







# **OVERVIEW**

This brief provides useful information to policy-makers and everyone who has a stake in rural economic development and seeks to promote growth through SMEs innovation. INNOGROW research findings clearly confirm that innovation is a challenge for rural SMEs, however, there are productive ways in which obstacles can be removed and business models restructured. Building on these findings, the INNOGROW interregional workshop in Győr, Hungary, yielded significant insights and contributions by stakeholders and project partners. Articulating the views of involved parties into concrete recommendations to policy makers is pivotal in the INNOGROW rationale and instrumental for enacting action plans to support rural SMEs. In the following pages, the reader will have the opportunity to go through exemplary cases of innovation in rural economies, information on strategic coalitions and selected policy recommendations in a brief format.

# Interregional Workshop in Győr

The INNOGROW workshop on "supporting new business models for rural SMEs" was hosted by Pannon Novum Regional Innovation Agency in early July 2018. Project partners and representatives of SMEs, developers and researchers focused their efforts in making sense and use of INNOGROW research findings, the most important of which were summarily addressed by previous policy briefs of this series. Participants in the workshop had access to project material developed specifically to guide and facilitate peer collaboration in addressing the challenges of and opportunities for innovation. Peer collaboration functions as a critical milestone, an 'interim' participatory process, enabling the gradual and informed elaboration of action plans in a "bottom-up" manner, ensuring that subsequent action plans respond to real needs and address context-specific problems. In the course of the 2-day workshop, a rich array of topics were taken up and discussed. In the following pages, the reader will have the opportunity to grasp aspects of innovation-in-the-making and how they relate to policy-making capacities, objectives & regional, 'smart' growth strategies.

The INNOGROW team,



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# A bird's eye view

### Drones in agriculture

Technology is rapidly advancing, offering solutions and novel ways to tackle time-old challenges in practically every field of human activity. The way agricultural activities are organised and carried out has always been under transformation, with advances in engineering and agronomy having significantly increased efficiency, crop quality and supply logistics performance. It remains a challenge for everyone involved in the agricultural sector to enable increasing numbers of agricultural SMEs to adopt innovative techniques that make for competitive and sustainable land use through effective monitoring.

One such approach, expected to become increasingly streamlined in the next decade, involves the use of UAVs – unmanned aerial vehicles – commonly known as drones. The use of aerial vehicles is no novelty in agriculture. They have been variously used for administering pesticides or seeding. However, unlike UAVs, the capacities of conventional aerial vehicles are usually limited and their use is highly expensive.

Drones for uses in agriculture will soon become indispensable, if agricultural production, which according to some estimates will have to increase by 70% to cover the needs of 9 billion people, is to become sustainable and land use as efficient as possible. How so? Drones can be instrumental **in soil and field analysis**, gathering real-time data on environmental conditions, producing maps and enabling farmers to make important decisions regarding seed planning; **planting & crop spraying** are equally bound to become more efficient, in terms of optimising capital and resource use. Further, **crop monitoring** is perhaps the most revolutionary aspect of using drones in agriculture.



Never before had it been possible for farmers to have access to affordable aerial monitoring, allowing them to maximise yields and manage crops in an unprecedented fashion. A drone can be mounted with virtually any sensor and some of the most relevant ones are those which provide data on soil conditions to enable the farmer to evaluate **irrigation** needs and preventing him from wasting water resources. The advantage is therefore multiplied both for the farmer and the rural community as a whole. Plants' **health assessment** is yet another advantage featured by drones. Tracking changes in plants with multispectral scanning, enables the farmer to stop the spread of bacteria and mitigate the risk of poor quality yields.

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dissemination of 'precision agriculture' infrastructure (drones, IoT agriculture) requires arrangements that rural areas often lack, such as access to training and information resources, technical support and expertise and capital for investing in technology. For agriculture to catch up and remain a technology-intensive sector, yielding the benefits of 21st century technologies, it is clear that concerted efforts and collaborative planning are required. Yet, the outcome is likely to be rewarding for everyone, from farmers and consumers to rural development authorities whose mandate is to plan ahead with economic as well as environmental sustainability in mind. Stay tuned with the next INNOGROW policy brief for more resources on technological investments and rural smart development!

# **Innovation management**

When "innovation" comes to mind, we tend to think of exceptional, non-everyday situations, creativity or the genius inventor the products of whose innovation can be transferred. Through the INNOGROW project, stakeholders are learning how to approach innovation in an innovative way, how to foster real innovation through management, synthesis, collaboration and small – yet disruptive – practices. Innovation as such is not transferrable, but the conditions for innovation can be cultivated and promoted.

Innovation is borne out of people on the ground who face real problems, have immediate needs, and set ambitious targets. Innovation, far from being a solitary business of a genius, results very often from **collaborations**, **exchange of expertise**, problems experienced on the user-end. Rather than waiting for innovation to emerge in an accidental manner, or through hyper-novel arrangements, there are pragmatic ways in which innovation can actually be a matter of good planning, effective communication channels and institutional support.

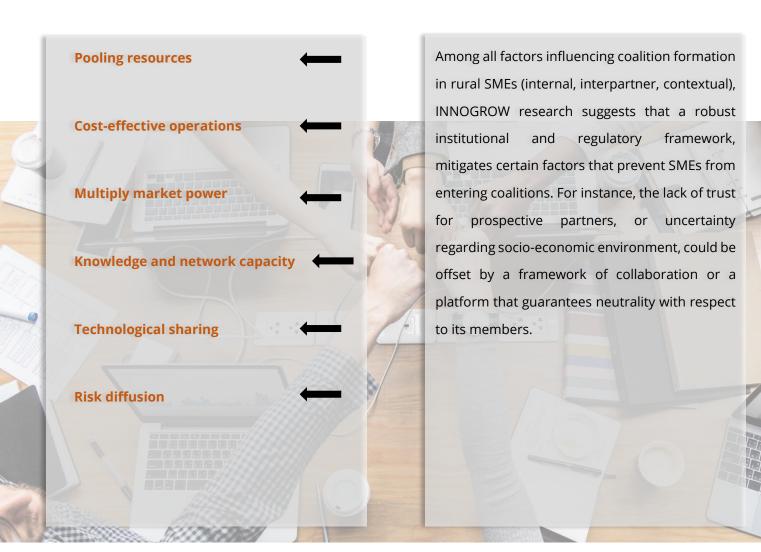
INNOGROW partners and stakeholders discussed thoroughly on the basis of survey data collected from partners' regions (see INNOGROW policy brief 4). The enablers and barriers to innovation reported by SMEs converge in the abovementioned viewpoint, namely, that innovation (uptake) is possible, if certain conditions are met. The most basic prerequisites are access to knowledge, technical expertise, training, recruiting tech-savvy personnel, funding and application procedures support, as well as effective collaboration platforms.



- they represent approximately 99.8% of enterprises (around 23.3 million businesses)
- ✓ generate 57.4% of the value added
- employ no less than two thirds (66.8%) of EU's total workforce

### STRATEGIC COALITIONS FOR SMES?

Strategic coalitions are often understood as inhibited for SMEs, even more so, for rural SMEs. Yet, they prove to be a necessary element of introducing innovation in a business model.



### **POLICY RECOMMENDATIONS**

Regional authorities, policy makers and development planners, could benefit from considering the following policy propositions. These propositions have been assembled and categorized through research and communication with experts, SMEs and development/innovation planners.

# **Funding/finance**

#### Sectoral problem

Rural SMEs face difficulties in accessing financial Promote availability of public regional capital on capital in the early stages of the idea.

#### **Policy option**

early stages of financing innovative SMEs.

Concentrating public funds policies for promoting availability of capital to business model innovative SMEs mainly on early stages of the financing of the firm could be used to leverage private sector financing in order to reduce the financing gap.

Need for proximity between suppliers of funds and those who require finance, particularly for small-scale investment.

Establish regional and local business model innovation equity initiatives (e.g. regional funds).

Regional and local equity initiatives (e.g. regional funds) are appropriate for such types of investment.

Need for an institutional setup

based upon the use of non-discriminatory measures which seek to support efforts made by SMEs themselves

Prioritise measures to ease innovative SMEs access to markets.

Policy in this area seeks to tackle the disadvantages experienced by

rural SMEs due to their lack of access to human resources, to external markets and to

technology essential for developing innovation practices.

# **Administrative policies**

#### Sectoral challenge

Lack of information, administrative capacities (e.g. funding application procedures, )

Lack of incentives to take up innovative business models

#### **Policy option**

Develop business model consultation tools & services targeted specifically to SMEs

Clear and open policy reforms regarding innovation (risk mitigation measures, reward schemes, e.g. tax reduction acts)

# **Knowledge transfer**

#### Sectoral challenge

Rural SMEs lack access to networking opportunities, knowledge hubs

Lack of R&D resources

#### **Policy option**

Facilitate interregional and European transfer of institutional infrastructure, best practice policies, and expertise relating to innovation practices

Increase the participation of SMEs in research networks and technology markets (innovative clusters); thematically related R&D institutions

# **Monitoring**

#### Sectoral challenge

Inadequate mobilization and utilization of existing assets

Innovation support programmes small impact

Innovation support programmes need coordination, long-term planning and clear objectives

#### **Policy option**

Encourage SMEs to recognise, measure, and report intangible assets.

Embed monitoring mechanisms to ensure that programmes in support of SMEs deliver measurable results.

Identify milestones, responsibilities, budget needs, deadlines, next steps and expected results for each practical action.

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