



# **Regional development theories and formalised economic approaches: an evolving relationship**

*Roberta Capello*

*Politecnico di Milano*

ERSA Keynote lecture

59th ERSa Congress, Lyon, 27-30 August 2019



# Aim of the presentation

To re-visit the development of thought in regional development,

- so to **(re-)interpret the linkage between regional development theories and formalised economic models.**



# What Regional Economics is not about

Regional economics is not

- the **conceptualisation of economic growth at sub-national administrative units level;**
- **empirical analysis of economic phenomena with data at the level of sub-national administrative units;**
- only the **economics of “industrial districts”.**



# What Regional Economics is about

Regional economics is

the branch of economics which incorporates the dimension '**space**' in logical (economic) laws and models which regulate and interpret:

- the formation of prices,
- demand,
- productive capacity,
- levels of output and development,
- growth rates, and
- the distribution of income in conditions of unequal spatial endowments of resources.



# Main fields of Regional Economics

Two main sub-branches:

- 1) **Location theory**, microeconomic in nature: the oldest branch of regional economics, dealing with the economic mechanisms that distribute activities in space.
- 2) **Regional growth and development theories**, the former macroeconomic in nature, the latter microbehavioural, which focus on spatial aspects of economic growth and the territorial distribution of income.



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# Linkage between regional economics and formalised economic models

Subsequent phases exist characterised by different linkages between regional growth theories and formalised economic models:

1950s and 1960s: the «overlapping phase»

1970s and 1980s: the «divergence phase»

1990s and 2000s: the «partial convergence phase»

2010s: the «partial integration phase»



# **The overlapping phase (1950s – 1960s)**



# The «overlapping phase» 1950s and 1960s (1)

The concept of growth is interpreted as:

- a short-term increase in employment and income levels (keynesian approach);
- an increase in individual well-being (neoclassical approach).

Export-base theory (North, 1955)

Neoclassical regional growth theory (Borts and Stein, 1960)

Models are conceptualised within the **mainstream approach**, and substitute the national level with sub-national one (largely matching the administrative units), without changing the economic reasoning.



# The «overlapping phase» 1950s and 1960s (3)

In order to adopt theories developed for Countries to regions and cities, space is inevitably simplified to «homogeneous regions», in general conceptualised as administrative units.

The analytical structure of regional growth theories is the one of traditional economic models **renouncing** :

- **to a more complex and rich definition of space and**
- **to a concept of space that plays an active role in the development.**

→ ***Space has no role in explaining growth.***



# **The divergence phase (1970s – 1980s)**



# The «divergence phase» 1970s and 1980s (1)

In the 1970s, regional economics moves

**from “space” to “territory”**

a neologism in the English language but widely employed in spatial development planning in the Latin countries (France, Italy, Portugal, Spain) with a much richer meaning with respect to abstract ‘space’.



# The «divergence phase» 1970s and 1980s (2)

Territory is defined from an economic point of view as (Camagni, 1980):

- a system of localised technological externalities;
- a system of material and non-material assets which, thanks to proximity and transaction costs, may act on firms' productivity and innovativeness;
- a system of local *governance*, which takes a collectivity and a system of local public administrations into account;
- a system of **functional, hierarchical and social relations** that constitute a relational and social capital of a local area.



# The «divergence phase» 1970s and 1980s (3)

Local growth models include space as an **economic resource and as an independent production factor**, a generator of static and dynamic advantages for the firms situated within it – or, in other words, an element of fundamental importance in determining the competitiveness of a local production system.

→ ***Space plays an active role in explaining development***, and becomes a source of economic advantages, in the form of agglomeration economies.

Space is a diversified-relational space:

Diversified space → uneven spatial distribution of activities within a region.

Relational space → socio-cultural relationships play a role.



# The «divergence phase» 1970s and 1980s (4)

New scientific paradigm of «development from below» (Becattini, 1979).

**Theories of local development are conceptualised:**

- **qualitative in nature;**
- interpreting development (and not growth) through **intangible elements**, like trust, sense of belonging, relationality.



# The «divergence phase» 1970s and 1980s (5)

In this way, **theories move away** from the rigour and the formalised nature of mainstream approaches, but enrich the analysis through the interpretation of **territorial complexity** as a source of explanation of economic dynamics of single areas.

Space becomes a source of static efficiency.

Neo-marshallian schools of thought:

- Industrial districts (Becattini, 1979)
- Development from below (Stöhr, 1990)
- Indigenous potential (Ciciotti, Wettmann, 1981)
- local context (Johannison, Spilling, 1983)
- system areas (Garofoli, 1981)
- localised industrial systems (Courlet, Pecqueur, 1992)



# The «divergence phase» 1970s and 1980s (6)

Space becomes a source of dynamic efficiency

Neo-schumpeterian schools of thought:

- Milieu innovateur (Aydalot, 1985; Camagni, 1991)
- Learning regions (Lundvall, 1991)
- Regional Innovation Systems (Asheim, 1995)
- Related variety (Boschma, 2009).



# The impasse of the eighties

In the 1980s, a large methodological conflict characterised the relationships among economic schools of thought.

In Italy the conflict was raised by the provocative criticisms to formalised models of Becattini.

In the words of Von Böventer (1975), regional economics is in front of an impasse:

- either a 'pure and exact' regional theory without agglomeration economies;
- or an 'applied regional theory', which is inexact but takes agglomeration factors into account.



# A first «formalised» approach – 1980s

In the same period, there is a growing feeling among regional and urban economists of the necessity of a «formalised, quantitative approach» to the interpretation of urban and regional phenomena: ecological-biological models, self-organising and catastrophe theories (Prigogine, 1979):

- Volterra-Lotka prey-predator model applied to urban life cycle (Dendrinos, Mullally, 1985; Nijkamp, Reggani, 1990; Camagni, 1992);
- chaos and catastrophe theories (May, 1976; Papageorgiou, 1976): urban and regional growth (Miyao, 1987);
- spatial auto-organisation models (Allen, 1980; Camagni et al., 1986).

Followed by economists (Medio, 1992, 1993; Lunghini 2002, Puu, 2003) and by environmental economists (Musu, Cazzavillan, 1998; Weitzmann, 2008).



# **The partial convergence phase (1990s – 2000s)**



# The «partial convergence phase» 1990s and 2000s (1)

At the beginning of the 1990s, a big change.

Thanks to Dixit and Stiglitz's formalized model of imperfect competition, increasing returns are inserted into formalised models.

- New economic geography (Krugman, 1991)
- Endogenous growth theory (Romer, 1986; Lucas, 1988).



# The «partial convergence phase» 1990s and 2000s (2)

Space is interpreted as a diversified-stylized space.

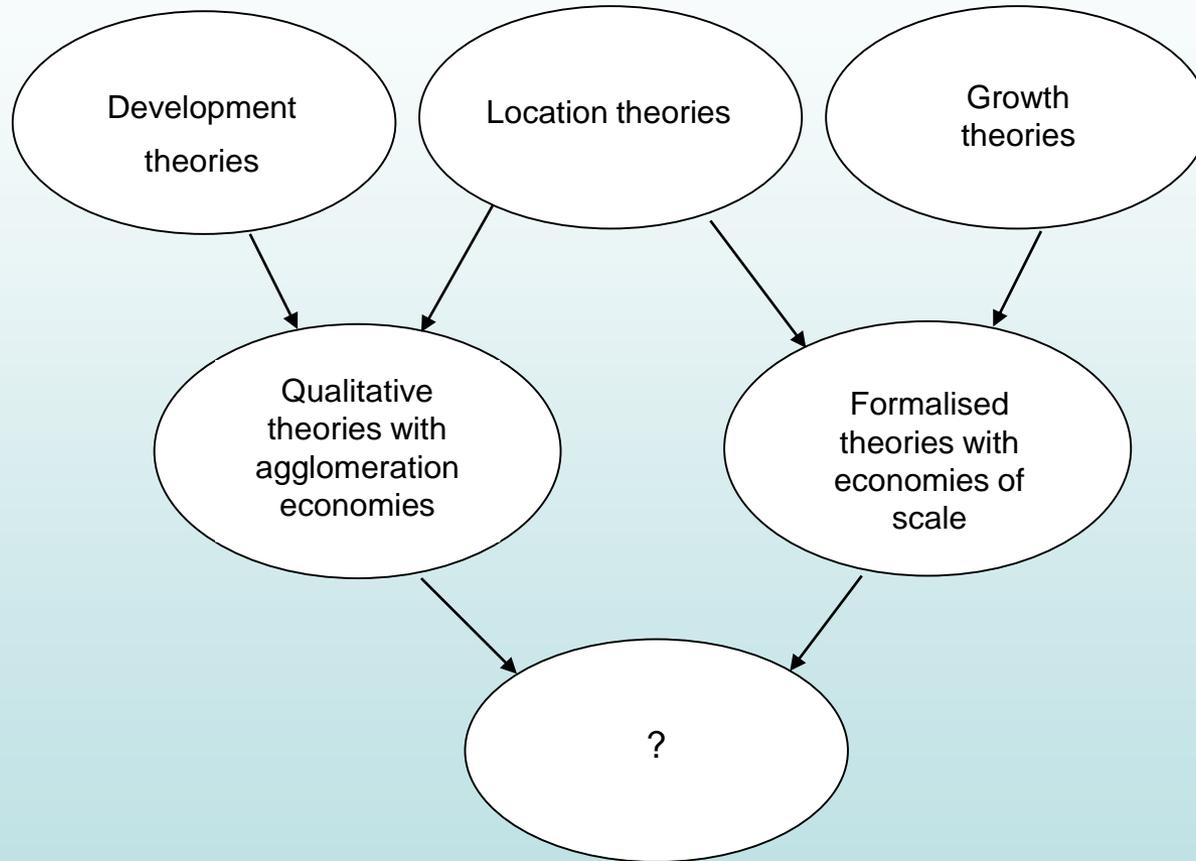
Diversified → polarities exist on which growth insists;

Stylized → polarities have no territorial dimension (space is stylized into points, and therefore loses all socio-economic aspects that were typical of agglomeration economies).

Economic mechanisms in the NEG models are the same, whatever type of space and location we are speaking about (cities, regions, districts, etc..).



# In 2004 the challenge of integration was still an open question





# **The partial integration phase (2010s)**



# The «partial integration phase» 2010s

Integration of qualitative aspects coming from regional development theories (e.g. trust, sense of belonging, district economies) in formalised economic growth models (Camagni and Capello, 2018).

This step forward has been made possible thanks to:

- the development of quantitative measures of all soft elements constituting **territorial capital**, defined as the set of tangible and intangible, public and private resources that form the growth potential of a region. We are not the first! (Rabellotti, 1997; Capello, 1999; Rodríguez-Pose, 2013; Tabellini, 2005; Guiso et al., 2008);
- the **integration of territorial complexity into formalised economic growth models**, through the concept of territorial capital (Camagni, 2009).



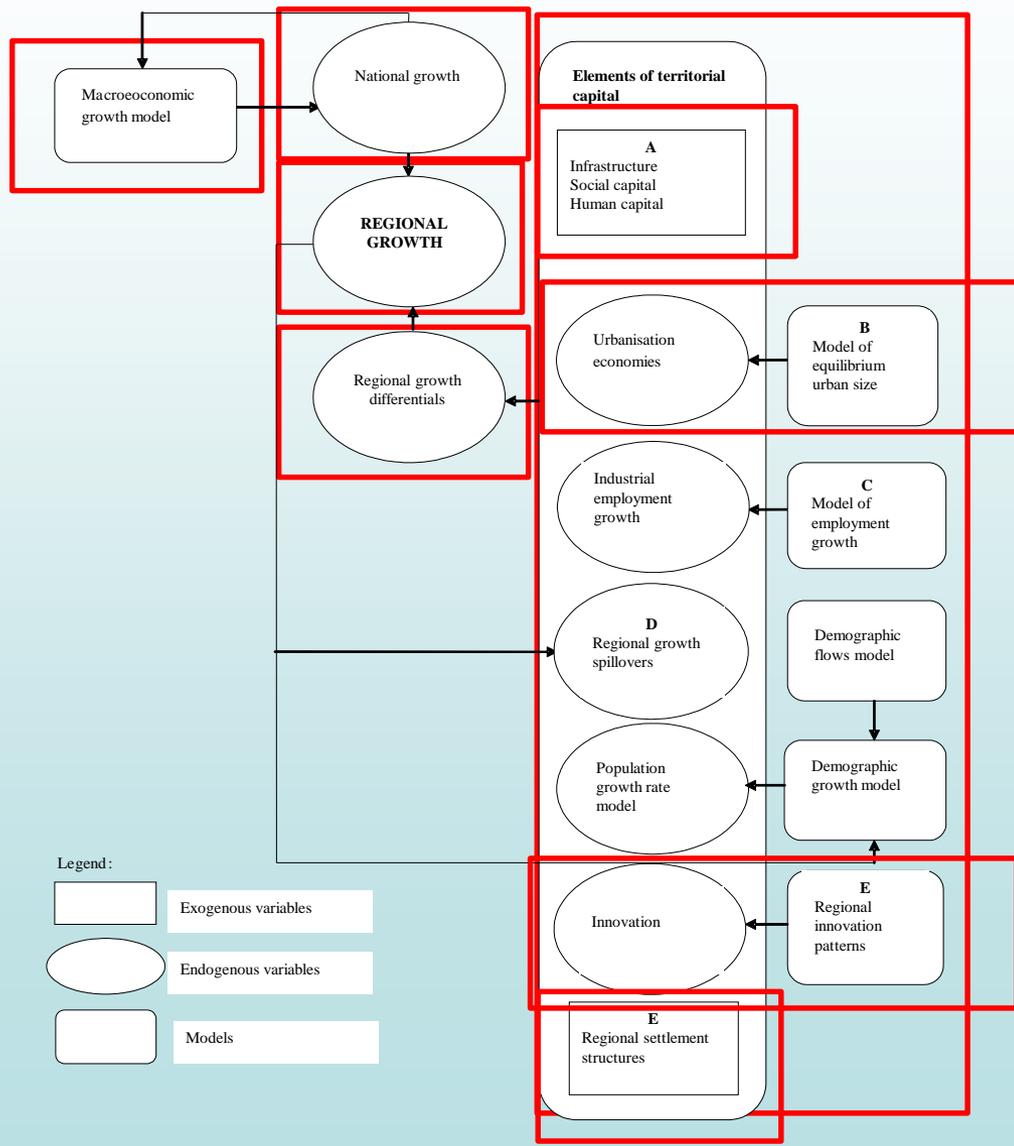
# Integration is a partial reality: the MASST model

The MASST (Macroeconomic, Sectoral, Social, Territorial) (Capello, 2007; Capello et al., 2012; Capello et al, 2017; Capello and Caragliu, 2019) model interprets:

- **competitiveness as regional driver** (supply), explained by:
  - *single elements of territorial capital measured in quantitative terms:*
    - different soft elements of territorial capital (trust, sense of belonging, quality of institutions, etc..);
    - differentiated urban structures (economies of urbanisation, urban networks...);
  - *territorial complexity:*
    - differentiated territorial patterns of innovation;
    - urban growth potential (urban net benefits);
    - urban structural dynamics.
- **macroeconomic conditions as national/global demand framework**, *overcoming the distinction between:*
  - macroeconomic growth, without differentiated regional effects.
  - regional growth, with no macroeconomic effects.



# The Macroeconomic, Sectorial, Social and Territorial (MASST) model





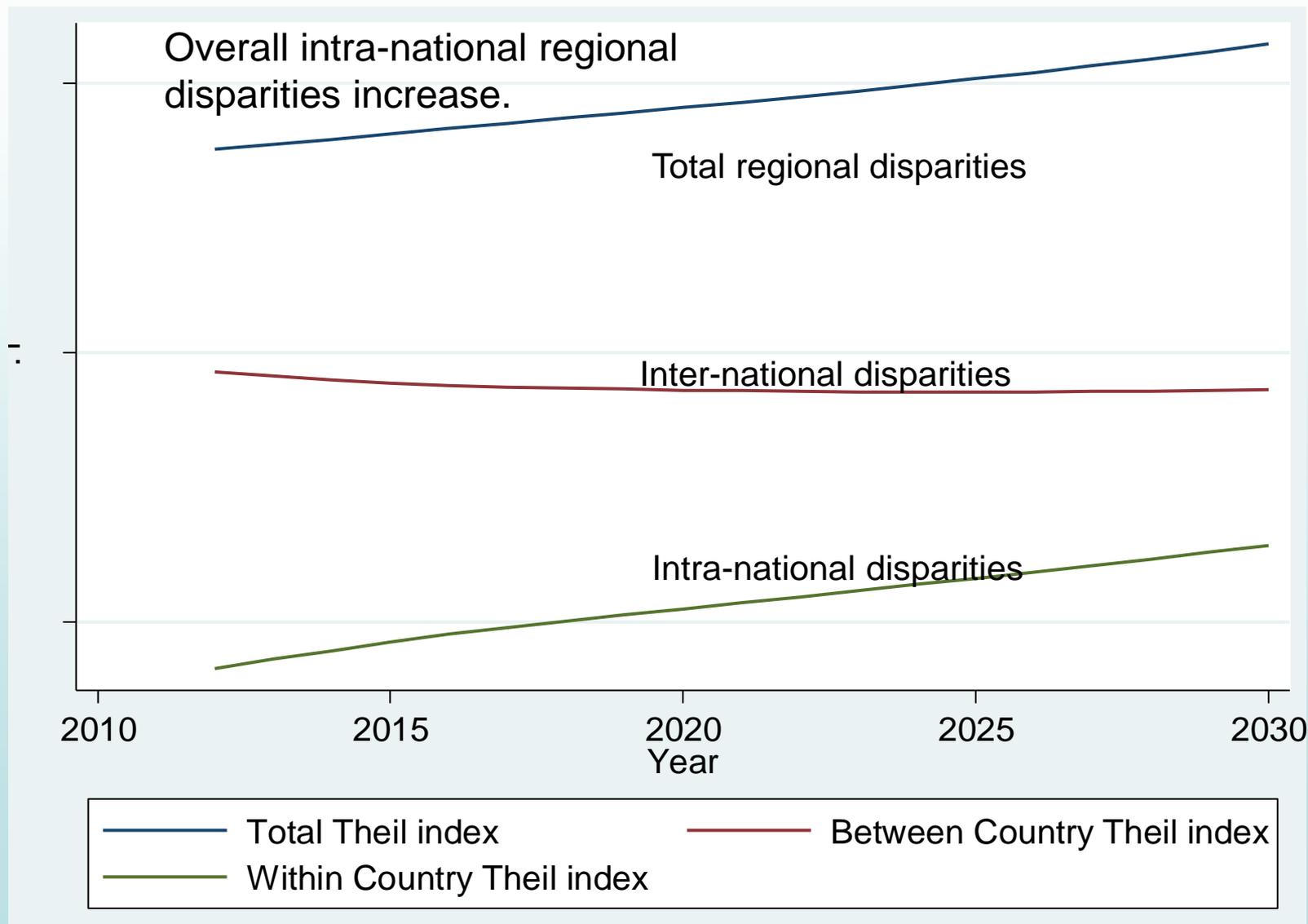
# Interpretative capacity of the model

We are particularly proud of the following major recent foresights of the prior versions of the MASST model:

- at the wake of the crisis, we foresaw a halt in the process of EU convergence;
- we also foresaw a slowdown of Southern European countries with respect to Nordic countries, mostly because of the spatial effects of austerity measures.
- within a project we did (ESPON - ET2050), we also found that a scenario with more diffused investment in second-rank cities turned out to be both more inclusive, but also more competitive with respect to a more concentrated pattern of investment.

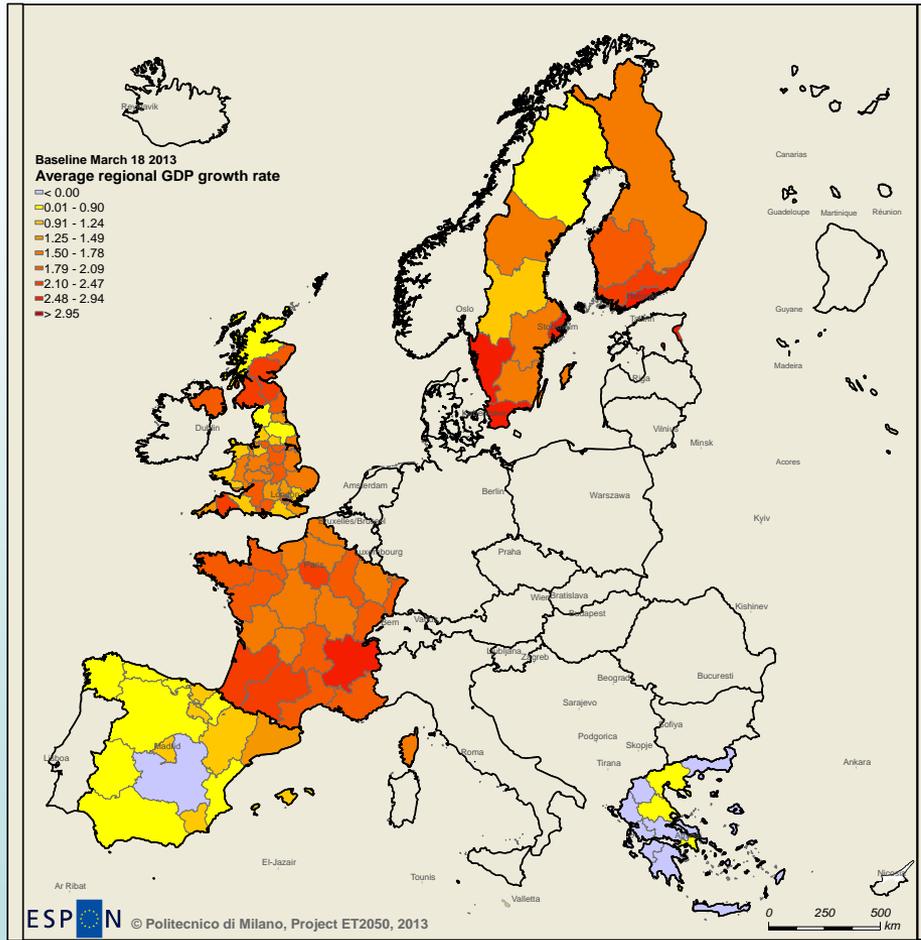


# Theil index in the Baseline scenario (2010-2030)





# The slowdown of Southern European countries (2010-2030)



Results obtained at the wake of the 2007-2008 crisis:

- Two speed Europe; Southern peripheral countries grow less than Northern countries.
- Southern European countries pay a high price for austerity measures.



# Some concluding remarks

The initial intuition about the **necessary and possible convergence** between formalized/analytic and qualitative/conceptual approaches to regional science (or between regional development and regional growth studies) proved **viable and fruitful**.

In fact, it allowed merging

- the conceptual richness and depth of thought of the latter approach
- with the precision and rigour of the former, opening the way to wise measurement, driven by theory

and testing hypotheses and conjectures, in line with the epistemological requests of a sound scientific method.



**Thank you very much  
for your attention!**