



Multidisciplinary Approach to Plan Smart Specialisation Strategies for Local Economic Development



# The Role of Clusters in S3 A spatial perspective from US analysis

Working Package No. 2 Cluster Policy and Spatial Planning

PAU Unit

07.06.2016 Northeastern University, Boston, MA, USA Department of Economics

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- I. The role of Clusters in Smart Specialisation
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  - The advantage of Clusters in S3 implementation
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  - MAPS-LED: a support in activating the EDP
- IV. A spatial oriented perspective within EDP for S3 implementation
  - Cluster Spatialisation: Boston and Cambridge
- V. Key preliminary insights



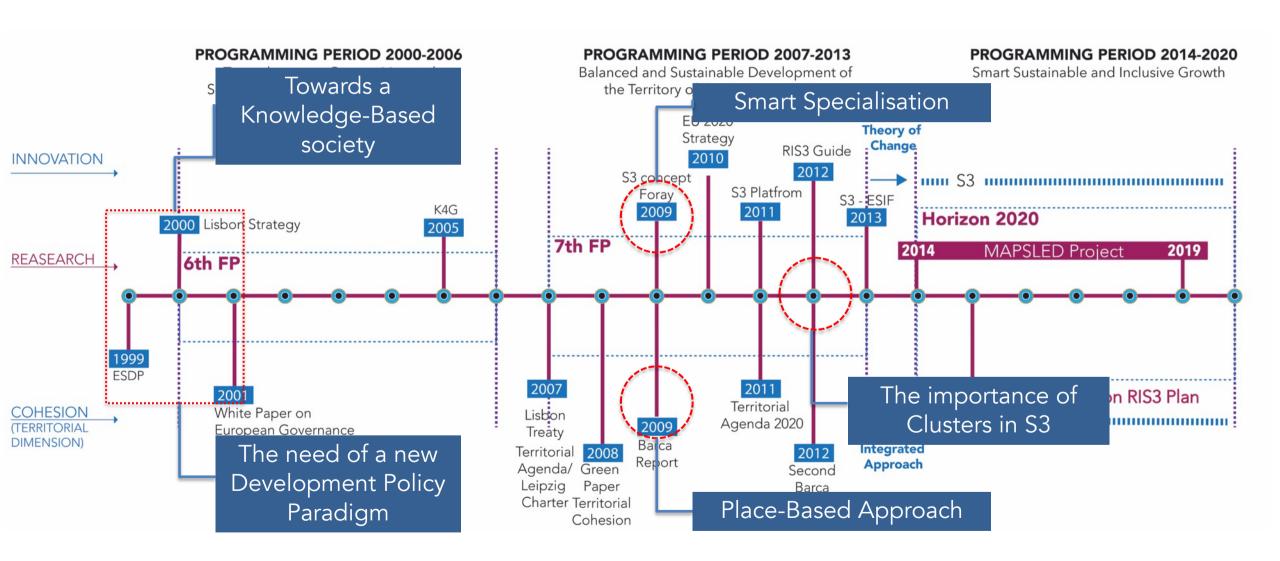


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#### I. The role of Clusters in Smart Specialisation

The need of a new Development policy paradigm: Innovation and Territorial Dimension







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## S3 Policy

#### Specific Innovation-intensive sectors

transformation of regional economies around unique, knowledge-based, new activity domains

higher emphasis on the exploitation of related variety and knowledge spill overs between kowledge domains, with a premium on emerging new market niche opportunities new activity domains

# Cluster (Policy)

broader set of sectors in the economy

enhance the performance of the companies that are members of the cluster

tend to concern firms in related industries characterised by a critical mass and commonalities in infrastructure and resource base

#### similarities

- a) a focus on productivity and innovation as key drivers of **competitiveness**
- b) fostering regional embeddedness with a view to capitalise on the **advantages of proximity**

Clusters in S3 implementation





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#### The advantage of Clusters in S3 implementation

Clusters: capitalising on the advantages of proximity

#### regional external economies of scale and agglomeration.

These include enhanced productivity arising from localisation of production systems which generates opportunities for greater specialisation, division of labour and inter-firm linkages. Agglomeration also provides a basis for enhanced local skills supply and a pool of localised knowledge that is shared between firms.

**social networks**. These are linked to the significance of interpersonal

relationships in generating trust within business networks which is believed to create social capital that transcends the boundaries between firms and institutions.

regional innovation systems and local knowledge exchange. These ideas emphasise the significance of local learning processes that include access to local tacit knowledge and its value in generating competitive advantage.

Economies of Scale Agglomeration



Social Capital



Innovation

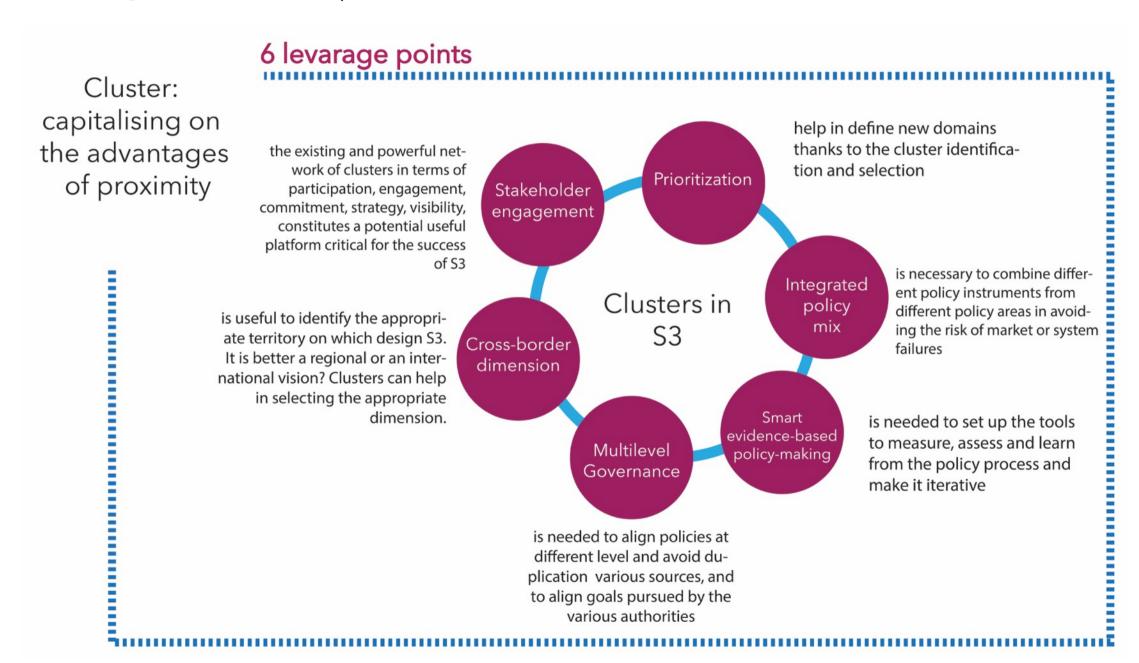




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#### The advantage of Clusters in S3 implementation





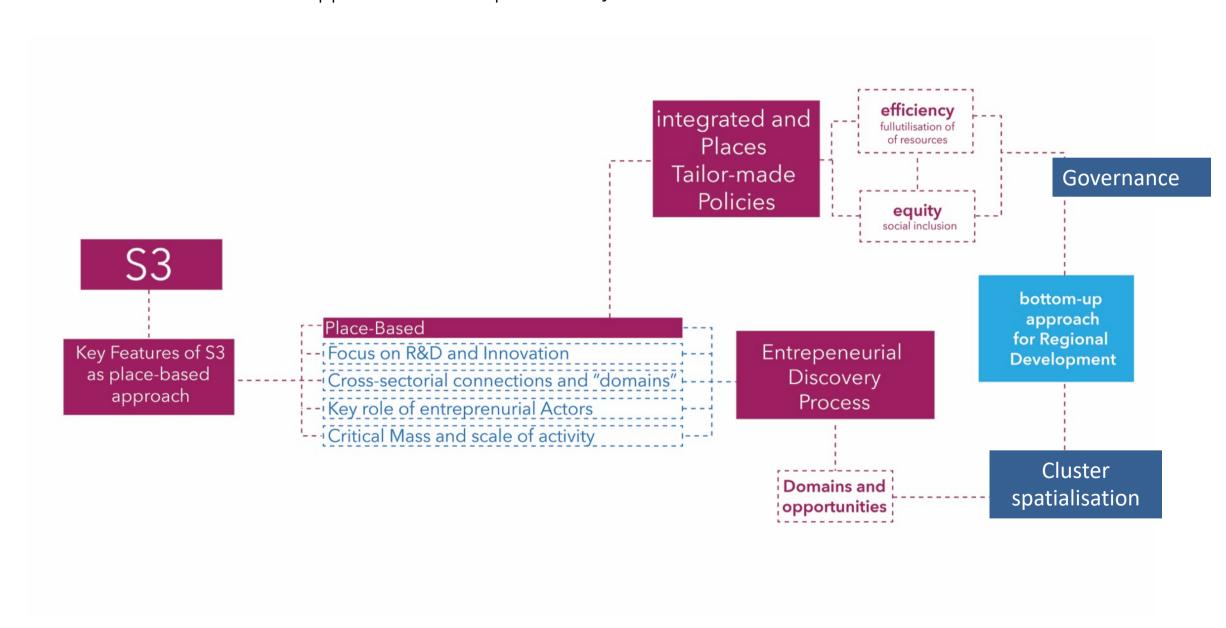


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#### II. Spatially-oriented methodology Cluster Analysis

The core of S3: Place-Based Approach and Entrep. Discovery Process







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#### The core of S3: the Entrpreneurial Discovery Process

The EDP is an **inclusive and interactive bottom-up** process in which participants from different environments (policy, business, academia, etc) are discovering and producing information about potential new activities, identifying potential opportunities that emerge through this interaction, while policymakers assess outcomes and ways to facilitate the realisation of this potential.

Bottom-up Approach

# Entrepreneurial Discovery Process

The EDP pursues the integration of entrepreneurial knowledge fragmented and distributed over many sites and organisations, companies, universities, clients and users, specialised suppliers (some of these entities being located outside of the region) through the building of connections and partnerships.

Knowledge Concentration

The EDP consists of the exploration and opening up of a new domain of opportunities (technological and market), potentially rich in numerous innovations that emerge as feasible and attractive.

New Domains and opportunitites

S3-Platform

What is the input activating EDP?

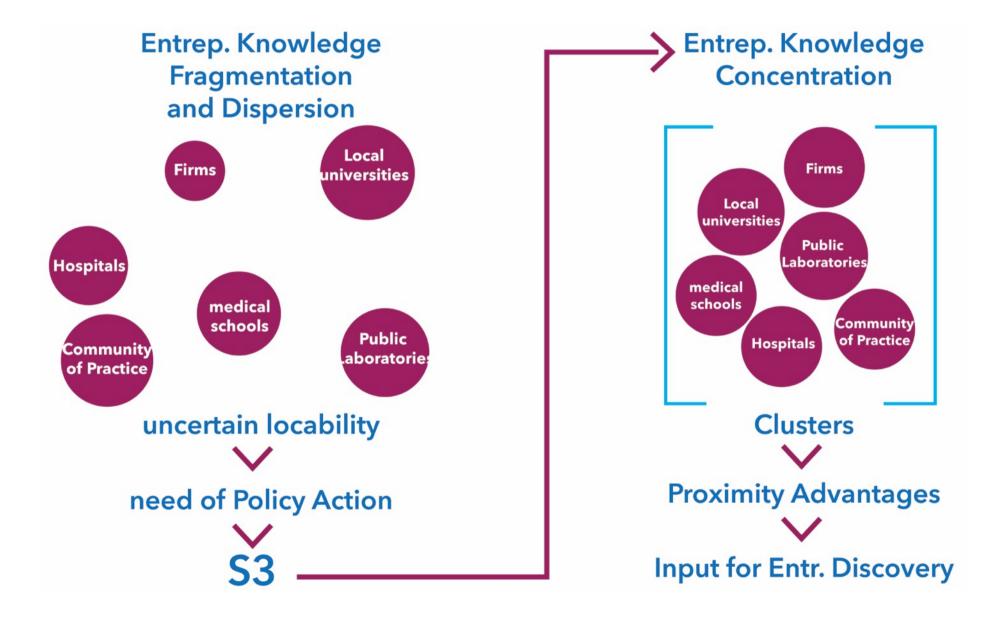




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III. The need to spatialise clusters in supporting Discovery Process: MAPS-LED The input for EDP (Foray, 2012) and the MAPS\_LED project



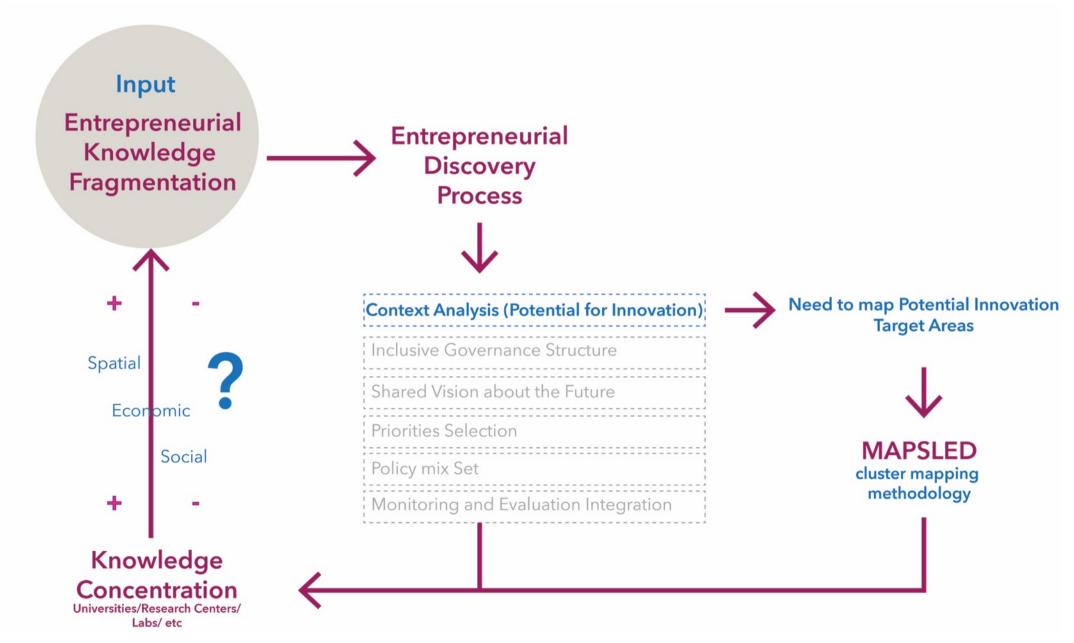




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# The need to spatialise clusters in supporting Discovery Process: MAPS-LED The input for EDP (Foray, 2012) and the MAPS\_LED project





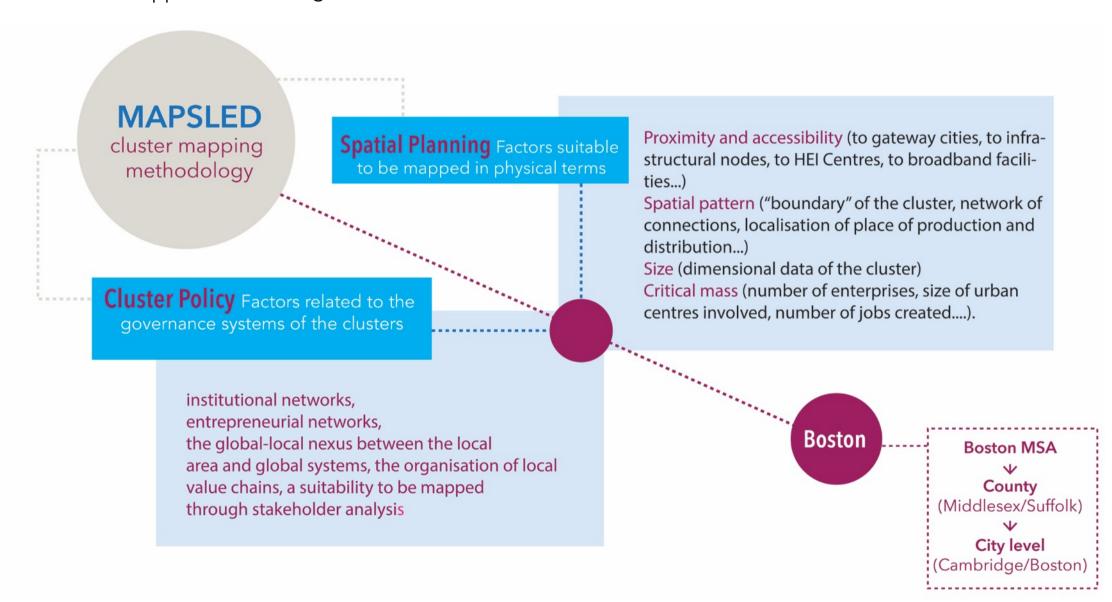


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#### IV. A spatial oriented perspective within EDP for S3 implementation:

MAPS-LED as support in activating the EDP



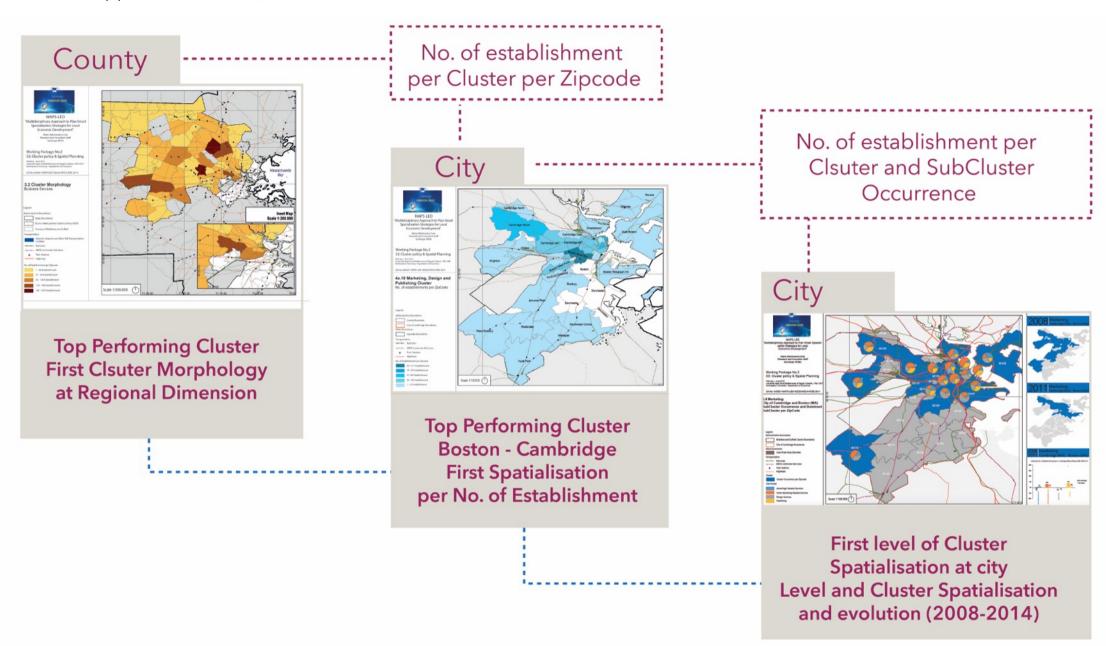




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#### MAPS-LED as support in activating the EDP



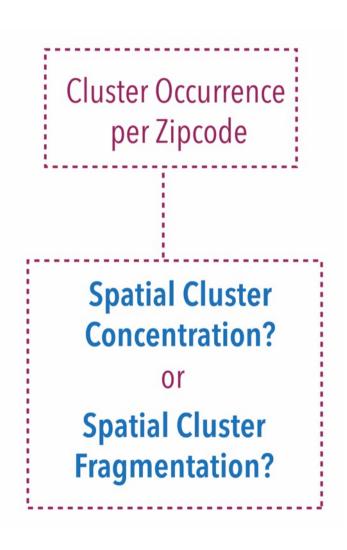


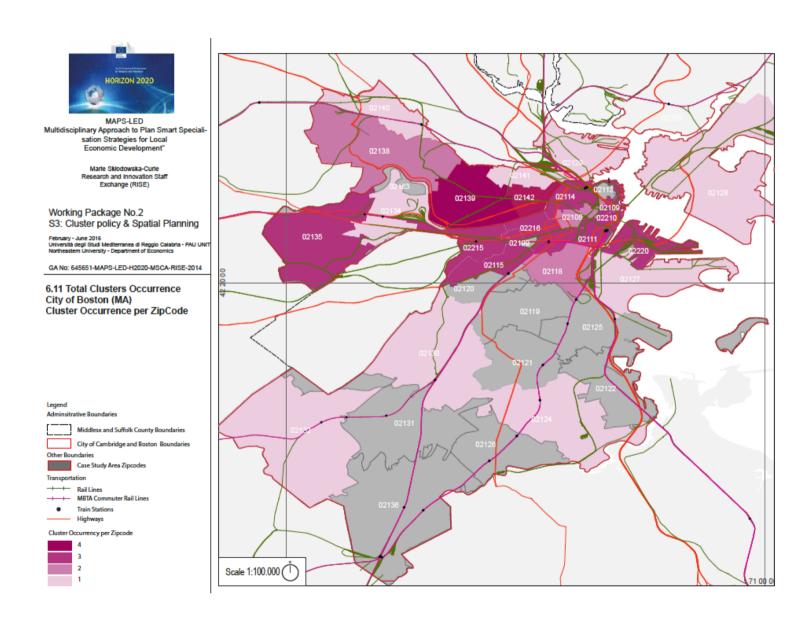


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MAPS-LED as support in activating the EDP







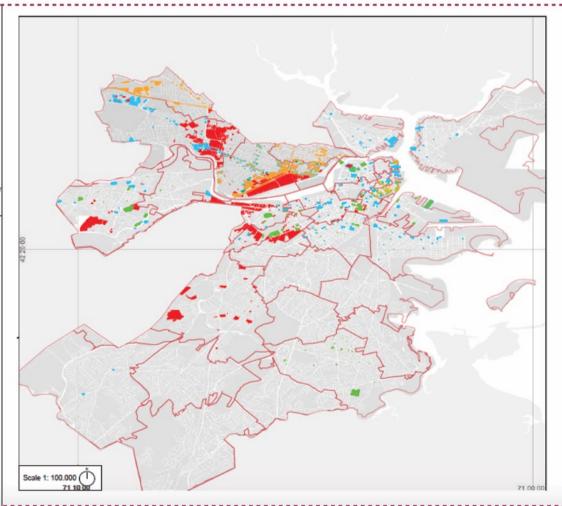


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# V. A spatial oriented perspective within EDP for S3 implementation The NAICS-Land Use association

# **Second Level Cluster Spatialisation Urban Level NAICS-Land Use Association** tested in August 2015 - updated in 2016 **Zoning Analysis** Urban Level Cluster Localisation Zoning Code (Boston) - Zoning Code Cambridge Data Parcels Fiscal Assessment Land Use Categories Mass - Cities Correspondence between **Zoning Categories and NAICS Cluster Spatialisation**



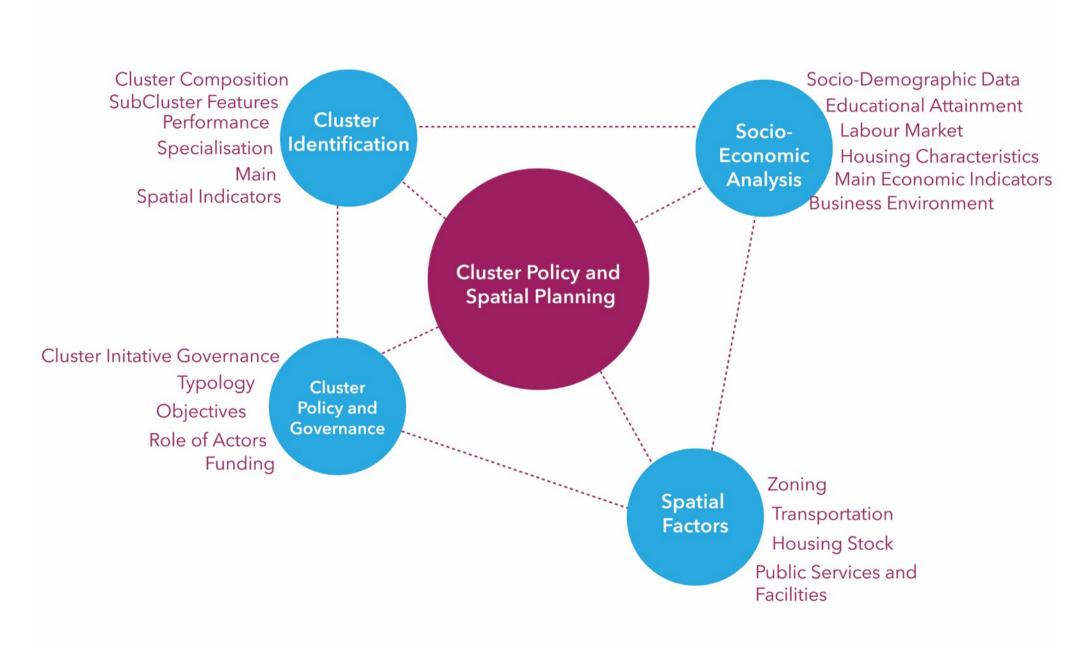




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#### Setting the Context throught the MAPS-LED mehtodology



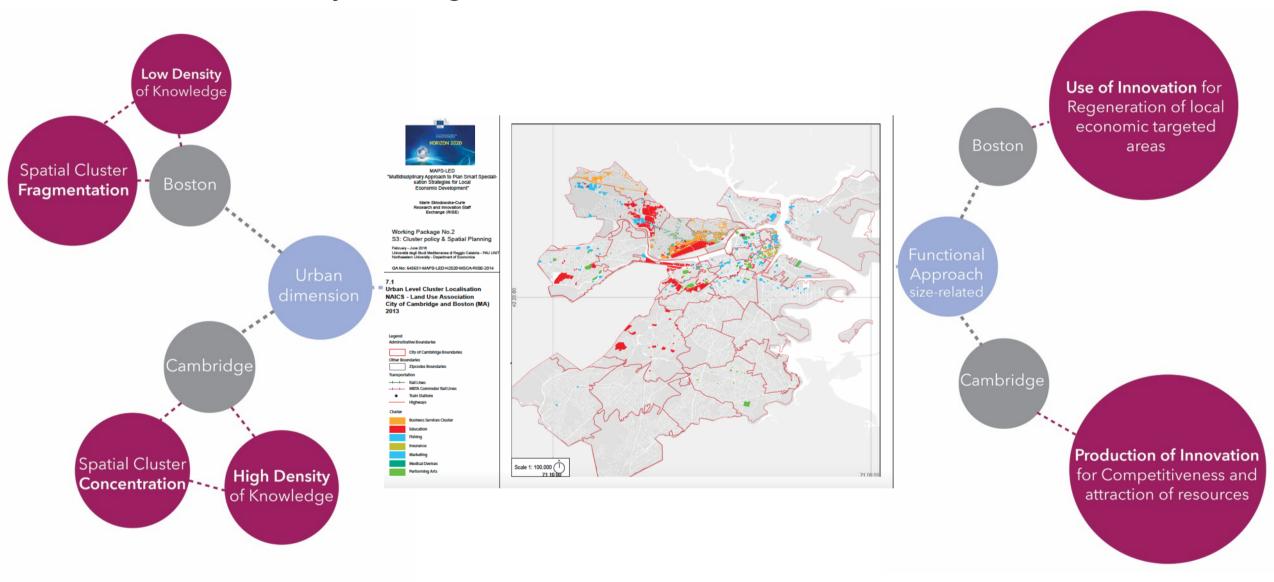




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## Potential Preliminary Findings



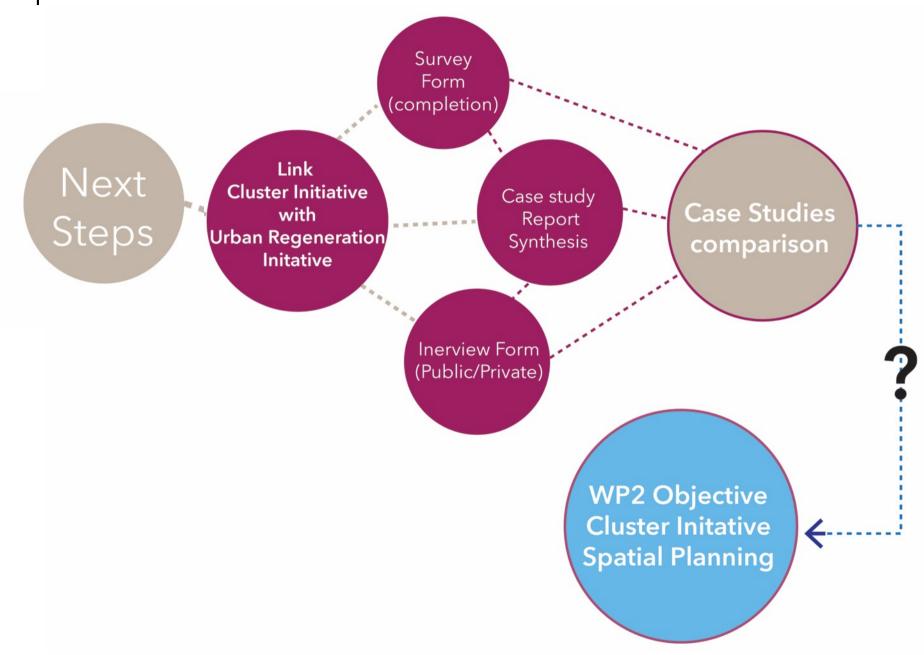




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# Next Steps







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# Thank You!

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