



Draft Summary Report:

2nd Expert Advisory Committee Meetings 12 & 13 October 2020

The second meetings of the Expert Advisory Committees were held on the 12 & 13th of October 2020. The meetings consisted of a presentation by the OECD secretariat followed by feedback and interventions from the Academic and Business Experts. Overall, there was consensus on a few matters and suggestions on how to move forward. First, the project proposes a framework that encompasses many of the multi-faceted aspect of innovation in rural areas. However, less focus should be put on patents as a proxy. If they are to be used, they should only be used for relevant sectors or occupations. The committees suggested focusing more on adoption and diffusion of innovation, which is the primary content of the chapters on interlinkages. The current approach can focus less on standard measurements of innovation that are not suitable for rural areas, and more on new to market, new to firm innovations. The committees encouraged the development our work on innovation diffusion and adoption, as well as interlinkages.

Academic Advisory Committee, 12 October 2020

A few notable items were discussed, including defining what is specific about rural areas, impacts of the COVID-19 pandemic for rural areas, and finally on how we understand innovation in rural areas.

First, members of the committee verbally and bilaterally discussed issues surrounding what we expect as types of innovation in rural areas, and on a similar note, what we perceive as rural about innovation. This issue covers what is defined by rural and what innovation policies may be relevant to support development in rural areas through the support mechanisms for firms to adopt new product and processes in the production of goods and services. The committee encouraged the secretariat to look at what is the real advantage or disadvantage of being in rural areas. During the discussion, they also encouraged the secretariat to understand innovative trends through surveys such as the European Union's Community Innovation Survey, the American Business Survey with the Innovation supplement or the Northern Innovation Monitor in the Netherlands. An additional suggestion was to look at the intention to innovate, adopt or diffusion using the distribution of *innovation expenditure* on a territorial level. A last suggestion here was to look at *product innovation* using product level data to localize innovation in rural areas.

An intervention was made around expected outcomes tied to the COVID-19 pandemic. We expect that access to capital will fall substantially and rural firms will starve as the capital shock will lively hit rural areas more substantially. Rural areas are characterized by lower levels of access to physical markets, which is currently to their detriment. Secondly, we expect that investors will tend to withdraw capital when they perceive increased risk. Because rural regions are thinner and smaller yield values on capital will tend to go up, relative to other locations, and regions will get priced out as the gap between yields widens. In particular this means that SMEs will go to the back of the queue in terms of capital access, and in particular innovative SMEs will be squeezed out due to lending behaviours in under uncertainty. In general, this will favour monopoly positions. Lastly, it's likely that central governments will take a stronger role, effectively taking policy making power from local governments.

While the expected impact of COVID on regions seems to suggest that rural areas, SMES and in particular innovative SMEs, may suffer the most, there are a few mitigating factors that can provide relief. First the crisis has led to an excess supply of human capital with high levels of training. Firms may be in a better position to hire highly qualified people. Secondly, the increased capacity, notably through digital infrastructure, to have face-to-face interactions can help increase rural-urban linkages with a greater

relative share of workers staying at home, and not being necessarily obliged to go into more dense areas. An upcoming study from Nicholas Bloom predicts that 30-40% of hours worked at home by white collar workers will become the norm, to the relative favour of rural areas.

The largest focus of discussion of the committee was on how we understand what is innovation in rural areas. While the OECD could take a sectoral and occupational approach to address some of the compositional challenges in measuring innovation with patents as a proxy, more focus should be placed on innovation that is not specifically “invention.” Some additional ideas included the use of forward patents rather than purely just patents. More specifically the focus on innovation not only as “invention” refers to understanding innovation to have a definition that is closer to one that captures how things are done differently in rural areas. This can be associated with the adoption and diffusion of new products and processes, although not exclusively. Rural areas are further away from urban areas, so there is less access to benefits of agglomeration, we cannot therefore expect the same patterns. We can take an approach that takes into account the division of labour when we consider what to expect from innovation. One last suggestion was to investigate the usage of the proxy of “high-growth” firms to capture the many forms of innovation.

As much as possible, adoption and diffusion should come out strongly in the work. A focus may also be made in understanding the relative benefits of rural-rural linkages versus rural-urban linkages. This would avoid reinforcing the biases that standard measures of innovation carry against women and minorities. A suggestion was also made to explore issues related to supply chain linkages. Access to supply chains and the infrastructure capital is particularly more important in rural areas. We need to think about what kind of approaches this project might take on these issues.

One aspect of innovation are circular transitions and return migration. As we go through a re-valuation of space, labour and firms are increasingly taking notice of some of the disadvantages of cities, both when it comes to quality of life and transactional costs. For example, tourism sectors do better in rural areas, so there is less of a restriction of space and this empowers innovation in rural areas.

As part of the interlinkages work, the committee encouraged the secretariat to focus on local linkages in the supply chain and among workers including return migrants. A suggestion was furthermore made to increase the age groups of start-up entrepreneurs to account for the fact that return migrants are often of older age in rural areas. While a younger age group may be more innovative in urban areas, we see patterns of return migrant innovation in rural areas. Often entrepreneurs with high growth firms are a bit older in age. Lastly, a suggestion was made to explore business-to-business (non-start-up entrepreneurs) finance, and family and personal resources of innovation finance.

Innovation tends to be pro-cyclical, while mark-up tend to be counter-cyclical. We need counter-cyclical policies to grab opportunities for rural areas in promotion innovation and competition, mobility jointly with the environmental, social and governance agenda. Invention alone is not enough. It is important to understand how innovation can help reconstruct rural areas and the synergies needed to do so.

Summary Recommendations :

- Less focus on patents,
- Consider product-level work at a disaggregate level if feasible
- More focus on innovation diffusion and interlinkages
- If we focus on patents, make sure that we use a sectoral/ occupational approach and consider using forward linkages, citations and/or partnerships.

- Consider focusing on what is rural about innovation, using a sectoral approach or one that underlines the specific characteristics of rural areas.
- Consider expanding analysis to include supply chain analysis, circular economy and return migration
- Consider using innovation surveys, product-level data & high-growth firms.

Business Advisory Committee, 13 October 2020

Several of the presentations opened the meeting of the Business Advisory Committee. They focused on the business case for expanding to rural areas, some of the examples of social innovations through partnerships with the private sector, and finally understanding how the different type of innovation in rural areas is a source of attraction for external sources of capital.

Among the key concerns for telecommunication companies in expanding digital infrastructure is the profitability of expanding to areas with low density. However, there are operator-based solutions that have been shown to be successful. One example are initiatives to connect rural areas in Latin America. Even without a business case, when there less than 100% penetration of the rural market, there is often a social need. As a first step, the operator took stock of infrastructure capital (such as spectrum, licenses and mobile networks), mixed with bottom-up solutions have been shown to work in rural areas. The generation on networks from the bottom up has been a strategy that provided a more agile cost structure and increased the provision of services for digital infrastructure in rural areas. This agile cost structure is cheaper and attractive for investment that creates more sustainability without government support. Flexible models such as the one described can help create the incentives needed to inject capital into rural areas. More concretely, for expansion telecommunication infrastructure it is important to identify where broadband is unavailable or of low-speeds with geographical precision, and concurrently work on modernizing programs including in the incorporation of technological neutrality, adapting the source of funding to better target all aspects of rural development, encourage competition and the use of public sector innovations such as regulatory sandboxes.

There is a strong need for partnership and sponsorship with public institutions, but this is not the only solution and while support from the top is important, much of the solutions should be started from the bottom-up. Partnerships between businesses and universities, businesses and communities, or businesses in different sectors can work in terms of finding solutions to societal challenges. In a few cases discussed, the committee demonstrated how innovation and co-construction of initiatives with local stakeholders can bring solutions to rural areas. A few examples of this related to herd tracking, pest control in the US, and digital access to public services in local communities in France.

It is also often in rural places where local innovators can bring ideas that are not easily or immediately marketable to final development stage. For example in rural areas in Japan the gaming and entertainment market has help people better understand local areas and rural communities. One example included how to bring curative entertainment services to local communities. Rural innovators often have the opportunities to bring fresh new ideas to market. Once these ideas are developed, it also brings investment to rural areas.

The committee requested that the OECD spend more time on focusing on digital infrastructure. Not enough is known about connectivity in rural areas, even in highly saturated markets. Secondly, there are instruments to spread connectivity such as connectivity funds, but they should be modernized so that they are not all coming from one ministry, which, for digital infrastructure, is often the communications sector. Other areas that need consideration is a wider approach to taxes, competition and regulations for expansion to rural areas, including in state-owned enterprises.

There are private sector incentives for innovation. Often they are to chase growth and find blind spots, but increasingly they are also related to social responsibility. However, for the most part, this is often through the arm of the corporate social responsibility initiatives. The underlying driver is still profit-maximization with a strong business case, otherwise expansion becomes untenable. Taking this into account, some initiatives such as digital cooperatives are not completely social nor completely corporate. These initiatives raise finance through co-operation with players in the field.

For the most part, innovation comes naturally to rural areas who are used to collaborative methods of working. Such collaboration and networks increases with the ability to share data and resources, for *scale without mass comes from the power of networks*. Some barriers to increasing innovation are regulations on Intellectual Protection Rights (patents). Increasing security and privacy regulations can potentially hamper innovation and impact business decisions in the localization of firms.

Summary Recommendations :

- Focus more on collaborations
- Focus more on digital infrastructure
- Explore more on competition policy
- Explore bottom-up approach for government-business partnerships