

## Chapter 53

# Entrepreneurial Ecosystems: Lisbon as a Smart Start-Up City

**Luísa Cagica Carvalho**

*Universidade Aberta, Portugal & CEFAGE -Universidade de Évora, Portugal*

### ABSTRACT

*Regional development is founded on creative and dynamic territories, where several partners collaborate to create ideal conditions to improve life living, business, job creation and regional competitiveness. Smart cities use networks to promote economic and political efficiency and to allow social, cultural and urban development. These regions present high standards respecting some indicators associated with, innovation, creativity, environment, life quality, entrepreneurial activities and support facilities. Entrepreneurial ecosystems are an important dimension for a region or city to become smart. These entrepreneurial ecosystems emerge as a compromise to foster entrepreneurship and economic development in a regional context. This chapter has two folds. Firstly, it aims to the discussion of core concepts, such as, smart city and how to define an entrepreneurial ecosystem. It also aims to its features, to understand if an entrepreneurial ecosystem is born or made and it pretends to show an example of a smart start-up city, which is the case of Lisbon.*

### INTRODUCTION

Nowadays, cities are urban spaces that face challenges and opportunities. According to UNEP (2011) cities include 50% of the world's population. They contribute to 60-80% of the energy consumed, to 75% of the carbon emitted and to originate inequalities and social exclusion. ONU (2012) forecasts a population growth from 7 to 9 billions in 2040, specially in developing countries. Nevertheless, cities are suitable regional spaces to promote innovation, knowledge and creativity. The biggest cities in the world will manage 60% of the world's GDP in 2025 (Mckinsey, 2011). So, it's imperative to develop and adapt the urban models attending to the demographic, economic, social and environmental constraints.

This chapter is divided in two main parts. The first part introduces a literature review about the core concepts discussed in this chapter, such as: smart city, entrepreneurial ecosystem, living labs and smart city as a digital space. The second part brings up the case of Lisbon as a smart start-up city. And, to finish, the concluding remarks are presented.

DOI: 10.4018/978-1-5225-5646-6.ch053

## **SMART CITIES: LOOKING FOR A DEFINITION**

There isn't any universal definition accepted for "smart city" and some authors registered a 'lack of definitorial precision' (Hollands, 2008). It is also relevant to note that cities use this discrepancy and try self-defining themselves as a smart city (Hollands, 2008; Caragliu et al., 2011; Tranos and Gertner, 2012). Early research about smart cities proposes that they are "an urban center for the future, made safe, environmentally friendly, green and efficient because of its structure – whether for power, water, transportation, etc. they are designed, built and maintained making use of advanced and integrated materials, sensors, electronics, and networks which are interfaced with computerized systems" (Hall, 2000, p. 1). Some years later Komninos (2006) associated the definition of smart city with knowledge and learning, highlighting their potential to knowledge creation using digital infrastructures. Smart cities are "Territories with high capacity for learning and innovation, which are built on the creativity of their population, their institutions of knowledge creation, and their digital infrastructures for communication and knowledge management" (Komninos, 2006, p.6). Giffinger et al. (2007, p.11) correlated smart cities with six characteristics, built on the smart combinations of endowments (a smart economy; smart mobility; smart environment; smart people; smart living; and, smart governance).

Cosgrave et al. (2013, p. 669) suggested some reasons why effective smart city implementation models are yet to be realized, such as:

- Concepts are still on their infancy, and the discussion has previously focused on the technology rather than the conceptual grounding or implementation methods.
- The complex nature of a city itself, which is an enormously complex and open-ended system, with many intertwining force fields influencing its form simultaneously (Sevtshuk & Beinart, 2005).
- There are multiple unknown factors when dealing with the future.
- Funding mechanisms have restricted investment capability.
- The long-term implications are still unknown.

Hollands (2008) focused his proposal for smart cities on the utilization of networks to promote economic and political efficiency and to allow social, cultural and urban development. Caragliu et al. (2011) proposed that for a city to become smart, it must invest on human and social capital, traditional (transport) and modern Information and Communication Technologies (ICT), communication infrastructure, fuel sustainable economic growth and a high quality of life, with a careful management of natural resources, through a participatory governance.

UCL (2012) argues that cities are becoming smart not only due to the ways that we can automate routine functions, serving people individually, having smart buildings, having a smart traffic system organisation, but also ways that enable us to monitor, understand, analyse and plan the city to improve the efficiency, equity and quality of life for its citizens in their daily lives.

Lombardi et al. (2012, p. 138) also reinforced the role of knowledge, and suggested that smart cities "in terms of their dual roles as generators of intellectual capital, creators of wealth and regulators of standards (university, industry, civil society and government), as well as supporting the social learning and knowledge-transfer abilities that are needed to meet the requirements of their regional innovation systems". Figure 1 systematizes the smart city environment.

17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/entrepreneurial-ecosystems/206050](http://www.igi-global.com/chapter/entrepreneurial-ecosystems/206050)

## Related Content

---

### Theorizing Virtuality in Enterprise Social Systems

James J. Lee and Jessica L. Imanaka (2018). *Entrepreneurship, Collaboration, and Innovation in the Modern Business Era* (pp. 102-120).

[www.irma-international.org/chapter/theorizing-virtuality-in-enterprise-social-systems/202325](http://www.irma-international.org/chapter/theorizing-virtuality-in-enterprise-social-systems/202325)

### ICT to Facilitate Emergency Response in The Netherlands

Jeroen Wolbers, Peter Groenewegen and Pieter Wagenaar (2009). *Handbook of Research on Electronic Collaboration and Organizational Synergy* (pp. 626-636).

[www.irma-international.org/chapter/ict-facilitate-emergency-response-netherlands/20202](http://www.irma-international.org/chapter/ict-facilitate-emergency-response-netherlands/20202)

### Internationalization of Online Professional Communities: An Empirical Investigation of AIS-ISWorld

Martin Yuecheng Yu, Karl Lang and Nanda Kuman (2009). *International Journal of e-Collaboration* (pp. 13-31).

[www.irma-international.org/article/internationalization-online-professional-communities/1984](http://www.irma-international.org/article/internationalization-online-professional-communities/1984)

### Collaboration through Municipal Motivators

James L. Smith (2009). *Handbook of Research on Electronic Collaboration and Organizational Synergy* (pp. 679-694).

[www.irma-international.org/chapter/collaboration-through-municipal-motivators/20206](http://www.irma-international.org/chapter/collaboration-through-municipal-motivators/20206)

### Prediction and Prevention of Malicious URL Using ML and LR Techniques for Network Security: Machine Learning

S. Mythreya, A. Sampath Dakshina Murthy, K. Saikumar and V. Rajesh (2022). *Handbook of Research on Technologies and Systems for E-Collaboration During Global Crises* (pp. 302-315).

[www.irma-international.org/chapter/prediction-and-prevention-of-malicious-url-using-ml-and-lr-techniques-for-network-security/301834](http://www.irma-international.org/chapter/prediction-and-prevention-of-malicious-url-using-ml-and-lr-techniques-for-network-security/301834)