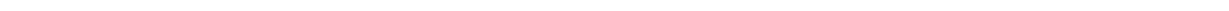


Local innovation ecosystems

Lessons learned from local governments

September 2017



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1. Executive summary

This paper presents the results of the EUROCITIES survey on our member cities' local innovation ecosystems¹. We aimed to identify cities needs and challenges in developing and growing their ecosystems as well as policy recommendations to EU policy makers concerning future policy developments and funding programmes related to innovation.

For local innovation ecosystems to grow, EU institutions need to:

1. provide an EU funding programme for cities to support the development and growth of the local innovation ecosystem and its players
2. create entrepreneurial and digital skills training development programmes
3. provide measures to facilitate public procurement, in particular public procurement of innovation, such as guidance and training
4. provide measures to support SMEs access to finance and internationalisation, supporting easy access to pre-seed funding for start-ups and helping companies in commercialisation, market entry and internationalisation activities

Cities are the ideal environment for innovation to develop and grow. With their rising number of people, talent, companies and infrastructures, city authorities can facilitate many of the scientific and technical activities and processes, from research to development, necessary to create, develop and sustain innovation.

EUROCITIES offers a platform for its members to exchange knowledge and expertise. Over the past year, members of the economic development forum exchanged their good practices and discussed their challenges, needs and possible solutions for developing their innovation ecosystems. Members recognised the need to collect their experiences to raise awareness about their activities and results, and also to highlight their challenges and needs in making innovation flourish in Europe.

2. Key findings

a. Innovation strategies and visions

Innovation strategy, whether it is a distinct policy or an integral part of the city strategy, is mainly aimed at developing new skills and empowering people to innovate, creating new jobs and achieving a sustainable and inclusive growth. Building collaborative partnerships, a culture of co-creation and co-design of the city, increasing city attractiveness, and enlarging its ecosystem at international level are also key elements of innovation policy.

b. Partnerships and collaboration are key to success

Innovation is driven by collaboration and interaction of the different local and regional players. Cooperation between academia, industries, local governments and increasingly civil society (user-driven innovation) brings new ideas and solutions. In this process, city

¹ The idea of innovation systems originates from Freeman (1987) and Lundvall (1992), among others. Initially a country-level concept, scholars quickly noticed the potential for innovation systems at the local and regional level. A regional innovation system can generally be defined as "the localised network of actors and institutions in the public and private sectors whose activities and interactions generate, import, modify and diffuse new technologies within and outside the region" (Iammarino, 2005, p. 499).

authorities play a central role. While having different roles and responsibilities in different parts of Europe, local authorities are always part of the ecosystem connecting the different players and facilitating cooperation. In many cases, local governments offer opportunities to test solutions and serve as promoters of the ecosystem to attract new investment.

c. City to city cooperation and international collaboration

Boosting innovation, collaboration and partnership among local and regional partners is as important as cooperation and exchange among cities at EU and international level. The participation and involvement of cities in EU networks and initiatives such as EUROCITIES, favours the exchange of knowledge and experiences, the creation of new relationships and project partnership opportunities. According to our survey, EU companies and start-ups are mainly involved in strategic partnerships and agreements with China, Japan and USA at international level.

d. The right mix of human and financial resources

In addition to dedicated and enthusiastic teams of innovation, investment, communication, and research and development experts, the resources needed at local level to manage the ecosystems concern mainly investment in infrastructure such as universities, development agencies, technology parks and research centres. Mentoring schemes and programmes for start-ups, co-working spaces and fab labs together with targeted events and initiatives that stimulate and support networking, are also key tools. Finally, EU funds and private investments to set up incubators and accelerators, for example, are also crucial to ecosystems.

e. Unique dynamics, common challenges

Each local innovation ecosystem has its own dynamic, which is largely dependent on the culture climate. An area that works well in one city may need improvement in another.

3. Challenges and bottlenecks to local innovation systems

a. Fostering entrepreneurial culture and capabilities

Creating an entrepreneurial culture and skills development are crucial to supporting and fostering innovation. This requires a radical change in the perception of entrepreneurial activities and their impact on social and economic development including the need to foster a positive approach towards entrepreneurial skills and acceptance of failure.

b. Developing a clear long term and inclusive innovation strategy

Innovation strategy development is not an easy task for local authorities. It must include specific objectives and indicators, and the definition of key priority areas for innovation. The strategy should be transversal to different policy areas and coordinate the different public policies and local initiatives. It should be inclusive, consider strategic private and public needs, and guarantee the necessary connections among the different players.

c. Ensuring future proofing for innovation in emerging sectors

Telemedicine, machine to machine communications, e-textile or drone industries are just few of the emerging businesses in our economy. Ensuring future proof regulations may require new approaches and methods.

d. Bureaucratic process

Fostering innovation while dealing with bureaucratic processes and administrative fragmentations as well as legal and regulatory constraints is a challenge for local systems. In addition to legislative challenges, the EU and member states public procurement rules are often barriers for local innovation ecosystems.

e. Guaranteeing coordination among players

Developing structured forms of collaboration and coordination between city authorities and the other ecosystem players involve an incredible amount of resources including time, people and specific skills and capabilities.

f. Lack of pre-seed funding

City authorities are experiencing challenges when it comes to financing emerging technologies in the stage between initial research and the creation of an innovative activity.

g. Lack of funding to ensure investment in skills development and infrastructure

Skills development and training (including international mobility of students) together with infrastructure development (e.g. universities, technology parks, research centres), require a considerable amount of continued investment.

h. Technology commercialisation and market entry

Commercialisation and market entry are not a straightforward process. Barriers include: marketing, financial resources, the business environment, and the planning and management of commercialisation process, especially concerning the commercialisation of new technologies. The absence of an established market can be a strong indicator of a lack of demand for a product and it often requires considerable financial resources to attract potential buyers.

i. Guarantee funding and programmes for internationalisation of start-ups and attracting new talents

Internationalisation and new talent attraction are key activities and practices for the ecosystem to grow and scale-up. Those activities are only possible with adequate dedicated funding.

j. Scaling up of projects, services and initiatives

The scaling-up process of innovative pilot or smaller projects as well as services and initiatives is still limited. Apart from the engagement of some cities in projects that have scaling-up activities among their objectives, this practice is still at an early stage and difficult to implement.

4. Main policy recommendations to EU institutions

1. Developing a funding programme for cities to support the development and growth of the local innovation ecosystem and its players

We propose a specific funding stream dedicated to cities on local innovation ecosystems in the next EU research and innovation programme. The objective would be to stimulate cooperation between cities so they can improve their innovation strategies and boost innovation in the EU. Collaboration can be encouraged through peer-learning and mentoring programmes from more advanced to less advanced cities. The focus of the funds should be on supporting cities to:

- define a clear long-term investment plan (for instance in infrastructure and technology) to retain and attract new innovators
- establish a comprehensive urban strategy with clear actions to make the ecosystem more attractive to foreign investments
- foster interaction and connections between different actors, to support cooperation between cities and stakeholders such as regions, universities, research centres, start-ups, large companies, and civil society organisations
- foster open innovation methodology to engage with and stimulate creative communities (of citizens, entrepreneurs, research and technology organisations, higher education institutions)

2. Skills and training development

Supporting an entrepreneurial culture and skills training (hard and soft skills) is central to innovation system development. We recommend the creation of a specific EU entrepreneurship education programme for high school and university students, which would include the development of critical thinking, risk taking, experimentation, creativity, and teamwork skills. It is important to diversify and expand the resources available for industries to invest in skills development and training while facilitating (academic) exchanges for young entrepreneurs (for example, continuing the Erasmus programme for young entrepreneurs).

3. Facilitating public procurement

We welcome the monitoring of the full transposition into national legislation of the articles on public procurement of innovation (PPI) included in the public procurement directives, and of the implementation of the innovation partnerships and joint cross-border procurement processes. City authorities need further guidance and training on PPI from the European Commission. We propose setting up innovation brokerage activities/events at EU level for local public buyers and innovative companies.

4. Promoting business and internationalisation

We would welcome the implementation of measures in cooperation with local authorities to support easy access to pre-seed funding for start-ups and to help companies with commercialisation, market entry and internationalisation activities., The creation of a European one-stop-shop for assisting with procedures and information would help regarding the internationalisation of start-ups.

5. Methodology

This research was developed as part of the activities of WG innovation, led by the city of Helsinki and Netwerkstad Twente. 18 cities contributed to the work providing facts and opinions².

This report includes key findings on cities innovation strategies and visions, their governance models and players involved as well as on resources used to manage and develop the ecosystems. Through the analysis of the responses, 10 challenges and bottlenecks to local innovation ecosystems were identified. The challenges range from the more governance related aspects to the technical and funding elements. All these aspects, which are equally important, differ significantly and illustrate the complexity in finding possible solutions. Finally, we proposed a list of policy recommendations to EU policy makers, concerning future policy developments and funding programmes related to innovation.

² The survey was conducted from September to December 2016. It includes responses from 18 EUROCITIES members (Antwerp, Brussels, Dortmund, Espoo, Grenoble, Gothenburg, Groningen, Helsinki, Lille Metropole, Lisbon, Manchester, Nacka, Netwerkstad Twente, Newcastle, Oulu, Turin, Vienna and Warsaw).