of such policy experimentation may suggest that the **“moonshot” approaches fuelled by ERDF funding dominate ?**
- There are visible results in **“shielding” the agendas** from short-termism which suggests current discovery-oriented industrial policies focus on **“building and nurturing niches”**

Policy recommendations

System thinking

- Understanding of system boundaries
- Deeper analysis of system values and beliefs
- Space for iterative double/triple loop learning

Policy experimenting

- Set up of policy experiments for learning what works
- Use of impact hypothesis and agile projects portfolio approach

Social technology tools

- Enhance the quality of the participatory process
- Help to mitigate resistance and to expose the existing controlling structures

Monitoring, learning and evaluation

- Reoriented to detect early signals of emergent behaviours in the system
- Use monitoring to revise agendas, roadmaps and Theory of Change

Capacitation

- Use “learning networks” and communities of practice
- Form partnerships with local universities

Thank you

Manuel Laranja

ISEG – Lisbon School of Economics and Management, University of Lisbon

mlaranja@iseg.ulisboa.pt