Spatial-oriented approach within EU RIS3 (Research Innovation Smart Specialisation Strategies) regional plans: understanding US Clusters' dynamics for S3 implementation

MAPS-LED First Mid-term Meeting
06/07.06.2016
Northeastern University of Boston (MA), USA
Department of Economics

PAU Unit
Main objectives of the MAPS-LED project
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Outline

Introduction

I. First part: a General overview

- The EU context: S3, RIS3
- S3 and Cluster: from policy to actions

II. Second Part: Research activities and training activities

- Research activities: The methodological approach to cluster analysis, The structure of case studies analysis
- Training activities: classes to NEU
- First findings from spatial-oriented approach to US cluster

III. Third Part: Management plan

- The secondment: planned, actual and deviation

Introduction: The main objective and aim

- **The main objective of the MAPS-LED program is to build and test an evidence- based methodology for recognizing and assessing emerging and potential of S3.**

- **The methodology will be developed by drawing insights from existing successful US Clusters.**

Introduction

- **Following the Smart Specialisation Platform (European Commission), the general track of the project is to implement smart specialization as a key element for place-based regeneration policies for local economic areas.**

Introduction: Methodological approach and framework

First part: a General overview
The EU context: S3, RIS3 - S3 and Cluster: from policy to actions

from a policy-making perspective

INNOVATION Competitiveness

from a descriptive perspective

Smart Specialization Strategies
1. Entrepreneurial discovery, 2. level of granularity; 3. Inclusive nature, 4. progressive strategy, 5. experimental nature
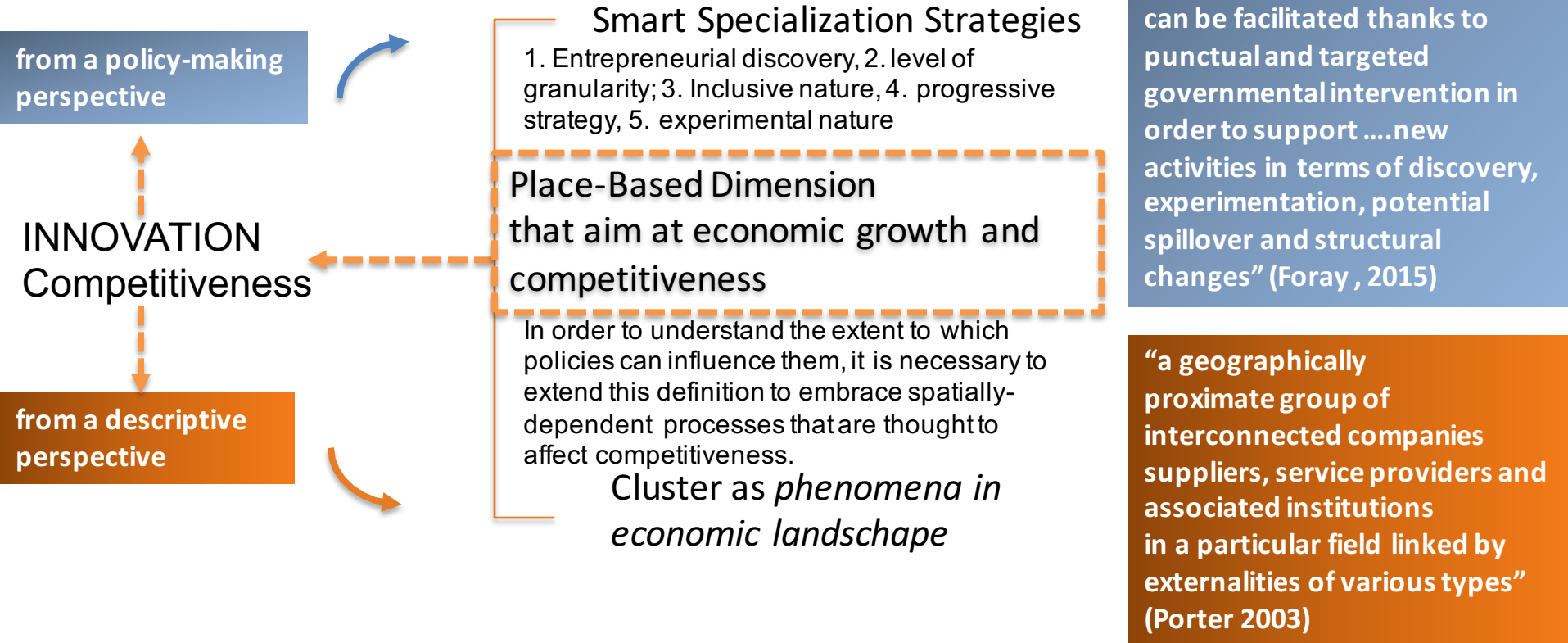
Place-Based Dimension
that aim at economic growth and competitiveness

In order to understand the extent to which policies can influence them, it is necessary to extend this definition to embrace spatially-dependent processes that are thought to affect competitiveness.

Cluster as *phenomena in economic landschape*

"Putting in place a process whereby such a dynamic of new specialty development , related to existing production structure, can be facilitated thanks to punctual and targeted governmental intervention in order to support ....new activities in terms of discovery, experimentation, potential spillover and structural changes" (Foray , 2015)

"a geographically proximate group of interconnected companies suppliers, service providers and associated institutions in a particular field linked by externalities of various types" (Porter 2003)

First part: a General overview

The EU context: S3, RIS3 - S3 and Cluster: from policy to actions

S3

Place-based

Focus on R&D and Innovation

Cross-sectorial connection

Key role of entrepreneurial actors

Critical mass and scale of activity

POLICY

National/regional research and innovation strategies for smart specialisation (RIS3 strategies) are integrated, place-based economic transformation agendas

RIS3

Step 1: Analyse the regional context and potential for innovation;

Step 2: Ensure participation and ownership;

Step 3: Elaborate an overall vision for the future of the region;

Step 4: Identify priorities;

Step 5: Define a coherent policy mix and action plan;

Step 6: Integrate monitoring and evaluation mechanisms.

PLAN

European Structural FUNDS and programmes

Operational Regional Programme: Thematic objective 1: **strengthening research, technological development and innovation.**

- *Horizontal principle* (all thematic objectives)
- *Territorial dimension*
  - ITI Integrated Territorial Investment
  - CCLD Community Led Local Development

- COSME. Europe's programme for small and medium-sized enterprises. Promote the use of Innovative Financial Instrument

First part: a General overview

The EU context: S3, RIS3 - S3 and Cluster: from policy to actions

CLUSTER based analysis

provide a conceptual framework to describe and analyse important aspects of modern economy

potential elements of a regional innovation eco-system

The cluster approach facilitates analysis of innovation needs to improve innovation policy and can serve as a useful framework for co-ordinating policies.

Cluster policies - Policies to support clusters, generally understood to be geographic concentrations of inter-connected firms and related actors (specialized service providers, universities, etc.)

CLUSTER policy

Supporting platforms or cluster initiative organizations.

Supporting collaborative actions.

Upgrading the cluster-specific business environment.

CLUSTER mapping

Local Clusters:
are industries that serve the local market. They are prevalent in every region of the country, regardless of the competitive advantages of a particular location. The majority of a region's employment comes from jobs in local clusters.

Traded Clusters:
are the "engines" of regional economies that serve markets in other regions or nations. They are concentrated in regions that afford specific competitive advantages and they are exposed to competition from other regions.

Performance   Cluster initiative   Cluster Organization

Territorial dimension/Geographical Unit
State-Economic area-Metropolitan Statistical Area-County

Second Part: Research activities and training activities

Research question:
How to implement smart specialization as a key element for place-based regeneration policies for local economic areas.

e studies analysis

The rationale of the MAPS-LED project is to provide critical mass to plan S3 in a wider territorial milieu (urban-rural balance, thereby), by incorporating a spatial dimension into cluster approach

Clusters provide a conceptual framework to describe and analyze important aspects of modern economies

Cluster theories and the interventions to develop them can be regarded as fully compatible with the conceptual

underpinnings of the S3 approach, which is a programmatic framework to guide policy.

Clusters and S3 share many similarities in their rationale.

They are both concerned with fostering regions' competitiveness by leveraging economic potential from a critical mass of key interacting

and specific place-based assets
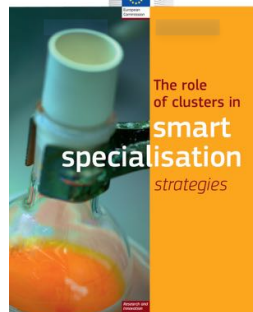
The role of clusters in
smart
specialisation
strategies

Second Part: Research activities and training activities

Research question:
How to implement smart specialization as a key element for place-based regeneration policies for local economic areas.

se studies analysis

TA 2020

Territorial dimension Territorial Agenda 2020

Accessability
Service of General economic interest
Territorial capacities/endowents/assets
City networking
Functional regions

Supporting polycentric development

Partnership and cooperation of urban & rural

Territorial integration in cross-border transnational

Improving territorial connectivity for individuals

Global competitiveness based on strong local economies

Spatial Dimension

Governance/Territorial Asset Knowledge

Place-Based Approach (Barca Report)

Territory can be considered as an important topic for cross-governance dialogue within the place based frame.

Some elements of the place-based approach needs strengthening, mainly: the way territorial knowledge is collected, multi-level governance dialogue and its instruments.

Second Part: Research activities and training activities

Research activities:

WP1 – Preliminary research activities: Literature review, Cluster analysis in two metropolitan statistical areas: Boston and San Diego – (April to September 2015 – 30 months of secondment-PAU unit)
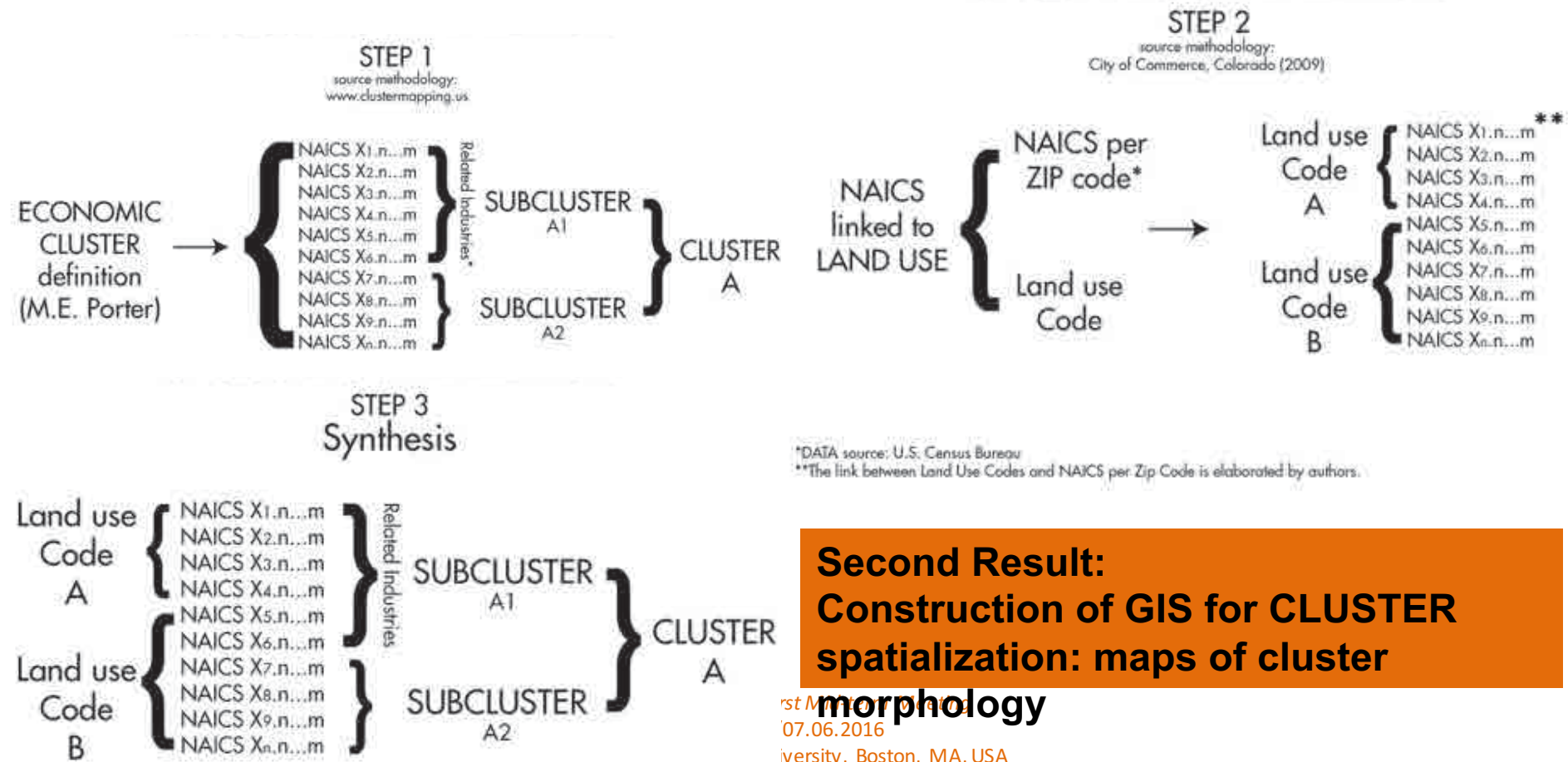

San Diego - Car
Metropolitan Stati

Pacific Ocean

0 3.75 7.5   15   22.5   30
                              Miles

Legend
City of San Diego
San Diego - Carlsbad, CA
Metropolitan Statistical Area

MAPS-LED Project Literature Review - References per Key Sectors

- Smart Specialisation Strategies
- RIS3 – Research and Innovation Smart Specialisation Strategies
- Cluster Economic Development
- Cluster Policy
- Social Innovation
- Place-Based Approach
- Territorial Milieu
- Spatial Planning
- Urban Cluster
- Urban Regeneration and Economic Development
- Metropolitan City
- Urban Network
- Urban Competitiveness
- Governance and Cluster

■ Number of references

Northeastern University, Boston, MA, USA

Second Part: Research activities and training activities

Research activities:
WP1 – Methodology for Clusters' Spatialization

Second Result:
Construction of GIS for CLUSTER spatialization: maps of cluster morphology

07.06.2016
University, Boston, MA, USA
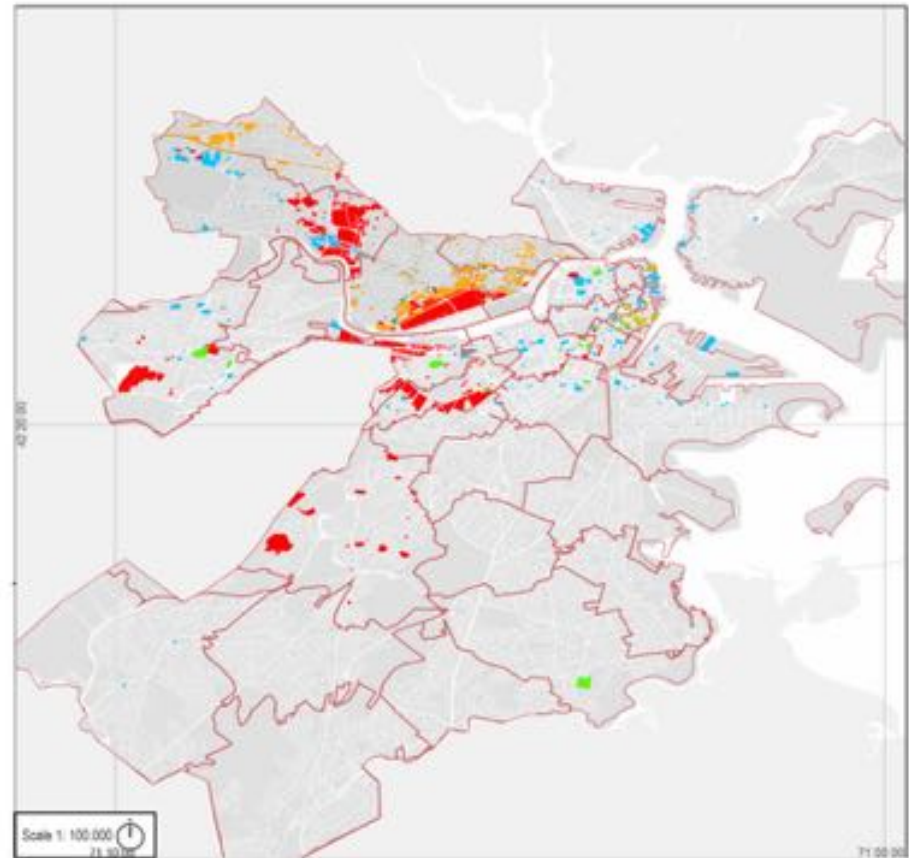
Second Part: Research activities and training activities

Research activities:

WP1 – Construction of GIS for CLUSTER spatialization: maps of cluster morphology
(January to March 2016 – 6 months secondment PAU unit)
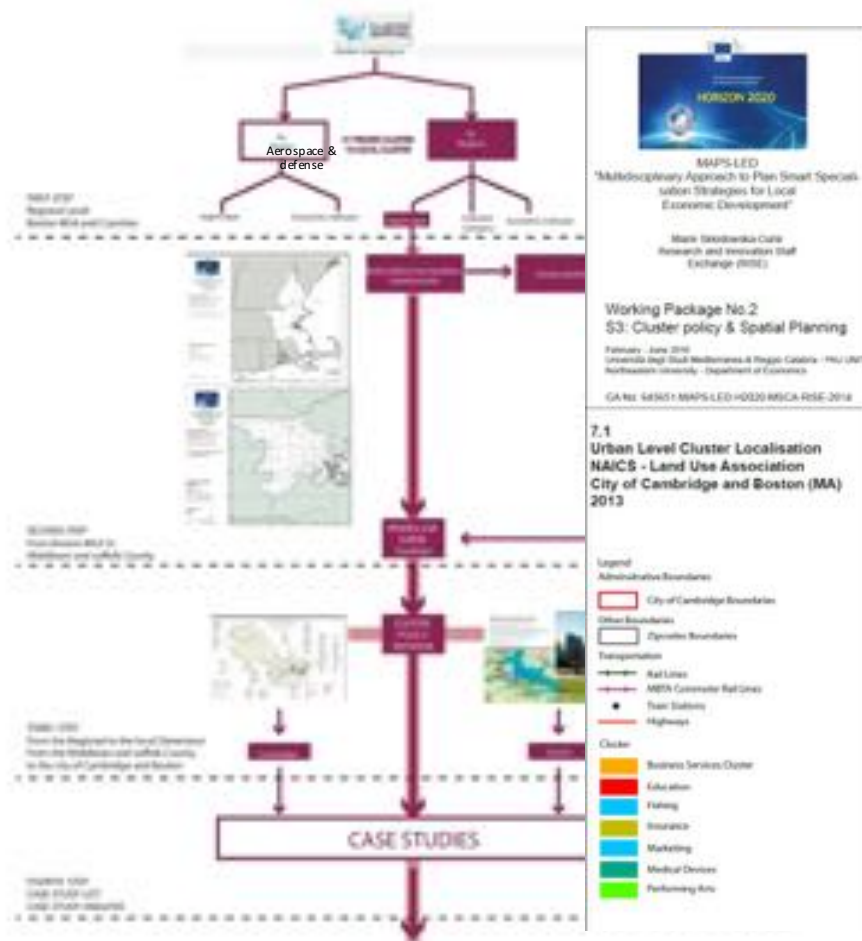
MSA Boston 11 Traded Cluster

Second Part: Research activities and training activities

Research activities:

WP2 – Case studies Analysis (January to June 2016 – 24 months secondment PAU unit 27 months secondment FOCUS unit)

CLUSTER
SPECIALIZ

1. Entrepreneurial discovery
2. Level of granularity
3. Inclusive nature
4. Progressive strategy
5. Experimental nature

SMART STRATEGIES from the production of innovation, to the progressive use of innovation for the creation of smart specialization domains

City of Boston – City of Cambridge Case studies

Cluster identification

Cluster Structure at Urban Level (2008-2011)

Policy initiaves

Socio economic Structure

Spatial planning

Second Part: Research activities and training activities

Training activities:
WP1_WP2 – Training of the Early Stage Researchers through education on clusters, research and innovation (January – May 2016 Spring Semester)

6 ESR – PAU Unit
4 ESR – FOCUS Unit

→ Research activities: Cluster mapping at city level – Cluster based-analysis – Policy initiave – Spatial dimension

→ Training Activities

Applied Micro Policy Analysis

- **Optimization**: fundamentals of exchange, utility maximization, profit maximization, sub-optimal consequences—normative decisions
- **Efficient allocation of resources**: market behavior, market failures, justification for regulation and government , involvement in economic affairs, rulemaking and monitoring compliance with the rules, preventing or abating market failures, implementing socially-driven normative decisions
- **Economic consequences of self-interest and individualism**: consequences of individuals' perception on risk, strategy, income and wealth inequality
- **Art and process of empirical model building**

Regional Economics

- Nature and Scope of Regional and Urban Economics
- Linear Market Areas
- Market Area and Systems of Cities
- Industrial Location
- Agglomeration Economies and Entrepreneurial Preferences Spatial Pricing Decisions
- Short Run Income Models
- Supply-Based Regional Growth Analysis
- Core-Periphery Model
- Regional Labor Markets and Migration
- Can Government Change a Region's Growth Pattern

Second Part: Research activities

**First Findings from spatial-oriented approach to US Cluster**

The underlying rational behind the Smart Specialisation concept is that by concentrating knowledge resources and linking them to a limited number of priority economic activities, countries and regions can become — and remain — competitive in the global economy.

Policy Initiative: the role of innovation HUB

Evaluation Grid

Research and Innovation Strategies in Cluster Policy (WP1)

Cluster policy & spatial planning (WP2)

Cluster Mapping at Urban Level
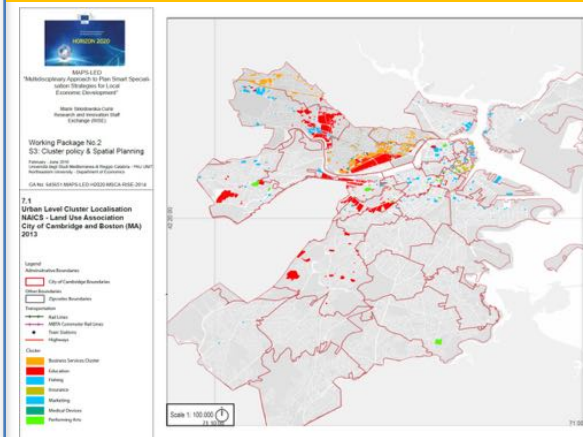
Policy initiatives

Cambridge and Boston (Bottom Up approach) Venture Capital, Innovation community

Context

Public Service Housing/real Estate Urban regeneration intervention Socioeconomic aspects

To Strategy ← From Spatial dimension

Entrepreneurial knowledge as the first step of the Entrepreneurial Discovery Process

«is the critical input in the discovery process. Some elements of this Knowledge is not necessarily located in highTech companies; firms, local universities and public laboratories…public services and community of practices are also possible repositorite of elements of relevant Entrepreneurial knowledge»

Second Part: Research activities

First Findings from spatial-oriented approach to US Cluster

An EU-US Cooperation Arrangement on Clusters was signed on 22 April 2015 between the **U.S. Department of Commerce** and the **European Commission's Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs**, aiming at facilitating transatlantic linkages between EU and US clusters, and to help SMEs find strategic partners. Collaboration between US and EU clusters is already ongoing and well supported through business networks and cooperation facilitators.

The European Commission's Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs invites cluster organisations, other business network organisations, technology centres and science parks interested to team up around specific industrial thematic areas, in the context of industrial modernisation.

Through a dedicated call for the expression of interest, the aim is to mobilise European Strategic Cluster Partnerships for smart specialisation investments (ESCP-S3). This call is linked to the establishment of the Smart Specialisation Platform on Industrial Modernisation and Investment and is envisaged to strengthen industry participation and inter-regional collaboration in the implementation of smart specialisation strategies.

To find out more about the partnering process, its wider context, potential benefits as well as how to express your interest, please see the full text of the call for the expression of interest.

Deadline: The partnering process via the partner search tool of the European Cluster Collaboration Platform will open in May 2016 and remains **open until the end of December 2016**

MAPS-LED 2015 - 2019
Multidisciplinary
Approach to Plan Smart Specialisation Strategies
for Local Economic Development

Second Part: Research activities what next

First Findings from spatial-oriented approach to US Cluster

The underlying rational behind the Smart Specialisation concept is that by concentrating knowledge resources and linking them to a limited number of priority economic activities, countries and regions can become — and remain — competitive in the global economy.
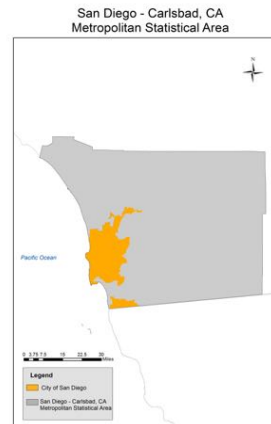
Place-based framework for Cluster and local economy

WP 3 - Social Innovation and Territorial Milieu

Cluster Mapping at Local Level	Mix Policy	Context
Local Cluster vs. Traded Cluster in San Diego	**San Diego (Mixed Approach) Policy iniative Cluster iniative Social Innovation**	**Public Service Housing/real Estate Urban regeneration intervention Socioeconomic aspects**

San Diego - Carlsbad, CA
Metropolitan Statistical Area

Pacific Ocean

Legend
City of San Diego
San Diego - Carlsbad, CA
Metropolitan Statistical Area

To Strategy   From Spatial dimension

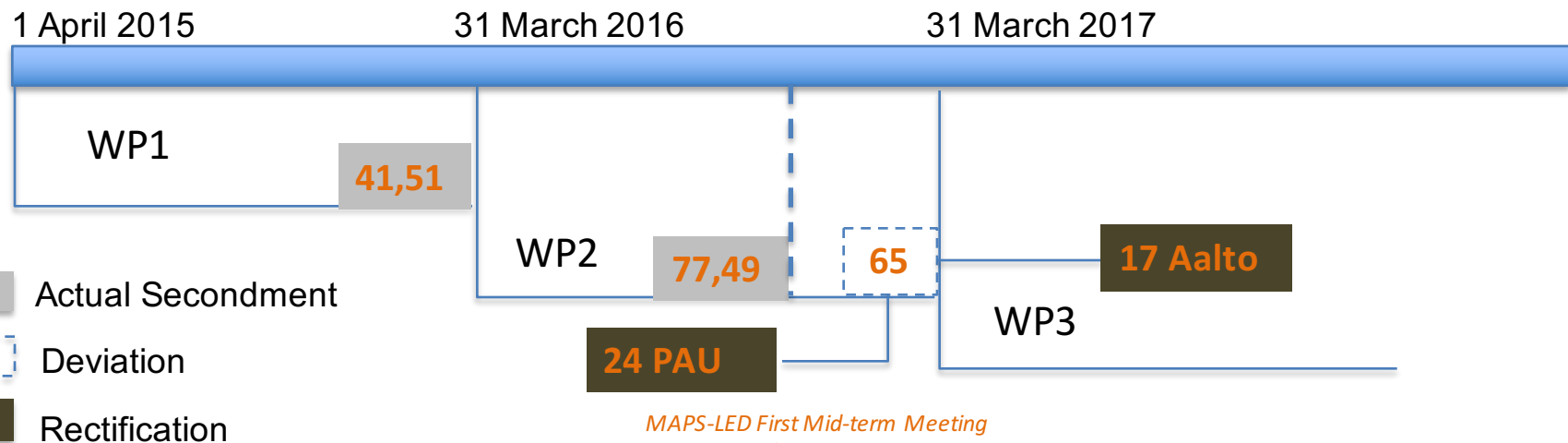2. level of granularity; 3. Inclusive nature, 4. progressive strategy, 5. experimental nature

«..level of granularity ..preference will be given to a mid-grained level of aggregation – the level at which activities group together a certain number of firms and partners that collectively explore and discover a new pathway to transformation»

Third Part: Management Plan

The secondment: planned, actual and deviation

Planned Secondment

Beneficiary WP1	WP2	WP3	WP4	Totale
PAU 32	36	42	18	**128**
FOCUS 8	32	28	4	**72**
AALTO 8	26	26	4	**64**
SOBE 18	24	24	6	**72**
	66	**118**	**120**	**32**

Actual Secondment

Beneficiary	WP1	WP2	Total	Deviation
PAU	29,15	43,59	**72,74**	4,74
FOCUS	11,26	16,67	**27,93**	-12,07
AALTO	0		**0**	
SOBE	1,1	17,23	**18,33**	-23,67
Total	**41,51**	**77,49**	**119**	-65

1 April 2015   31 March 2016   31 March 2017

WP1   **41,51**

WP2   **77,49**   **65**   **17 Aalto**

WP3

- Actual Secondment
- Deviation
- Rectification

24 PAU

Third Part: Management Plan

The secondment: planned, actual and deviation

Planned Secondment

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SOBE	18	24	24	6	**72**
	66	**118**	**120**	**32**	

Aalto secondment

Aalto to NEUSEP	researcher months
ER	9
ESR	1
total	**10**
Aalto to SDSU	
ER	10
ESR	31
total	**41**

1 April 2015　　　　31 March 2016　　　　31 March 2017

WP1

41,51

WP2

77,49　　　**65**　　　**17 Aalto**

24 PAU

WP3

Actual Secondment

Deviation

Rectification

Thank you!