Executive summary

OECD countries are currently in the midst of a global slowdown regarding innovation, in particular ground-breaking, productivity-inducing innovations, as witnessed by widespread anaemic productivity growth (OECD, 2019[1]). Lower productivity growth translates into lower long-term economic growth and, in turn, lower wages and well-being. This is why actions to drive innovation – a precursor of productivity growth (Aghion and Howitt, 1990[2]; OECD, 2016[3]; Romer, 1990[4]) – are so important. Those actions are particularly important for rural regions. Across large OECD regions (TL2) in European countries, high-technology (high-tech) innovation is associated with a five times higher increase in jobs when regions have larger shares of people living in non-metropolitan regions, as compared to those in more metropolitan regions.

To support and boost rural innovation, this report, the first of a series focusing on enhancing rural innovation, considers the following elements:

- The nature of innovation in rural regions.
- The framework conditions for encouraging innovative entrepreneurship, in particular among young entrepreneurs.
- Measuring the impact of innovation in rural regions.

Understanding innovation in rural regions

How we measure innovation matters

It is important to understand how innovation occurs in rural regions before measuring it. While innovation is officially defined through the Oslo Manual as “a new or improved product or process that has been made available to potential users (product) or brought into use by the unit (process)” (OECD/Eurostat, 2018[5]), in practice, many governments only consider innovation in the context of science and technology requiring heavy research and development (R&D) investments or patents. This is problematic as this is only one form of innovation. Other forms involving new or significantly improved types of production and processes, business models or those that are not primarily profit-driven, are often overlooked. Regional governments in particular, often take a broader view, embodying entrepreneurship and start-up activities in notions of innovation, as opposed to the narrower focus on science- and technology-based innovations that are often supported through R&D grants and tax benefits.

This matters because a simplistic look at innovation through a narrow lens may suggest that rural areas are innately less innovative. However, evidence from in-depth studies suggests otherwise. For example, analysis in Scotland (United Kingdom), where our research takes a broader view of innovation, suggests that differences in innovation across geographies reflect differences in economic structures (size and age of firms). Even with a narrower science, technology and innovation (STI) view of innovation, differences seem to reflect sectoral specialisations. For example, in the United States, adjusting for the share of occupations that are involved in patenting (of high-tech innovation) reduces disparities in patenting activity between metropolitan and non-metropolitan regions by a factor of 75. Furthermore, some evidence suggests that aspects of rural areas, such as gaps in access to basic services and markets, often compel rural entrepreneurs to be more innovative (Shearmu, Carrincazeaux and Doloreux, 2016[6]; Simonen and McCann, 2008[7]; Simonen and McCann, 2010[8]). The report proposes several indicators to consider jointly and caveats to consider when doing so.

Governments need to look beyond the STI framework in rural regions

The hypothesis that rural areas are typically centres of low innovation seems to be a construct of the definition used to measure innovation. The broader notion of innovation for rural regions requires consideration of product, process, public and social innovations. In doing so, resources for innovation are (re)directed towards the types of innovations that matter and that can boost welfare and productivity in rural regions.

Reducing barriers to innovative entrepreneurship is a priority in rural regions

Entrepreneurs in rural regions face significant challenges with respect to access to basic framework conditions for innovation

Building a level playing field for entrepreneurs in rural regions means reflecting on place-based challenges such as government capacity, costs of services or local regulations that may hinder the effective implementation of policies in rural regions.

Governments need to address barriers to key framework conditions such as unequal access to education and digital infrastructure

A focus on innovation processes that are more common in rural areas also requires a focus on framework conditions, such as early-stage education for entrepreneurs and enabling local authorities to create incentives for increasing deployment and affordability of digital infrastructure.

Young entrepreneurs in rural regions are at a disadvantage

There is a strong relationship between entrepreneurship and broader notions of innovation. However, youth start-ups are lagging in rural areas. In 2019, there were proportionately 25% fewer young start-up entrepreneurs in rural areas as compared to cities, according to the analysis from the European Union Labour Force Survey (EU-LFS) on 26 European OECD countries (2011 and 2019). Furthermore, young entrepreneurs living in rural areas, towns and suburbs are close to 30% less likely to be in training one year prior to starting the firm as compared to those in cities. Moreover, when they do start a firm, these young start-up entrepreneurs in rural areas, towns and suburbs tend to be more educated than their counterparts in cities, pointing to the significant untapped entrepreneurial potential of lower-educated groups in rural areas.

Social entrepreneurship and innovation have room to play a strong role in bringing innovation and opportunities to rural regions

Where there are gaps in public services, access to government services and support in the entrepreneurial ecosystem, social entrepreneurs and innovation can be important stimuli to fill those gaps. Social innovation is innovation with a social purpose. It “can concern conceptual, process or product change, organisational change and changes in financing, and can deal with new relationships with stakeholders and territories” (OECD, forthcoming[9]). However, a lack of acknowledgement of the critical role of social entrepreneurs, in some cases, an enabling legal framework and resource constraints are often hindering social innovators from fulfilling this role.

References

Aghion, P. and P. Howitt (1990), “A model of growth through creative destruction”, *National Bureau of Economic Research*, Vol. w3223. [2]

OECD (2019), *OECD Economic Outlook, Volume 2019 Issue 1*, OECD Publishing, Paris, https://doi.org/10.1787/b2e897b0-en. [1]

OECD (2016), *OECD Regional Outlook 2016: Productive Regions for Inclusive Societies*, OECD Publishing, Paris, https://doi.org/10.1787/9789264260245-en. [3]

OECD (forthcoming), *Enhancing Innovation in Rural Regions: Scotland (UK)*, OECD Publishing, Paris. [9]

OECD/Eurostat (2018), *Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation, 4th Edition*, The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing, Paris/Eurostat, Luxembourg, https://doi.org/10.1787/9789264304604-en. [5]

Romer, P. (1990), “Endogenous technological change”, *Journal of Political Economy*, Vol. 98/5 (part 2), pp. S71-S102, https://www.jstor.org/stable/2937632. [4]

Shearmu, R., C. Carrincazeaux and D. Doloreux (2016), *Handbook on the Geographies of Innovation*, Edward Elgar Publishing, https://doi.org/10.4337/9781784710774. [6]

Simonen, J. and P. McCann (2010), “Knowledge transfers and innovation: The role of labour markets and R&D co-operation between agents and institutions”, *Papers in Regional Science*, Vol. 89/2, pp. 295-309, https://doi.org/10.1111/j.1435-5957.2010.00299.x. [8]

Simonen, J. and P. McCann (2008), “Firm innovation: The influence of R&D cooperation and the geography of human capital inputs”, *Journal of Urban Economics*, Vol. 64/1, pp. 146-154, https://doi.org/10.1016/j.jue.2007.10.002. [7]

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