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GREEN ECONOMY AS A DRIVER FOR URBAN REGENERATION: INSIGHTS FROM GREENTOWN LABS, USA

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ABSTRACT

The objective of this study is to investigate the linkages between economic development, innovation and environmental sustainability inside urban areas.

To achieve this goal, this paper adopts a case study strategy, by drawing inspiration from an incubator located in the Boston metropolitan area (USA), named Greentown Labs.

The case study is discussed by analysing the different stages the Greentown Labs went through, relocating from Cambridge to Boston and then from Boston to Somerville.

The present contribution will give some recommendations considering the creation of incubators as facilitator of growth of innovative start-ups that can be essential for spurring innovation and economic development within urban centres.

BACKGROUND

- Innovation is a procedure that brings to a result: this result is, by definition, new in the sense that it is a thing or a way of making something that before was not there (Godin, B., 2008).
- Innovation is a proxy of the generation of new knowledge and it happens by means of several causes: project and engineering activities, specialization courses organized by the production divisions, interactions with customers and contractors, re-utilization of existing knowledge coming from outside the firm (Katz, J., 2004).
- Innovation must be distinguished from invention. Many theorists have defended this argument over the course of the years.
- Innovation is essential to all economic activity: it is an invention, activity, market, source of supply or business group that is not only created, but put in action, utilized or promoted by a firm (OECD, 2005).
- The incubator of Greentown Labs, in Somerville, MA (USA) has an important role for the innovation, being an incubator for start-ups with the mission of enabling a vibrant community of entrepreneurs to work on their visions and to provide access to the space, funding, a prototyping lab and co-located office space and other facilities to enable start-ups to rapidly grow their networks and their companies.

MOTIVATION

To understand the dynamics related to an innovation center linked to the green economy.

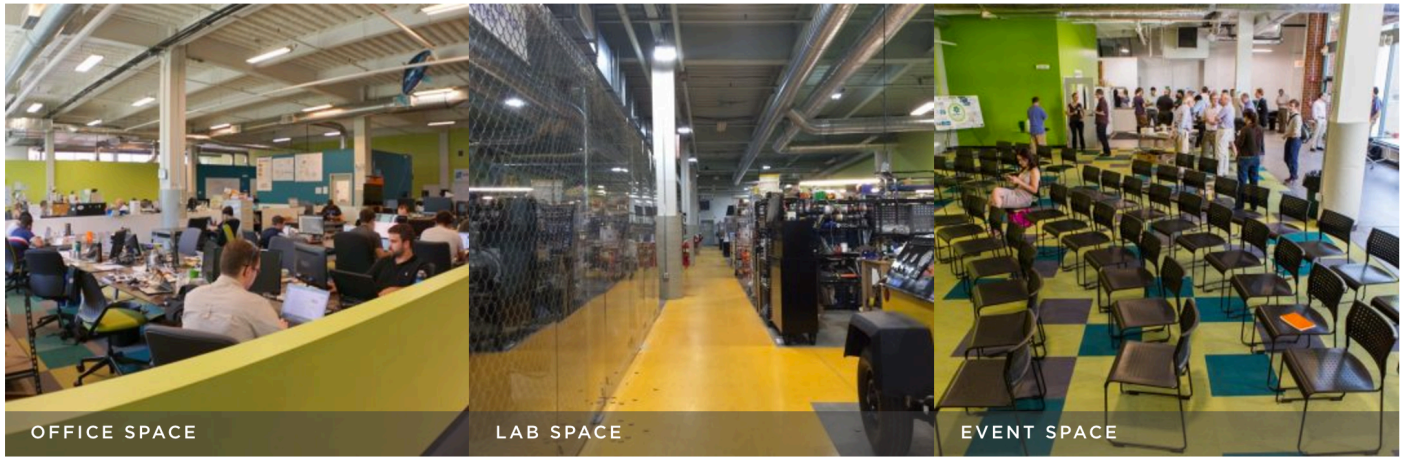
METHODOLOGY

- Case Study Methodology: a case study in the metropolitan area of Boston, MA, that relocated in the course of the years in three cities: Cambridge, Boston, and Somerville.
- Three sources of data: secondary data, semi-structured interviews, and direct observation.
- Secondary data : innovation centers' websites; the municipal organizations' websites, namely Boston Redevelopment Authority; the government websites of the City of Boston, Somerville, and Cambridge; articles in news websites, newspapers, and magazines; the Bureau of Labour and Statistics, for the data about Entrepreneurship and the U.S. Economy; Census sources such as U.S. Census Bureau, Eurostat; Real Estate market sources, like Loopnet and Zillow; other specialized sources for enterprises data such as the Kauffman index.
- Semi-structured interviews: have been interviewed officials of the city of Somerville, people from the Boston Redevelopment Agency, and Greentown Labs operators.
- Direct observation to touch with bare hands the situation of the innovation centers.

CASE STUDY

GREENTOWNLABS

THE LARGEST CLEAN TECHNOLOGY INCUBATOR IN THE UNITED STATES



- Opened in 2011
- 40,000-square-feet (3,700 sq. meters) of Prototyping Lab and co-located Office Space, a Shared Machine Shop
- 110+ Companies incubated, 80%+ still operating today
- $200 M Funding Raised
- Activities: co-working spaces, immersion in a growing community of energy and clean technology entrepreneurs, onsite events, and programs designed to enable start-ups to rapidly grow their networks and their companies

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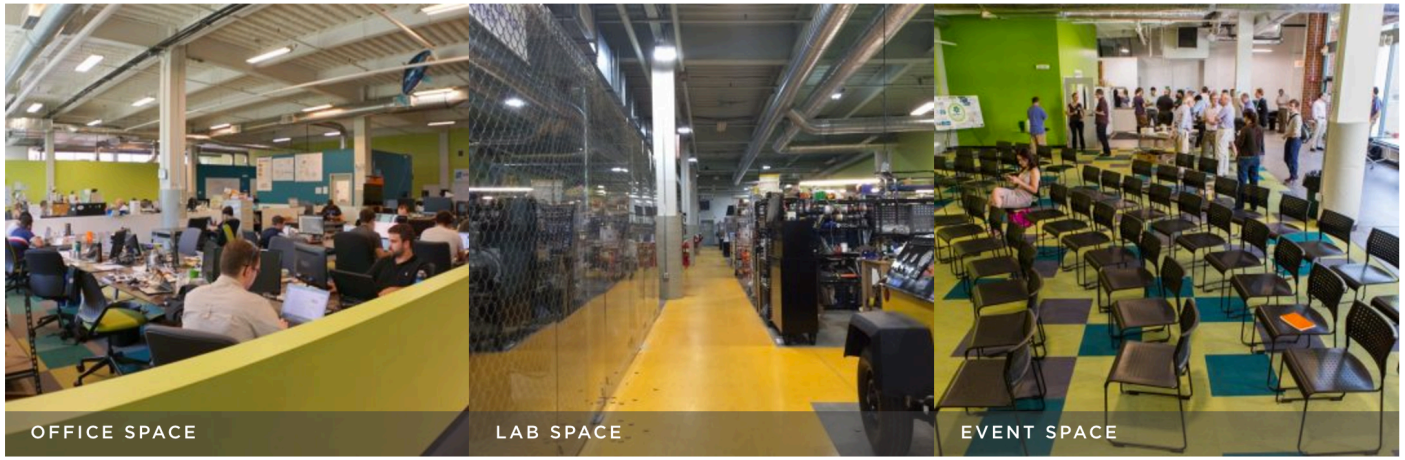


GL is the outcome of the cooperation among different actors such as innovation spaces, governmental agencies, non-profits, and private investors that bring more people to participate to the innovation process, inside a growing sector like the green tech.
The case study has revealed also that innovation centres, incubators, and co-working spaces can increase the innovation level and the employment within urban areas, if there are some favourable conditions promoted by the implementation of the right actions in the right time in the right locations.

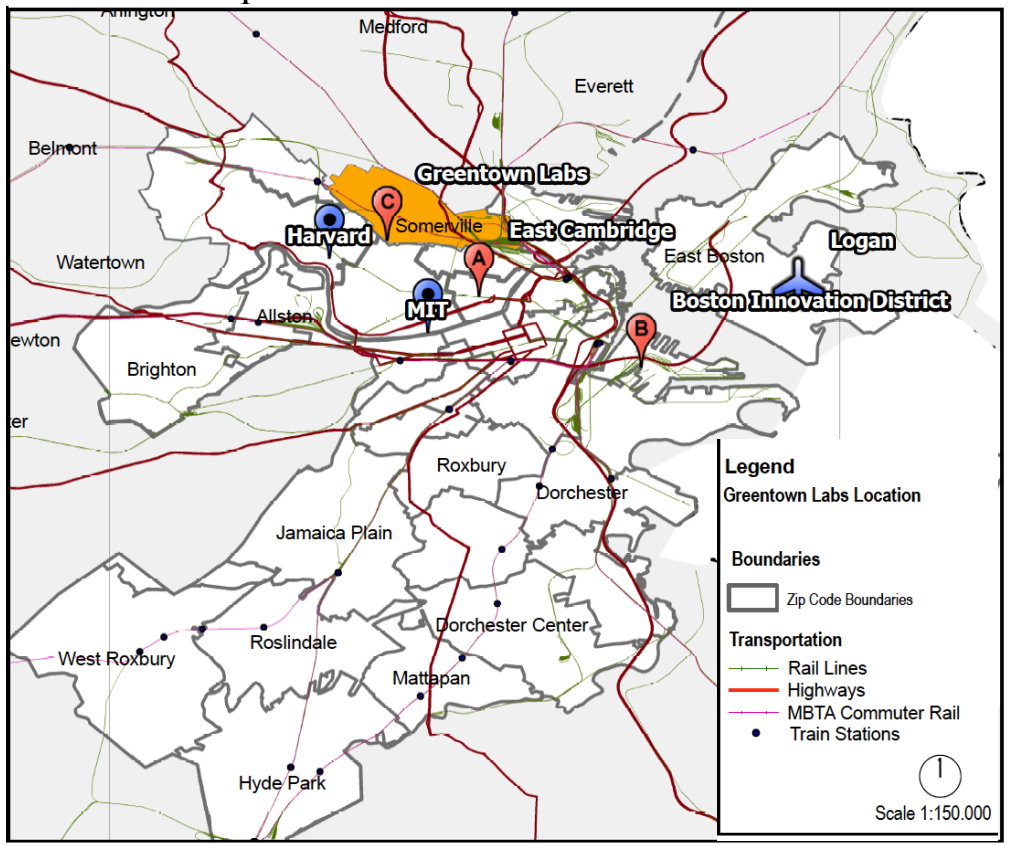
RESULTS:

THE RELOCATIONS OF GL

GL started as a start-up in the Kendall Square Area in 2011. Then, it grew until it needed more space for developing. To fulfil its needs of more space, it moved into the Boston Seaport district, where it remained for ≈6 months and finally relocated again into Somerville, in a vibrant and large area, seat of already existing up and coming firms. In Boston, the Mayor's office used multidimensional and creative partnerships in order to spur the creation of its innovation centre.

3 factors for the relocation of Green Town labs from South Boston to Somerville:

- REAL ESTATE FACTORS - the price of the land
- INNOVATION - investment into innovation done by the city of Somerville through "SomerVision", the local plan utilized by the city for the economic development of the area in the long run.
- LIVEABILITY - the intention of the city was to move the labs closer to the places where the young professional lived, the creative class that worked into the incubator lived in Somerville. By relocating GL into the community, the city wanted to create a vibrant community, much more liveable for the workers, that had the possibility to commute to work in shorter time, by walking or bicycling.

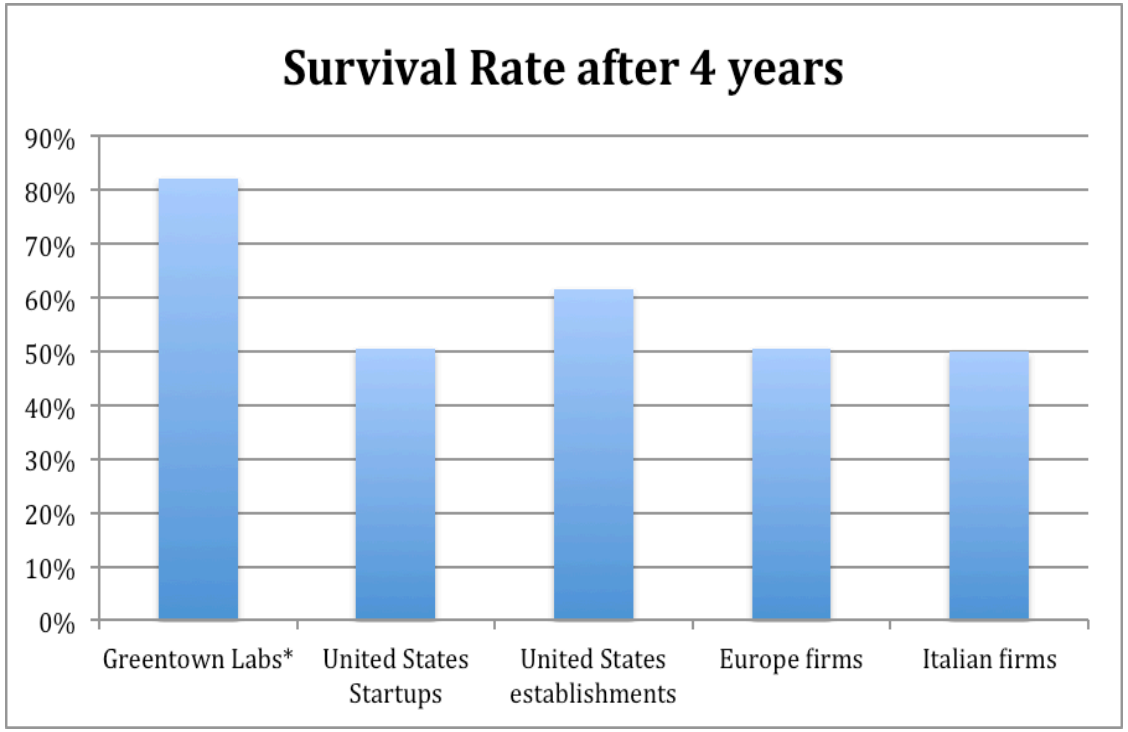


RESULTS:

SURVIVAL RATE OF FIRMS INSIDE GL

The benchmarking process across the context indicators of the two cases consists of comparing indicators and it can be used as a tool to understand if GL can be considered as a positive case study.

In the period 2011-2016 the 82% of the companies incubated in GL after 5 years was still operating. This survival rate of the companies is impressive if compared with the U.S. average rate of start-ups still operating after 4 years among all the industries, which is 50,5%, and with the average survival rates of establishments in the U.S., which was 61,6% in the period 2010-2014. In Europe the average survival rate of firms after 4 years in the period 2010-2014 was 50,6%, while in Italy the survival rate for companies after 4 years in 2014 was 50% in the same period.



Survival rate of start-ups incubated into Greentown Labs vs. survival rate of U.S. start-ups, U.S. establishments, European firms and Italian firms (Bureau of Labour Statistics, 2017; Eurostat; Istat; Statisticbrain.com)
*For Greentown Labs the survival rate is calculated after 5 years

CONCLUSIONS

- The case study of GL has shown how the cooperation among different actors such as innovation spaces, governmental agencies, non-profits, and private investors can bring more people to participate to the innovation process, inside a growing sector like the green tech.
- The case study has revealed also that innovation centres, incubators, and co-working spaces can increase the innovation level and the employment within urban areas, if there are some favourable conditions promoted by the implementation of the right actions in the right time in the right locations.
- The presence of an incubator in a growing sector like the green tech can work as an attractor for investments, both at the local level and at the national level. The success of this initiative has been favoured also by the presence of significant anchor institutions such as important universities like the MIT and Harvard. These two universities, with the other universities present in the Boston area, played a key role not only because of the high supply of skilled and educated workforce which they furnish, but also because of their essential role in the local community and their strategic ability to influence to the local economy and the consistent relationship with the local government and the philanthropic sector. GL also mirrors the high level of entrepreneurship in the Boston area, advantaged by all the aforementioned factors.

FUTURE WORK

Future work should investigate if a similar innovation centre could work in lagging behind regions, testing if the presence of incubators or accelerators could take advantage of the high number of educated people, working as a brake to the persistent phenomenon of out-migration, which is suffocating some lagging regions like the European peripheral regions.

THANK YOU FOR YOUR ATTENTION!

If you have any question about the paper, or for any inquiry, please do not hesitate to contact me:

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