

The Socio-Economics of Digital Ecosystems Research: Policy Analysis and Methodological Tools from an Argentinean Case Study

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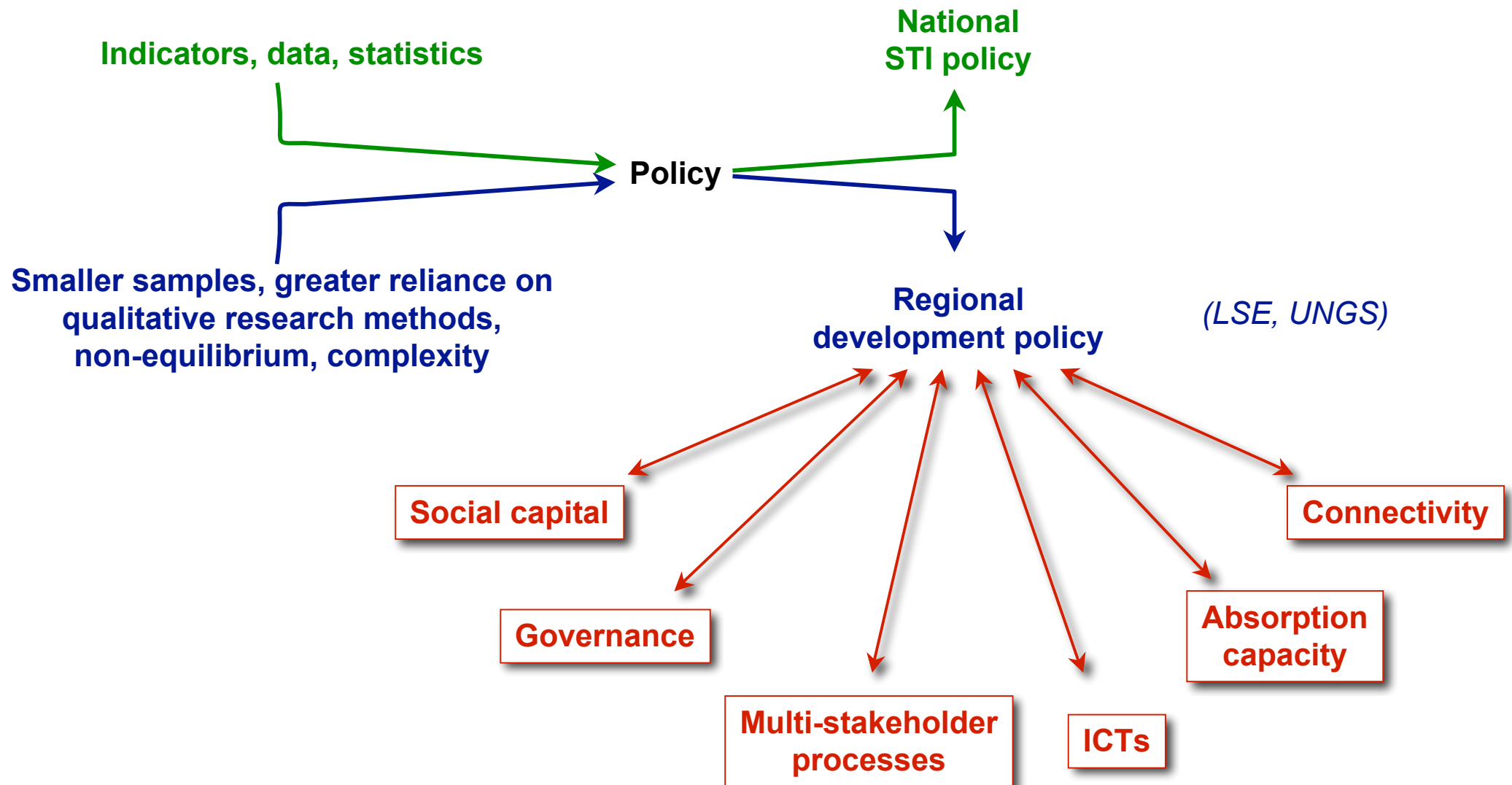
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**Final Policy Workshop
London, 23-24 September 2010**

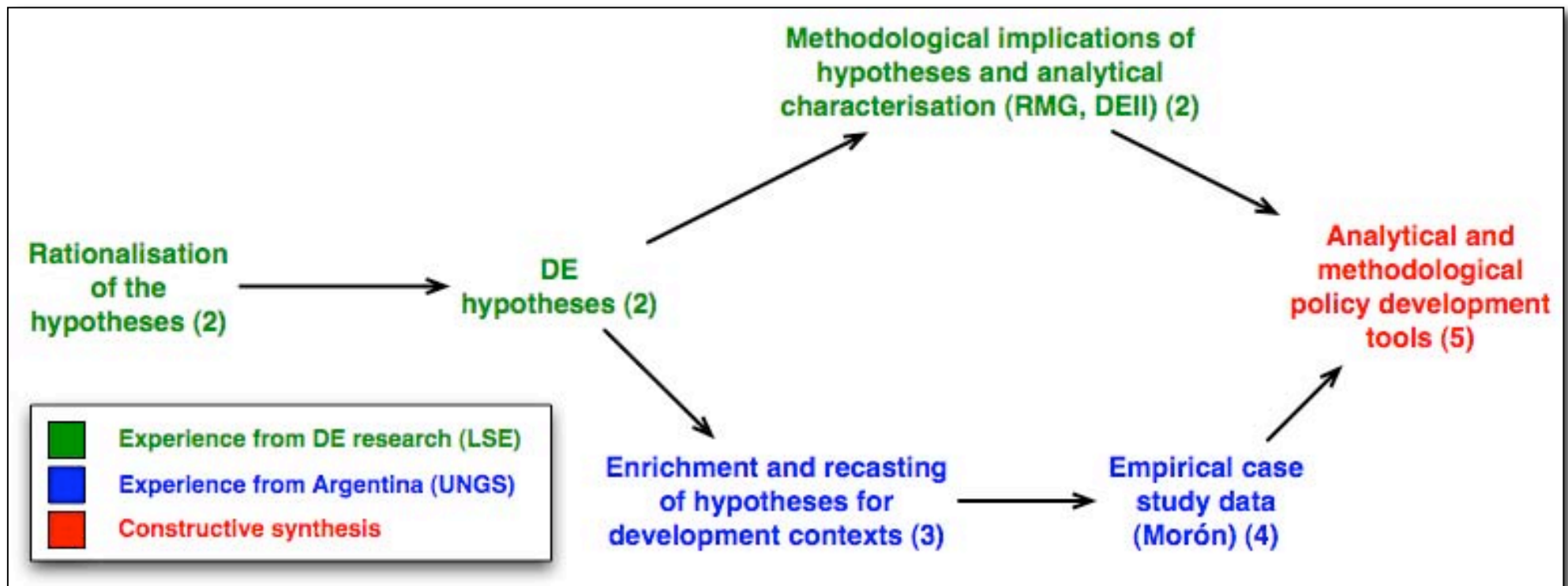
Where does our (LSE + UNGS) work fit in the context of this workshop?



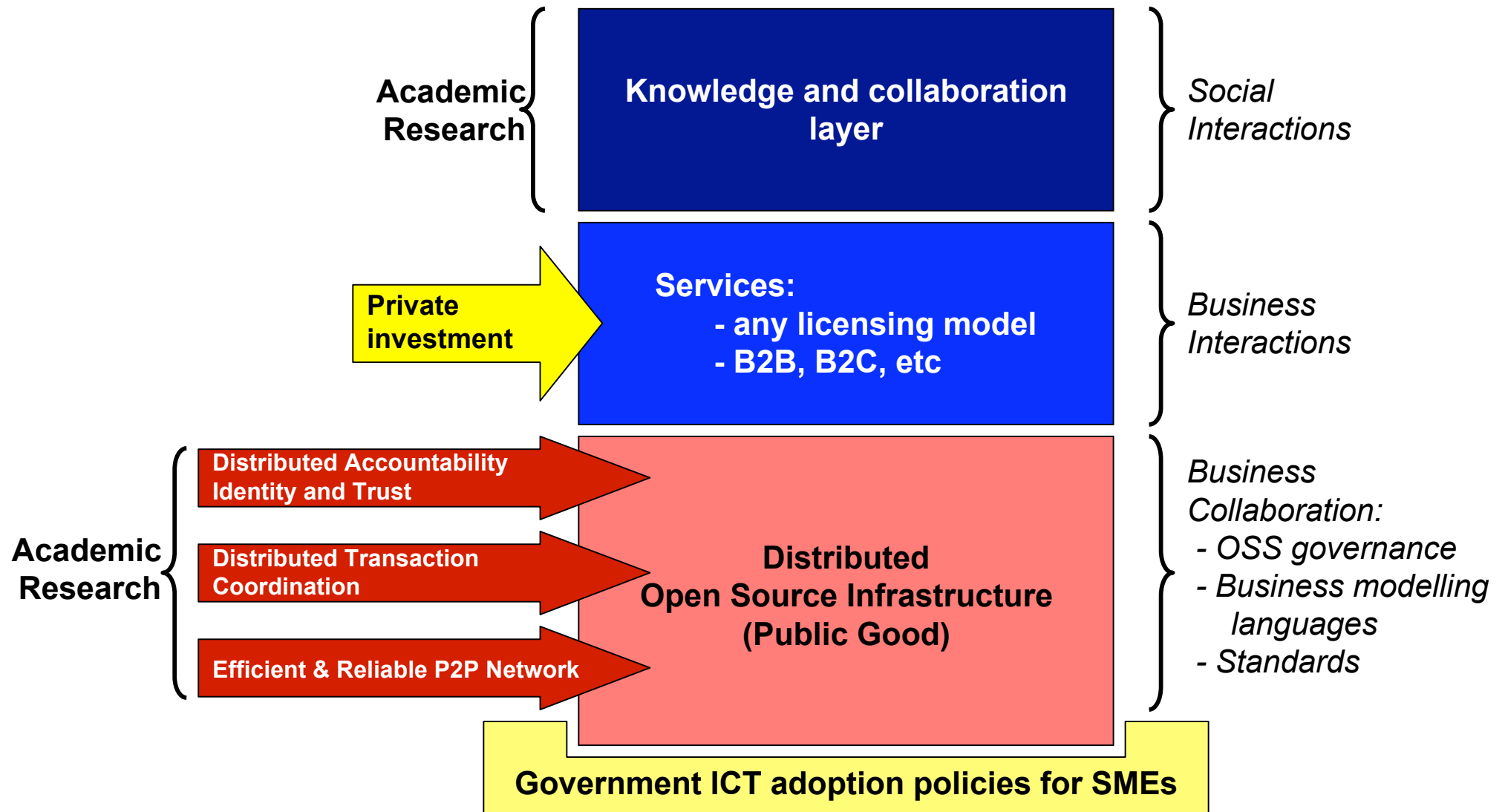
Overview

- Digital Ecosystems & critical reflections
- Theory
- Empirical data
- Regional indicators
- Policy visualisation tool

Rivera-León, L, Kataishi, R and Dini, P. The Socio-Economics of Digital Ecosystems Research: Policy Analysis and Methodological Tools from an Argentinean Case Study, in *Innovation Support in Latin America and Europe: Theory, Practice and Policy in Innovation and Innovation Systems*, selected papers from the 1st ISLAE Conference, Glasgow Caledonian University, 3-4 December 2009, Ashgate. Forthcoming.



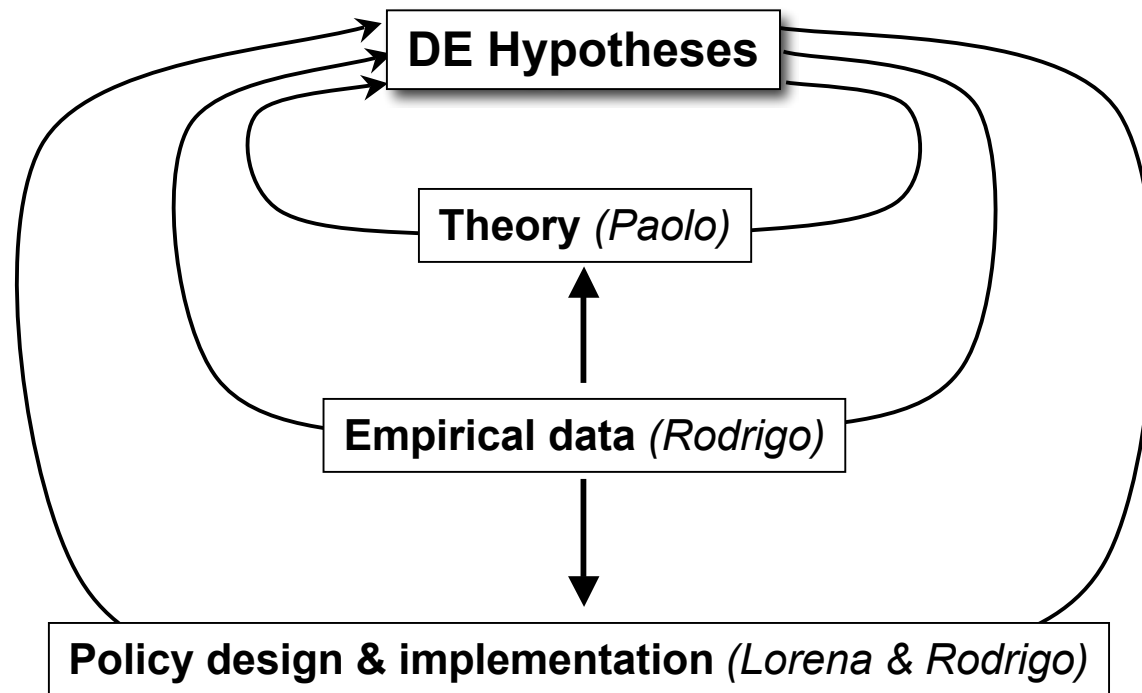
Digital Ecosystem as a 'Value Stack'



Questions

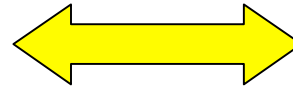
- **How do we critique this functionalist, normative, ‘mechanical’, technocentric, and Durkheim-nostalgic perspective on development and innovation?**
- **Is it just a systemic, structuralist, collectivist and creative response to neo-liberalism?**
- **Is there any room for the individual? Can DE research connect micro to macro?**
- **How does DE research relate to modernity debates, Western or otherwise?**
- **Has Foucault already begun to answer all these questions with his ‘apparatus’ (‘dispositif’)???**

Hypotheses & Feedbacks



Digital Ecosystems Research Tries to Reconcile Polar Opposites: *Meta*-Epistemological Framework

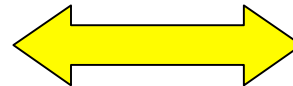
Structuralist/Collectivist perspective



Individualist perspective

(Giddens)

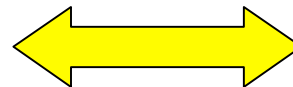
Rationalism perspective



Empiricism perspective

(Popper)

Subjectivist perspective



Objectivist perspective

(Giddens, Popper, Gadamer)

Symmetry perspective
(cell metabolism, ontogeny)

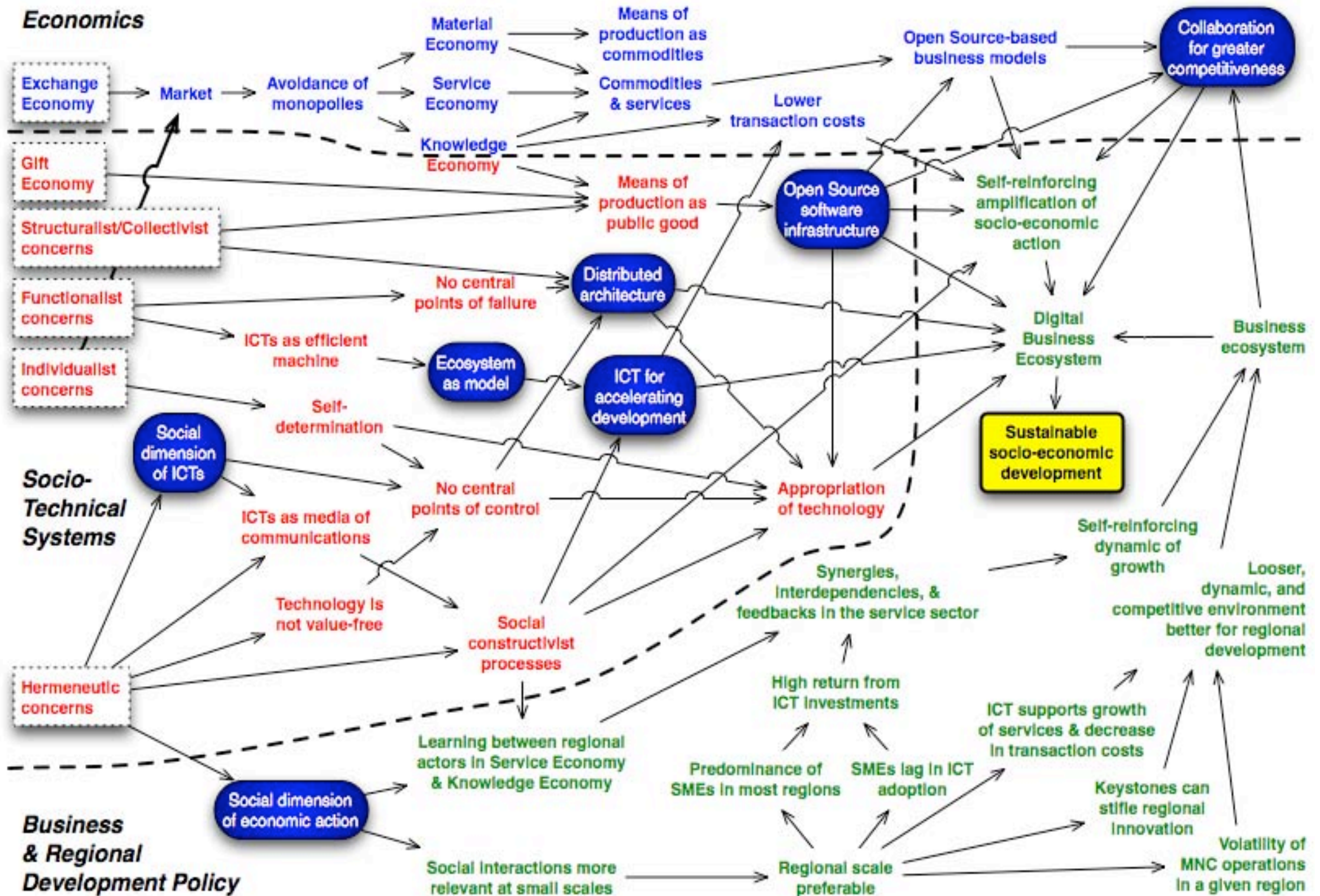


Context dependence perspective
(evolution, phylogeny)

(Essentialism)

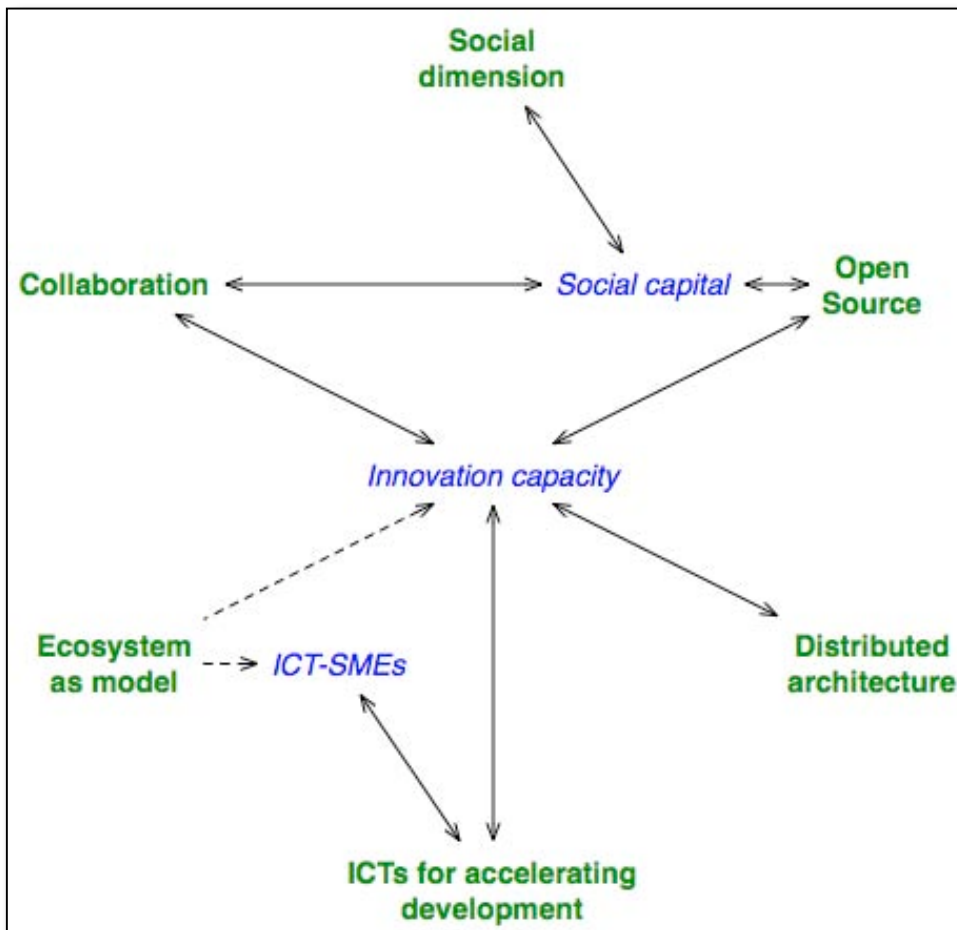
(Holland, Kauffman)

(Existentialism)

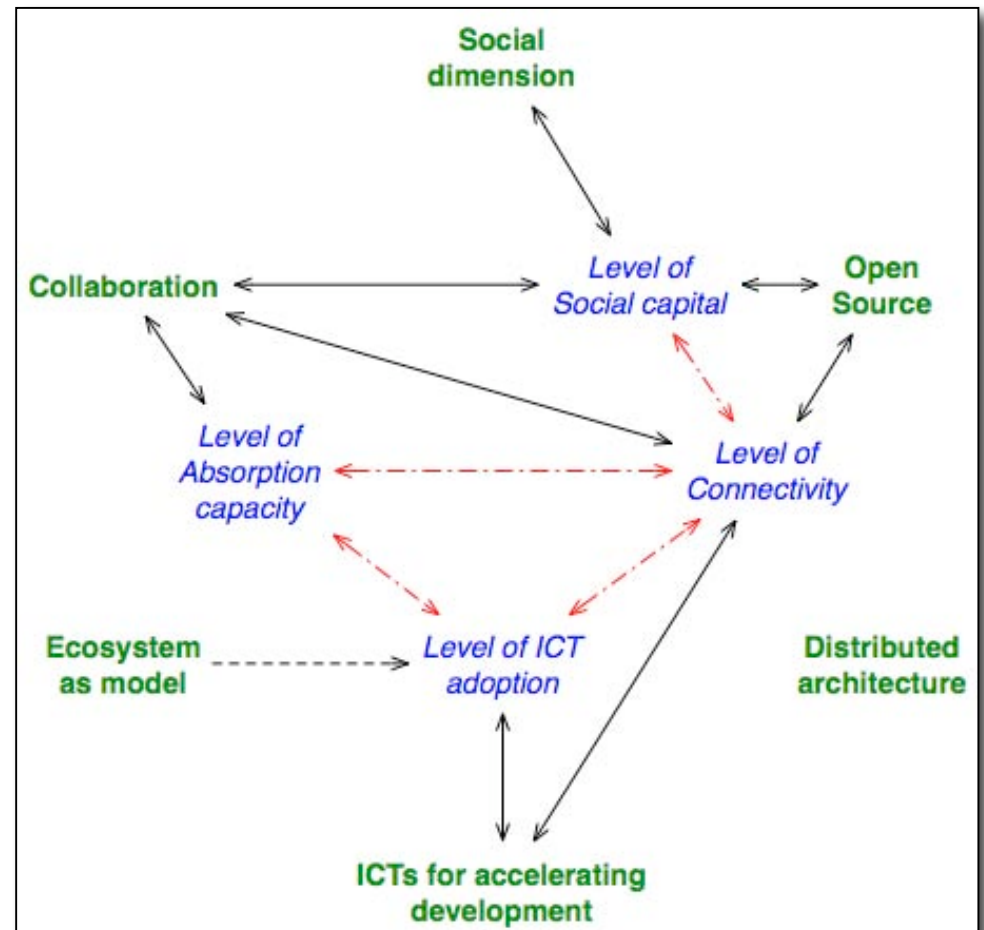


'Evolution' of Determinants for DE Adoption Readiness and DEs Hypotheses

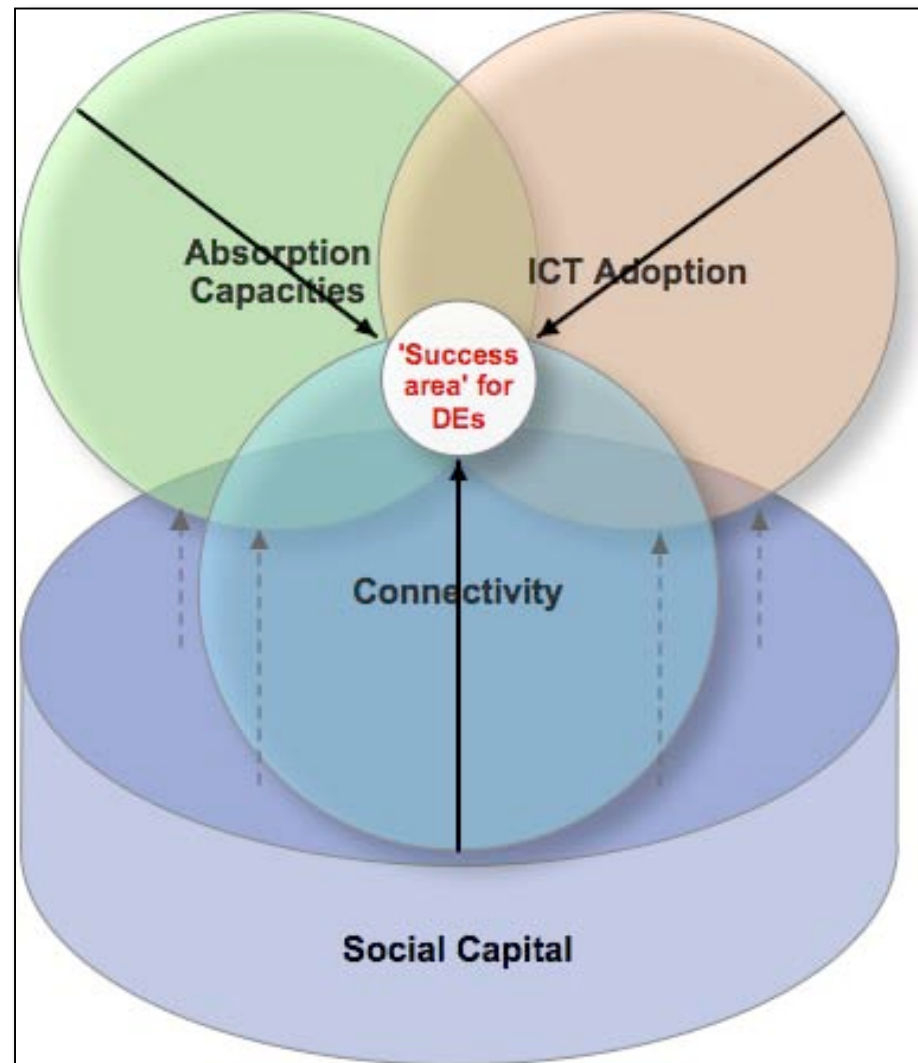
Regional Maturity
Grade: EU



New Methodology for
DE Adoption Readiness: LAC



Determinants of the 'Successful' Deployment of Collaboration Networks through DEs

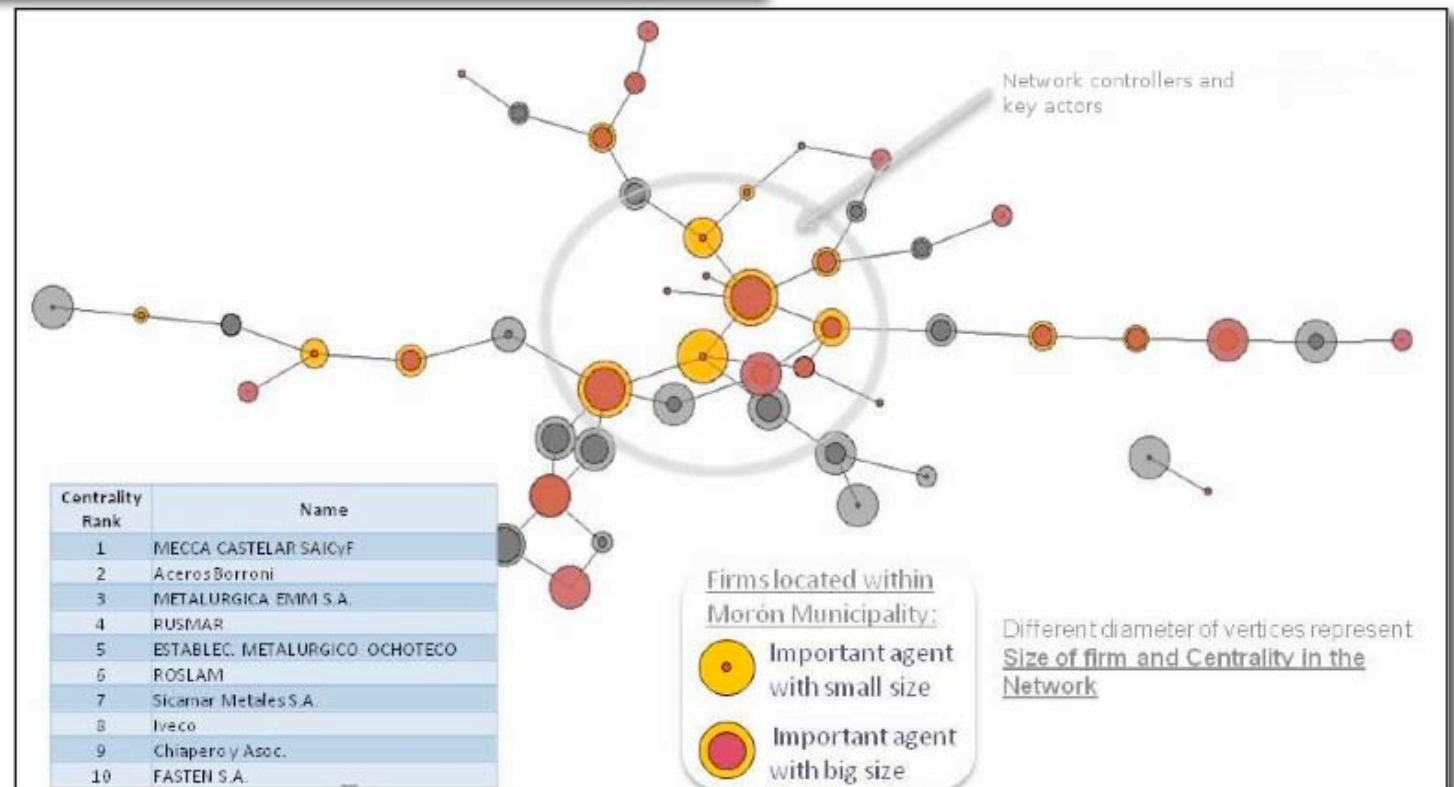
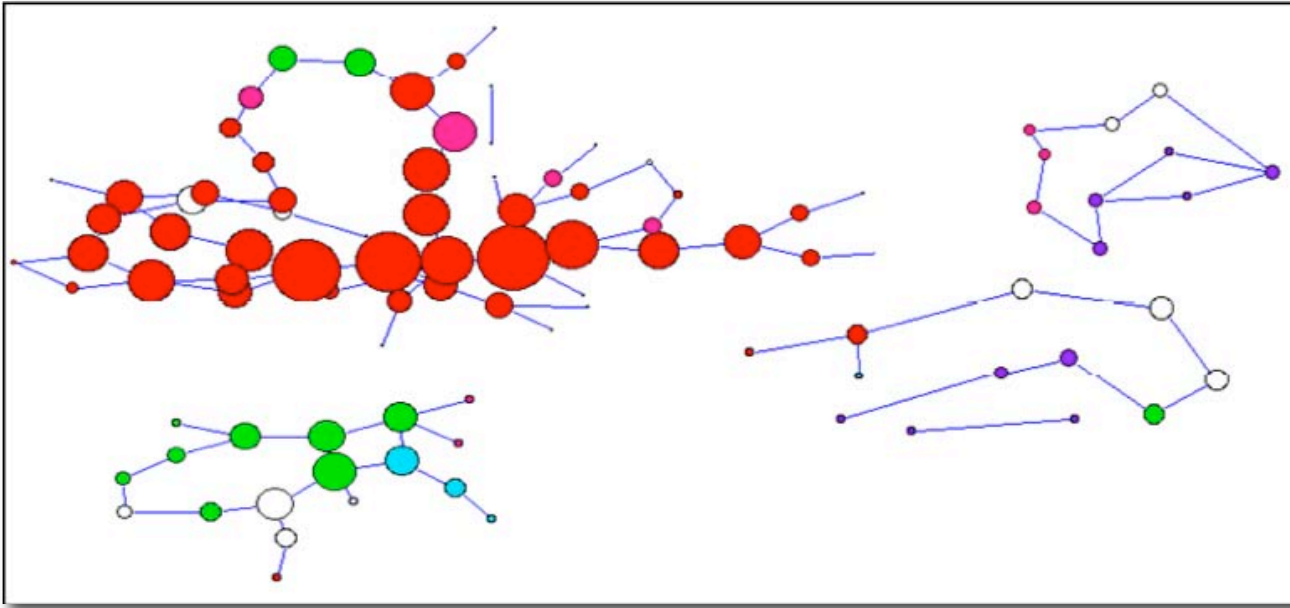


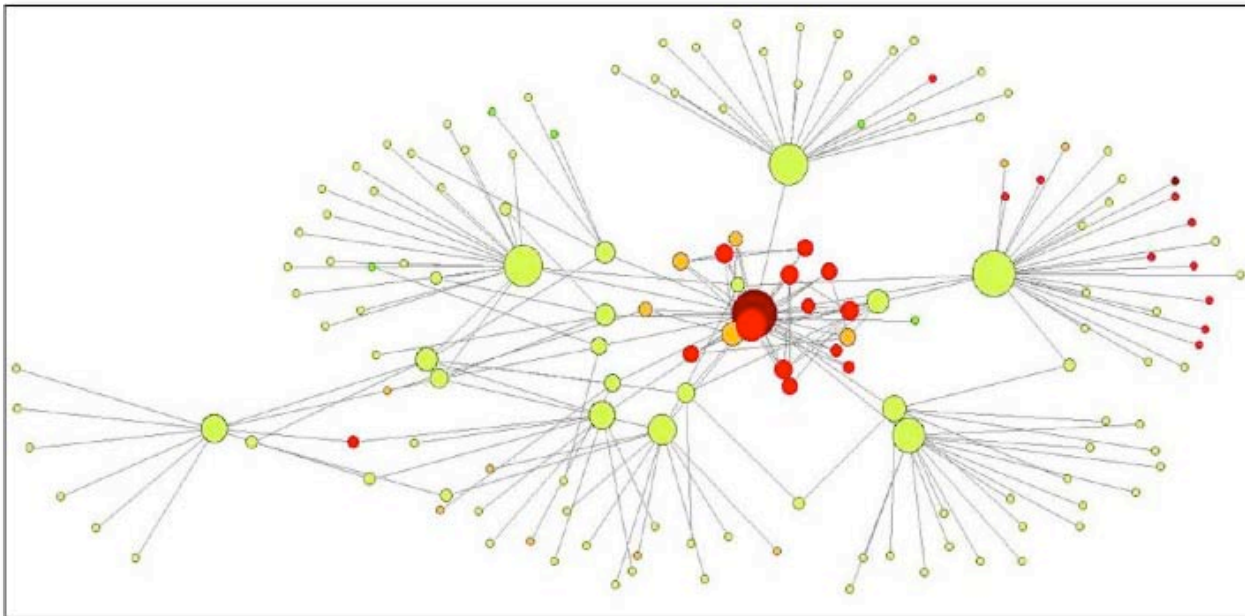
Production and Institutional Networks in Morón

Identified Networks	Sub-networks	Selected Network	Qualitative Criteria
794 manufacturing enterprises (from the 900 firms mapped in Morón)	3 networks: Metalworking sector, Textiles and food industry	Metalworking sector	Network complexity, number of agents, production chain importance
154 Institutions and organisations (from the 350 institutions registered in Morón)	2 networks: Social and production networks	Production network	Network complexity, impact in production related actors

Network chosen	Identified candidate organisations	General Competencies: qualitative approach	General ICT Use
Metalworking enterprises	10 metalworking enterprises	Low	Low
Production oriented Organisations and Institutions	2 local organisations	Medium	Low, Medium

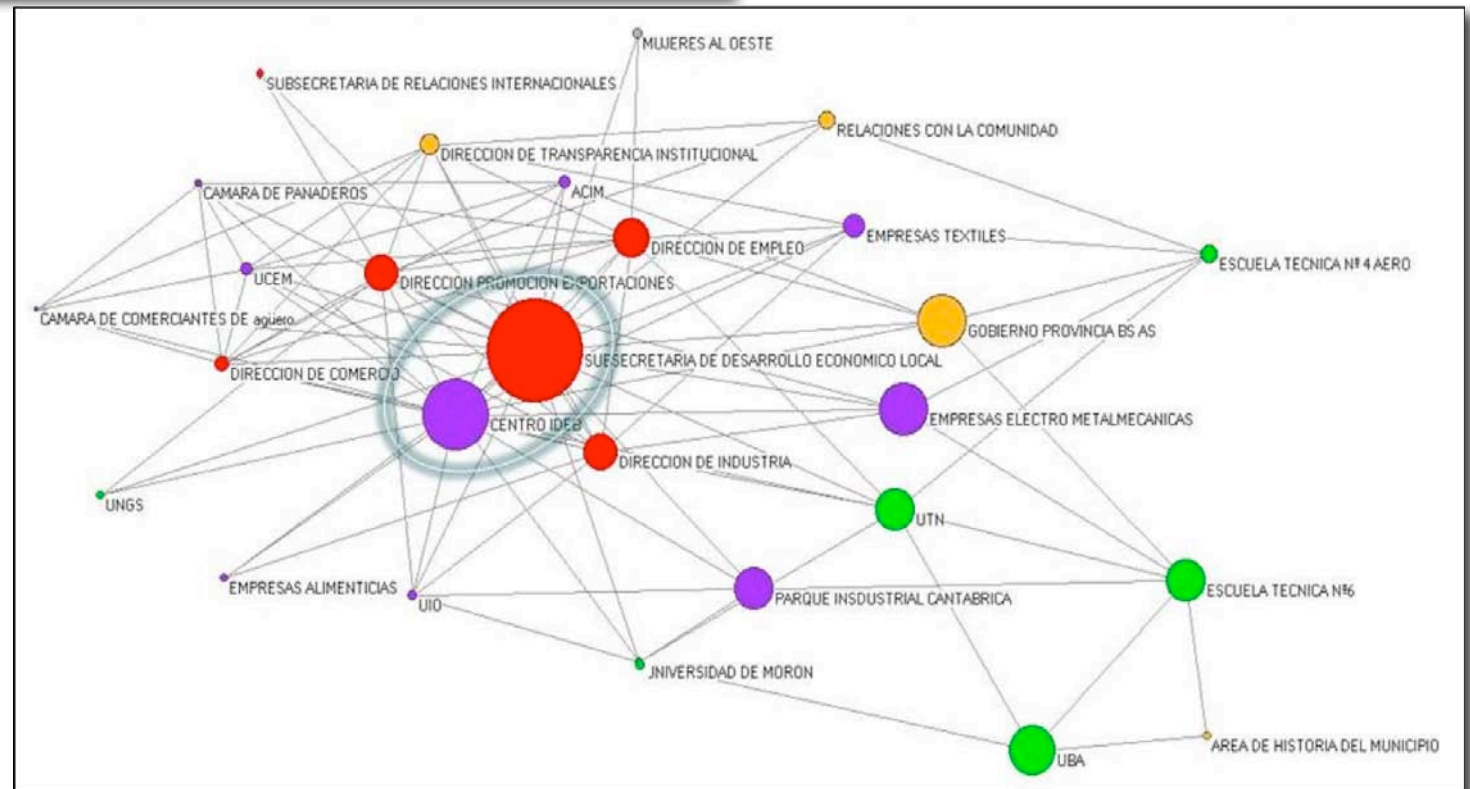
Morón (ARG): Sectoral Networks vs. the Metalworking Network



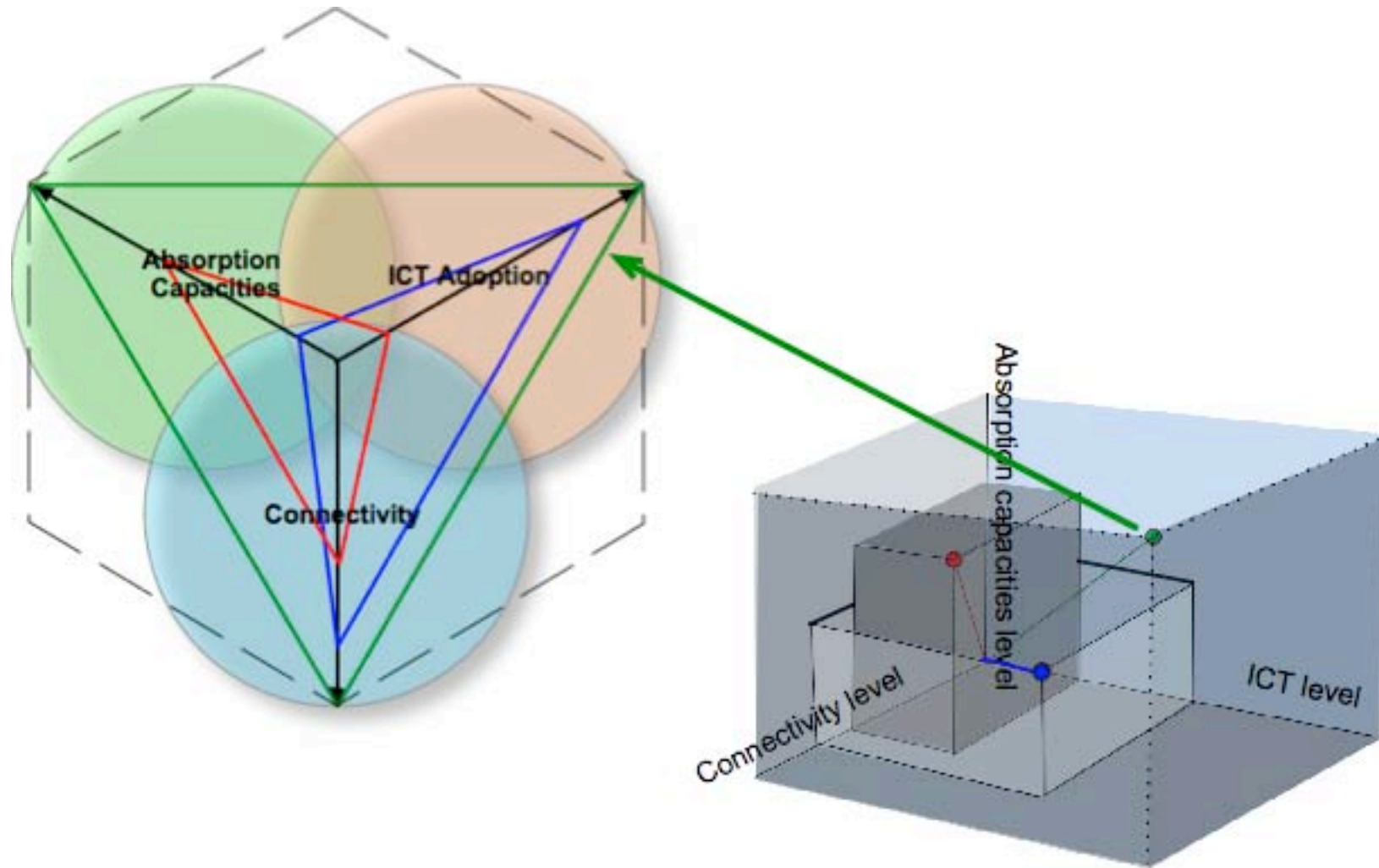


Morón (ARG): Institutional Networks

*(All surveyed and
2nd degree)*

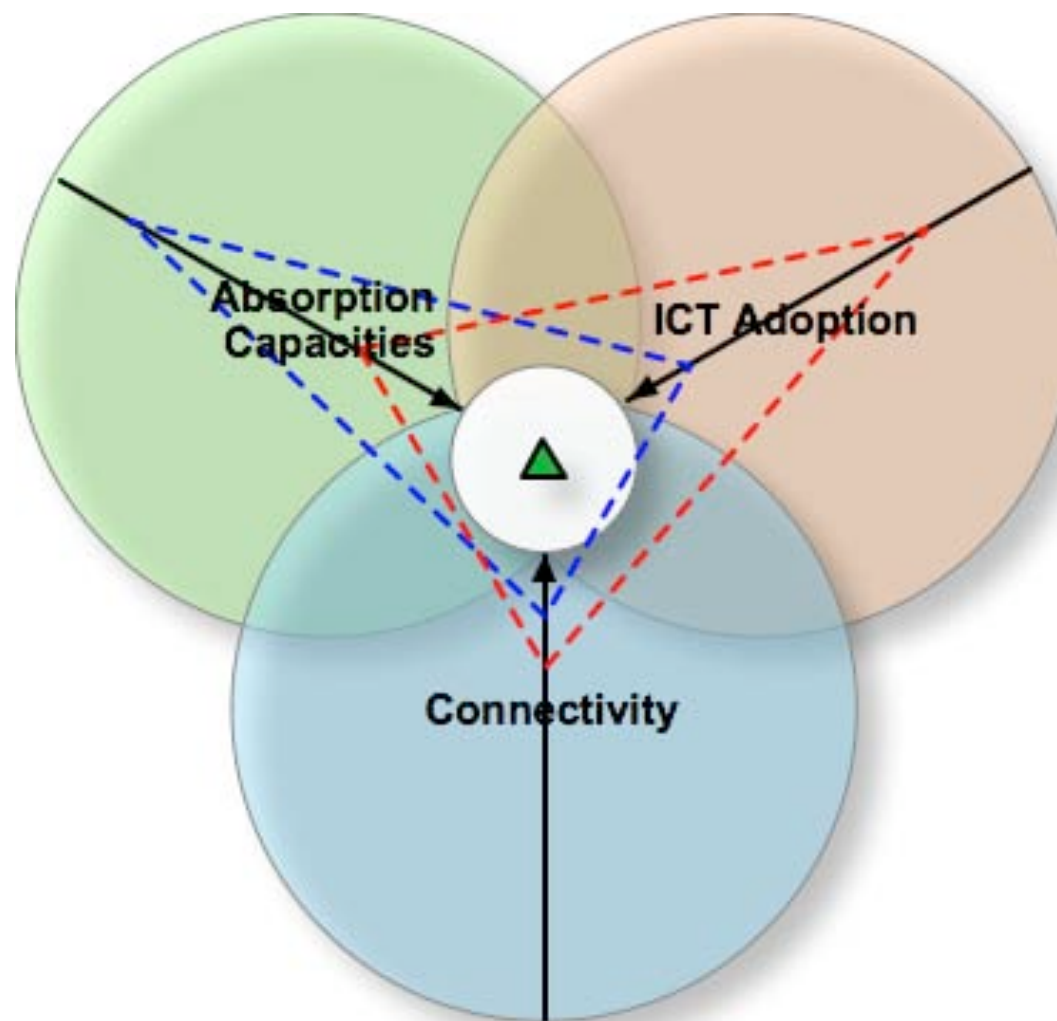


Mapping the Characteristics of a Set of Enterprises in a Given Region

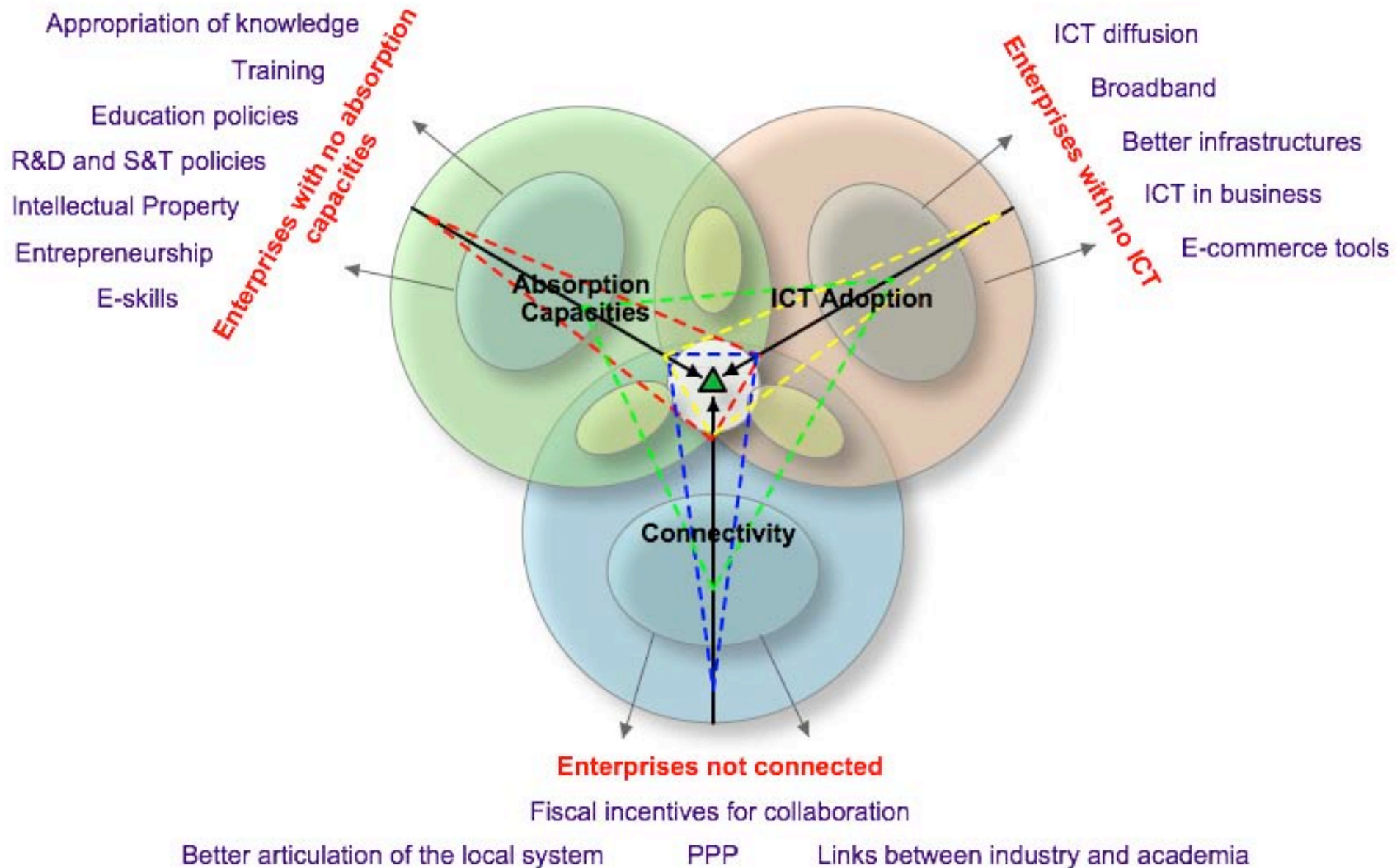


Policy Analysis Visualisation Tool

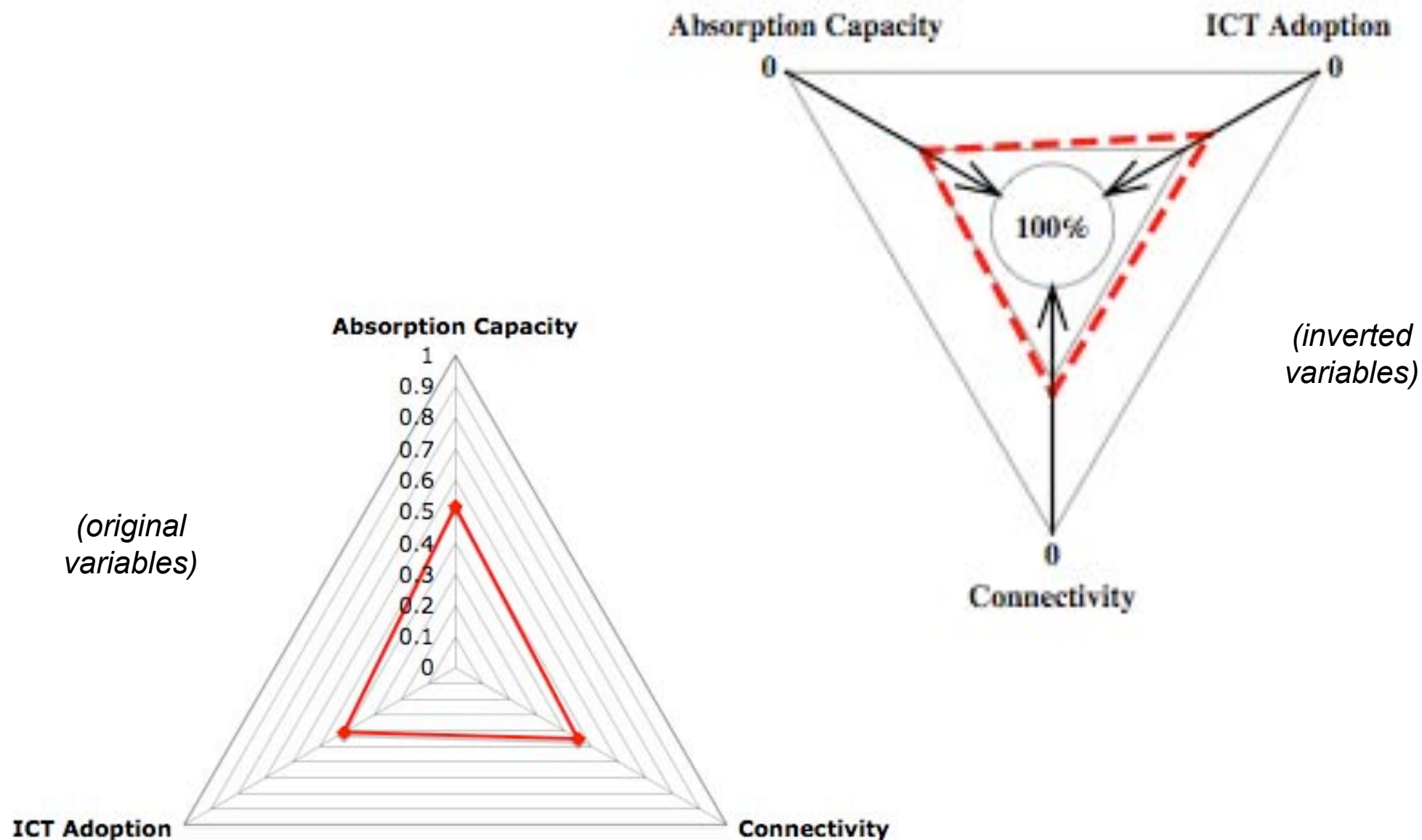
(inverted variables)



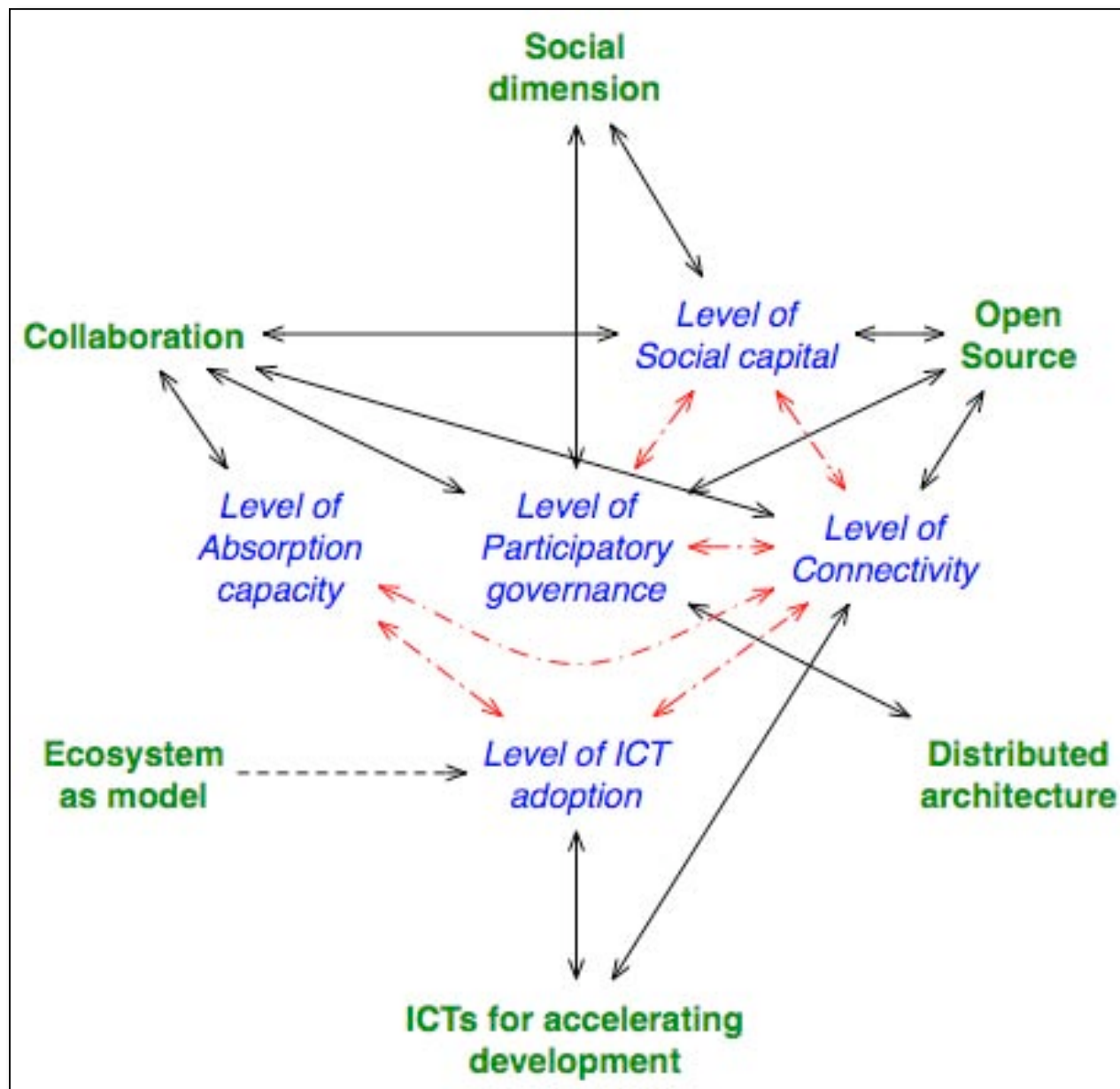
Policy Mixes for Enterprises and Regions



Aggregate DE Readiness Indicators for Morón



New Policy Indicators for Future Research?



Conclusions

- DEs as an approach that considers technology adoption as a social process driven by social networking and collaboration provides **a context** that facilitates the exploration of possible responses to conflicting normative requirements through a collective process guided by reflexive governance
- In this paper we have introduced ‘formally’ network analysis and policy analysis to DE research from a socio-economic perspective, with an interesting consequence:
- The **same** policy analysis visualisation tool facilitates the optimisation of policy mixes and recommendations **at different levels**: regional and multi-regional level, cluster level, sector level, firm level
- The introduction of ‘new’ indicators that promise to be particularly effective is the consequence of applying a more uniformly **self-consistent epistemology** to the methods and methodologies used in SSH research that inform policy-making