

# HOW DOES SMART SPECIALISATION FOSTER ENTREPRENEURSHIP IN BIOECONOMY SECTOR: COMPARISON OF THREE FINNISH REGIONS

*Mika Tala*  
*Faculty of Social Sciences*  
*University of Helsinki, Helsinki, Finland*  
[mika.tala@helsinki.fi](mailto:mika.tala@helsinki.fi)

*Mona Roman*  
*Department of Industrial Engineering and Management*  
*Aalto University, Espoo, Finland*  
[mona.roman@aalto.fi](mailto:mona.roman@aalto.fi)

## **Motivation/Objectives**

Different regions encounter different challenges for smart specialisation strategy implementation. This study aims to understand which governance models support the Europe 2020 and smart specialisation strategy implementation – how regions can strengthen the creation of new companies and business models in smart specialisation priority areas. Europe 2020 strategy has three priorities: 1) smart, effective investment in education, research and innovation activities; 2) sustainable, a shift towards low-carbon economy; 3) inclusive, an emphasis on job creation and reduction of poverty (Carayannis & Rakhmatullin 2014). Transition in socio-technical systems, such as transportation, energy and food systems, is necessary to achieve these priorities (Geels et al. 2015). Entrepreneurship, a prime source for new products and ideas, which constantly replace existing ones, can support this transition. Entrepreneurs are affected by policies, markets and infrastructures of the location where they are situated (Thornton 1999). As the emphasis on context has increased, recent approaches have investigated entrepreneurial environments from the perspectives of regional innovation systems, entrepreneurial ecosystems and clusters (Autio et al. 2018; Spigel & Harrison 2017). In order to support regional development and creation of innovations, there is a need for policy and governance from various actors (Kolehmainen et al. 2015). Smart specialisation strategies can support the region by forming local capabilities i.e. microsystems of innovation, and by driving structural changes (Foray 2016). Our study contributes to prior literature on smart specialisation regarding how to foster regional entrepreneurship and provide practical guidance for policymakers to implement smart specialisation.

## **Main Research Question(s)**

The main research question in this study is “How does smart specialisation strategy support creation of new companies in bioeconomy sector?” Following sub-questions will be addressed:

- Does smart specialisation support entrepreneurial discovery process, and if so, how?
- What governance models can be developed to foster regional entrepreneurship?
- What kind of differences there are between regions?

This paper highlights the differences among three Finnish regions and includes the perspective of the recently established companies.

## **Methodology**

This research will follow a case study approach. This study compares the regions of Helsinki, Tampere and Lahti in Finland, all of which have bioeconomy (incl. circular economy, cleantech) as their smart specialisation priority. Data for this study consists of 30 interviews carried out in April-May 2018. These interviews include A) representatives from universities, regional development organisation staff, city officials and other related stakeholders who support entrepreneurial discovery in each region, B) recently

established bioeconomy companies in the regions. Interviews lasted approximately 1 hour and were carried out by face-to-face or by phone.

In this study, we are interested in how different governance models to implement smart specialisation affect the creation of new companies and their business. We investigate three regions in terms of actors, resources, interaction, institutions, and governance.

## **Results**

Development of a region takes time and is path-dependent. Our tentative results show that despite the three regions have similar smart specialisation priorities, the implementation of this policy differs in each region. While Tampere region has created completely new areas for bioeconomy companies to test their technologies, Lahti region has focused on strengthening the networks of existing actors. Helsinki region is scattered and there are both governance models present. The advantage of developing completely new areas for bioeconomy companies is the increased collaboration between the new entrants. This supported, for instance, attempts to build a shared international network. With the dispersed governance model, the new companies have weaker or non-existent local ties between each other. As a result, these companies had a stronger emphasis for nation-wide network and contacts in other cities. One of our key findings is thus the difference in spatial concentration and dispersion of companies in each region resulting from different positions taken in the regions. The explanations include local conventions, prevailing interfirm and interorganisational relations and differences in city planning. Furthermore, this study implies that there is a need for main actor, facilitator, in the regional cluster. Main actor roles include provider for innovation platform, knowledge source, and a network provider. These main actors were mainly organisations with long-time presence in the area, such as universities or waste management organisations. There can be several main actors when the roles are complementary.

## **Implications/Discussion**

Our comparison between three regions resulted in the identification of two distinct governance models to implement smart specialisation in these three areas. Both models support the entrepreneurial discovery process, but the outcomes of them are different. The development of dedicated areas for new entrants supports the increased collaboration between new companies, while the dispersed model leaves the new companies with weaker or non-existent ties between each other. In the dispersed model, the focus is more on established companies with long time presence. As our study examined bioeconomy sector, which is resource and capital intensive, future studies are needed to investigate other sectors and the possible impact of sector-specific attributes for choosing governance models.

## **Resources/references**

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