

## **Joint study on the impact of Covid-19 on rural economies, policy challenges and responses to promote recovery and resilience**



### **Activity 1 INNOGROW**

Developed by Stara Zagora Regional Economic Development Agency (SZREDA)

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## EXECUTIVE SUMMARY

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INNOGROW Activity A1 is a joint study to assess the impact of COVID-19 on rural economies, and rural SMEs in particular. During the Activity, partner regions have identified the socio-economic impact of the pandemic, identified common problems they share (e.g. policy gaps, structural problems of the regional economies) and explored pathways to facilitate the recovery and resilience of rural SMEs, and by extension rural economies.

A core part of Activity A1 was a survey conducted by all participating partners through which all the required data were collected. The first stage of Activity A1 was focused on developing a methodology for data collection. Two methodologies were provided to the INNOGROW partners in December 2021 and January 2022 by the Lombardy Foundation of the Environment (FLA) and Stara Zagora Regional Economic Development Agency (SZREDA) respectively. These methodologies required partners to conduct desk research based on the guidelines and complete two questionnaires, aimed at two different stakeholder groups - rural SMEs and regional development officers/agencies.

The final stage of Activity A1 was to produce this summary report, which presents and summarizes the key findings of the two surveys, and draws from the collective experience and knowledge of the partnership to make policy suggestions to the partners and the wider EU region. The report begins with a short overview of INNOGROW and Activity A1 (section 1) and thematic information on the impact of COVID-19 on rural regions, focusing on rural SMEs (Section 2). This is followed by the presentation of results and analysis of the survey data, before conclusions and policy suggestions (Sections 3-5).

# 1 INTRODUCTION

## 1.1 THE INNOGROW PROJECT

### 1.1.1 OVERVIEW

The “INNOGROW – Regional policies for innovation driven competitiveness and growth of rural SMEs” project is an Interreg Europe project that has been guiding participating partners to develop and implement policies aiming to increase rural SMEs’ competitiveness and innovation. Over its duration, from April 1st 2016 to March 31st 2021, INNOGROW has promoted the adoption of innovation by rural SMEs in 8 EU countries, through sharing best practices between regions and relevant actors as well as integrating lessons learnt into regional policies and action plans. As a result of the COVID-19 crisis and its impact on rural economies, new challenges have been posed to rural SMEs’ growth and viability, necessitating additional support. For this reason, the INNOGROW project extended its activities under the 5th Interreg Europe call, aiming to enable partners to exchange recovery and resilience practices and increase their capacity in dealing with the supply bottlenecks and market disruptions caused by the pandemic.




### 1.1.2 2.1.2 OBJECTIVES

The extended INNOGROW project aims to integrate new lessons learnt through additional exchange of experience and peer-review processes as well as to improve the governance of both existing (2014-2020 programming period) and upcoming policy instruments (2021-27 programming period). More specifically, partners are expected to a) explore beneficial synergetic actions with national and EU financial instruments, b) support rural SMEs operating in their regions to incorporate risk management planning approaches, and c) design green and digital pathways to contribute to the post-COVID-19 economic recovery and make regional policy planning more resilient to future crises.

### 1.1.3 The INNOGROW PARTNERSHIP UNDER the 5th INTERREG EUROPE CALL

The additional activities of the INNOGROW project bring together 7 regions from 6 EU Member States to improve the implementation of territorial recovery and resilience policies, programmes, and policy instruments (Table 1 below):

Table 1: INNOGROW partnership

No	Country	Partner organisation	Partnership region
1		Region of Thessaly (RoT)	Thessaly
2		Lombardy Foundation of the Environment (FLA)	Lombardy
3		The University of Newcastle upon Tyne (UNEW)	North East of England

No	Country	Partner organisation	Partnership region
4		Stara Zagora Regional Economic Development Agency (SZREDA)	Stara Zagora
5		Chamber of Commerce of Molise (CoC – Molise)	Molise
6		Regional Development Agency of Gorenjska, BSC Business Support Centre Ltd, Kranj (BSC)	Zahodna Slovenija
7		Pannon Novum West-Transdanubian Regional Innovation Non-Profit Ltd (PANOV)	Western Transdanubia

## 1.2 OVERVIEW OF THE INNOGROW ACTIVITY 1 (5th CALL)

INNOGROW Activity 1, a joint study titled “COVID-19 impact, policy challenges & responses”, aims to identify the COVID-19 socio-economic impact on rural economies and SMEs in partnership regions, document common challenges in the policy implementation and explore pathways towards promoting recovery and resilience for rural SMEs and rural economies in general. Data collection of the necessary information was carried out by the INNOGROW partners. Consequently, the first step of the activity was to develop and provide to the partnership the required methodologies (accompanied by the corresponding questionnaires). Subsequently, all partners conducted the necessary research based on the provided methodologies and questionnaires. The present document constitutes the final part of Activity 1, collecting all the completed questionnaires and preparing a report with conclusions and policy suggestions based on the information provided by the partners.

## 1.3 LINKS WITH FUTURE INNOGROW ACTIVITIES

The results of Activity 1 will form the basis of Activity A2 (Workshop on synergies with national and EU financial instruments). The results of Activity 1 are also expected to be complemented by activity A3 (Stakeholder meetings on most pressing territorial needs related to the COVID-19 pandemic). Finally, Activity 4 (Workshop on improving business support measures in the regional policy instruments) will build upon the results of Activities 1 and 3, focusing on integrating risk management tools in rural SMEs’ business models.

## 2 THEMATIC BACKGROUND

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The purpose of the thematic background is to provide an overview of the main areas of interest for the survey conducted in the context of Activity 1 and provide the necessary background information.

### 2.1 SOCIO-ECONOMIC CHARACTERISTICS OF THE EU RURAL REGIONS

This section provides an overview of the economic and socio-demographic profile of the rural regions in EU and discusses how their specific characteristics played a role in the extent to which COVID-19 impacted them.

#### 2.1.1 ECONOMIC STRUCTURE IN RURAL REGIONS AND RURAL SMEs

EU rural economies are characterized by a higher-than-average reliance on the primary sector of the economy, with agriculture, forestry and fishery representing 12% of the total employment in rural areas compared to an EU average of 5%<sup>1</sup>. Still, there is significant variation among the EU countries, with relatively poorer countries relying more heavily on agriculture (e.g. agriculture, forestry and fishery accounted for 30% of the total employment in rural areas of Bulgaria and Romania). Moreover, the current trends show a gradual shift of the rural economies towards becoming more service-oriented, with the share of the service sector in the total added value increasing by almost 10% since 2000 in rural regions. For example, tourism is currently an important aspect of the EU rural economies, with tourism expenditure per inhabitant and the average nights spent per resident being higher in rural areas compared to urban areas.

Rural economies have been identified as particularly vulnerable due to their structure and particular characteristics. A parameter that contributed to the vulnerability of rural economies to the COVID-19 pandemic has been the low level of economic diversification that typically characterizes rural economies, making them less resilient to supply chain shocks. Many rural communities specializing in particularly exposed sectors (such as agri-tourism) were severely hit by the COVID-19 outbreak, while the lack of sufficient economic diversification prevented individuals from seeking employment in different sectors. Moreover, rural economy is often characterized by a limited capability to introduce remote working due to the nature of the prevalent economic activities (e.g. agriculture). In addition, the low level of digitalization (both in IT equipment and in skilled workforce) prevents owners of SMEs from taking advantage of the new, digital markets, which proved essential for continuing trading during the pandemic, given the challenges posed by the lockdowns, travel restrictions and the necessity of maintaining social distancing.

The size of a business has been a major factor in determining its resilience to the disruptions caused by the pandemic. Overall, micro and small SMEs have been more severely impacted by the pandemic, while medium-sized SMEs performed better and were found more resilient to the effects of the crisis. This is an important parameter to consider given the fact that businesses in rural areas are typically of smaller average size than in urban areas. According to the survey provided in the EU Annual Report on European SMEs 2020/2021<sup>2</sup>, COVID-19 affected to a great extent SMEs' operations in terms of production, revenues, trading, and employment.

The level of digitalisation of businesses' activities is also a parameter that depends on their size, with digital skills and adoption increasing as the size of the business increases. Reasons preventing companies from adopting digital solutions are the lack of required IT skills, lack of broadband connectivity, low level of awareness concerning the

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<sup>1</sup> A long term vision for the EU's rural areas – towards stronger, connected, resilient and prosperous rural areas by 2040, Commission staff working document.

<sup>2</sup> <https://ec.europa.eu/docsroom/documents/46062>

benefits of digitalisation, as well as shortage of financial resources. These shortcomings are even more pronounced in businesses located in rural areas since, as an example, the access to skilled personnel is more difficult for rural SMEs than for businesses located in urban areas. Since companies with higher levels of digitalization performed better during the pandemic and showed an increased resilience to the crisis, it is implied that rural SMEs were more impacted by the crisis than SMEs in urban areas or larger businesses.

### 2.1.2 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RURAL REGIONS

Rural populations are typically characterized by a higher average age as younger generations often tend to move to urban areas for studies or to seek employment. As a result, the populations of rural areas have been more vulnerable compared to populations in urban areas, something that has been partly mitigated by the more secluded lifestyle of rural areas. Moreover, rural hospitals have been less able to handle an influx of COVID-19 patients because they tend to have fewer specialists and insufficient technology and capacities. In many cases, hospitals and health / testing centres are more difficult to access due to the large distance between regions and the fact that a single hospital serves more than one rural region.

In addition, the fact that rural populations are typically older and less educated, constitutes an inhibiting factor for the production and adoption of innovation in these areas, making the overall economic outlook of these areas poorer and the recovery from the effects of the pandemic more difficult. For example, the extent to which economic activities can be performed remotely has been an important mitigating factor with respect to the economic impact of COVID-19. Due to the nature of economic activities in rural areas and the slower adoption rate of innovative technologies and practices, economic activities in rural areas are more rarely able to be performed remotely, increasing the adverse impact of lockdowns or other restrictions in freedom of movement.

## 2.2 IMPACT OF COVID-19 ON KEY ECONOMIC SECTORS

The COVID-19 pandemic has been the cause of an unprecedented disruption in the global economy and the corresponding supply chains which have not been seen since the end of World War II. The EU in particular has registered a 6.1% decrease in its GDP<sup>3</sup> in 2020 as a direct result of the lockdowns, while approximately 1,500,000 have died from COVID-19.

Due to the above-mentioned characteristics of the EU rural economies, and consequently the SMEs in these regions, the current section will be focused on some key sectors (namely, agriculture, livestock production, tourism, as well as agri-tourism) and the impact of COVID-19 on the SMEs in these sectors.

### 2.2.1 AGRICULTURE

The impact of COVID-19 on the agriculture value chain can be categorized as economic (e.g. loss of revenues), operational (e.g., logistics and production disruptions), social (e.g., consumer behaviour, food affordability), and environmental (e.g., food losses and waste, short supply chains). Among them, the most regularly reported issues are related to workforce availability and supply chain disruptions.

#### Workforce availability

Regarding workforce availability, the uncoordinated introduction of travel and movement restrictions at national and/or regional levels, as well as COVID-19 infections, resulted in unplanned shortages of both regular and seasonal workers in several SMEs operating in rural areas. More specifically, shortages of frontier workers were reported in the first weeks of the pandemic due to the enforced movement restrictions (e.g. between France and

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<sup>3</sup> [The EU economy after COVID-19: Implications for economic governance | VOX, CEPR Policy Portal \(voxeu.org\)](#)



Italy as well as France and Germany), with the overall labor shortfall of seasonal workers estimated to potentially approach 1 million<sup>4</sup>.

In this context, Member States that have been highly dependent upon migrant workers from Central and Eastern Europe or Northern Africa (e.g., Germany, France, Italy, and Spain), tried to remedy this shortage of workers by introducing emergency measures (e.g., by recruiting workers among the unemployed and/or refugee populations within the affected country, excepting seasonal workers from interregional movement restrictions). However useful, these measures often could not prevent Member States from experiencing severe operational problems, such as missing the planting and harvesting season, especially in activities that require a large labor force (e.g. horticulture farms).

Measures adopted by the European Commission during the first wave of the pandemic to facilitate the movement of essential workers in the EU, including those pertaining to the agricultural sector, significantly contributed to avoiding the occurrence of further serious labor shortages during the second and the third wave. Nonetheless, the economic consequences of COVID-19 are expected to force many farms to downsize their staff or switch to less labour-intensive production systems.

#### Disruptions of the supply chain

The COVID-19 pandemic has caused severe disruptions in most economic sectors' supply chains. Beyond the workforce shortages mentioned in the previous sections, agriculture and the agri-food sector in general were particularly impacted by the restrictions in social contact, imposed with the aim of limiting the spread of the virus. These restrictions led to a significant reduction in the demand for agricultural products from the hospitality industry, impacting the entire value chain of agricultural products. Furthermore, movement restrictions implemented by Member-States right after the first outbreak of the virus in Europe, led to logistical disruptions in the supply chain, involving blocked transport routes, congestion at borders due to extra checks, and imposition of quarantine periods. Surpluses and, consequently, excessive stocks at the farm level were reported, generating considerable post-harvest losses in certain agricultural sectors. For instance, the trade of high-value perishable products, such as fruit and vegetables, has been heavily impacted.

In addition, unfair trading practices were reported against individual farmers or farmers' organisations (e.g. unilateral changes in prices, extra-contractual terms to cancellations of orders and application of penalties for failing to deliver agreed quantities of products), affecting certain products (e.g. fruits and vegetables). However, some European SMEs looked for alternative business solutions to sell off existing stocks and prevent further losses. In this context, many farmers, alone or in collaboration with other institutional and/or business partners contributed to the creation of short supply chains or reinforced those already in place.

Short food supply chain initiatives (i.e. incorporating actors and suppliers from the same or adjacent regions) and focusing on local markets, often enjoyed public support, while awareness raising campaigns were organized to encourage consumers to buy national and local products to help the domestic agricultural sector (e.g. in Poland, Portugal, and Romania).

The literature provides some positive examples of how short supply chains helped farmers navigate through the pandemic<sup>5</sup>. Shorter supply chains increase SME's resilience to external events, such as the COVID-19 pandemic,

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<sup>4</sup>[https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/689347/EPRS\\_BRI\(2021\)689347\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/689347/EPRS_BRI(2021)689347_EN.pdf)

<sup>5</sup> Innovation in short food supply chains, EIP-AGRI

and have the potential to decrease the reliance of the European value chains on third countries and consequently their exposure to geopolitical or other risks. However, despite the emerging opportunity for developing alternative supply chains, feedback collected from EU stakeholders indicated that, with the gradual stabilization of most agri-food sectors after the first market shock caused by the pandemic, consumers and farmers' interest in short supply chains has decreased.

In terms of farmers' income, preliminary results for 2020 indicate an average reduction of 7.9% compared to 2019 levels, corresponding to 7.1 billion EUR, with the highest drops registered in Romania (-56.6%), Germany (-28.5%), and the Netherlands (-15.5%)<sup>6</sup>. The situation is expected to be further exacerbated in the case of small holdings which are generally less resilient to market shocks. Similarly, young farmers tend to be more vulnerable since they often have no financial resources to withstand severe market disruptions.

### 2.2.2 LIVESTOCK FARMING

Livestock farming faced considerable challenges because of workforce shortage and disruptions to the supply chain. Having endured many setbacks, livestock farmers were already vulnerable at the outset of the pandemic. Despite an initial increased demand due to panic buying, later on both meat production and demand were significantly decreased as a result of the lockdown and lower purchasing power of the consumers<sup>7</sup>

#### Workforce availability

Regarding workforce availability in livestock production, the businesses experiencing major workforce shortages were meat and dairy processing SMEs, since their labor-intensive nature and working conditions (e.g. close proximity between workers, hygiene and temperature) increased the risk of a COVID-19 infection throughout this period. In France, for instance, staff shortages due to quarantine and sick leave reached 30% in some slaughterhouses, whereas at one of Portugal's biggest poultry slaughterhouses, at least 129 of the 300 workers contracted COVID-19<sup>8</sup>.

It is also likely that the available data underestimate the severity of the situation. A youthful workforce, for instance, was more likely to have asymptomatic infections, whereas insecure, poorly paid workers could often be discouraged from disclosing symptoms for fear of penalty.

#### Disruptions of the supply chain

In addition to COVID-19 infections reducing production levels (due to temporary closures and lack of workforce), contamination of the produced food (e.g. meat) had considerable consequences to the image of the sector, further lowering the demand for these products.

Movement restrictions and a stricter regulatory framework, in terms of restrictions and testing requirements, led to disruptions logistics and delays in the (especially international) supply chains, causing unprecedented issues for SMEs operating in livestock production. In the UK this was exacerbated by greater restrictions on sales to EU markets following Brexit. Furthermore, import restrictions greatly impacted areas which depend on imports to sustain production. The shortage of feed ingredients (e.g., protein), negatively affected animal feeding and disease control<sup>9</sup>. Moreover, the disruption of public services (e.g., food safety inspection and animal health

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<sup>6</sup>[https://www.europarl.europa.eu/RegData/etudes/STUD/2021/690864/IPOL\\_STU\(2021\)690864\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/690864/IPOL_STU(2021)690864_EN.pdf)

<sup>7</sup> Meat production and supply chain under COVID-19 scenario: current trends and future prospects

<sup>8</sup> [https://www.researchgate.net/publication/342827021\\_Meat\\_plants\\_a\\_new\\_front\\_line\\_in\\_the\\_covid-19\\_pandemic](https://www.researchgate.net/publication/342827021_Meat_plants_a_new_front_line_in_the_covid-19_pandemic)

<sup>9</sup> <https://www.sciencedirect.com/science/article/pii/S0924224421006609>

extension services), combined with interrupted delivery, increased the risk of new epidemics, including those involving animal diseases that cause major livestock losses (e.g., African swine fever in East and Southeast Asia).

Forced lockdowns in most EU countries led to significantly reduced demand for relevant products (e.g. meat, dairy products), thus impacting the small-scale producers of the sector. Disruptions in the international supply chains limited the access of small producers to the markets, often leading to an increase in wasted produce (e.g. milk), and further increasing the financial hardships of small businesses in the sector. For instance, the decreased demand for pork in Europe and the inability to export products to other countries, as well as reduced capacity at slaughterhouses due to staff shortages, resulted in an elevated pig population on farms in Europe, which increased farmers' costs.

### 2.2.3 AGRI-TOURISM

Tourism sector was the most impacted economic sector in the pandemic. Even in 2021, tourist arrivals were approximately 72% below their pre-pandemic levels<sup>10</sup>. At the beginning of the pandemic, countries adopted a wide array of financial aid measures to support the tourism industry and mitigate its negative effects on businesses. Despite the attempts to support tourism and related sectors (e.g. aviation industry), countries devoted much less attention to agri-tourism, despite its financial importance for smaller farms – often in need of additional support. Agri-tourism farms dependent on international visitors were particularly badly affected as international travel was drastically reduced during the pandemic.

#### Socio-economic impacts

SME businesses in agri-tourism experienced severe economic losses and great difficulty in sustaining their operations. For instance, given that many small agricultural producers use agri-tourism as a complementary source of income, their economic situation was particularly impacted due to the pandemic. In Italy, farmers with agri-tourism certificates, unable to host visitors, reported that their revenue had been significantly decreased. Estimating these losses, the Italian Institute of Services for the Agricultural Food Market (ISMEA), concluded that they would amount to 65% of the forecast income for 2020, equivalent to a €1 billion loss.

Nevertheless, not all agri-tourism SMEs were hit by the COVID-19 crisis with the same intensity. Reasons related to businesses' financial situation (e.g. outstanding debt, financial assets) and public policies (e.g. movement restrictions) can explain this variation to a large extent. Additionally, regional economic characteristics also played a role. For instance, regions highly dependent on non-domestic visitors faced more severe economic challenges. On the other hand, regions more dependent on domestic tourism faced only modest losses. Indicatively, in Austria, where agri-tourism is well established, arrivals of domestic guests were recorded right after the first wave of the pandemic. The travel restrictions that followed though, prevented German guests from visiting Austria, although they used to comprise a substantial part of agritourists in the country<sup>11</sup>. In contrast, in Czech Republic, although both foreign and domestic tourism were expected to fall by 30–50% in 2021, compared to 2019, the occupancy of accommodation establishments in domestic rural tourism destinations increased<sup>12</sup>. This change

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<sup>10</sup> [Impact assessment of the COVID-19 outbreak on international tourism | UNWTO](#)

<sup>11</sup> <https://www.euractiv.com/section/all/news/agri-tourism-sector-hit-by-covid-19-crisis-in-double-blow-for-small-farmers/>

<sup>12</sup> [https://www.researchgate.net/publication/346505184\\_Impact\\_of\\_the\\_COVID-19\\_pandemic\\_on\\_rural\\_tourism\\_in\\_Czechia\\_Preliminary\\_considerations](https://www.researchgate.net/publication/346505184_Impact_of_the_COVID-19_pandemic_on_rural_tourism_in_Czechia_Preliminary_considerations)

might indicate emerging opportunities for the HORECA sector as alternative types of tourism (e.g., second-home tourism, mountain tourism) have gained ground.

### 2.3 ECONOMIC IMPACT OF COVID-19 ON RURAL SMEs

The COVID-19 outbreak has presented significant economic challenges to rural SMEs', leading to a deterioration of their economic outlook and at times directly threatening their survival. As a result, their ability to react and mitigate the impact of COVID-19 related shocks in the supply chain is considerably reduced. For example, the abrupt disruption in agriculture supply chains during the first wave of the pandemic caused a sharp decline in sales revenues, with several SMEs having difficulties to cover their operational costs (e.g., staff costs). In the same vein, SMEs were forced to limit their investments, with about 2/3 of SMEs delaying the relevant decisions or having already downsized their investments<sup>13</sup>. A number of surveys and analyses have been undertaken after the COVID-19 outbreak to gauge the impact of the pandemic on SMEs. Indicatively, a worldwide survey ran jointly by Facebook, the OECD, and the World Bank found that 21% of survey respondents in Europe had closed temporarily during the period of January-May 2020<sup>14</sup>, mainly in response to government lockdown measures. Considerable variations were observed across countries (e.g. only 8% of German businesses reported that they had closed) as well as between rural and urban areas. This section discusses rural SMEs' economic challenges, focusing on liquidity problems and the decrease in their turnover as a result of the pandemic.

The COVID-19 related disruptions in the world and regional markets have led approximately 10% of the SMEs to run out of liquidity, even after government intervention to alleviate the challenges these businesses face<sup>15</sup>. Although exact numbers are not available for rural SMEs, it is expected that the overall picture will be worse due to their reduced competitiveness and the structural weaknesses of rural economies.

SMEs have often had difficulties in gaining access to the capital markets or to government initiatives providing support. These weaknesses, along with their overall reduced expertise in new technologies, has compromised the ability of SMEs to navigate the markets during the pandemic and consequently has worsened their economic outlook.

### 2.4 CHALLENGES ENCOUNTERED BY REGIONAL AUTHORITIES

During the pandemic, regional governments and municipalities were at the frontline of managing the COVID-19 socio-economic consequences on rural economy. The challenges they encountered in their attempt to mitigate the COVID-19 impact varied across countries as well as across regions in the same country. Despite these differences, common challenges have been identified by relevant research papers and OECD reports, the main points of which are presented below:

#### Policy-planning challenges

A significant challenge faced by regional authorities concerned the increased economic uncertainty around the COVID-19 crisis and the urgency with which policy makers had to act to expand current programmes and/or set up new schemes to address the liquidity challenges that many rural SMEs faced. Similarities with past crises, including the 2008-2009 financial crisis, are limited and have often proven inappropriate for drawing conclusions and providing policy lessons. In particular, the current crisis highlights the need for contingency plans, since many

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<sup>13</sup> <https://www.smeunited.eu/admin/storage/smeunited/200630-covidsurvey-results.pdf>

<sup>14</sup> Global state of small business report, OECD (Wave I, May 2020)

<sup>15</sup> <https://www.oecd.org/coronavirus/policy-responses/coronavirus-covid-19-sme-policy-responses-04440101/>

regional authorities could not deliver an effective and immediate response strategy. In Italy, for instance, sometimes administrative bottlenecks and uneven distribution of formal responsibilities, in addition to the unprecedented scale of the crisis, were reported as the main barrier in policy planning<sup>16</sup>.

Additionally, designing large-scale initiatives quickly and in an uncertain economic climate caused considerable implementation challenges for policy makers. For instance, a policy approach had to be repeatedly reassessed and adjusted to reach a large mass of SMEs in a very short period of time and in an appropriate manner<sup>17</sup>. It proved, for instance, particularly challenging to provide relief to the self-employed, start-ups, and informal ventures, since a large majority of them never applied for formal support during the COVID-19 crisis and/or they have never applied for formal support before, facing great administrative barriers. Moreover, to avoid the risk that the public support may not flow to the right beneficiaries, regional governments had to be vigilant to avoid fraud and misappropriation of funds.

The responses from regional and national authorities focused primarily on alleviating the short-term impact of the pandemic (e.g., reduction of functional costs of SMEs, business survival), rather than the long-term sustainability of regional socio-economic systems. For instance, although evidence indicates that public interventions had been generally effective in mitigating the impact of the crisis for rural SMEs, governments faced exceptional challenges in enhancing growth and reduce inequalities in the next phases of the pandemic. Lastly, flexibility in EU spending rules strengthened Member States' capacity to directly support their industries' needs, which proved to be essential given the urgency of the situation. Nevertheless, this approach had some negative implications, namely that this approach supported all businesses regardless of their solvency in normal conditions. In addition, many businesses took loans which they may not be able to repay or, in some cases, did not need, leading to an inefficient allocation of financial resources.

#### Funding challenges: a shift towards addressing crisis

In responding to the COVID-19 pandemic, both national and regional authorities directed funding in the first instance to support healthcare responses, often at the expense of other socio-economic needs. Especially in rural areas, which were more vulnerable in some regards, due to their demographic and infrastructure characteristics, regional authorities faced a difficult trade-off between managing the economic recovery of SMEs – many of which were at the verge of bankruptcy – and mitigating the impact of the second wave of the virus. Moreover, the situation became more challenging for regions, whose economy heavily relied on sectors that had been hit particularly hard (e.g., hospitality, tourism) by the pandemic.

The limited resources available, together with the newly emerged needs of SMEs, led to a reassessment of the existing funding plans. For instance, a shift in focus was recorded in the EU SME strategy. In view of the abrupt and sharp decline in sales revenues, which created liquidity shortages, SMEs' survival was prioritized over green growth and competitiveness. More precisely, while the pre-pandemic Enterprise Europe Network's strategic plan had set forth actions towards sustainability through investment in more resource-efficient and circular processes, the pandemic necessitated a focus on resilience practices and emergency operational plans. Thus, the funding reallocation to address the impact of the pandemic, limited the available resources to support and promote other policy priorities. For instance, among the 100 national cohesion programmes that presented amendments in August 2020 to account for the new CRII budget, there were significant allocation increases in support for

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<sup>16</sup> <https://www.sciencedirect.com/science/article/pii/S016920462030815X>

<sup>17</sup> [https://www.oecd-ilibrary.org/economics/financing-smes-and-entrepreneurship-an-oecd-scoreboard\\_ecd81a65-en](https://www.oecd-ilibrary.org/economics/financing-smes-and-entrepreneurship-an-oecd-scoreboard_ecd81a65-en)

entrepreneurship and start-ups, whereas allocations in strategic areas including greening of SMEs decreased, as they had not been considered as crisis priorities during the pandemic.

### 3 ANALYSIS OF PARTNERS' RESULTS FOR POLICY & IMPLEMENTATION IMPACT (SZREDA)

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The survey conducted in the context of Activity1 comprised two different parts, each with the corresponding methodology and questionnaire. The first (provided by SZREDA) was addressed to the INNOGROW partners and concerned the impact of COVID-19 on the economy and rural SMEs, responses taken by regional authorities to mitigate the impact of COVID-19 and policy implementation challenges that regional authorities encountered in their attempts to mitigate the impact of COVID-19. The second (provided by FLA) was addressed to regional stakeholders and its aim was to provide first-hand knowledge of the impact of the pandemic on rural SMEs as well as the impact of the pandemic on the employment status of people employed by rural SMEs.

#### 3.1 SURVEY OBJECTIVE AND TARGET GROUPS

The first part of the survey was aided by the questionnaires issued to all INNOGROW partners, provided in the methodology report prepared by SZREDA.

The aim of the first survey was to collect data on:

- Policy implementation challenges that regional authorities encountered in their attempt to mitigate the COVID-19 impact.
- Responses taken by regional authorities to mitigate the impact of COVID-19 on rural SMEs and promote the economic recovery and resilience;
- The COVID-19 impact on certain sectors of rural economy (e.g., agriculture), focusing on rural SMEs' performance.

More specifically, each project partner completed the questionnaire, providing the required information regarding their own region. Although it was not a requirement, partners were strongly advised to complete the questionnaires after consulting with regional stakeholders. The analysis of the data identified common challenges pertaining to the mitigation of the impact of COVID-19 on rural SMEs and by extension on rural economies, as well as providing the basis for relevant conclusions and policy suggestions.

### 3.2 FRAMEWORK: SWOT ANALYSIS

The survey incorporates elements of a SWOT analysis framework (Strengths, Weaknesses, Opportunities, and Threats). This is a dynamic method for assessing the potential and overall capacities (i.e., internal and external factors related to public authorities’ efficiency) of public authorities in partnership regions, focusing on their actions and policy responses to mitigate the COVID-19 impact on rural economy. The rationale of the SWOT framework is to guide future actions by matching their strengths with opportunities in order to ward off potential threats and overcome harmful weaknesses. This method enables relevant actors to be realistic about what they can attain and where they should focus to improve their decision making and increase their capacity to deal with future crises, considering aspects that may not have been previously examined or discussed in depth.

Based on the above, the questionnaire was divided in 4 sections, illustrated in Table 1: Strengths (Section 3), Weaknesses (Section 2), Opportunities (Section 4), and Threats (Section 1). All questions have a rating scale of 1-5. Finally, the partners were able to rate each option provided in a given question and not choose one and exclude all other factors.

Table 1  
SWOT Analysis and Survey Sections

Survey Section	Section 1	Section 2	Section 3	Section 4
Aspect	<b>Threats</b>	<b>Weaknesses</b>	<b>Strengths</b>	<b>Opportunities</b>
Goal	Identify the main policy and implementation challenges that regional authorities faced in their attempt to support rural SMEs during the COVID-19 crisis.	Explore the economic activities and fields of innovation that have been the most vulnerable during the pandemic.	Identify internal factors that can contribute to regional recovery and resilience to future crisis.	EU as well as national support measures that can be taken to ensure long-term economy’s resilience in partnership regions
Related questions	Questions: 1.1, 1.2, 1.3	Questions: 2.1, 2.2	Questions: 3.1	Questions: 4.1, 4.2

For the analysis below, we are following the order of the questionnaire answered by the partners, starting from section 1.



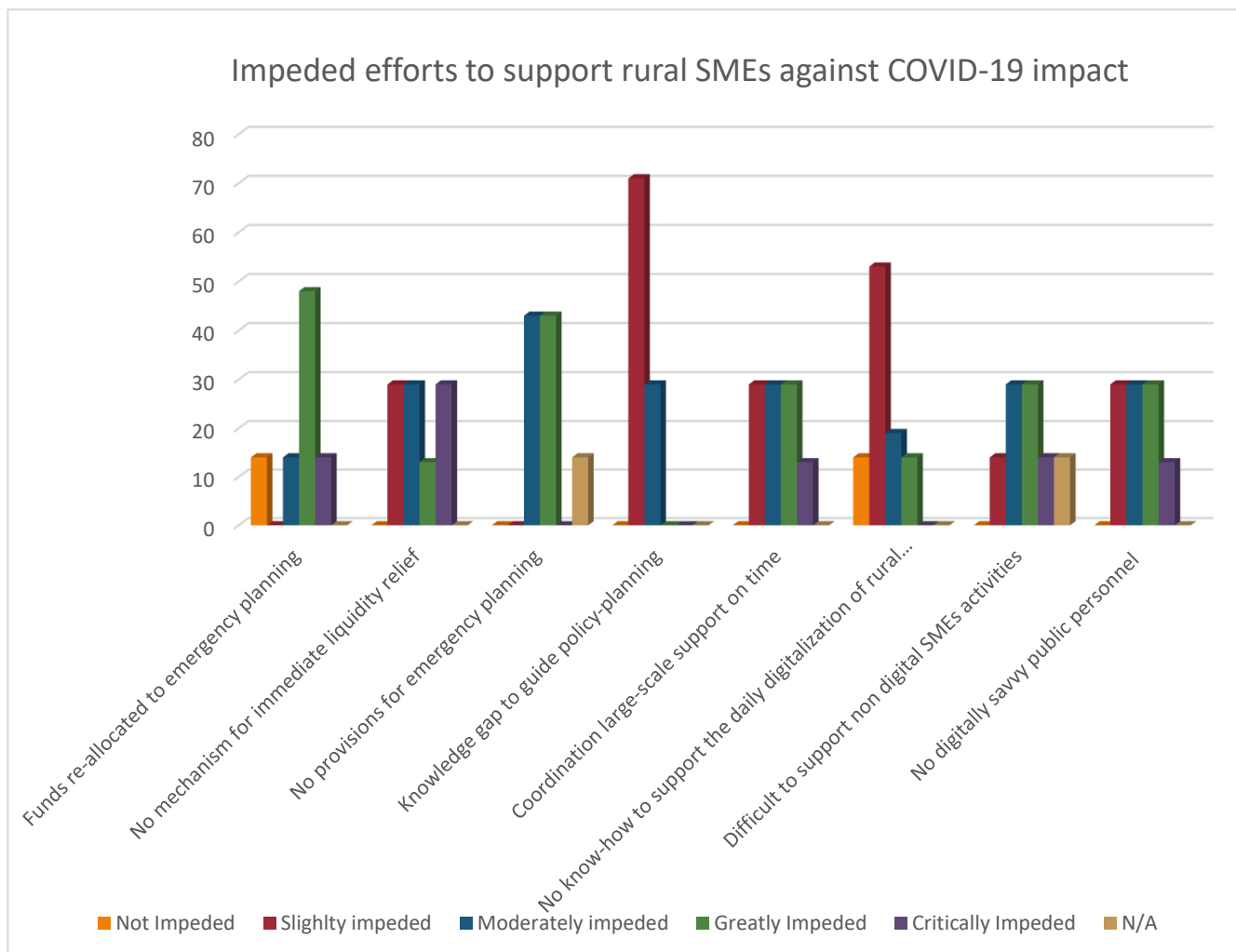
### 3.3 THREATS: POLICY AND IMPLEMENTATION CHALLENGES

Threats refer to the challenges identified in policy planning and implementation. As a result, this section aims to identify gaps in the regional policies and the implementation of the regional Policy Instruments, which became conspicuous during and as a result of the COVID-19 pandemic. It also focuses on the challenges that regional authorities encountered in their attempt to mitigate the impact of COVID-19 on rural economies. By identifying threats, regional authorities could develop the necessary policy framework to mitigate the impact of future crises on rural SMEs and rural economies.

#### 3.3.1 IMPEDED EFFORTS

A significant challenge faced by regional authorities concerns the increased economic uncertainty due to the COVID-19 crisis and the urgency with which policy makers had to act in order to mitigate the impact of COVID-19 on regional economies and societies.

Figure 1 – Efforts to support rural SMEs



Firstly, the partners reported on the extent and severity of a number of challenges that impeded their efforts in alleviating the impact of COVID-19 on the regional economies and SMEs in particular. The answers are shown in Figure 1.

Based on the partners’ replies, the lack of financial support was viewed as the most critical issue that the rural SMEs faced during the pandemic. In particular, the fact that funds had to re-allocated from supporting rural SMEs in order to address the urgent needs of the pandemic along with lack of regional mechanism to provide liquidity relief to rural SMEs had the most adverse impact during the pandemic. Following that, issues related to the ability to support businesses that could not digitalize their activities (e.g. agriculture) and the lack of digitally savvy personnel in public services, which limited their ability to remotely support SMEs, were also seen as major issues. On the other hand, knowledge gaps in regional policy-making was viewed as a comparatively minor issue.

### 3.3.2 MAIN POLICY GAPS FOR URGENT POLICY MEASURES

The pandemic exposed policy gaps in many EU/UK regions. Secondly, partners were asked to briefly indicate the main policy gaps that the COVID-19 crisis uncovered in the management of the policy instruments addressed in the context of the INNOGROW project. The partners’ reports are summarized in Table 2.

Table 2 – Policy gaps detected in Policy instruments

PARTNER	POLICY INSTRUMENT	POLICY GAP
Region of Lombardy (IT)	Regional Operational Programs financed by the ESI Funds	There was difficulty in promptly responding to the pandemic challenges leading to a re-allocation of resources not yet committed to the Program towards specific initiatives to combat the pandemic, consistent with the CRII Regulations.
Pannon Novum (HU)	TOP – Local economy development, CLLD. Rural development program (Western Transdanubia)	National level support actions were immediate and efficient in most sectors (one exception was tourism), but regional specifications were not considered on appropriate level.
Newcastle University (UK)	The North of Tyne Rural Business Growth Service	<ol style="list-style-type: none"> <li>1. To support rural businesses with growth potential and ambition to develop and implement business growth plans.</li> <li>2. Develop a more diverse business base by supporting rural businesses to grow, creating new employment opportunities and increasing productivity.</li> <li>3. Stimulate investments in the growth of existing private sector rural businesses.</li> <li>4. Business Advice and Support Services.</li> <li>5. A Capital Grant Investment Fund.</li> </ol>
Region of Thessaly (GR)	Thessaly Regional Operational Programme (ROP) 2014-2020	*
SZREDA (BG)	Bulgarian Operational Programme “Innovations and Competitiveness” 2014 – 2020 (OPIC)	The COVID-19 pandemic came in a moment of transition between two programming periods, which has significantly changed the focus and perspective of the working groups engaged with the design of the new programs.

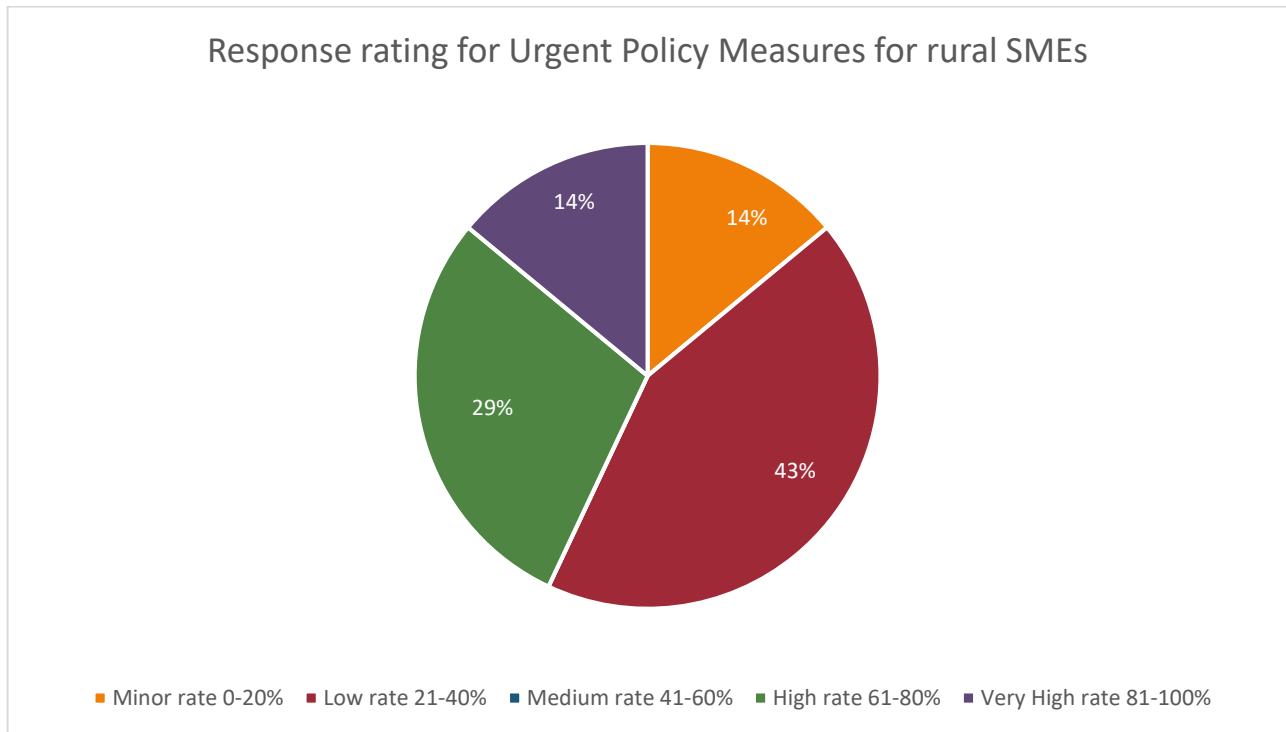
		<p>Unfortunately, a significant share of the funding dedicated to innovations were reallocated towards mitigation of the consequences caused by the pandemic.</p> <p>It is hoped that the new programming period 2021 – 2027 will allow companies in rural regions to catch up in terms of innovations, competitiveness and growth.</p>
MOLISE (IT)	REGIONAL PROGRAM - OPERATIONAL - RURAL DEVELOPMENT PROGRAM	<p>The administrative machine has been slow due to smart working. We quickly passed from one working model to another that has generated difficulty in the management of flows also in relations between staff.</p> <p>A re-programming was necessary but it has extended management times and deadlines to 2023. Projects are now closing projects that should have been closed in 2020.</p>
BSC (SI)	Rural Development Programme 2014-2020	<p>The policy instrument has limited options for a faster and stronger response to emergency situations in agricultural sectors, since measures are planned and fixed upfront. Procedures for re-allocating funds between measures are time consuming and administratively complicated thus hindering flexible response, expected in critical situations (i.e., COVID-19 crisis).</p> <p>Moreover, the government was not able to efficiently react on the increased needs of agricultural SMEs for:</p> <ul style="list-style-type: none"> <li>• Adopting digital tools (e.g., to support their marketing, sales, distribution, communication activities, electronic signature, etc.);</li> <li>• Using simplified electronic systems for applying to public calls;</li> <li>• Using on-line business support services.</li> </ul>

The Region of Thessaly did not provide any information on policy gaps detected in the policy instrument addressed by the project.

### 3.3.3 OVERALL RESPONSE OF THE POLICY INSTRUMENTS TO THE COVID-19 EMERGENCY

Thirdly, the partners rated the overall response of their policy instrument in terms of supporting rural SMEs in the region during the pandemic and reported on whether the policy instrument managed to effectively respond to the emergency needs of the COVID-19 crisis. The results are shown in Figure 2.

FIGURE 2 – Responses to Urgent policy measures



Partners mostly rated the overall response of the policy instruments as either poor or moderate, highlighting the need to further advance and improve the current policies to effectively support rural SMEs in the present conjuncture.

### 3.4 WEAKNESSES: VULNERABLE RURAL SECTORS AND INNOVATION ACTIVITIES

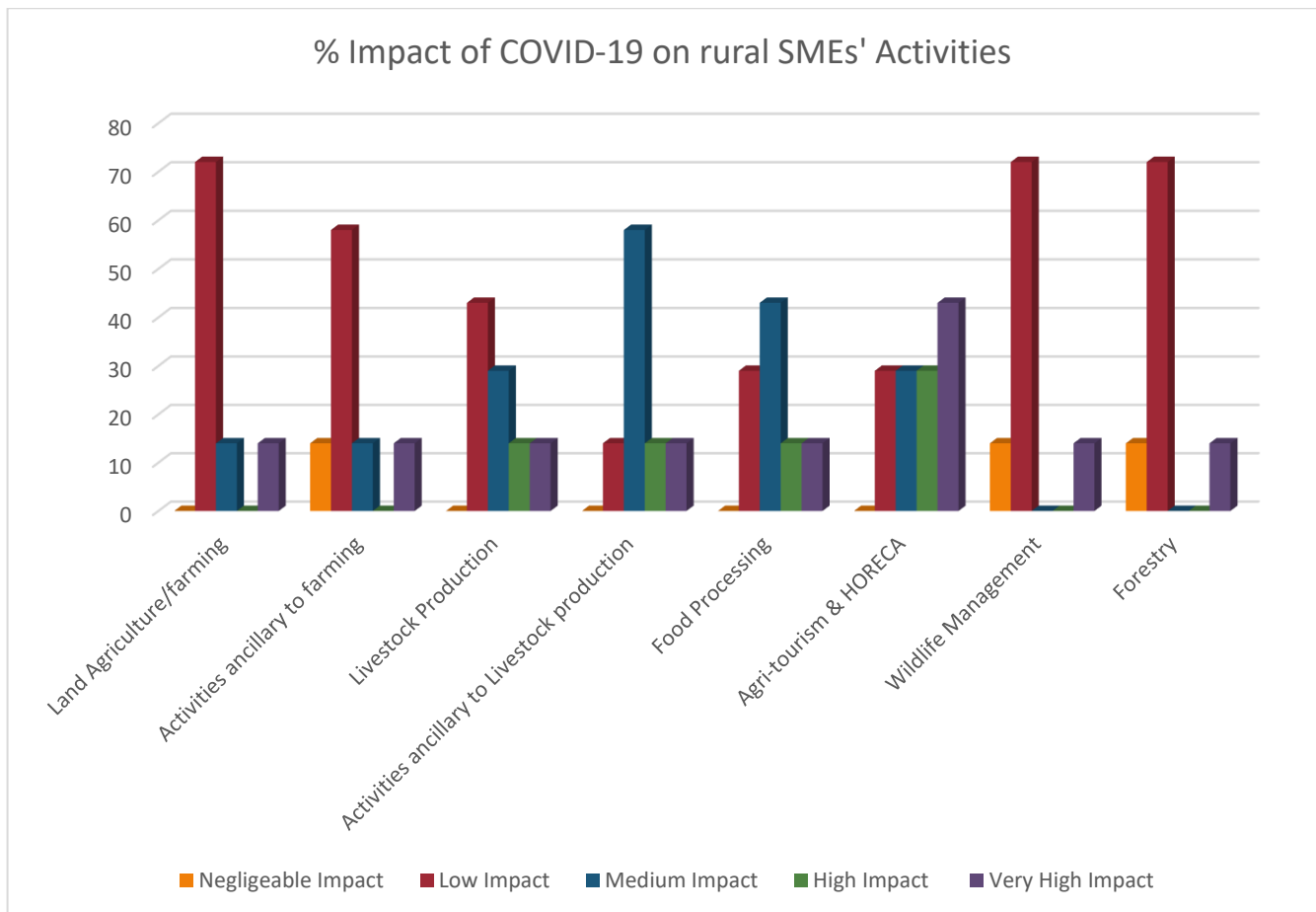
In contrast to strengths, weaknesses comprised of intrinsic characteristics of rural SMEs and rural economies that increase their vulnerability to external events and impair the efforts of regional authorities to support rural SMEs and promote economic recovery and resilience. In the context of this project activity, these elements refer to issues that impeded the regional economic recovery from the COVID-19 crisis, to the results identify which economic activities and innovation fields have been the most vulnerable during the COVID-19 crisis.

#### 3.4.1 RURAL ECONOMY SECTORS AFFECTED

The rural sectors under discussion (i.e., agriculture, livestock production, tourism, as well as agri-tourism) have been identified as the most impacted after conducting relevant literature research.

Firstly, the partners reported on how much the COVID-19 crisis has impacted the following economic activities of SMEs in their region in terms of business shut-downs, economic downturn, and/or layoffs. Their answers are presented in Figure 3.

Figure 3 – COVID-19 impact on rural SMEs' activities

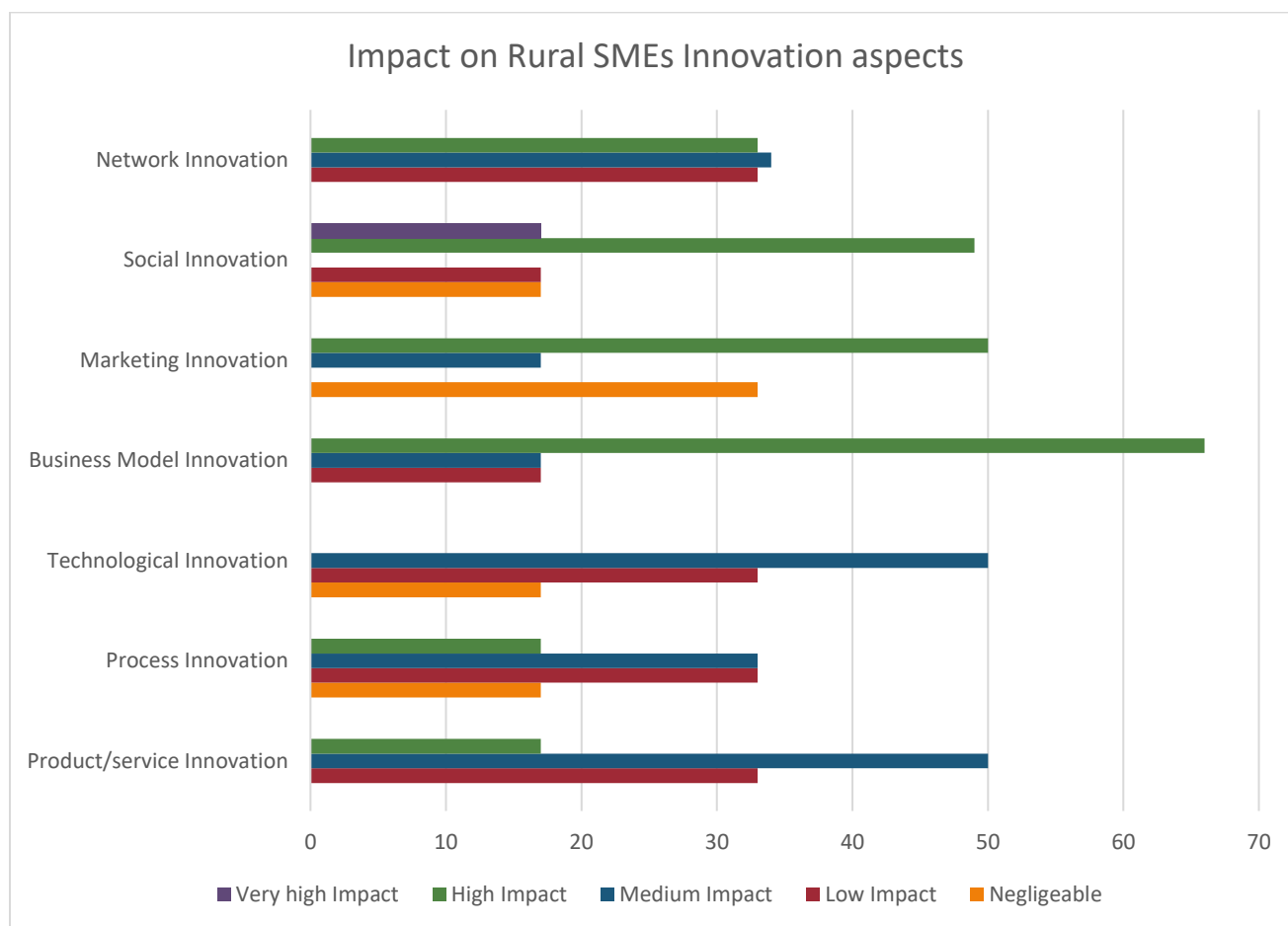


The partners reported on the impact of COVID-19 on different sectors of rural economies and in particular the impact that the pandemic had on rural SMEs in these sectors. Based on the partners’ findings, rural SMEs in agri-tourism and the HORECA sector have been the most severely impacted. This result should be expected due to the lockdowns and travel restrictions that took place over the past 2 years. On the other hand, rural SMEs in agriculture or forestry appear to not be particularly impacted by the pandemic.

### 3.4.2 COVID-19 NEGATIVE IMPACT ON INNOVATION ASPECTS FOR RURAL SMEs

The partners reported their findings on the types of innovation that have been negatively impacted in rural SMEs in their region as a result of the pandemic<sup>18</sup>.

Figure 4 – Impact on rural SMEs’ innovation



The most impacted aspects were: Social innovation (e.g., developing new strategies to respond to social needs) and business model innovation (e.g., adoption of sustainable and/or circular business models), followed by marketing innovation (e.g., use of new marketing channels for enhancing sales). On the other hand, process and product/service innovation appear to have been more moderately impacted.

<sup>18</sup> In this case, FLA only reported on the impacted innovation aspects (business model innovation, social innovation and network innovation) without rating the impact of the pandemic on them. As a results, their findings were not incorporated in Figure 4.

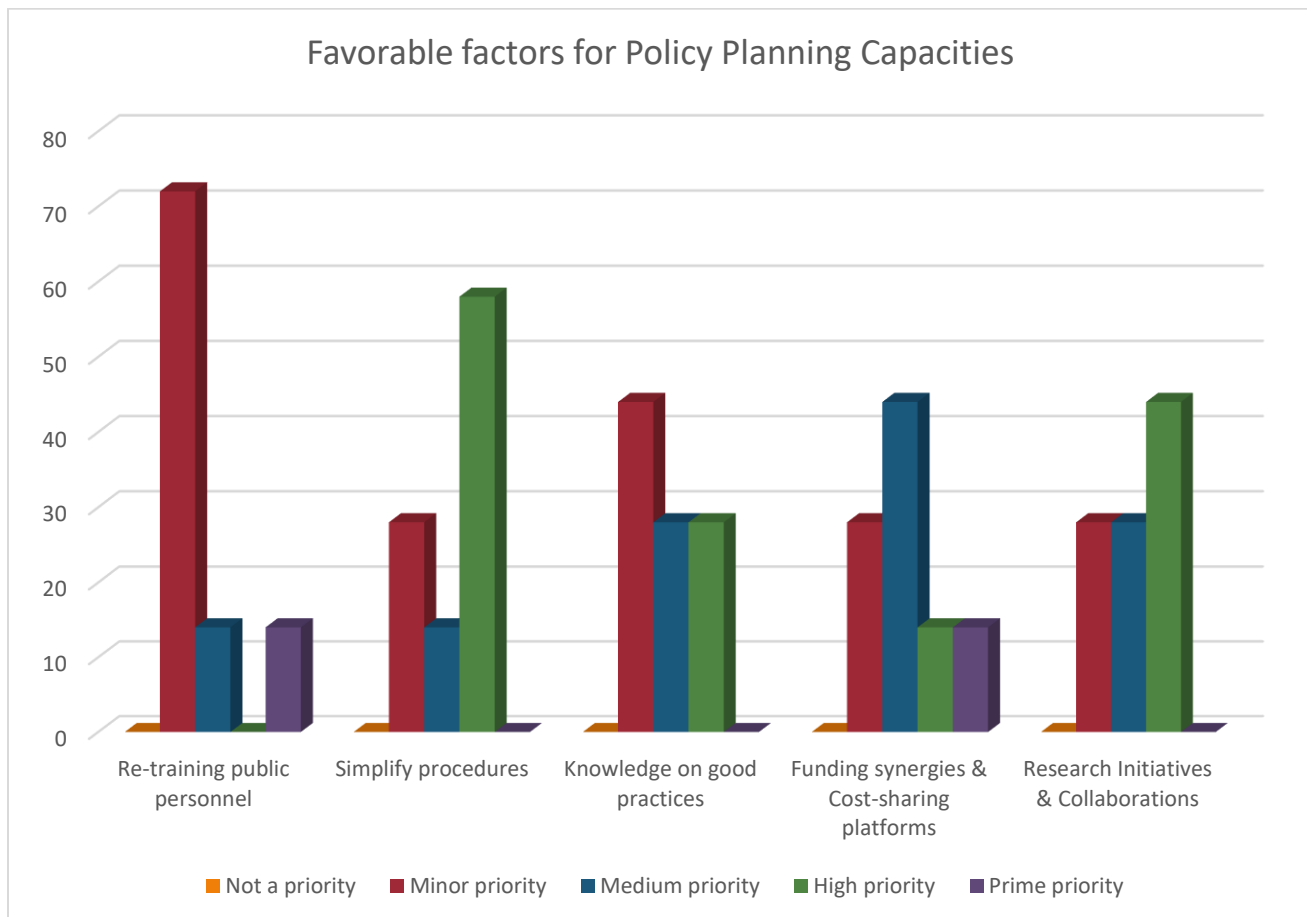
### 3.5 STRENGTHS: FACTORS THAT CAN CONTRIBUTE TO REGIONAL RECOVERY AND RESILIENCE PLANNING

This section documents the characteristics of rural SMEs and regional economies that aided regional authorities in supporting the rural economy and boost its resilience in the aftermath of the COVID-19 crisis. Strengths differ from opportunities in that the latter are external and regions have no control over their presence/frequency.

#### 3.5.1 FACTORS ENABLING THE POLICY PLANNING CAPACITIES

Five favorable factors for enhancing the capacity of public authorities and their ability to plan effective policies were identified (re-training, simplifying procedures, knowledge of good practices, funding synergies and research collaborations). The partners reported on the extent to which each of the factors were relevant to their region, presented below in Figure 5.

Figure 5 – Favorable factors for policy planning capacities



The results show that the most important factors for boosting policy planning capacities were: 1) the simplification of administrative and bureaucratic procedures so that public authorities can provide more effective emergency support to rural SMEs and 2) the promotion of research initiatives and collaborations with research organisations, universities and/or agencies that perform research in the fields of green growth and digitalization of rural SMEs. On the other hand, re-training public workers was viewed as a low priority option.

### 3.6 OPPORTUNITIES: DESIGNING THE RECOVERY AND RESILIENCE OF RURAL SMEs

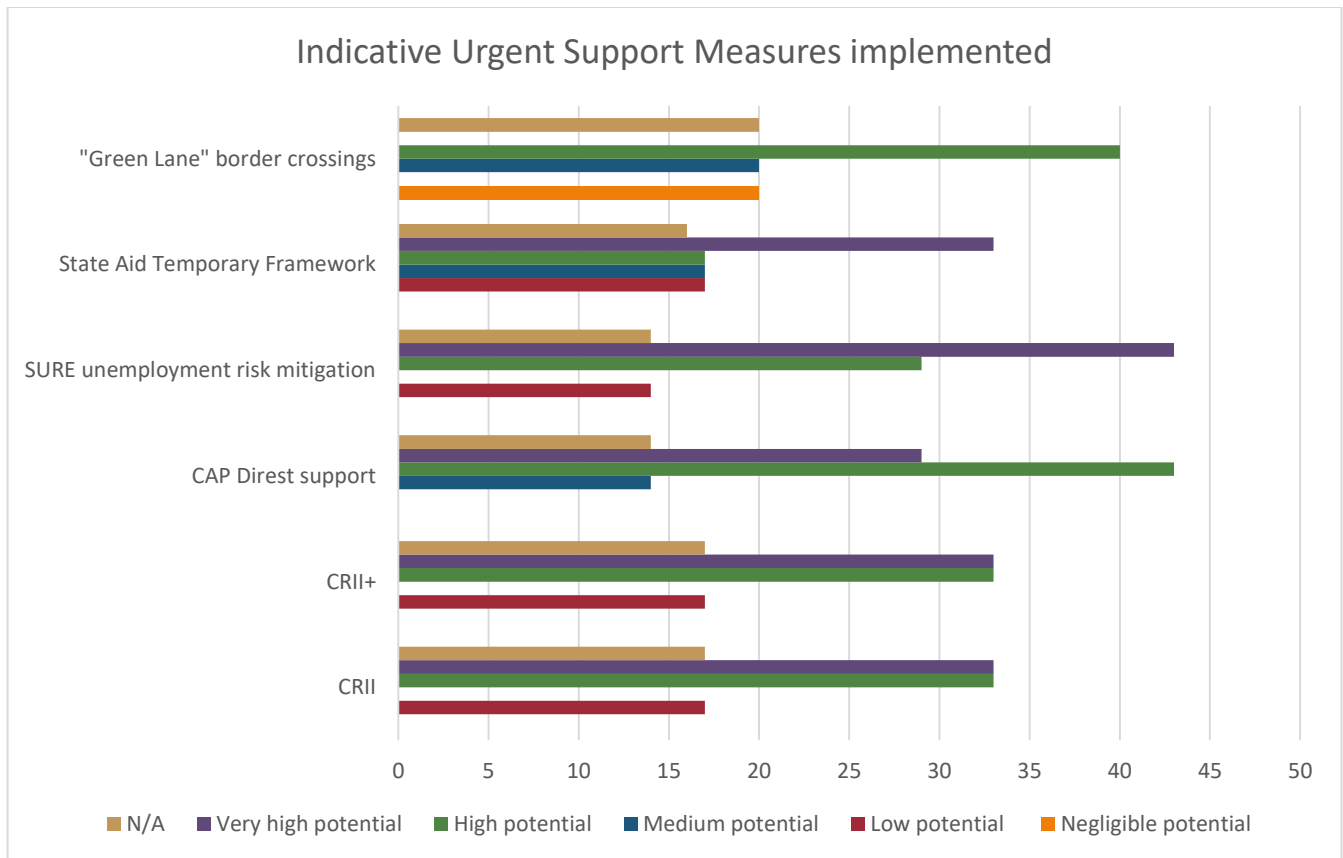
Opportunities are external factors that could enable INNOGROW regional authorities to increase their capacity to deal with COVID-19 as well as future economic crises and, thus, ensure SMEs’ viability in such situations. In the current context, opportunities mainly refer to the external support provided to rural SMEs, through EU support measures and/or the Policy Instrument(s) implemented by regional authorities.

#### 3.6.1 EU URGENT FUNDING

Flexibility in EU spending rules strengthened Member States’ capacity to directly support their industries’ needs, which proved to be essential given the urgency of the situation.

The following options (in Figure 6) represent support measures that were initiated by the European Commission during the pandemic to provide support to struggling economies.

Figure 6 – Urgent support measures implemented



Based on the partners’ views, the SURE unemployment mitigation temporary support was evaluated as the most impactful, followed by the CAP Direct support and the “Green Lane” border crossings. These results should be utilized as a guideline for future policy making to increase the effectiveness and efficiency of the corresponding policy measures. Moreover, it is important going forward to focus on longer-term strategic objectives and investments based on strategies aligned to the EU’s current policy priorities.

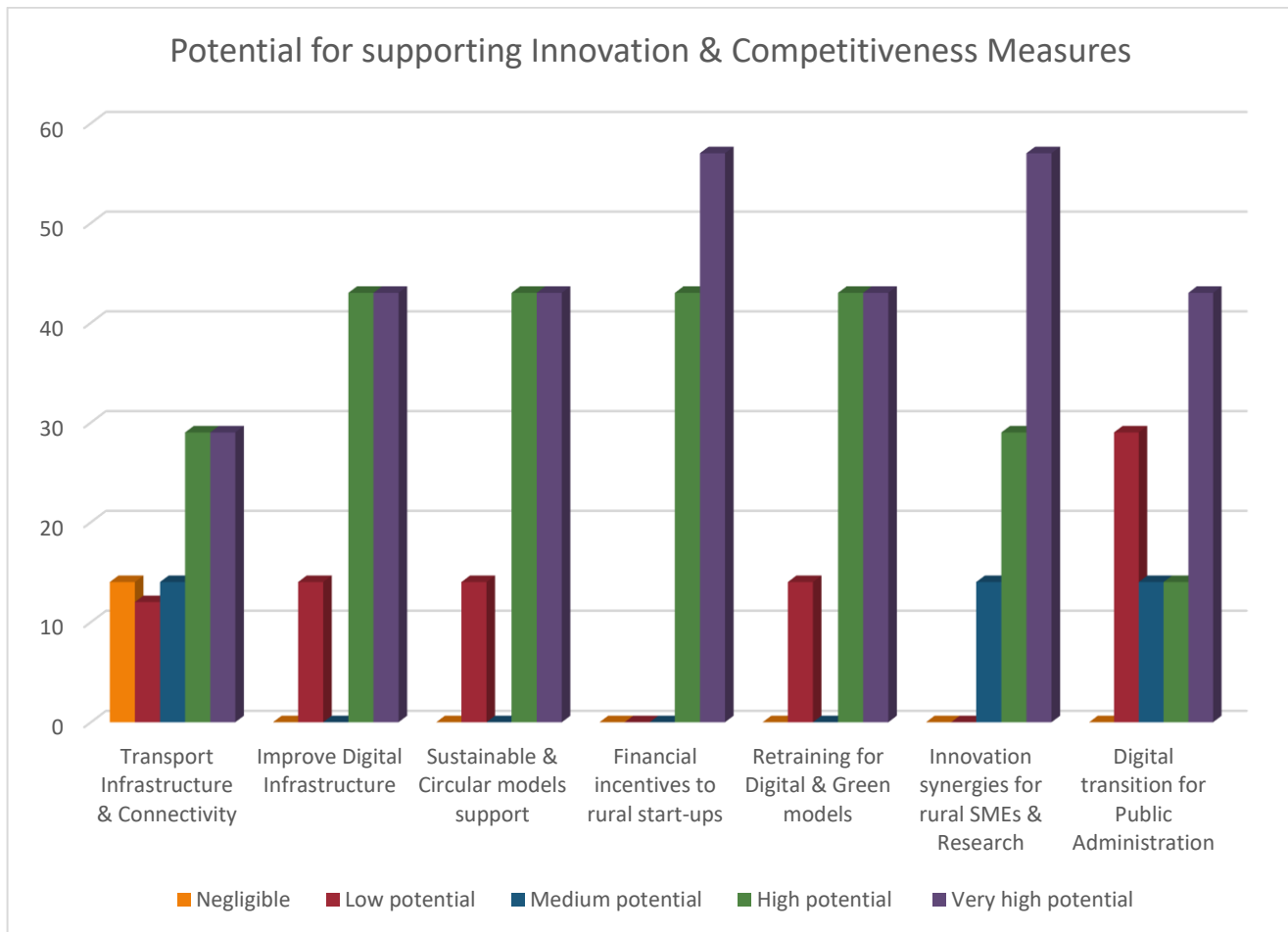
MOLISE did not provide a rating for the option “Green lane border crossings”, therefore is not included in this factor.



### 3.6.2 SUPPORTING MEASURES FOR RURAL SMEs INNOVATION AND COMPETITIVENESS

The partners reported on measures which have the greatest potential to assist their region in building a socioeconomic environment that would help rural SMEs to innovate and be competitive beyond the pandemic.

Figure 7 – Innovation and competitiveness measures support



Based on the answers, the factors with the most potential for supporting the competitiveness of rural SMEs are: 1) the establishment of innovation hubs and networks to facilitate synergies between rural SMEs and research organizations and 2) the provision of financial incentives and support to young owners and new rural SMEs and start-ups. Other options with high potential are: i) redesigning and expanding the existing transport infrastructure to enhance connectivity with main trading routes, ii) improving the digital infrastructure of the region (e.g. upgrade to 5G network) to facilitate the digitalization of rural SMEs, iii) providing retraining programs for rural SMEs to assist them in shifting to digital and green models of operation and d) improving the digital transition of public administration.

### 3.7 CONCLUSIONS

A key finding from this questionnaire (provided by SZREDA) are the inadequacy of policy measures that have been taken thus far to support rural SMEs and alleviate the impact of the pandemic on them. Consequently, the partners and the regional authorities in the INNOGROW regions should explore different pathways to further increase the impact and effectiveness of their current policies. Furthermore, based on the partners' reports rural SMEs in the HORECA and agri-tourism sectors have faced the most severe challenges from the pandemic and should thus be at the core of any future support policies.

In terms of specific actions that can augment the policy planning capacities of regional authorities, the simplification of bureaucratic and administrative procedures and the collaboration with research institutions or universities are viewed as the most impactful options. These results could be directly incorporated in the current modus operandi of regional authorities in the INNOGROW regions, leading to a significant increase in their ability to support SMEs through their policies.

SURE unemployment risk mitigation and state aid temporary framework are viewed, based on the partners' findings, as the two most impactful support measures implemented at the EU level. As a result, future policy making (and particularly crisis management) could incorporate key aspects of these initiatives to increase the overall effectiveness of the applied policies.

A topic with direct application to future policy making concerns policy measures that will facilitate the creation of a socio-economic environment that would help SMEs innovate and increase their competitiveness and thus their resilience to future crises. Most of the provided options were rated favorably in terms of their potential impact. Among them, fostering synergies between rural SMEs and research institutions and providing financial incentives to rural start-ups are viewed as the most effective options. Given the chronic underperformance of rural areas in most innovation indicators and similarly the underperformance of SMEs vis á vis larger sized businesses, it is imperative to adopt policy measures that would bolster the ability of rural SMEs to innovate or adopt innovative technologies or practices.

## 4 ANALYSIS OF STAKEHOLDERS’ RESULTS FOR SOCIOECONOMIC IMPACT (FLA)

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The second part of the survey was aided by the questionnaires addressed to rural SMEs, provided in the methodology report prepared by FLA for each partner’s territory.

The following analysis follows a mixed approach, i.e. both quantitative and qualitative, prescribing the use of a questionnaire addressed to rural SMEs that operate in project partners’ territories.

### 4.1 SURVEY OBJECTIVE & FOCUS

The objective was to identify the economic, social, and employment impact of COVID-19 on rural SMEs in partnership regions; its geographical scope covers the territories represented in the INNOGROW project consortium. The questionnaire was addressed to owners and management personnel of rural SMEs operating in INNOGROW territories. 83 businesses are included in total.

To this end, the questionnaire includes three main sections:

1. Section 1 focused on the economic implications of the COVID-19 impact on rural SMES in partnership regions, and comprised two subsections;
  - a. Subsection 1.1 (three questions) required respondents to assess the COVID-19 economic impact on SMEs’ operations (e.g., business operations, business’ revenue).
  - b. Subsection 1.2 (three questions) required respondents to identify the extent and the type of COVID-19 impact on their territorial value chains.
2. Section 2 focused on the impact of COVID-19 on the rural SMEs’ workforce, and included four questions to identify the extent and the ways that the COVID-19 crisis impacted rural SMEs’ employment.
3. Section 3 comprised a single subsection of four questions, which required respondents to evaluate the aftermath of the crisis concerning the long-term impact on both economic and employment activities, as well as possible opportunities that emerged due to the COVID-19 crisis.

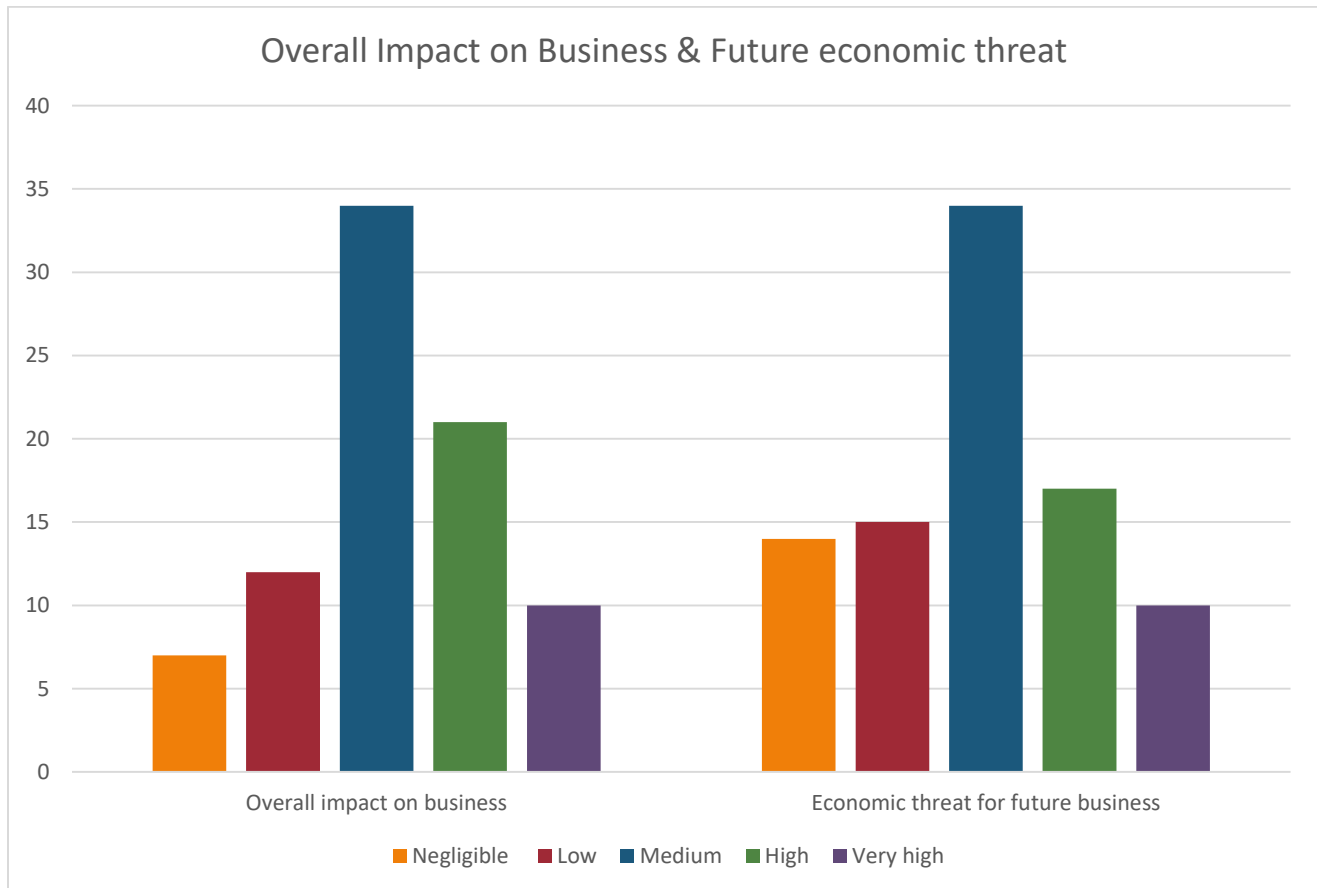
Table 3 – SMEs surveyed per participating country

Origin Country	No of businesses	Contributing Partner
Italy	27	FLA, MOLISE
Greece	9	RoT
Hungary	9	Pannon Novum
United Kingdom	10	Newcastle University
Bulgaria	12	SZREDA
Slovenia	16	BSC

## 4.2 ECONOMIC IMPACT OF COVID-19

The stakeholder businesses reported their views on the overall impact of COVID-19 on their operations as well as the degree of threat that COVID-19 presents for their future activities.

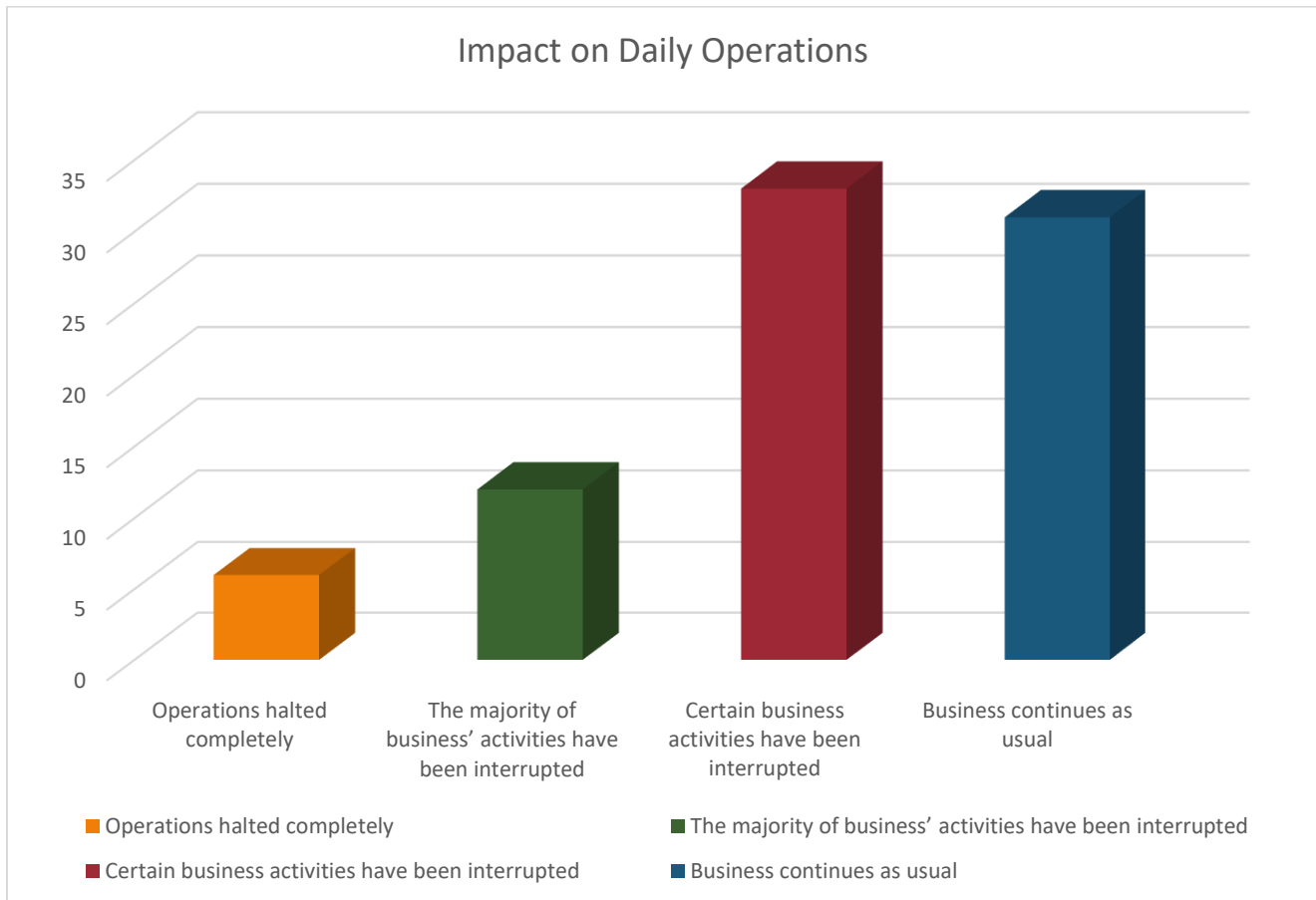
Figure 8 – Overall impact on business and future economic threat



The results are quite similar, indicating that the stakeholders believe that the effects of COVID-19 will persist over the coming months / years. In particular, the participants view the overall impact of COVID-19 on their business as moderately to highly negative, with a significant number of them rating the impact of COVID-19 as very high. As mentioned, the results are very similar with regards to the estimated impact of COVID-19 in the future, with only a small number of stakeholders believing that the impact of COVID-19 will be considerably less in the future.

Next, the businesses reported on the degree that COVID-19 has impacted their daily operations. These results have been summarized in Figure 9.

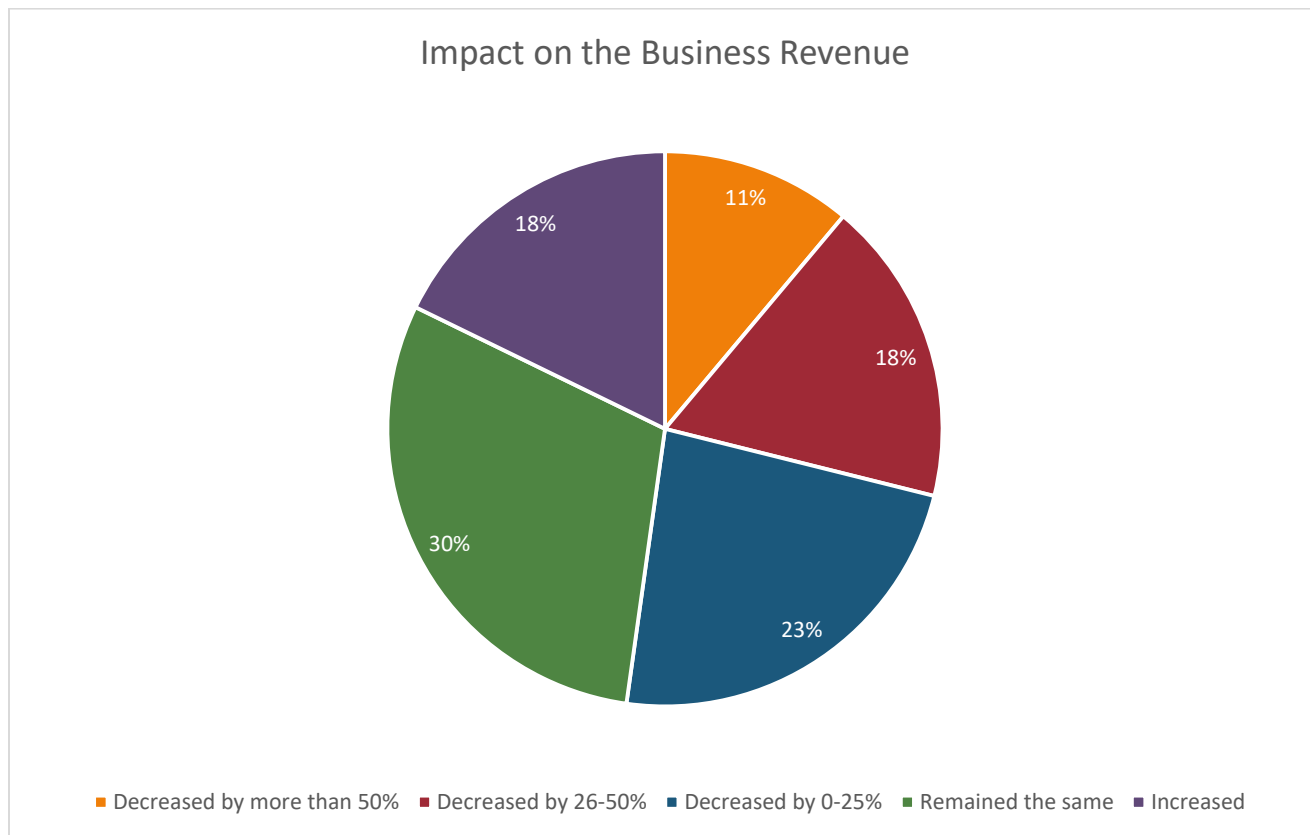
Figure 9 – Impact on daily operations



Most businesses (63%) reported a partial or full impairment of their daily operations due to COVID-19. On the other hand, a significant minority did not report any disruption in their daily operations as a direct result of the pandemic. The relatively high percentage of businesses not reporting any disruption in their daily operation during the pandemic could be related to the relatively small sample size of the survey.

Subsequently, the stakeholders reported on the impact of the pandemic on the revenues of the businesses. The corresponding results are shown in Figure 10.

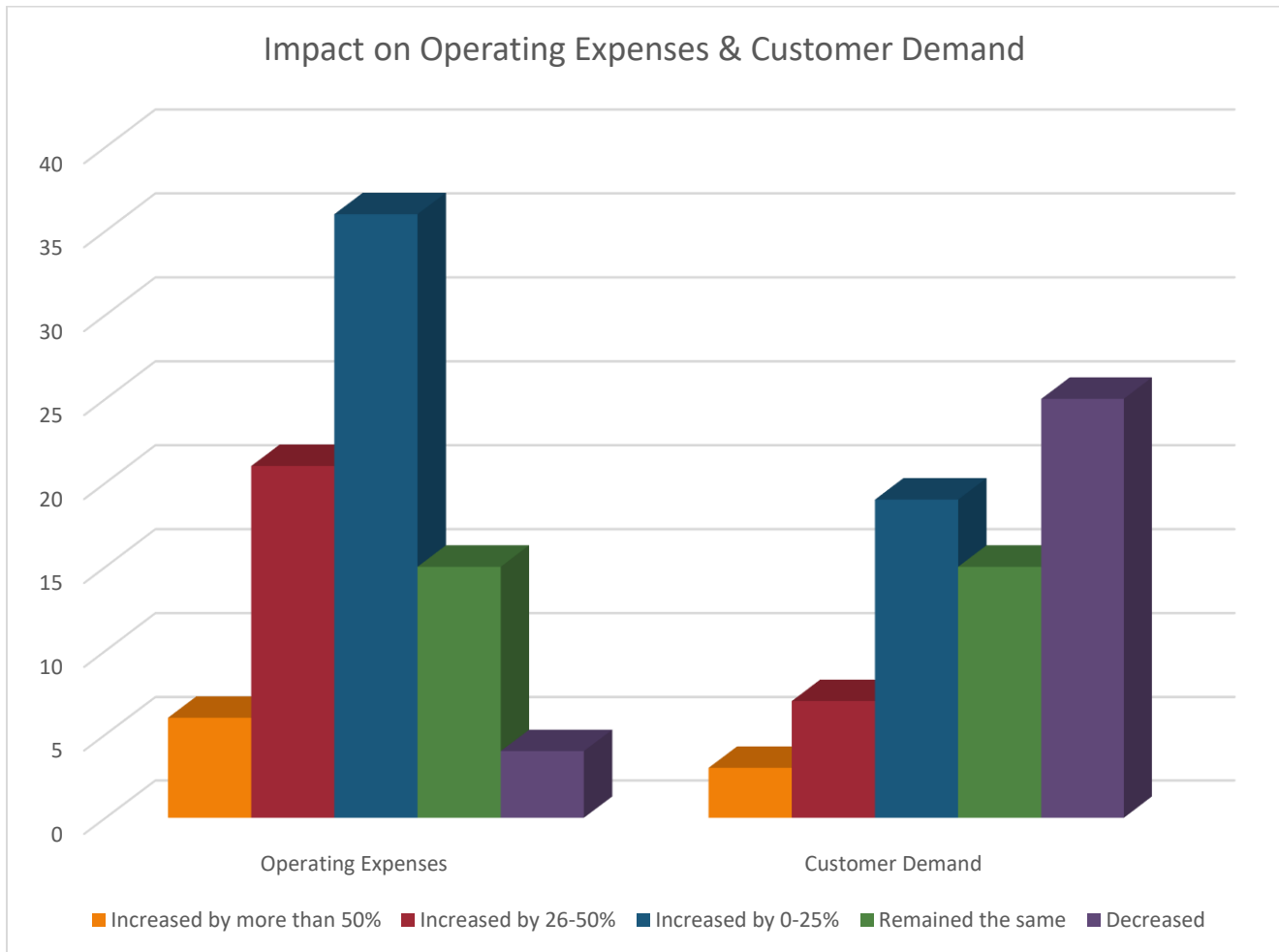
Figure 10 – Impact on the business revenues



46% of rural SMEs reported a decrease in their revenues during the pandemic, whereas 23% reported an improved income. This highlights the fact that the impact of COVID-19 has been overwhelmingly negative and furthermore that a significant number of businesses (29%) have been severely impacted from the pandemic.

The stakeholders have also reported on the impact of the pandemic on the operating expenses of the businesses as well as on changes that they have experienced in customer demand during the pandemic. The results are shown in Figure 10.

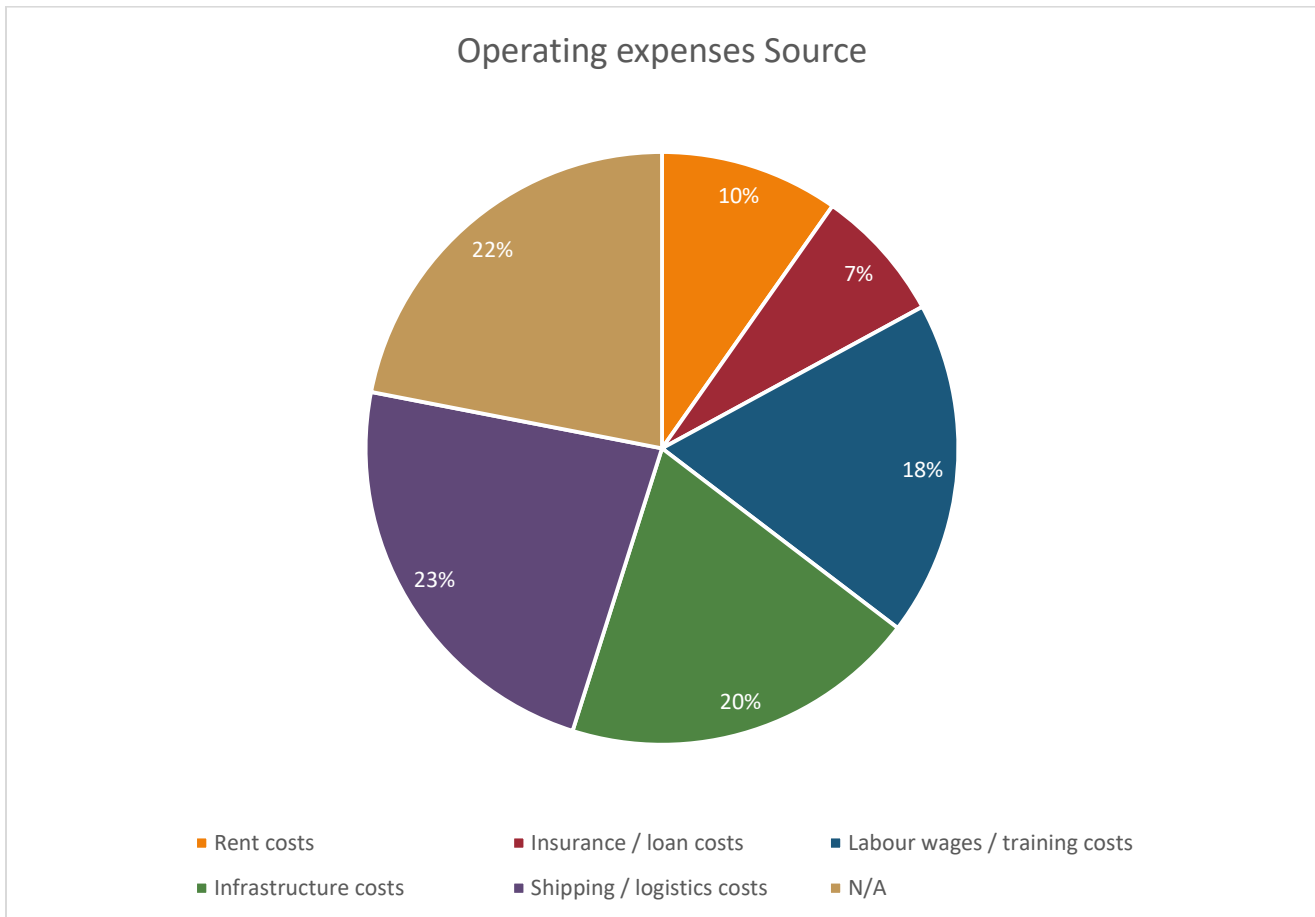
Figure 10 - Results for impact on operating expenses and customer demand



The stakeholders reported an overall increase in their operating costs and a decreased or stable customer demand, which has, on average, led to a deterioration of their economic outlook. This is to be expected due to the severity and length of the COVID-19 crisis.

Next, the partners have reported on the factors that have contributed to the overall increase of the operating costs that they experienced during the pandemic. The information that they provided has been summarized in Figure 11.

Figure 11 – Factors contributing to the increase of the operating expenses

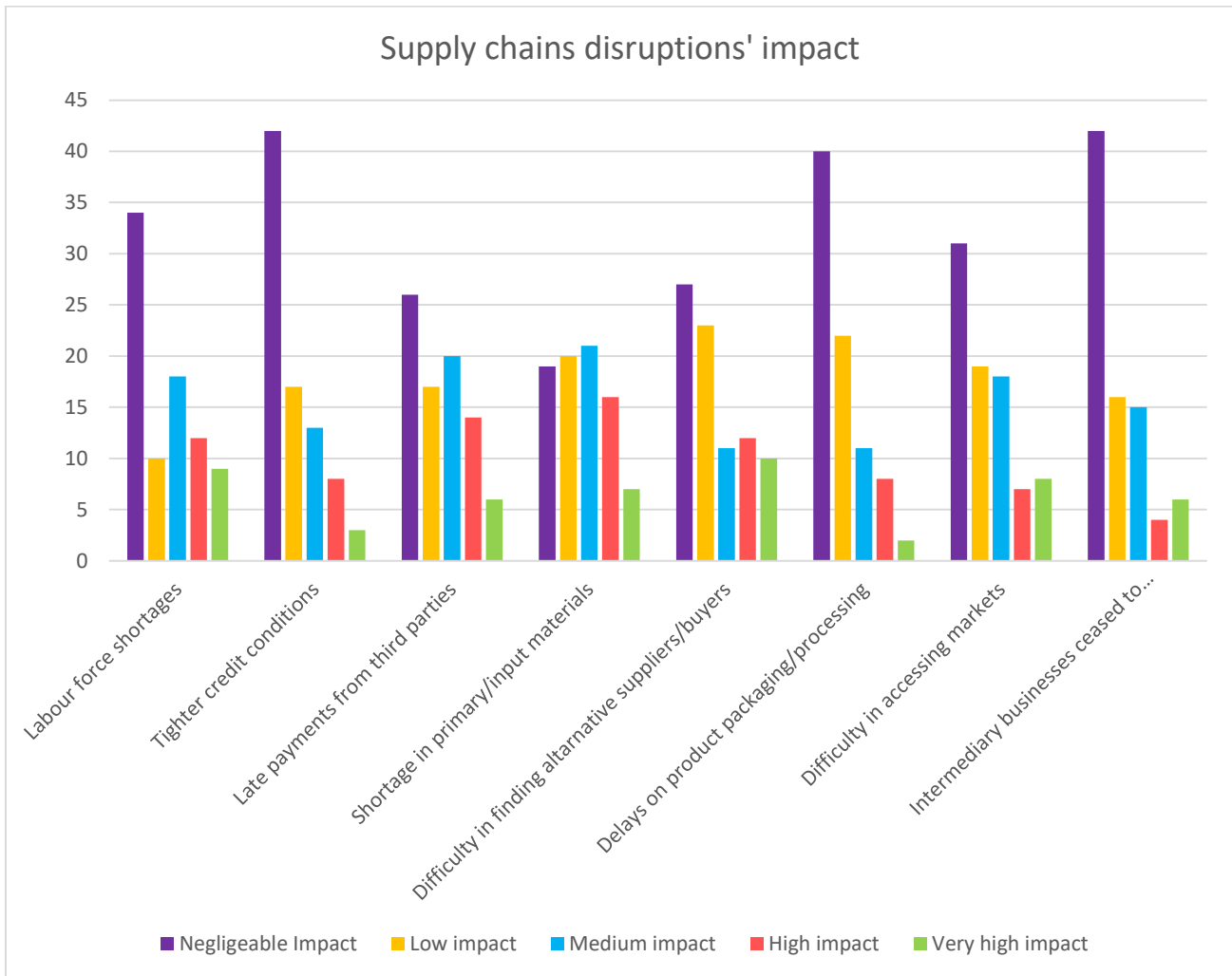


The INNOGROW stakeholders have reported on the reasons for the increase they have observed in their operating costs. Increased shipping / logistics costs is the most often cited reason, in accordance with the observed disruptions in the supply chains as a result of the pandemic. Increased rent cost is the second most cited reason for the increase in their operating costs, followed by increased infrastructure costs. Infrastructure costs may be related to the need to take additional protective measures to limit the spread of the virus, however it is not clear why the costs of renting increased during the crisis.

The stakeholders have also provided information on the sources of the observed disruptions in the supply chain as well as the magnitude of the impact of each of these factors. Their findings are presented in Figure 12.



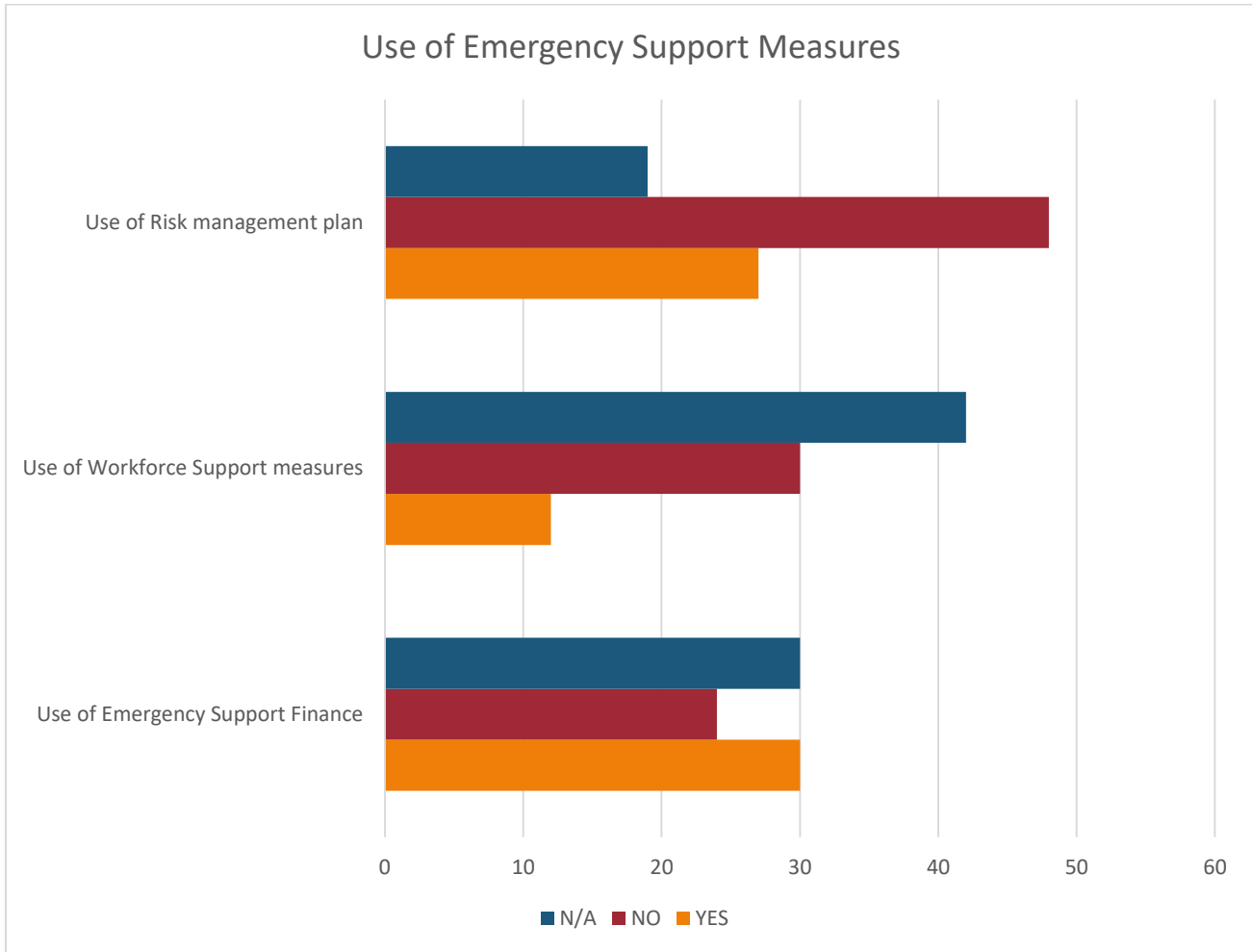
Figure 12 – Results for supply chain disruptions



The INNOGROW stakeholders presented their views on the impact of different sources of supply chain disruptions on their businesses. Difficulties in finding alternative suppliers, gaining access to the markets and labour force shortages were viewed as the options with the most adverse impact for the rural SMEs. Nevertheless, there is a wide distribution in the stakeholders’ opinions, which makes acquiring a clear picture of the salient and most impactful causes challenging.

Next, the partners reported on the type of emergency support measures that rural SMEs used during the pandemic. The corresponding results are shown in Figure 13.

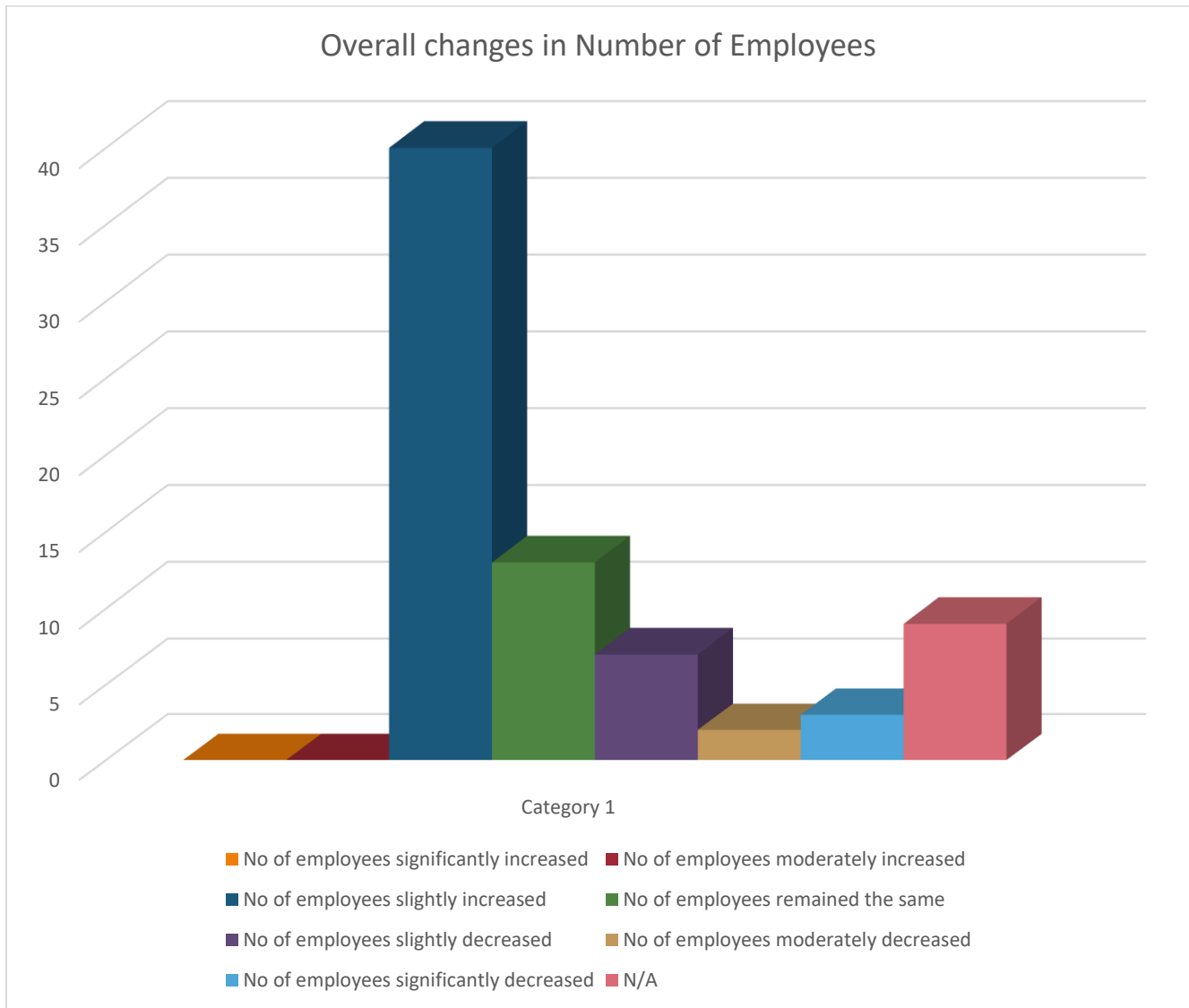
Figure 13 – Results for the use of emergency support measures



Despite the fact that EU urgent measures and especially those with funding potential were promptly taken, most businesses did not utilize these resources and instruments. A possible explanation would be the lack of adequate information on the merits or even existence of these support measures or possibly the lack of appeal of these measures.

Subsequently, stakeholders provided information on the changes in the number of employees that the rural SMEs employed during the pandemic. The results are shown in Figure 14.

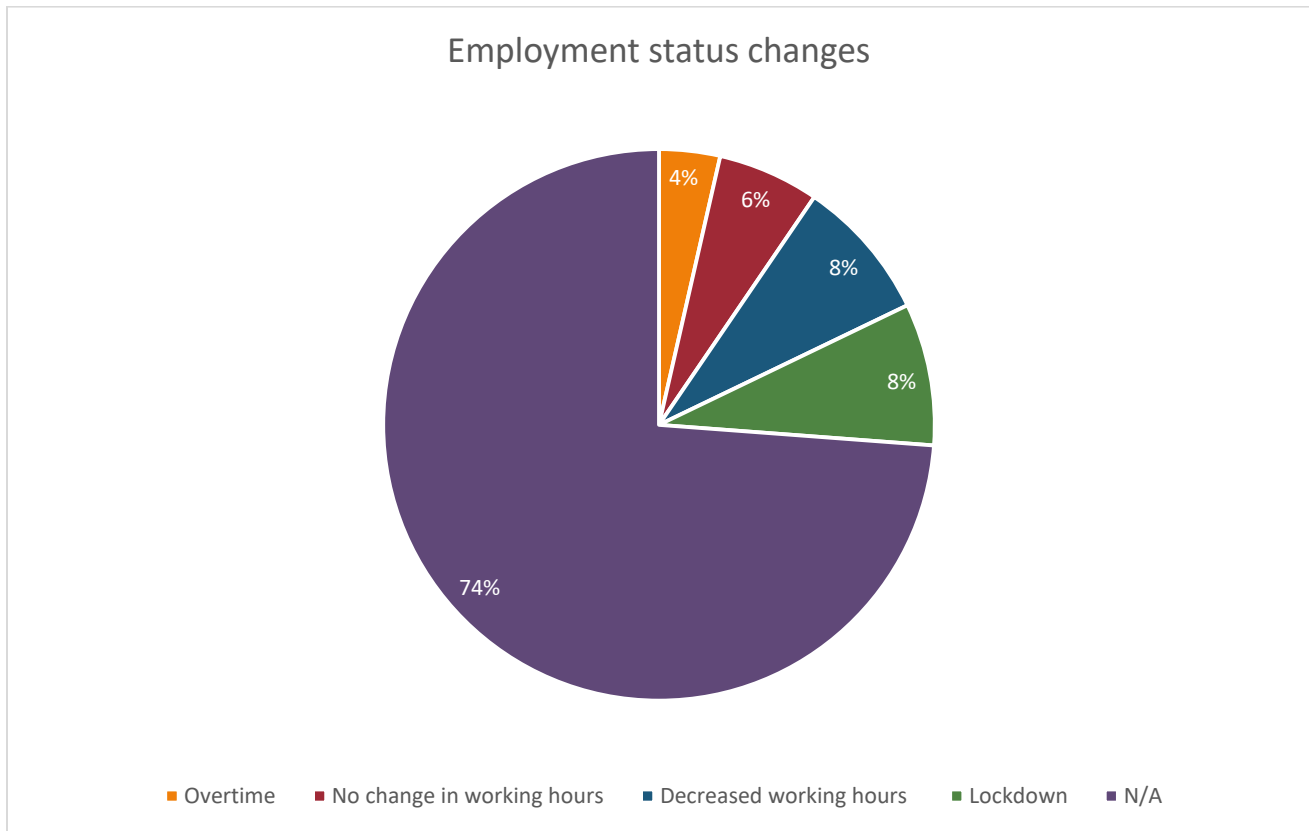
Figure 14 – Changes in the number of employees



Overall, the majority of the stakeholders reported a slight increase in the numbers of employees, something that somewhat contradicts the previous findings. A possible explanation could be the temporary hire of additional personnel due to the lost work-hours during the pandemic.

Stakeholders have also provided information on the changes in the average working hours per employee during the pandemic. The results have been summarized in Figure 16.

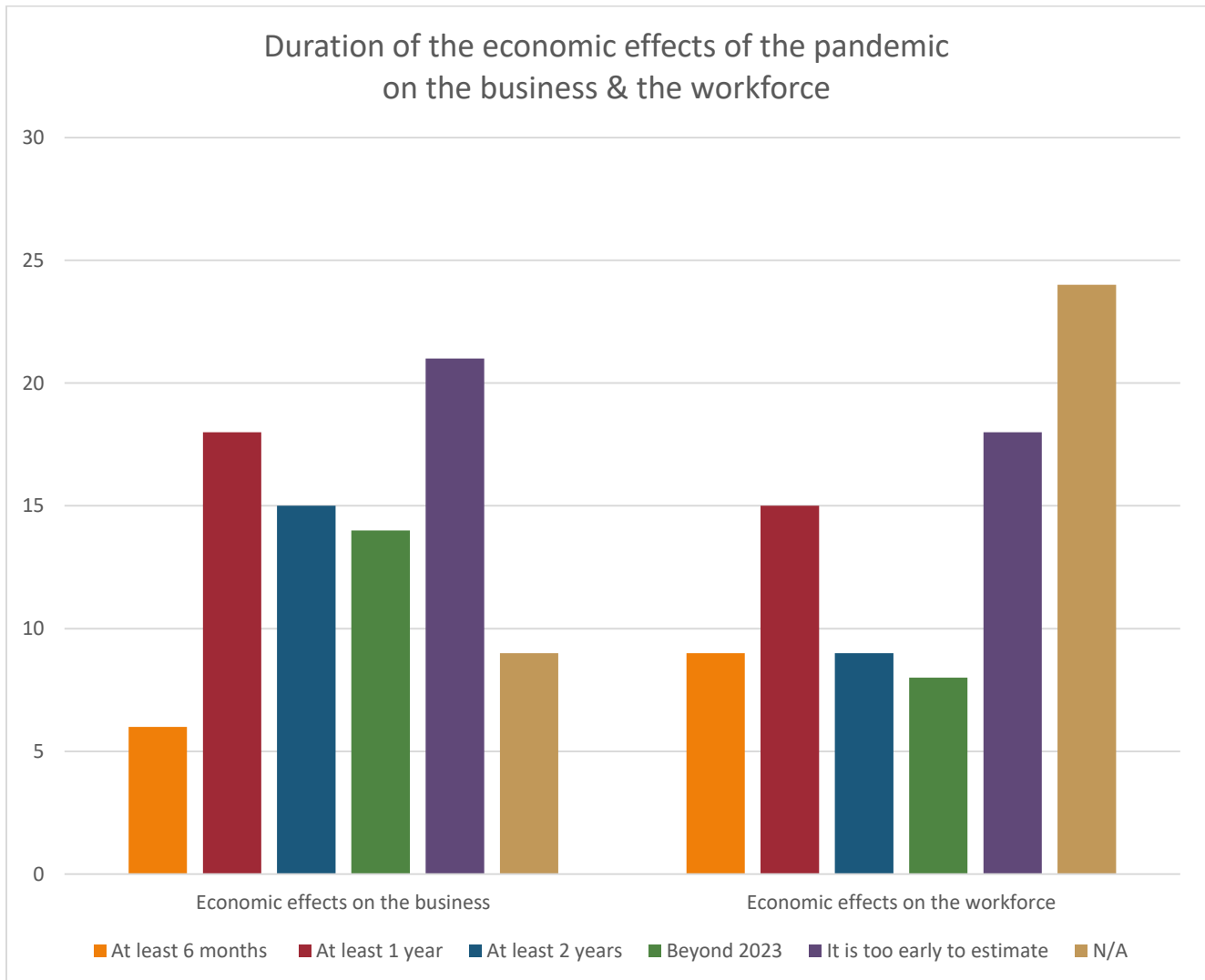
Figure 15– Changes in the employment status during the pandemic



Most stakeholders did not provide information on changes in the demographic profile of the workforce. Nevertheless, the majority of the partners that did provide information reported a reduction in the working hours or a shut-down of the business due to the lockdowns.

Stakeholders have also provided their estimations on the expected duration of the effects of COVID-19 on rural SMEs and the workforce. The information has been summarized in Figure 16.

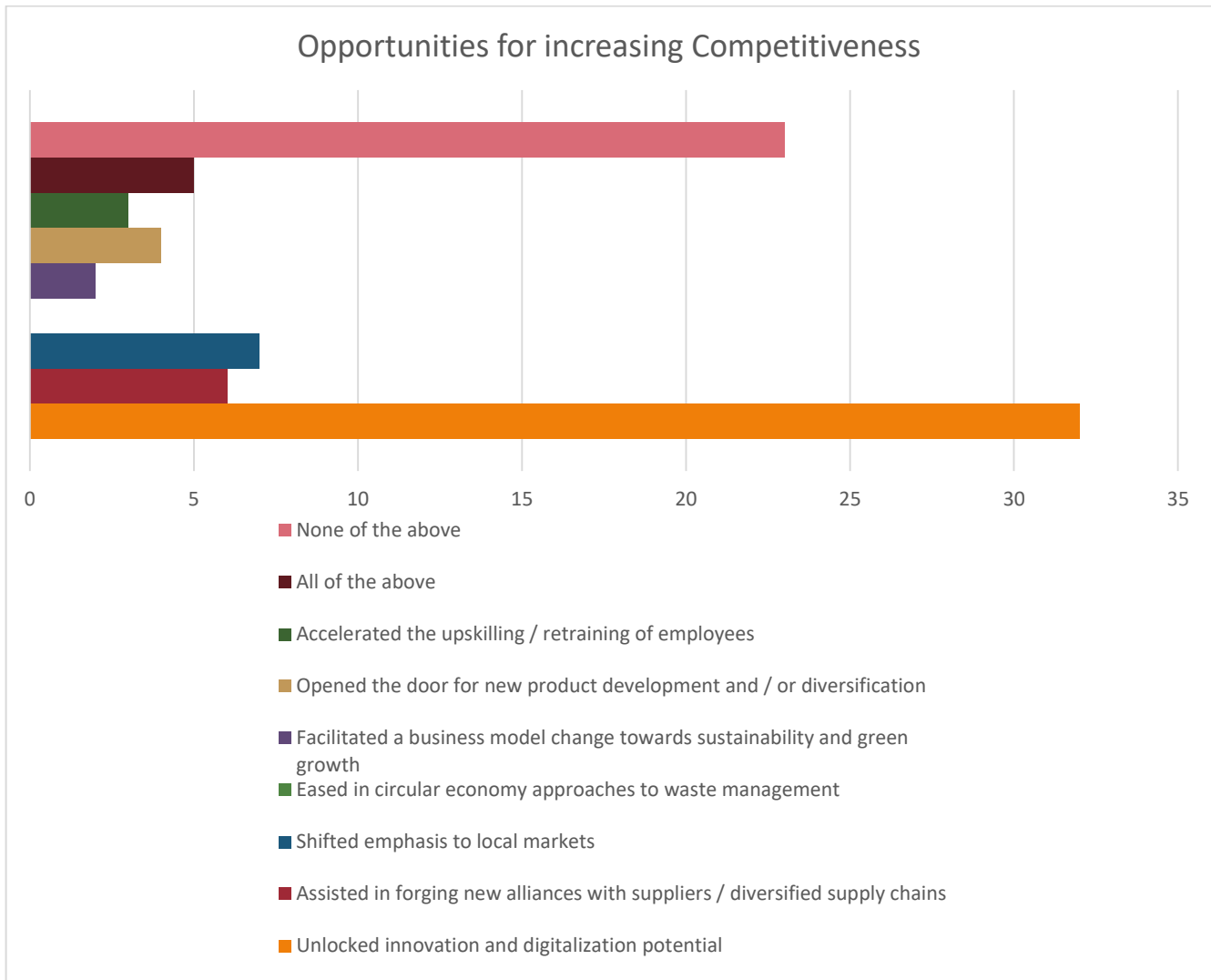
Figure 16 – Duration of the effects of the pandemic in business and workforce



Regarding the estimated duration of the pandemic’s impact on businesses and the workforce, a significant percentage of the stakeholders estimate that the impact will last up to or more than a year. A number of stakeholders are also of the opinion that it is still too early to predict that, possibly hinting to an even longer impact of the pandemic on the economic activities.

Next, stakeholders have provided their views on the opportunities that the pandemic presented to rural SMEs to increase their competitiveness. The information is provided in Figure 17.

Figure 17 – Opportunities for increasing competitiveness



Most of the stakeholders hold the view that the pandemic has provided opportunities to increase the competitiveness of the SMEs through increasing their innovation and digitalization potential. Other potential avenues towards an increased SMEs competitiveness are an increased emphasis on the local markets and diversifying the supply chains. Nevertheless, a significant part of the stakeholders could not identify any pathway to increased competitiveness, resulting from the pandemic, highlighting their negative view of the pandemic and its impact on rural SMEs. Overall, the results indicate that other than digitalizing part of their activities, the pandemic has not led to the adoption of significant innovations by rural SMEs, underlining the need for further support from public authorities in this area.

### 4.3 CONCLUSIONS

The second questionnaire (provided by FLA) concerned the impact of COVID-19 on rural SMEs in partnership regions. The presented results are based on the reports of 84 businesses in the INNOGROW regions. Although the sample is not representative (due to its small size), the results can still provide useful qualitative information and can be particularly illuminating and helpful to public authorities in the INNOGROW areas, who seek to more efficiently implement policy measures aiming to support rural SMEs.

In terms of the overall impact of COVID-19, a medium to high impact is reported from stakeholders in the partnership regions. Similarly, COVID-19 is seen as a medium to high threat for businesses in the future. This is highlighted by the fact that over 60% of the stakeholders reported COVID-19 related disruptions (of various magnitudes)<sup>19</sup> on their daily operations and that most businesses reported a decrease in their revenues during the pandemic. It is thus an issue that requires addressing by current and future regional policies and decision makers, who should take it into account when implementing their support measures for SMEs.

In analyzing changes in the financial situation of their businesses, stakeholders reported an increase in their operating costs and decreased or stable customer demands. These are expected results, since the increased need for protective measures, the work-hours lost due to employees contacting the virus and the disruptions in the supply chains are likely to increase the overall operating costs of businesses, while the ensuing economic crisis and the overall negative economic climate led to a decrease of the overall demand. For example, stakeholders reported shortages in primary materials and difficulties in accessing the markets as highly important factors in terms of their adverse impact on their businesses. In terms of policy making, it also identifies the areas that SMEs need support in order to recover from the crisis. For example, facilitating the access of rural SMEs to the markets or addressing the labour force shortages should be some of the main goals of policy makers, particularly in times of crisis.

In addition, most businesses did not utilize workforce support measures or risk management plans possibly due to their lack of information or due to the relative lack of appeal of these measures. On the other hand, most businesses did make use of emergency support finance, signifying its usefulness in times of crisis.

Finally, most stakeholders share the view that the impact of the pandemic on businesses will last beyond the following year, underscoring the importance of improving the current regional policies based on the lessons learned from the COVID-19 crisis.

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<sup>19</sup> A considerable part of stakeholders (37%) reported that their “business continued as usual” implying a negligible impact on their activities. The result is somewhat surprising; it could be related to the small sample size and the specific activities on these businesses.

## 5 POLICY RECOMMENDATIONS

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In this section policy suggestions are presented based on the results of this report. These are policy measures or long term priorities that public authorities in the INNOGROW regions can incorporate to mitigate the impact of COVID-19 on SMEs in their areas and support their recovery from the crisis, bolstering their resilience to future crises.

These policy suggestions and policy priorities are the following:

### **Simplification of administrative processes for SMEs that require support**

The simplification of the administrative processes will make support measures more accessible to SMEs and will allow public authorities to more effectively support them. In this context, public authorities are advised to engage relevant stakeholders in a dialogue to assess the areas that require simplification.

### **Collaboration with research organizations that specialize in the areas of green growth and digitalization of rural SMEs**

Collaboration with research organizations, specializing in the areas of green growth and digitalization of rural SMEs, is expected to bolster the capacity of public authorities to support SMEs in green and digitalizing their activities through an increased knowledge of these areas. In turn, this is expected to considerably augment the resilience of rural SMEs to future crisis and facilitate their recovery from the crisis.

### **Provide financial incentives to rural SMEs and start-ups**

Financial incentives are expected to foster new business creation and potentially facilitate investments in innovative technologies. These can often entail higher risks for the investors, making them more reluctant to invest without any financial incentives. In this context, regional authorities in the INNOGROW regions are advised to collaborate with SMEs and their representatives to identify the most effective ways to bolster entrepreneurship and business creation through financial incentives.

### **Facilitate synergies between SMEs and research organizations**

Lack of innovation is one of the most important structural issues that rural economies currently face. This is even more pronounced for SMEs that often lack the knowledge, expertise and financial resources to innovate or adopt innovative processes or practices. As a result, bolstering the capacity of rural SMEs to identify and implement innovations is essential in ensuring their long term recovery and resilience to future crises. Consequently, bringing together and facilitating synergies between businesses and research organizations is expected to promote the overall aim of boosting the rural SMEs competitiveness and resilience and should be a policy goal of regional authorities in the INNOGROW regions.

### **Provide retraining programs for rural SMEs to support them in greening and digitalizing their activities**

Lack of relevant expertise is one of the main issues that prevent rural SMEs from adopting innovations to green and digitalize their activities. As a result, public authorities are advised to create, in collaboration and coordination with SMEs and their representatives, training programs that will improve the capacities and knowledge of owners and employees in the areas of digital and green growth.



## ANNEX 1. AGGREGATED RESULTS FROM PARTNERS QUESTIONNAIRES

The overall results of the SSZREDA’s survey in the form of the questionnaire can be found below, incorporating the answers of all partners for each question in percentages.

Table 2

<i>INNOGROW (5th Interreg Europe call)</i>							
<i>Activity 1: “COVID-19 impact, policy challenges, and responses”</i>							
<i>Questionnaire to survey policy challenges and responses to the COVID-19 crisis in INNOGROW regions</i>							
<i>Section 1 – Threats: Policy and implementation challenges of policymaking</i>							
<b>1.1</b>	<i>To what extent have each of the following challenges related to the COVID-19 crisis impeded efforts in your region to support rural SMEs? (Please reply on a scale of 1 to 5.)</i>						
	<i>1 – Not impeded at all</i>						
	<i>2 – Slightly impeded</i>						
	<i>3 – Moderately impeded</i>						
	<i>4 – Greatly impeded</i>						
	<i>5 – Critically impeded</i>						
	<i>N/A – Not Applicable/No answer</i>						
	<i>Focus shifted to emergency planning, thus funds initially destined for rural SMEs were reallocated to address emergency concerns.</i>	<i>1</i> 14%	<i>2</i> 0%	<i>3</i> 14%	<i>4</i> 48%	<i>5</i> 14%	<i>N/A</i> 0%
	<i>There were no regional mechanisms for providing immediate liquidity relief to rural SMEs.</i>	<i>1</i> 0%	<i>2</i> 29%	<i>3</i> 29%	<i>4</i> 13%	<i>5</i> 29%	<i>N/A</i> 0%
	<i>There have not been provisions for contingency and / or emergency planning in case of regional supply chain issues.</i>	<i>1</i> 0%	<i>2</i> 0%	<i>3</i> 43%	<i>4</i> 43%	<i>5</i> 0%	<i>N/A</i> 14%
	<i>There was a knowledge gap regarding best practices and examples to guide policy-planning.</i>	<i>1</i> 0%	<i>2</i> 71%	<i>3</i> 29%	<i>4</i> 0%	<i>5</i> 0%	<i>N/A</i> 0%
	<i>There was a coordination challenge in providing large-scale support on time.</i>	<i>1</i> 0%	<i>2</i> 29%	<i>3</i> 29%	<i>4</i> 29%	<i>5</i> 13%	<i>N/A</i> 0%
	<i>There was not enough knowledge available on how to support the digitalization of rural SMEs’ daily operations.</i>	<i>1</i> 14%	<i>2</i> 53%	<i>3</i> 19%	<i>4</i> 14%	<i>5</i> 0%	<i>N/A</i> 0%
	<i>There were difficulties in supporting rural SMEs whose activities could not be performed digitally (e.g., farming).</i>	<i>1</i> 0%	<i>2</i> 14%	<i>3</i> 29%	<i>4</i> 29%	<i>5</i> 14%	<i>N/A</i> 14%
	<i>Public services did not have digitally savvy personnel to provide targeted and effective support remotely.</i>	<i>1</i> 0%	<i>2</i> 29%	<i>3</i> 29%	<i>4</i> 29%	<i>5</i> 13%	<i>N/A</i> 0%
	<i>Other (please specify here): <a href="#">Click or tap here to enter text.</a></i>	<i>1</i> <input type="checkbox"/>	<i>2</i> <input type="checkbox"/>	<i>3</i> <input type="checkbox"/>	<i>4</i> <input type="checkbox"/>	<i>5</i> <input type="checkbox"/>	<i>N/A</i>

<b>1.2</b>	The pandemic exposed policy gaps in many EU / UK regions.  Could you briefly indicate the main policy gaps that the COVID-19 crisis uncovered in the management of the policy instrument addressed in the context of the INNOGROW project?					
<b>1.3</b>	How would you rate the overall response of the policy instrument in terms of the support it offered to rural SMEs in your region during the pandemic? Did it manage to effectively respond to the emergency needs of the COVID-19 crisis?					
	1 14%	2 43%	3 0%	4 29%	5 14%	N/A 0%
<i>Please explain your choice (5-8 lines):</i>	<i>The OPIC 2014 – 2020 adapted its measures to the changing situation with the COVID-19 and significant amounts from it were redirected towards support for SMEs to overcome the negative effect of the pandemic. The OPIC offered various calls for applications targeted to SMEs focused on different criteria such as decline in turnover, maintaining employment, support for local production etc.</i>					
<b>Section 2 – Weaknesses: Vulnerable rural sectors and innovation activities</b>						
<b>2.1</b>	In terms of business closures, economic downturn, and/or layoffs, how much has the COVID-19 crisis impacted the following rural economic activities of SMEs in your region? (Please reply on a scale of 1 to 5.)  1 – Negligible/No impact 2 – Low impact 3 – Medium impact 4 – High impact 5 – Very high impact N/A – Not applicable/No answer					
<i>Land agriculture / farming</i>	1 0%	2 72%	3 14%	4 0%	5 14%	N/A <input type="checkbox"/>
<i>Activities ancillary to farming (e.g., land maintenance, seed provision, agronomic support, distribution)</i>	1 14%	2 58%	3 14%	4 0%	5 14%	N/A <input type="checkbox"/>
<i>Livestock production</i>	1 0%	2 43%	3 29%	4 14%	5 14%	N/A 14%
<i>Activities ancillary to livestock production (e.g., trading, husbandry, distribution of animals)</i>	1 0%	2 14%	3 58%	4 14%	5 14%	N/A <input type="checkbox"/>
<i>Food processing (animal &amp; non-animal)</i>	1 0%	2 29%	3 43%	4 14%	5 14%	N/A <input type="checkbox"/>
<i>Agri-tourism &amp; HORECA</i>	1 0%	2 29%	3 29%	4 29%	5 43%	N/A <input type="checkbox"/>

<i>Wildlife management</i>	1 14%	2 72%	3 0%	4 0%	5 14%	N/A <input type="checkbox"/>
<i>Forestry</i>	1 14%	2 72%	3 0%	4 0%	5 14%	N/A <input type="checkbox"/>
<i>Other (please specify here): <a href="#">Click or tap here to enter text.</a></i>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	N/A <input type="checkbox"/>

**2.2** *According to your knowledge, which of the following types of innovation have been negatively impacted in rural SMEs in your region as a result of the pandemic<sup>20</sup>? (Please reply on a scale of 1 to 5.)*

1 – Negligible/No impact  
 2 – Low impact  
 3 – Medium impact  
 4 – High impact  
 5 – Very high impact  
 N/A – Not applicable/No answer

<i>Product/service innovation (e.g., introduction of new product or service to the market)</i>	1 0%	2 33%	3 50%	4 17%	5 0%	N/A <input type="checkbox"/>
<i>Process innovation (e.g., introduction of a new competitive process/solution)</i>	1 17%	2 33%	3 33%	4 17%	5 0%	N/A <input type="checkbox"/>
<i>Technological innovation (e.g., use of technological tools, such as drones, in agriculture)</i>	1 17%	2 33%	3 50%	4 0%	5 0%	N/A <input type="checkbox"/>
<i>Business model innovation (e.g., adoption of sustainable and/or circular business models)</i>	1 0%	2 17%	3 17%	4 66%	5 0%	N/A <input type="checkbox"/>
<i>Marketing innovation (e.g., use of new marketing channels for enhancing sales)</i>	1 33%	2 0%	3 17%	4 50%	5 0%	N/A <input type="checkbox"/>
<i>Social innovation (e.g., developing new strategies to respond to social needs)</i>	1 17%	2 17%	3 0%	4 49%	5 17%	N/A <input type="checkbox"/>
<i>Network innovation (e.g., developing new synergies with stakeholders with ICT tools)</i>	1 0%	2 33%	3 34%	4 33%	5 0%	N/A <input type="checkbox"/>
<i>Other (please specify here): <a href="#">Click or tap here to enter text.</a></i>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	N/A <input type="checkbox"/>

**Section 3 – Strengths: Factors that can contribute to regional recovery and resilience planning**

**3.1** *Please indicate to what extent each of the following factors that are favorable for enhancing the internal policy planning capacities of public authorities, is a policy priority in your region.*

<sup>20</sup> The classification system used is based on the OECD definition (2005).

<https://ec.europa.eu/eurostat/documents/3859598/5889925/OSLO-EN.PDF>

	1	2	3	4	5	N/A
1 – Not a policy priority for my region						
2 – Of minor priority in my region						
3 – Of medium priority in my region						
4 – Of high priority in my region						
5 – The prime priority in my region						
N/A – Not applicable/No answer						
<i>(Re)training of public authorities’ personnel to be able to provide public services digitally.</i>	1 0%	2 72%	3 14%	4 0%	5 14%	N/A <input type="checkbox"/>
<i>Simplification of administrative and bureaucratic procedures so that public authorities can provide more effective emergency support to rural SMEs.</i>	1 0%	2 28%	3 14%	4 58%	5 0%	N/A <input type="checkbox"/>
<i>Increasing the knowledge base of public authorities with a repository/resources of good practices on how to support rural SMEs in becoming resilient.</i>	1 0%	2 44%	3 28%	4 28%	5 0%	N/A <input type="checkbox"/>
<i>Initiating funding synergies and cost-sharing platforms to be able to increase rural SMEs’ accessibility to emergency funding.</i>	1 0%	2 28%	3 44%	4 14%	5 14%	N/A <input type="checkbox"/>
<i>Promotion of research initiatives and collaborations with research organisations, universities and/or agencies that perform research in the fields of green growth and digitalization of rural SMEs.</i>	1 0%	2 28%	3 28%	4 44%	5 0%	N/A <input type="checkbox"/>
<i>Other (please specify here): Click here to enter text.</i>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	N/A <input type="checkbox"/>
<b>Section 4 – Opportunities: Designing the recovery and resilience of rural SMEs</b>						
<b>4.1</b>	<p><i>The following options represent support measures that were initiated by the European Commission during the pandemic to provide support to struggling economies (described in detail in section 3.2 in the deliverable).</i></p> <p><i>Please indicate which of them, if established as permanent measures, could address the long-term regional needs of rural SMEs.</i></p> <p>1 – Negligible/No potential            2 – Low potential            3 – Medium potential            4 – High potential            5 – Very high potential            N/A – Not applicable/No answer</p>					
<b>Coronavirus Response Investment Initiative (CRII)</b>	1 0%	2 17%	3 0%	4 33%	5 33%	N/A 17%
<b>Coronavirus Response Investment Initiative Plus (CRII+)</b>	1 0%	2 17%	3 0%	4 33%	5 33%	N/A 17%

<i>Direct support under the Common Agriculture Policy (CAP)</i>		1 0%	2 0%	3 14%	4 43%	5 29%	N/A 14%
<i>Temporary support to mitigate unemployment risks in an emergency (SURE)</i>		1 0%	2 14%	3 0%	4 29%	5 43%	N/A 14%
<i>The State Aid Temporary Framework</i>		1 0%	2 17%	3 17%	4 17%	5 33%	N/A 16%
<i>The “Green Lane” border crossings</i>		1 20%	2 0%	3 20%	4 40%	5 0%	N/A 20%
<i>Other (please specify here): <a href="#">Click here to enter text.</a></i>		1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	N/A <input type="checkbox"/>
4.2	<p><i>Which of the following measures have the greatest potential in assisting your region to build a socioeconomic environment that would help rural SMEs to innovate and be competitive beyond the pandemic?</i></p> <p>1 – Negligible/No potential            2 – Low potential            3 – Medium potential            4 – High potential            5 – Very high potential            N/A – Not applicable/No answer</p>						
<i>Redesign and expand the existing transport infrastructure to enhance connectivity with main trading routes.</i>		1 14%	2 14%	3 14%	4 29%	5 29%	N/A
<i>Improve the digital infrastructure of the region (e.g., upgrade to 5G network) to facilitate the digitalization of rural SMEs.</i>		1 0%	2 14%	3 0%	4 43%	5 43%	N/A
<i>Provide support to rural SMEs in shifting to more sustainable and circular business models (e.g., reducing GHG emissions).</i>		1 0%	2 14%	3 0%	4 43%	5 43%	N/A
<i>Provide financial incentives and support to young owners and new rural-oriented SMEs and start-ups.</i>		1 0%	2 0%	3 0%	4 43%	5 57%	N/A <input type="checkbox"/>
<i>Provide retraining programmes for rural SMEs to assist them in shifting to digital and green models of operation.</i>		1 0%	2 14%	3 0%	4 43%	5 43%	N/A <input type="checkbox"/>
<i>Establish innovation hubs and networks to facilitate synergies between rural SMEs and research organisations.</i>		1 0%	2 0%	3 14%	4 29%	5 57%	N/A <input type="checkbox"/>
<i>Improve the digital transition of public administration.</i>		1 0%	2 29%	3 14%	4 14%	5 43%	N/A <input type="checkbox"/>
<i>Other (please specify here): <a href="#">Click here to enter text.</a></i>		1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	N/A <input type="checkbox"/>