



Marie Skłodowska-Curie RISE
MAPS-LED

Multidisciplinary Approach to Plan Smart Specialisation Strategies
for Local Economic Development



THE URBAN DIMENSION OF INNOVATION POLICY: ROXBURY INNOVATION CENTER

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**2nd International Workshop MAPS LED - University of Salford,
12th - 14th September 2017**

MAPS-LED “Multidisciplinary Approach to Plan Smart Specialisation Strategies for Local Economic Development” is a Marie Skłodowska-Curie RISE research project funded by the European Union’s HORIZON 2020 program for Research and Innovation under the Grant Agreement 645651

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The urban dimension in the innovation policy: *Roxbury Innovation Center*

- The paper intends to explore a new paradigm of urban development process driven by the increasing demand of innovation.
- The aim is to demonstrate how innovation has become part of the urban settlement dynamics towards regeneration processes.
- The Roxbury Innovation Center (Boston, MA): emblematic case of public initiative to support local economic development by empowering innovation and entrepreneurship, and to spur urban regeneration processes in a distressed neighborhood of the city of Boston.

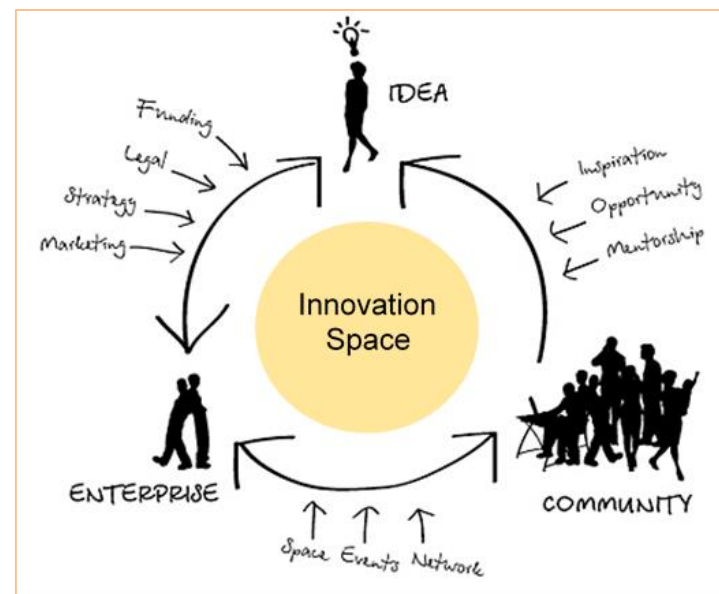


The urban dimension in the innovation policy: *Roxbury Innovation Center*

- The primary challenge for National and Regional Government in the current knowledge economy, both in Europe and in the USA, is to promote policies and actions focused on fostering creativity and **innovation** aiming at repositioning cities in a competitive scenario.
- Innovation is seen as a key factor for socioeconomic progress, generating wealth and skilled jobs, promoting the development of the urban systems, and increasing the level of competitiveness between cities (The World Bank, 2010).
- In order to support innovation dynamics, **public strategies** are promoting:
 - the creation of favorable **ecosystems** (Spinosa, Schlemm and Reis, 2015)
 - the discovery of **knowledge hubs** (del Castillo Hermosa, Elorduy and Eguia, 2015).

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- **Innovation Spaces** are emerging as important instruments to enhance local development and support the creation of innovation ecosystems by encouraging exchanges of knowledge between different actors, assisting entrepreneurs, and promoting cross-fertilization of ideas and cross-sectoral collaborations.
- Innovation Spaces are retaining and attracting entrepreneurs, startups, innovators and investors in cities, generating **new knowledge dynamics** and **spurring urban and economic development**.
- They represent an emerging factor of the **new demand of innovation-oriented physical transformations**.
- Innovation Spaces catalyze and support **knowledge dynamics** to activate the **Entrepreneurial Discovery Process**.



Source: Authors' elaboration from the figure "Nyamata Innovation Hub" (<http://rtn.rw/nyamata-innovation-hub>).



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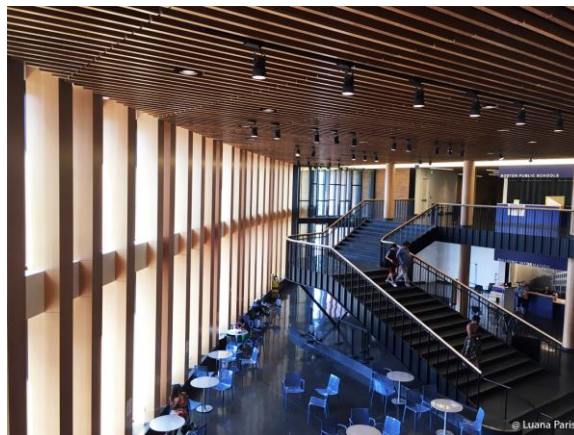
- How, in specific urban areas, innovation spaces stimulate knowledge dynamics in order to favor the *concentration* of innovation and have an *impact* on the *local community*?
- How urban planning tools and innovation-oriented policy initiatives support the creation of Innovation Spaces and enhance the *expansion* of innovation and the activation of *urban regeneration processes* and *spillover effects*?

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Purpose	Background	Motivation	Methodology	Innovation-oriented policy initiatives	Case Study	Conclusions
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Case Study Methodology: Roxbury Innovation Center, Boston (MA, USA).



Source of data: semi-structured interviews, secondary data, exploratory visits and direct observation.

- *Semi-structured interviews* – June 2016: Executive Director of the Venture Café Foundation; Deputy Superintendent of the Boston Police Department.
- *Secondary data*: Roxbury Innovation Center website; Boston Redevelopment Authority website; U.S. Census Bureau; Cityofboston.gov; Zillow.com.

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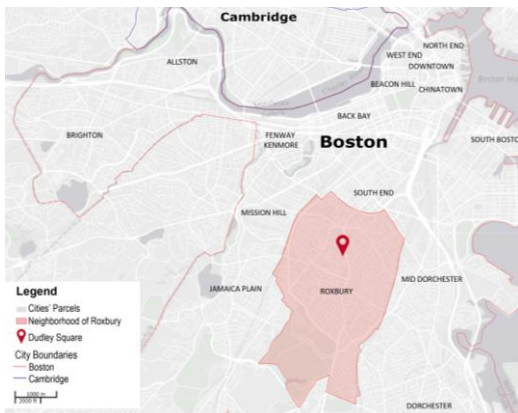
The City of Boston is actively enhancing the socioeconomic development by exploiting the potential of innovation. As a matter of fact, over the past years, different **innovation initiatives** have been implemented to generate urban transformation processes able to trigger the territorial growth. Together with the **urban planning tools**, they have acted in a complementary way for supporting the knowledge dynamics and the regeneration of the local economy.

Geographical level	Innovation-oriented policy initiative	Main objective	Start Year
City of Boston	LifeTech Boston	Foster the growth of Boston's life sciences and high technology sectors, support existing LifeTech companies and attract national and international businesses to join the main cluster areas in the City.	2004
	Boston Innovation District	Transform the South Boston waterfront area in an urban environment that fosters innovation, collaboration, and entrepreneurship.	2010
	Neighborhood Innovation District	Support neighborhood residents, existing business and startups in the creation of innovations by providing information, training, connections and physical locations for innovators and entrepreneurs.	2014

Innovation-oriented policy initiatives in Boston. Source: Authors' elaboration, data from City of Boston (2013, 2015) and Boston Redevelopment Authority (2013).

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Dudley Square area. Source: Authors' elaboration.

Planning Initiative	Planning Type	Description	Start Year
Dudley Square Transportation & Air Quality Study	Transportation Planning	The Dudley Square Transportation & Air Quality Study provides a set of recommendations upon transportation network, environment and quality of life in Dudley Square outlining development options supported by the community.	2001
Dudley Square Vision	Economic Development	The planning initiative includes: real estate development; creation of a comprehensive Retail Strategy to enhance the commercial district; traffic improvements.	2007
Dudley Square Municipal Office Facility	Economic Development	Redevelopment of an historic municipal facility located in the hearth of Dudley Square. It will be the new Boston Public Schools headquarters, and will include retail and office spaces.	2012
Plan: Dudley Square	Community Planning	The planning initiative will revisit the recommendations presented in the 'Dudley Square Vision' to align them with current community goals.	2016

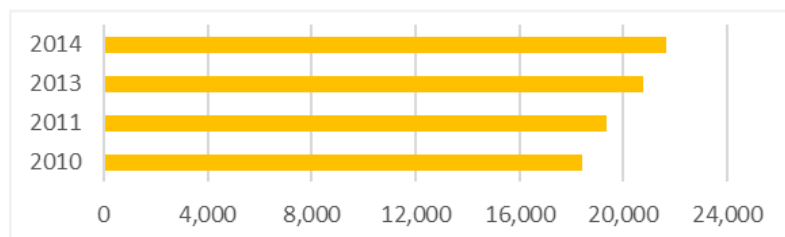
Source: Authors' elaboration, data from the Boston Redevelopment Authority.

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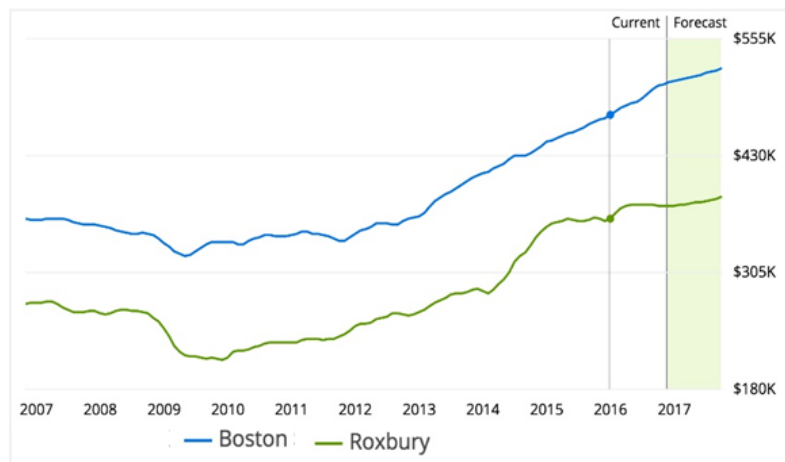
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In relation to the urban planning initiatives activated in the area, a gradual change in the **explanatory variables of regenerative effects** is observed: increases in the number of inhabitants, housing values and the number of adults with college degree.



*Population Change. Source: Authors' elaboration.
Data from U.S. Census Bureau, 2016.*



Changes in the housing values. Source: Zillow, 2016.

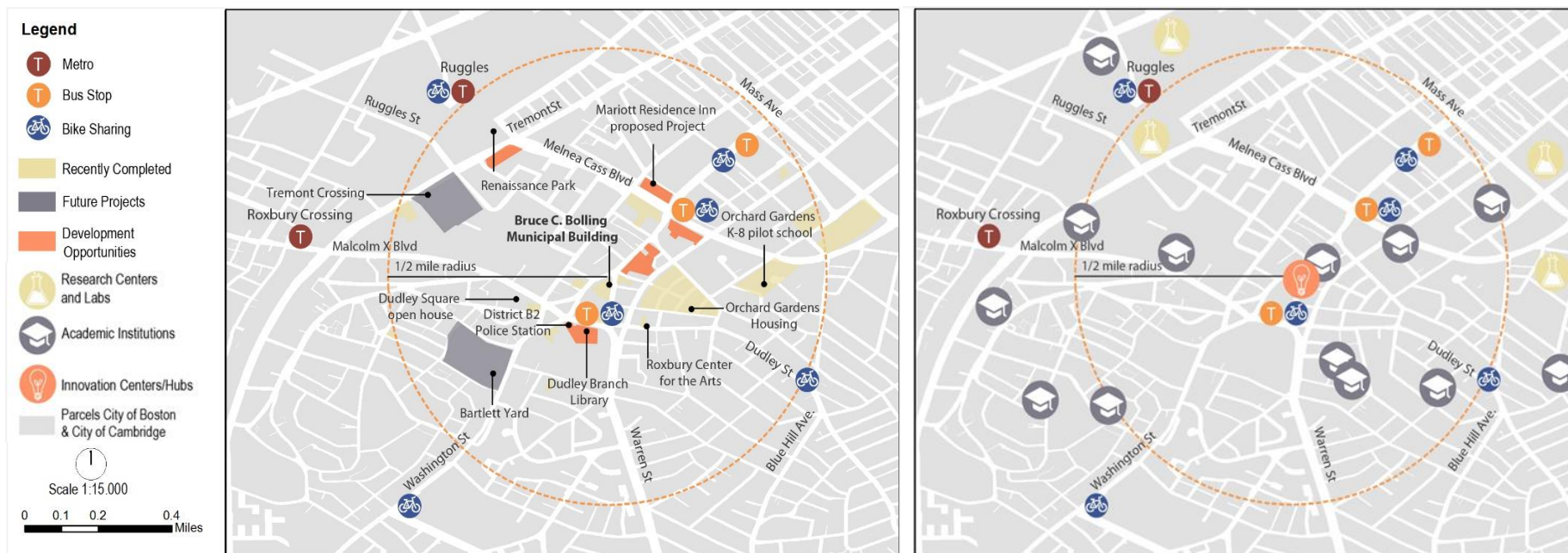


Level of educational attainment. Source: Authors' elaboration. Data from U.S. Census Bureau, 2016.

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- The engine of the **Neighborhood Innovation District** initiative has been the creation of the Roxbury Innovation Center (RIC), a civic innovation space which provides business services, working spaces, networking opportunities and educational programs to the local community. Located in the hearth of Dudley Square, it will represent a catalyst for the economic development and will lift the entire community.
- The building is near several **innovation centers** and **education facilities** and close to two subway stations and the Dudley Square transportation hub. This **proximity** helps to enhance the connection between entrepreneurs, students, graduates and academia, and encourages the access to the Innovation Center.



Development Projects and Transportation system of the area. Source: Authors' elaboration. Map of the Built Environment. Source: Authors' elaboration.

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The above mentioned development projects are implemented through specific regulatory actions that are hierarchically organized as follows:

- **Metropolitan Area Planning**, which promotes Smart Growth and Regional Collaboration.
- **City Comprehensive Plan**, that implements “ordinances, such as Zoning or subdivision” within the urban contexts.
- **Downtown districts, Neighborhood Districts (EDA...), Harborpark District and Special Purpose Overlay Zoning Districts (PDAs...)**, among others.

Within the **Roxbury Neighborhood District**, the Article 50 of the Boston Zoning Code has established a specific **Economic Development Area** (EDA) in Dudley Square, to encourage economic development and commercial activities, with a specific focus on the interests of the community.

A particular attention is given to the promotion of innovation, by requiring to dedicate the **30% of the gross floor area** of any new development plan proposed to **Research and Development uses**. In this way, the amount of space dedicated to innovation acquires a sort of "service" implication, becoming a requirement of the zoning.



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- The case study of the Roxbury Innovation Center is an example of how innovation policies support urban innovation-led initiative to create a dense community of innovators and contribute to build an **innovation ecosystem**.
- More in particular, the case study is paradigmatic in the way in which innovation turns on urban regeneration planning initiative to transform a backward urban area into a vibrant neighborhood, thanks to the process of “**expansion of innovation**”.
- The Boston Planning Authority contributed to the implementation of this innovation space in Roxbury by providing new public services and including specific requirements within the zoning code of the area to support local innovation, that, in turn, spurs **urban regeneration processes** across the city.
- The urban policies that support these initiatives can be considered the input of the Knowledge concentration processes, which, in turn, trigger the **Entrepreneurial Discovery Process** (EDP), important for the implementation of the innovation ecosystem and the coordination of the efforts of different actors. These measures can support the enhancement of the **Smart Specialization Strategy** (S3) for designing the changes of the Cohesion Policy 2014-2020, which aim is to reduce the disparities among the European regions.



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THANK YOU FOR YOUR ATTENTION!

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