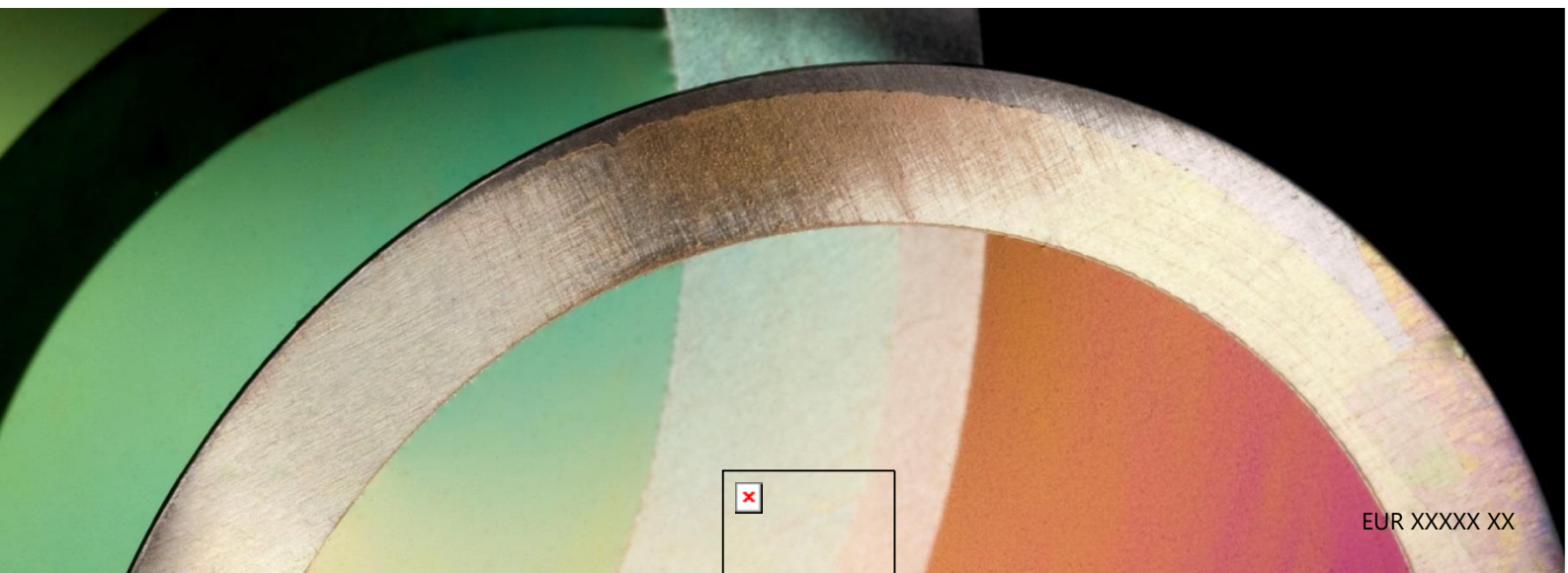




Qualitative mapping for Imereti region Smart Specialization Strategy (S3)

Archuadze Z., Chelidze Z.

2022



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Contact information [optional element]

Name:

Address:

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Foreword

This report was preceded by the reports prepared under the MRDI and JRC initiative “Mapping of Smart Specialisation in Imereti Region, Georgia”:

- **Mapping of Smart specialisation in Georgia: Economic and Innovation Potential for Imereti Region. Hugo Hollanders. 23 July 2020.**
- **Patent and Scientific Publication Analysis. Georgia & Imereti Region. 10 December 2020**

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Authors

Archuadze Zviad, independent expert under a contract to the Joint Research Centre; Chelidze Zaza, independent expert under a contract to the Joint Research Centre.

Abstract

This paper is a paper in a series of "Mapping of Smart Specialisation in Imereti Region, Georgia" developed under the auspices of the Joint Research Centre (JRC) of the European Commission. It is based on interviews with representatives of pre-identified domains for the Imereti region, as outlined in expert reports prepared under a JRC contract. This report will be used for EDP during the preparation of the Imereti Smart Specialization Strategy.

1. Introduction

Imereti region was selected by the Ministry of Regional Development and Infrastructure of Georgia as a pilot region to introduce and implement “Smart Specialization” in Georgia. At the initial stage, with cooperation of JRC report “Mapping of Smart Specialization in Georgia: Economic and Innovation Potential for Imereti Region” has been prepared. The objective of the mapping report was to identify economic priority domains: these are industries with proven or emerging economic strengths having a potential to drive economic transformation. Official statistics and methodology was used for mapping exercise, including both a static (“proven strengths”) and a dynamic (“potential strengths”) analysis to identify industries where regions have or are expected to have a critical mass of economic activities and specialization. The following industries are mentioned in the report as having economic and innovation potential¹:

- Mining of non-ferrous metal ores, except uranium and thorium ores (NACE Rev. 1.1 13.2)
- Production, processing and preserving of meat and meat products (NACE Rev. 1.1 15.1)
- Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials (NACE Rev. 1.1 20)
- Sawmilling and planning of wood; impregnation of wood (NACE Rev. 1.1 20.1)
- Hotels (NACE Rev. 1.1 55.1)
- Manufacture of basic iron and steel and of ferro-alloys (NACE Rev. 1.1 27.1)
- Wholesale of non-agricultural intermediate products, waste, and scrap (NACE Rev. 1.1 51.5)

Besides, with support of JRC “Patent and Scientific Publication Analysis, Georgia and Imereti Region” was prepared. The report examines patents filed with the National Intellectual Property Center of Georgia (SAKPATENTI) and academic publications originating in Georgia. In addition to a country-wide analysis, a focused look at the patents and publications originating in the Imereti region of Georgia. Based on the overall findings of this report for the Imereti region²:

- Like Georgia, Imereti has a high number of patent and publications in Medicine, Physics, and Food Preparation. However, in contrast it has a notably higher proportion overall of Food Preparation related innovation in addition to a large number of Agriculture related patents.
- The most common patent categories are foods, foodstuffs, or non-alcoholic beverage; coffee, tea, their substitutes, manufacture, preparation, or infusion thereof; and preparations for medical, dental, or toilet purposes.
- Furthermore, scientific academic publication in the region are narrowly focused on Physics rather than the broader natural sciences research scope seen throughout the whole of Georgia.
- Most common publication categories: Physics; Mathematics; Immunology; and Allergies.

As a result of mapping exercise, eight pre-identified smart domains have been selected:

- Mining and Production of Basic Metal Products.
- Manufacture of Wood and Wood Products.
- Production of Meat and Meat Products, Water and Mineral Water.
- Local Tourism Related Services, Hotels and Similar Accommodation.
- Wholesale of Non-Agricultural Intermediate Products and Other Specialized Wholesale.
- Agricultural Production and Related Services.

¹ “Mapping of smart specialisation in Georgia: economic and innovation potential for Imereti region”. Report prepared by Hugo Hollanders as an independent expert under a contract to the Joint Research Centre. 23 July 2020

² Patent and Scientific Publication Analysis. Georgia and Imereti Region. Joint Research Centre. 10 December 2020

- Manufacture of Wearing Apparel.
- Manufacture of Machinery/Equipment and Electrical Machinery/Apparatus.

Within this particular task, the expert conducted a targeted analysis for Imereti region of Georgia, delivering in-depth studies on promising priority domains for Smart Specialization performed under the guidance of the national S3 team and the JRC. Specific focus was given on the assessment and the justification of the promising priority domains, based on the quantitative analysis step and discussions, taken previously.

Interviews were conducted per each Pre-Identified Smart Domain as well as with other relevant actors such as civil society sector, public sector, academia (universities and researchers) and business support organizations. Findings of the survey and analytical material with recommendations for the further discussion of priority domains within the stakeholder dialogue in the future EDP are presented in this document.

Table 1. Interviewed Pre-Identified Smart Domains and Actors, Contributed to Any of the Domains

#	Pre-Identified Smart Domain/ Actor, Contributed to Any of the Domain	Interviews	
		Planned	Conducted
1	Mining and Production of Basic Metal products	10	10
2	Manufacture of Wood and Wood Products	10	10
3	Production of Meat and Meat Products, Water and Mineral Water	10	10
4	Local Tourism Related Services, Hotels and Similar Accommodation	10	10
5	Wholesale of Non-Agricultural Intermediate Products and Other Specialized Wholesale	10	10
6	Agricultural Production and Related Services	8	8
7	Manufacture of Wearing Apparel	8	8
8	Manufacture of Machinery /Equipment and Electrical Machinery/Apparatus	8	3 ³
9	Academia, Researchers	3	3
10	NGOs	4	4
11	Business Support Organizations	2	2
12	Government Officials, Public Institutions	7	7
	Total	90	85

The following points can be highlighted as a result of the interviews:

- The following domains have a relatively high economic and innovation potential: Mining and Production of Basic Metal products; Manufacture of Wood and Wood Products; Production of Meat and Meat Products, Water and Mineral Water; Agricultural Production and Related Services; Manufacture of Wearing Apparel. However, it is preferable:
- to combine the sectors of herb and vegetable production from the domain "Agricultural Production and Related Services" and meat processing from the domain "Manufacture of Wood and Wood Products," and create a new domain called "Agribusiness and Meat Processing".
- to incorporate the traditional sector of Imereti Furniture Production into the domain of "Manufacture of Wood and Wood Products".
- to add leather, shoes, and textile production to the "Manufacture of Wearing Apparel" domain, and titled the domain "Wearing Apparel, Leather, Shoes, and Textile Production".

³ The following are the reasons for conducting fewer interviews than anticipated: One interviewer was from the Kutaisi Free Industrial Zone, which is not part of the Imereti economy. A large proportion of the interviewees were sole entrepreneurs engaged in vehicle maintenance and repair. Together with JRC and MRDI, it was agreed that the sector's innovation trends are very low, that collaboration with the academic and R&D sectors is unlikely at this time, and that there is no potential for growth in the near future.

- Facilitate collaboration between domains, Academic and R&D actors, and create a platform for exchanging information about the parties' capabilities and needs, as well as the partnership.
- In order to increase domain innovation and patent registration and usage rates, domains must obtain information about innovation trends and patents.

2. Thy Survey Findings

In the sub-chapters below, the results of interviews with pre-identified domains and actors who can contribute to any of the pre-identified domains are provided.

2.1 Mining and Production of Basic Metal Products

Introduction

Ten interviews were conducted in total. All respondents were chosen from a list provided by local authorities. Five of the respondents are small producers, while the rest are medium and large-sized producers. Respondents come from a wide range of geographical areas: 5 large factories are located in three municipalities (Terjola, Zestafoni (3 respondents), and Tkibuli) of the region. The small size producers are from the city municipality of Kutaisi.

It should be noted that the largest company in the domain refused to share the information from the questionnaire. An interview with one company revealed that it no longer manufactures the relevant products for the domain.

The domain incorporates the following sub-sectors: Manufacture of Basic Iron and Steel and of Ferro-Alloys, Mining of Non-Ferrous Metal Ores, Except Uranium and Thorium Ores, Casting of Metals. The main products of the interviewers are: manganese, coal, Ferromanganese, silicomanganese, Ferrosilicon, sinter, ironmongery, fasteners, sharp tools for geology, merchandise for machine tools of screw's cutter, gabions, etc.

Current Situation of the Domain

Key of Success, Strengths, Problems and Challenges

The fact that the Caucasus' coal mine is the only one in operation, as well as the country's location, transportation infrastructure, and free trade agreements with various countries, are keys to the success of the mining companies. Product manufacturing companies believe that in order to succeed, they must have high-quality, innovative production technology.

Product sales and a lack of modern technology are cited as issues by small businesses. The issue for large corporations is a lack of adequate utility infrastructure, a scarcity of qualified personnel, and a high employee age.

Major Players in Domain and Governmental and Non-Governmental Organizations

For companies involved in the production and processing of alloys, the main players are the producers; the buyers are the main actors for the coal mining company, and buyers and consumers are the main actors for the companies that produce metal products.

Except for two respondents, all are engaged in, or were engaged in prior to the pandemic, or are interested in exporting manufactured products. The solo entrepreneur is uninterested in exports. Ferroalloys are exported around the world. Export volume can be increased if the necessary infrastructure for increased production (infrastructure is required to supply electricity at an appropriate capacity) is in place. Other exporters primarily sell to neighboring countries, but not exclusively: Turkey, Iran, Armenia, Russia, Azerbaijan, Spain, Italy, and Switzerland, among others. Prices or noncompliance with product standards are cited as stifling export growth.

Only two respondents mentioned the collaboration with key players from governmental and non-governmental organisations. According to the coal mining company, the main/important players are the Government of Georgia and the Trade Union of the Metallurgical, Mining, and Chemical Industries. The Ministry of Economy and Sustainable Development is considered as the main/important player by another company. Other respondents are unable to name any important governmental and non-governmental organisations for the domain.

Among respondents, only one sole entrepreneur received government financial assistance. He has received funding from “Produce in Georgia” program.

When discussing government assistance, respondents emphasise the following points:

- Assist in obtaining the necessary documentation for product export or import
- Assist with the purchase of new commercial space
- Tax breaks
- Improved communication between businesses and government agencies
- Financial assistance with the purchase of various pieces of equipment

Respondents attach importance to the mining of natural resources, as well as the production of various metal products. They see potential in Ferroalloy extraction and metal production. The coal miner predicts a decrease in demand for coal for the same purposes in the future, which will result in a reduction in production.

The Role of Small and Medium Companies

Smaller companies and sole entrepreneur who produce metal products have emphasised the importance of small businesses. Mining companies have observed that large companies work with partners all over the world, whereas medium-sized companies only operate in small markets and neighboring countries. In their opinion, small businesses do not have a future in the mining industry.

Value Chain

Respondents manufacture a variety of products, including ferroalloys, coal, metal construction, gabions, and other various metal products. As can be seen from the different answers of the respondents, their value chain goes outside of the Imereti region. Big or mining companies cover the whole of Georgia and go outside of the country. For metal producers, the value chain ends in Georgia. It should be noted that respondents have no knowledge of a value chain and are limited in their responses to purchasing the equipment, materials, or parts needed for their products and selling area of their product.

The majority of respondents said they work in the chain production component, which has the most potential of the chain components. One of the respondents stated that they work in the production component and see the potential in mining. Another company that works in mining and production components sees both as equally important.

Covid 19 Impact

COVID 19 Significant difficulties arose for the sole entrepreneur and one of the small businesses. Another small business reported a product sales issue. Covid-19 was not a major issue for large and medium-sized businesses, particularly those in the mining industry. They noted the problem of staff relocation due to public transportation stops, as well as the replacement of infected employees.

Plans, Challenges and Opportunities for the Future

Skills They Need to Develop

Only one respondent stated that they have no problem finding qualified employees. All others point to a lack of qualified staff, a high age of the workforce, and a lack of training centres/VETs capable of training domain specialists. The problem with ferroalloy sector specialists was particularly highlighted.

Only three respondents mentioned specific skills that they require, though the majority of them also mentioned the general problem of staff skills. The following skills have been identified:

- Management/leadership skills
- Labor Safety
- Lathe-operator
- Electric welders for ferroalloys
- Ferroalloy machinist

Use of Technologies and Prospects of Co-operation and Technology transfer

Innovation trends of the domain

Only three small businesses from respondents stated that they do not use modern technologies and innovations. The remaining respondents confirmed their use, particularly in production.

Two companies have stated that they collaborate with academic institutions in Georgia's capital: Ivane Javakhishvili Tbilisi State University and the Faculty of Metallurgy of the Georgian Technical University.

In response to a question, one company mentioned a collaboration only with DMT, an international auditor firm specialising in occupational safety. Other respondents do not confirm research and development activities or collaborations with Academic and R&D institutions. The respondents in question don't have any considerable collaborations with other companies in R&D activities.

According to responses, the following are their innovations: Recycling of generated waste, existing equipment and machinery, the ability of the company to create a variety of interesting and modern products, possibility to use coal in thermal power plants, professionalism of the workforce, a machine that would make molds, qualified workforce, opportunity to obtain a certificate.

Six respondents are investing, have made, or plan to make investments in innovation and technology. Three small businesses that produce metal products are among those that do not invest. The fourth company has stated that it will not invest further because it has already invested in the recycling of existing waste and does not see the point in investing further because the waste supply is depleting.

Respondents make investments in the following areas: enrichment plant and equipment.

Innovation activities are prevented by a lack of funds, a lack of time to find technologies, an unstable economic environment and market, a lack of policies to support enterprises/sectors, and the Covid-19.

One respondent named ATSU as an innovative scientific or educational institution in the Imereti region, and one respondent named Kutaisi International University. GTU in Tbilisi was mentioned by one respondent. Respondents who do not collaborate with academic or research institutions named Imereti universities.

Other Pre-Identified Smart Domains to Cooperate With

A majority of respondents do not have cooperation with other pre-identified smart domains, and they think there is very limited potential for cooperation given the specifics of the domain.

One sole entrepreneur sees the possibility of working with anyone who needs iron or metal. "Agricultural Production and Related Services" and "Local Tourism-Related Services, Hotels, and Similar Accommodation" domains are very profitable partners in his opinion. One ltd sees the potential for collaboration with the "Manufacture of Wood and Wood Products" domain.

Approach to S3

Awareness of S3

S3 platform as such is unknown to all ten respondents.

Vision of the Future Role

The domain includes various sub-sectors and companies that have different perspectives on domain development in the future. According to companies involved in the production of ferroalloys, if the country's energy sector develops, production and employment will increase. Companies that use existing manganese residues are exceptions. They estimate that the existing manganese residues will be depleted in ten years. According to the coal mining company, the current sub-sector will cease to exist in its current form, necessitating the search for alternative uses for coal. Manufacturers of metal products are mostly upbeat about the future.

According to the interviewers' self-assessments, the potential of the domain for the development of smart specialisation in the region is 3,9.

Willingness to Cooperate in the Future

Only one respondent is unwilling to help the team working on the issue identify and involve other stakeholders. Three can assist with the domain stakeholders.

Prospects of the Eight Pre-Identified Smart Domains

Two respondents are unsure whether the eight identified smart domains are a priority for the Imereti region. According to two respondents, two domains, Manufacture of Wood and Wood Products and Manufacture of Wearing Apparel, are not a priority for the Imereti region. Three respondents believe that Agricultural production and related services are Imereti's top priority. Wholesale of Non-Agricultural Intermediate Products and Other Specialised Wholesale is a priority for the Imereti region, according to two respondents.

2.2 Manufacture of Wood and Wood Products

Introduction

In this smart domain, a total of ten interviews were conducted. All respondents were chosen from a list provided by local authorities. Five of the respondents are small producers, while the rest are medium and large-sized producers. Respondents come from a wide range of geographical areas: 5 small size producers are from the Kutaisi city municipality. The others are from three municipalities (Baghdati (2 respondents), Kutaisi (2 respondents) and Sachkhere). All small businesses are sole entrepreneurs.

The domain incorporates the following sub-sectors: Manufacture of Wood and of Products of Wood and Cork, Except Furniture; Manufacture of Articles of Straw, and Plaiting Materials; Sawmilling and Planning of Wood; Impregnation of Wood. Timber, Wood for Wine, Wood Light Systems, Wall Art Décor, Wood Parquet, Wall Panel, and Chair for Garden with Metal Components are the main products of the interviewers.

Current Situation of the Domain

Key of Success, Strengths, Problems and Challenges

The key to success is a high demand for: wood manufacturing as well as wood products produced by the domain' companies; increasing prices for comparable products in China and Turkey; the existence of natural product demand; company export orientation and increased demand for exported products; locally produced wood furniture; Introducing innovative ideas during the manufacturing of wood products.

Respondents identified the following as the domain's strengths: the availability of resources to manufacture products in the region, the large number of employees, the constant demand for wood products, the ability to replace Chinese and Turkish products on the market, customer interest, and constant product development.

The main problem today, according to respondents, are worker qualifications, employee age, access to the markets, and raw materials. Due to the export of large quantities of wood manufacturing, the material remaining in the region becomes more expensive. Businesses have less information about changes in market demand. The issue for them is the use of old machines in production and the lack of funds required to replace the introduction of technology.

The challenge for companies remains the lack of support from the state and periodic changes in legislation without adequate companies' preparation for the implementation of new regulations.

Small businesses do not export their products due to low production volumes, and production cannot be increased due to a lack of appropriate equipment and funding. To increase exports, medium and large businesses that manufacture wood require funding for modern machinery and equipment. To increase its

exports, the company that exports wood products requires assistance in presenting their products at international exhibitions.

The potential of wood products was mentioned by the majority of respondents. However, 60% of respondents believe they have the potential to produce furniture and require assistance in this area as well. One respondent mentioned the possibility of making wood products that could be combined with metal products. According to the large wood products company, the most important thing is to have support for finding customers and buyers.

Major Players in Domain and Governmental and Non-Governmental Organizations

Timber merchant owners, timber manufacturers, and timber supply companies are the major players for small businesses. The majority of these key players are local small businesses. The buyers and intermediaries through which more larger companies sell their products are the most important players.

For this domain, only two respondents named the main/important government organisations. GIZ, USAID, Enterprize Georgia, Ministry of Environmental Protection and Agriculture of Georgia's National Forestry Agency are among the most important governmental and non-governmental organisations, according to them. Other respondents stated that they were unfamiliar with these organisations.

Three respondents received financing from "Produce in Georgia" program for the purchase of new space or modern equipment. They, like the other respondents (except one), require financial assistance to purchase modern equipment.

The Role of Small and Medium Companies

SMEs are critical for the domain, according to all respondents. According to them, businesses of all sizes can find a place in the domain. The majority of small businesses are engaged in wood products. Manufacture of wood is being done by both medium and large businesses.

Value Chain

Wood, wood components, semi-finished products, and wood products are among the sub-sectors in which respondents work.

Small businesses' value chains are either entirely based in the Imereti region or extend across the entire country. Beyond Georgia, the value chain of medium and large businesses includes Iran, European countries, and Israel.

One of the big companies clarified that they dig the material on the spot, purchase production machines outside of Georgia, manufacture products in Imereti. Product design is done by foreign designers. Products are sold both in Georgia and abroad. Other companies transport the products. Foreign partners assist the respondent in selling products abroad.

Respondents occupy different parts of the value chains. The above-mentioned respondent is in charge of preparing the materials and producing the final product. It plans to begin making sharp tools for use in product manufacturing. Respondents who work in the wood manufacturing industry cut, dry, saw, and boil wood, or do a combination of these tasks. The product is available for purchase in Georgia and abroad. Small businesses that make wood products work in the following parts of the value chain: component and product manufacturing, and installation of manufactured goods.

The respondents believe that production and/or processing, manufacture of wood components or semi-finished products have the most potential in the value chain. One respondent, a manufacturer of wood products, has expanded its operations to include metal products, including one with wood details.

Covid 19 Impact

COVID 19 had a different effect on the respondents. Due to issues with foreign partners, the respondent who was exporting wood products had difficulty selling the products. Prior to employee infection, respondents who worked in the manufacture of wood had no issues. The problems faced by small businesses were more serious, and they were forced to stop. To deal with the effects of the COVID-19 pandemic, respondents believe that associations of similar businesses should be formed, with members assisting one another when necessary; the

state should provide financial assistance to businesses; and there is a need to increase people's awareness and the number of vaccinated people.

Plans, Challenges and Opportunities for the Future

Skills They Need to Develop

Respondents identified the following skills and specialists as important for the domain:

- Tractors drivers with the ability to work in the forest
- Welders
- Timber makers
- tracks drivers, working in the forest
- Sawyer
- Carpenter
- Equipment service-repairman
- Electrician.
- Skills related to working with wood
- Skills to work with equipment
- Knowledge of market requirements

Use of Technologies and Prospects of Co-operation and Technology Transfer

Technology, innovation and R&D

While all respondents require modern technology and innovation, medium and large businesses successfully use them. Modern technology and innovation are used in the drying of wood materials rather than in the cutting of wood. Even modern dryers, however, are in short supply.

Respondents have no collaborations with academic or research institutions. Only one company intends to conduct the research with the assistance of USAID. This will be their first research project. None of the respondents have R&D collaborations with other companies.

Only two respondents said they invest in innovation and technology. One respondent plans to buy a computerised machine, while the other, which exports wood products, plans to invest in sales digitization.

The following are the respondents' opinions on why they have innovation potential: using recycled materials to make new products, the ability to create a diverse range of products, the creation of products with new designs using their own resources, and the use of modern equipment. Innovation activities are hampered by a lack of appropriate staff, time, and funds, as well as high material costs.

Only one respondent mentioned collaborative efforts with educational institutions. The partnership with College Iberia is their first example of such collaboration.

Other Pre-Identified Smart Domains to Cooperate With

Only two respondents mentioned that they cooperate with other smart domains. One cooperates with Local Tourism-Related Services, Hotels, and Similar Accommodation. The other cooperates with Mining and Production of Basic Metal products; Wholesale of Non-Agricultural Intermediate Products and Other Specialized Wholesale.

Approach to S3

Awareness of S3

S3 is unknown to all ten respondents.

Vision of the Future Role

Government regulations are set to take effect in early 2022, prompting the closure of many small businesses involved in the manufacture of wood. In the future, the state intends to tighten regulations even more. Nonetheless, most of the respondents are optimistic about the domain's role in the smart specialisation of the region. In the companies, there will be modern equipment and qualified workers. The business will require their products as other sectors develop.

According to the interviewers' self-assessments, the potential of the domain for the development of smart specialisation in the region is 3,6.

Willingness to Cooperate in the Future

Seven respondents are unwilling to help the team working on the issue identify and involve other stakeholders. Three respondents can assist with the domain stakeholders.

Prospects of the Eight Pre-Identified Smart Domains

Except for one respondent, others agreed on the identified domains. They have given priority to the following domains: Mining and Production of Basic Metal Products; Manufacture of Wood and Wood Products; Production of Meat and Meat Products; Agricultural Production and Related Services; Manufacture of Machinery/Equipment and Electrical Machinery/Apparatus; Local Tourism-Related Services, Hotels, and Similar Accommodation; Footwear Production. It was difficult for one respondent to answer this question.

2.3 Production of Meat and Meat Products. Water, and Mineral Water

Introduction

In this smart domain, the total number of interviews conducted was 10, including 8 meat and meat product producers and 2 mineral water producers. Meat and meat products producers were selected from Kutaisi (3 big companies), Samtredia Municipality (big company), Zestafoni Municipality, Sachkhere Municipality, Baghdati Municipality and Tskaltubo Municipality. Mineral water producers both were selected from Baghdati Municipality. Respondents were selected from the list obtained from local authorities (6 respondents) and one respondent was selected from Geostat business register database. One respondent was recommended by meat producer company interviewed before. Both mineral water producers were recommended by local authorities in Baghdati Municipality. Three companies listed were not working in the priority sector, three promised but did not come to the meeting and two respondents refused to be interviewed.

The domain incorporates the following sub-sectors: Production, Processing, and Preserving of Meat and Meat products; Manufacture of Water and Mineral Water. Raw meat, poultry meat, boiled meat products (sausages, ham), smoked meat products, semi-finished meat products, and fresh and mineral water are the most common products produced by companies interviewed in this domain.

Current Situation of the Domain

Key of Success, Strengths, Problems and Challenges

The key of success is high demand on meat products. Big companies made a huge amount of investment, because there is big competition in the market. Besides the production, one company has fast food restaurants in Kutaisi and plans to open in Tbilisi, Batumi and other regions as well. Modern equipment and trained staff is the strength of big companies. The staff is trained locally, by invited expert or sent abroad. One of the keys of success is meat processing technologies, which enables production of quality product. Quality product and adequate price (price never goes down) was mentioned by respondents. The key success for slaughterhouse is introduction of standards, sanitary-hygiene norms and equipment

As for weaknesses, the following was mentioned: not sufficient skilled labor (was mentioned by big as well as small companies), access to finance, limited investment opportunities and weak infrastructure (mostly by small companies). For big meat importer company, the problem is instability of Georgian currency, Lari, which affects prices, since the dependence on imported meat is high. Also, bank loans are in USD, which makes the loan payment expensive. Challenges relate to the high number of companies in the sector and a competition (not only with Imereti companies but with big Georgian producers) and it is difficult to be successful in this sector, especially for small companies. One respondent does not think that the sector is successful. Businesses function well by Georgian standards but fall far short of European standards. The absence of European production standards is a widespread issue in the meat industry. Food safety standards needs to work more efficiently. Farmers are not well equipped with all necessary equipment. Problem is also in unorganized slaughtering. For slaughterhouse, problem still relates to existence and execution of a legislation (preventing slaughter at farms). One respondent from big company mentioned that company wants to increase its production volume but this is a challenge, because the product is not popular among Georgian customers. Most of the people prefer imported product.

For mineral water producers, success is due to the tradition and quality of local water, as well as export orientation and high demand. Company uses smart automatized machinery, which increases efficiency in production. The challenge is in need of upgrade of machinery and equipment and absence of glass bottle production (only for one company).

Major Players in Domain and Governmental and Non-Governmental Organizations

For big size meat producers, there are different suppliers. For example, in case of one company 95% of meat is imported by themselves as well as purchased from importers. This company does not have cooperation with local meat suppliers, because the local production is not stable and their also food safety problems with the meat. There is not such amount of local meat, which may satisfy the demand. Other big companies have local meat suppliers too. Two companies have their own shops not only in Kutaisi but in other cities of Georgia as well. One company even has its own fast food restaurant. Machinery are purchased from big foreign companies. Food supplements from local companies. All four respondent companies distribute their products to supermarkets, shops and hotels. One company (poultry producer) is exporting.

For small size companies, main suppliers are local large and small companies, farms, meat producers, slaughterhouses and meat importers. Machinery is purchased locally, in Georgia. Meat and meat products are distributed to retail stores, sold to processing companies and meat distributors. For slaughterhouses suppliers are farmers, owners of livestock and customers are meat traders. For small companies, consumers are only locals.

For mineral water producers, suppliers are local and foreign companies, including large and small ones. In case of one company stable suppliers are not stable. They are changed quite often due to the prices. No long-term contracts with suppliers. Customers are small shops, big supermarkets and bib distribution companies. Exporter distribution companies as well. Both are exporting.

Eight out of ten respondents could not name any government or non-governmental organization, which are important players in the sector. Two respondents name Georgian Farmers Association and National Food Agency was also named. Two big companies mentioned about EBRD and USAID they used to cooperate with. Mineral water producers cannot name any of those organizations.

Six respondents benefited from "Produce in Georgia" program (including both mineral water producer). One slaughterhouse benefited from "Preferential Agrocredit" program. Three companies never applied for any government support programs. Referring to their need from government, there is need of support from government in order to impose some regulations for cooperation of producers and retail. Now this is little bit discriminating according to conditions big shops offer to producers. One company needs of support for enlargement of a company.

The Role of Small and Medium Companies

Big meat producers said it is very difficult for small companies to operate, to be in the competition with big companies and to survive. Their role is not important.

Small meat producers have different views. They think that small companies play important role in terms of farming and for primary production. And they are significant suppliers of livestock.

In the case of water producers, there are no small companies operating, because the activity is dependent on natural resources and users are big companies.

Value Chain

Value chain of big meat producer companies goes outside of Georgia. Other meat producers operating only within Georgia. Mineral water producers also go outside of Georgia. There is no single company in both sectors, whose value chain is fully located in Imereti region.

For meat producers value chain components include: suppliers of meat (imported and local producers), machinery (imported and local producers), food supplements (in Georgia), packaging materials (in Georgia). Big companies have own storage facilities and elevators. All companies use laboratories located in Tbilisi. Most of the companies has their own vehicles for transportation. Commercial banks are also components of value chain as facilitators. As for customers, they are local supermarkets and shops, distributor companies, export, restaurant and hotels. Not any value chain components are well developed in the region, all need improvement.

Mineral water producers have suppliers of paper, plastic, bottles, plastic bottle capsules (locals). Machinery was purchased from abroad. They have their own distribution vehicle and laboratories. Export is done by companies and by distributors as well. Companies have own storage facilities and microbiological and chemical laboratories. Own vehicles for distribution. No any components are developed in Imereti.

Covid 19 Impact

For one big company there was not big problems in realization. Problem was in infection of workers, which causes particular number of workers to be isolated. Green covid passports are also problem for fast food restaurants. One branch might be closed, because not many customers visits due to absence of covid passports. Another big company also had a problem with the infection of workers. Their sales reduced by 40%. There was not big impact, almost no impact for third big company. For slaughterhouse number of customers decreased. One small company lost 50% of it incomes.

As for mineral water producers, in case of one company, sales decreased by 30% and for another export stopped (100%).

Plans, Challenges and Opportunities for the Future

Skills They Need to Develop

Meat and meat products producers:

- Meat product technology specialist was not available, and the company has foreigner at the beginning
- There is also problem in packaging design. Good designers are only in Tbilisi
- The same refers to marketing, where companies have cooperation with Tbilisi based companies. Specialists in marketing and in IT systems (software and programming)
- Knowledge and experience is not sufficient
- Skills are needed for personnel and for technology adaptation
- There is need of skilled people for maintenance of elevators and fridges
- Organizational skills of a slaughterhouse
- Knowledge of meat production technological process
- Knowledge of standards
- Marketing skills to offer proper product to customers.

Mineral water producers:

- Skills for production systems software and general software.
- Need to develop management skills, marketing skills and technology related skills.

For meat producers, there are big potential is in the selling of meat products. This should be supported by strengthening all components of value chain. First of all, it refers to imported frozen meat. There is a big potential in production of boiled sausages and hams. It occupies 60-70% of meat products consumption.

Smoked products occupy 25-30% of consumption. There is a potential in production of semi-finished meat and meat products as well.

Feed for chicken is expensive and imported from Turkey. There is a lot of potential in the feed production industry. If the company has its own feed production, it will improve the efficiency and productivity.

For mineral water producers, there is big potential in glass bottles and need support toward this direction. Purchase of bottle is expensive and the company intends to produce bottle itself.

Use of Technologies and Prospects of Co-operation and Technology Transfer

Technology, Innovation, and R&D

For big meat producer companies, the most developed by technology is production, where the experience of foreign meat experts (technology specialists) are used. There is a need of packaging equipment and materials. There is need for innovations towards packaging in order to make product more attractive. Need different, more innovative approach is obvious. Technological upgrade is needed towards storage facilities and production.

For mineral water producers, machinery is important in terms of technologies, including glass bottles production technologies. Machinery is determinant of innovations as well for those companies.

The main determinants on innovation potential for meat producers are promotion of sales, demand and marketing, efficient legislation, quality and taste the product. In case of one big meat producer company, there is the mix of fast food and retail, which is different and innovative for Imereti region. Besides the number of the order shown on the screen, customers receive information to their cell phones by scanning QR codes. Mobile application was developed.

For meat producers, innovations are prevented by: lack of knowledge and less interest from youth, not having qualified personnel, weak infrastructure, non-existence of legislation preventing slaughtering outside of slaughterhouse, limited financial resources and not active work of regulatory authorities. Insufficient finances were named as a preventing factor for innovations by mineral water producer companies.

As for R&D, big meat producer companies stated following:

- R&D is done outside Imereti, in Tbilisi but by private company. The company has introduced ISO 22000 and HACCP standards
- There is no cooperation with other organizations on R&D. The company has its own laboratory for the quality check and verification. Working with HACCP standard
- There are no R&D activities. Only direction, the company is working is to find a quality product. Plans for introduction of HACCP standard.
- Self-conducted work on R&D just for market and product research. No cooperation with any other academic or scientific organizations HACCP and ISO 22000 standards.

Other meat producers are not doing R&D activities.

Referring to mineral water producers, they do following:

- Own marketing company and cooperation with research organizations in market studies and positioning. No cooperation with academic sector. ISO 22000 and ISO 9001
- Own market research and product design. No sufficient finances to hire any company or research institutions. Company has introduced ISO 22000.

One meat producer has patent and two of them are planning to register. Patent is registered only by one mineral water producer company.

Meat producers invest in the marketing and education of personnel, in machinery, infrastructure, Mineral water companies are investing in machinery and materials and in chemical and microbiological products.

The most innovative scientific and educational institutions were named only one meat producer named ATSU.

Other Pre-Identified Smart Domains to Cooperate With

Agricultural Production and Related Services, Local Tourism-Related Services, Hotels, and Similar Accommodation and Wholesale of Non-Agricultural Intermediate Products, Other Specialized Wholesale was named by meat producers and Manufacture of Machinery/Equipment and Electrical Machinery/Apparatus, Manufacture of Wood and Wood Products and Local Tourism-Related Services, Hotels, and Similar Accommodation was named by mineral water producers.

Approach to S3

Awareness of S3

None of the respondents in question, including both sectors, heard about S3.

Vision of the Future Role

Big meat producer companies see the big potential their sectors and averagely rate their role for the development of S3 as 3. Small size meat producers averagely rated at 5 and mineral water producers at 4.

Willingness to Cooperate in the Future

Not all respondents are willing to cooperate to assist the team working on the issue in identifying and involving other stakeholders. Two small size meat producers are not willing to cooperate.

Prospects of the Eight Pre-Identified Smart Domains

All respondents agreed that identified eight smart domains are priority for Imereti region and only one respondent added logistic and transport as one of the additional priority smart sectors for Imereti.

2.4 Local Tourism Related Services, Hotels and Similar Accommodation

Introduction

In this smart domain, the total number of interviews conducted was 10, including 8 hotels. Hotels were selected from Kutaisi, Tskaltubo, Smatredia and Tkibuli by different by size and class (four stars' hotels, medium size hotels, mall hotel and family hotel). Destination Management Organization of Kutaisi (DMO) and former manager of the project "School of Guides" were also interviewed. Respondents were selected from the list obtained from local authorities as well as from suggestions of interviewed companies and other stakeholders. Representatives of two hotels promised and did not come to the meeting and one was busy to meet.

The domain incorporates the following sub-sectors: travel agency, tour operator, and other reservation service and related activities, hotels, resort hotels, suite/apartment hotels, motels. The main product produced by the companies interviewed in this domain is accommodation.

Current Situation of the Domain

Key of Success, Strengths, Problems and Challenges

The hotels named different keys of success and it varies by location and type of service they offer. These are location, tradition, targeting marketing on specific groups of customers etc. As for challenges, the mostly it relates to weak infrastructure (roads, transport, water supply, street lights, sewage system, absence of night life even in Kutaisi, bureaucracy barriers), insufficient skills of personnel, seasonality, lack of knowledge in marketing, foreign languages and technologies, including software, solar panel systems, fire safety etc.

Local hotels provide includes all types of services hotel, spa, restaurant and conference, event organization, tours organization, agro tourism, gastro tourism.

DMO representative indicated that strength of Imereti tourism sector is a big potential and the weakness is limited qualification, knowledge and experience. There are no online platforms used by some small hotels and they need help in posting information online.

“School of Guide” representative said that Imereti became more attractive for tourists after Kutaisi International Airport started operations. Therefore, there is not big experience in tourism sector and related services. Infrastructure also needs to be modernized. The region is not ready for increased number of visitors.

Major Players in Sector and Governmental and Non-Governmental Organizations

Main suppliers are different. There are big suppliers (large companies) as well as small companies. For big hotels suppliers are mostly distribution companies and big size producers. For small hotels the suppliers are distributors as well as local producers. Agricultural products are mostly purchased locally. Some small hotels buy almost everything within Imereti region. Some of respondents named National Tourism Association and as for local authorities, DMO was mentioned as an efficient partner. No local NGO was named by any of respondents. However, NGOs operating at country level was named only by one respondent. Only one hotel benefited from government support program “Produce in Georgia”.

As DMO representative responded, that there is need of an action plan for tourism sector which will be implemented together and in coordination with S3 strategy. The academic sector, according to DMO, needs to update and improve management methods, increase employee motivation, and improve and modernise educational infrastructure.

“School of Guides” respondent named DMO, Association of Young Guides and Association of Imereti Wine as important players in the tourism sector.

The Role of Small and Medium Companies

All respondents said that small hotels and hostels are working quite successfully and their role is very important, since they are available at the level of villages and easy to manage and operate by households. Small size family hotels play the most important role in the development of agro tourism and gastro tourism not only in Imereti, but also in Georgia in general and there is high demand on these services.

Value Chain

Only one small hotel’s value chain is fully based in Imereti region (from suppliers’ side). The others go outside of Georgia and in many cases, outside of the country. In terms of customers, visitors are local s well as foreigners for all interviewed hotels.

Value chain components include: suppliers of agricultural products (primary producers and distributors) both local as well as imported products, sanitary-hygiene products suppliers (distribution companies, wholesale traders and retail stores) both local and imported products. Cleaning companies located mostly in Kutaisi and offer services in all Imereti. Some hotels do not have own vehicles and another companies or private drivers are hired. Not any value chain components are well developed in the region, all need improvement.

Covid 19 Impact

All respondents indicated that all hotels were badly affected by Covid 19 pandemic. 2020 was the most difficult, while in 2021 the number of visitors increased. Overall decrease of number of visitors varies between 40%-90%, depending on the size of hotel. Green covid passport are also new challenge for those hotels which operate restaurant.

Plans, Challenges and Opportunities for the Future

Skills They Need to Develop

- Development of room service and spa service skills

- Specialists in marketing and in IT systems (software and programming)
- Management of restaurants
- Knowledge of foreign languages
- Security, especially in fire safety
- knowledge of legal issues, as well as of use of standards and norms (in case of small hotel).

There is no common tourist package for Imereti region which will create some "niche" of the region and Kutaisi.

DMO respondent said that a provision of more information and as well as modernization of infrastructure is needed. Special attention has to be given to wine making and agro tourism sector. Skills of guides needs to be improved said "School of Guide" project manager.

Use of Technologies and Prospects of Co-operation and Technology Transfer

Technology, Innovation and R&D

There are technologies used in many directions, use of solar panels, technologies are cooling and heating, internal management software, automatic room control system with plastic keys, fire safety. Those areas mentioned are the areas where technological improvement is needed. According to the interviewer, the key effects of their innovation potential are marketing, serving specific groups, innovations in tours organization, ecology and safety. Innovation preventing factors are: absence of knowledge and experience, bureaucracy and strict regulations, limited financial and human resources.

As for R&D, half of the respondents (4) did not indicate any of related activities. One of them is doing itself on tourism and market research which is done by their own resources for tourism market research. Three hotels cooperate with other companies or persons (including VET):

- Cooperation with global hotels network uniting hotels and their managers, where the exchange of information and experience happens
- There is agreement with a company, which serves in marketing. This company is doing market research and gives the recommendations on specific products
- Doing marketing with support of colleagues (other hotels) and working on exploring of new markets.

There is no R&D cooperation with any other hotels. Hotels only cooperate in exchange of information customers etc. There is no R&D cooperation with academic/research sector. Cooperation with educational institutions aims only attraction of students and graduates. There is no patent registered.

Investment in innovations and technologies was not indicated by three respondents and others stated that they invest in the modernization of rooms, in the software and in new accommodation spaces.

There is mobile phone application developed in Kutaisi which helps visitors to find a place. Hotels and restaurants are also developed.

The most innovative scientific and educational institutions were named only by two hotels and by DMO: VET "Iberia" and ATSU.

ATSU has some research activities, including PHD theses in tourism and related services.

Other Pre-Identified Smart Domains to Cooperate With

All remaining 7 domains were named as partner or potential partner, but in most responses they were: Agricultural Production and Related Services, Production of Meat and Meat Products.

Approach to S3

Awareness of S3

5 out of 8 hotels have not heard about S3. 3 of them have heard but had no understanding of it. Both respondents, DMO and “School of Guide” representatives also were not familiar with S3.

Vision of the Future Role

Respondents see the big potential of tourism sector in the future and average rate of tourism role for the development of S3 is 4. Two of them rated 5, two 3.

Willingness to Cooperate in the Future

All respondents are willing to cooperate to assist the team working on the issue in identifying and involving other stakeholders.

Prospects of the Eight Pre-Identified Smart Domains

All respondents agreed that identified eight smart domains are priority for Imereti region and did not add any other sectors. DMO respondent agreed with list and indicated that wine production sector needs to be separately identified, especially, it refers to small size wine producers.

2.5 Wholesale of Non-Agricultural Intermediate Products and Other Specialized Wholesale

Introduction

Ten interviews were conducted in this smart domain. All respondents were chosen from a list provided by Geostat. All ten respondents are small producers. The respondents are from five Imereti municipalities: Chiatura, Sachkhere, Tskaltubo, Tkibuli, and Zestafoni.

The domain incorporates the following sub-sectors: Wholesale of Non-Agricultural Intermediate Products and Scrap. Metal products, metal ores, fuel, timber, and construction materials are among the products sold by the businesses that were interviewed.

Current Situation of the Domain

Key of Success, Strengths, Problems and Challenges

The following issues are cited by respondents as reasons for success: high demand for the products they sell, providing consumers with high-quality products, making product sales simple, and providing frequent product updates. Different respondents deal in various goods. The growing number of construction and construction companies in the region, as well as the high demand for products, are among the domain's strengths, according to those who named them.

The following topics caused problems for the respondents: high product costs; the availability of low-cost, low-quality products on the market; low consumer purchasing power; rising prices; and large-scale export of products.

The respondents' challenges include Covid 19 and its loss compensation, as well as maintaining a business during economic crises.

Major Players in Domain and Governmental and Non-Governmental Organizations

Product importers in the country, large wholesalers in Tbilisi, and consumers (legal entities, individuals and public institutions) were identified as the main players by respondents.

The majority of respondents were unable to name *key/important players* from governmental and non-governmental organisations in the domain. Two non-governmental organisations (NGOs) were named: the Builders Association and the Forestry Association. Government organisations were mentioned by one respondent. They were nominated by respondents who sell products of interest to these organisations.

Only one respondent (Wood Wholesale Center) mentioned exporting products to Italy. Everyone else said they don't export or even consider such a prospect presently.

Respondents believe that the following domain' sectors should be given more attention:

- Wholesale trade in all directions.
- Production of furniture.
- Materials for construction and repair.
- Production and processing of wood.
- Food commerce.
- Jewellery.

There is no one among respondents, who received government financial assistance.

Respondents emphasise the importance of the following when discussing government assistance:

- Low-cost credit
- Raising the non-payment threshold for VAT.
- Financial assistance for growth.
- Assistance with the development of production.
- removing bureaucratic impediments
- Financial assistance for the establishment of a store
- Tax reductions

The Role of Small and Medium Companies

All respondents emphasised the importance of SMEs in the domain. They believe SME is important because:

- They serve as big business liaisons.
- Retail trade is limited to small and medium-sized businesses.
- Because of the variety of products available on the market.
- Products will be in higher demand.
- The number of employed people will rise as well.
- Large corporations have not become monopolists.
- Promotes market development.
- They work on a variety of projects.
- They are the main product suppliers.
- People are earning more money.

Value Chain

Respondents work in the wholesale trade of the following items: metals and metal ores, fuel, wood material, construction materials, sanitary equipment, various products. The value chain includes a specific municipality, municipality and neighboring region, the Imereti region, western Georgia, Georgia, and the territory outside it.

As a value chain component, all respondents are involved in the sale. In addition, one respondent is involved in product supply, while another is involved in shipping.

Seven of the respondents are unsure which part of the value chain has the most potential. One respondent believes it is logistics, another believes it is sales, and yet another believes it is production.

The respondent's purchase products from manufacturers or large warehouses.. Four of them work in logistics also. Three respondents believe that service is the most developed component of the chain in the region. One respondent believes that production (respondent involved in the timber trade) is the most developed component. Other respondents had difficulty determining which component of the value chain is developed.

Covid 19 Impact

COVID 19 Significant difficulties arose for all respondents, with the exception of one involved in the timber trade. Respondents had significantly reduced revenue or ceased operations as a result of the economic crisis caused by the COVID-19 on the domain. Respondents anticipate the government resolving the issues caused by COVID 19 in the following manner: exemption on taxes, reducing taxes, low-interest loans for all sectors. 50% of respondents found it difficult to name measures to be taken by the government.

Plans, Challenges and Opportunities for the Future

Skills They Need to Develop

Seven respondents believe that the domain requires more adequate skills. They named the following skills:

- Foreign trade and exports
- Relationships with Customers
- Understanding of market changes and market demands
- Customer Sales Capability Information
- Metal-working ability
- Understanding of customer demand

Use of Technologies and Prospects of Co-operation and Technology transfer

Innovation trends of the domain

Six respondents are unable to respond or do not see the need to invest in technology and innovation. The rest of the respondents believe that production, processing, and jewelry making are the most technologically and innovatively advanced.

Only one respondent stated that they conduct research and use social media to do so. None of the respondents work with academic or research institutions. None of them have any R&D collaborations with other companies.

Eight respondents lack the ability to innovate. Others cited the diversity of their products and the growing demand for their products as evidence of their innovative potential. None of the respondents invest in technology or innovation. Lack of finance and sector specifics were identified as barriers to innovation.

Only one respondent can name the most innovative scientific and educational institutions/organisations. These are, in his opinion, Tegeta Academy and M2 Vocational School.

Other Pre-Identified Smart Domains to Cooperate With

Fifty percent of respondents stated that they do not collaborate with other smart domains. The rest stated that they collaborate with those who purchase their products.

Approach to S3

Awareness of S3

S3 is unknown to all ten respondents.

Vision of the Future Role

Respondents believe that: the demand for wholesale will rise; In the wholesale trade of building materials, the situation will improve; the situation in the wholesale trade of timber will be complicated as a result of the reduction in timber.

According to the interviewers' self-assessments, the potential of the domain for the development of smart specialisation in the region is 3,7.

Willingness to Cooperate in the Future

None of the respondents will be able to assist the team in identifying and involving other stakeholders.

Prospects of the Eight Pre-Identified Smart Domains

All respondents agreed on eight pre-identified smart domains. Among these, the following domains are deemed promising: Agricultural Production and Related Service, Manufacture of Wearing Apparel, Agricultural Production and Related Service, Local Tourism-Related Services, Hotels, and Similar Accommodation, Production of Dairy Products.

2.6 Agricultural Production and Related Services

Introduction

In this smart domain, the total number of interviews conducted was 8. All respondents were selected from the list provided by local authorities and represent different sub-sectors of agriculture. Three of them are beekeepers and are involved in the honey production. Two respondents are wine producers. One big greens and vegetables producer has been selected, one big nuts producer and one tea producer. Geography of respondents also are diverse: Tskaltubo Municipality, Samtredia Municipality, Tkibuli Municipality, Khoni Municipality and Khoni Municipality. Three respondents are LTDs, three sole entrepreneurs and two cooperatives.

The domain incorporates the following sub-sectors: crop and livestock production and related agricultural services. Grape and wine, honey, herbs and vegetables, nuts, and tea are the main products produced by companies interviewed in this domain.

Current Situation of the Sector

Key of Success, Strengths, Problems and Challenges

For beekeepers and honey producers the key of success is experience and tradition, knowledge of whole production cycle, use of new technologies and skilled labor. Strengths are rich natural resources, high demand and export potential is also essential. Problems and challenges related to different diseases, which need efficient management. Besides, there are not adequate attention from the government, since there are not targeted government support programs for beekeepers and grants are hardly available. Lack of education is also problem because not many qualified personnel are available. Covid pandemic was named as one of the challenges of modern days. Quality bee remedies for diseases are needed. There are not quality remedies available. There should be a special shop for beekeepers. There is no laboratory in Imereti region. Knowledge and experience sharing, this is what they also need.

Key of success for wine makers are growing demand on wine, especially from new wine regions as well as wine making historical tradition and involvement of youth. During last year, many young people are interested in wine making and they are coming back to the villages and bring new interest and modern, innovative approach to production and marketing. This is the strengths and incentives for other young people. Wine also has a substantial export opportunity and there are many companies exporting wine from Imereti region. Problem of wine makers is still related to scarcely available labor, limited opportunities to take a part of international exhibitions and festivals. Small wineries should be supported in obtaining materials. They are re-investing a lot. Work is ongoing for the registration of wine micro zone.

Key of success of big companies is high demand, new technologies used and export potential. It refers to both, greens and vegetables producer and nuts. Those big companies cover many segments of production cycle. For example, herbs and vegetables producer company covers all segments: primary production, planting,

harvesting, storage, packaging, logistic distribution and delivery to the market. Problems and challenges relate to primary production, where most of the suppliers, small farmers don't have high quality harvest. Both companies have the same problems towards this.

Tea production sector has been revived during last years and a lot of investment is made. Key of success knowledge and skilled labor. Strength is increasing demand and there are export opportunities. Problem is mostly related to financial resources.

Major Players in Domain and Governmental and Non-Governmental Organizations

Material suppliers for honey producers are both, local physical persons and legal entities. Customers are mostly local population, local market and distributors (wholesale traders) and customers at international market. Not all partnership is based on signed contract. One small honey maker even pays in-kind.

Suppliers of wine makers are large local and foreign companies (bottle, label, inputs and processing line). They have own vineyards and partnership is conducted by signed contracts. Wine is sold in the retail shops and restaurants as well as exported.

Large (herbs and vegetables as well as nuts producer) have local and foreign suppliers. In case of packaging materials, it is bought from local companies and machinery is purchased only from foreign companies. Both companies buy primary products from local farmers and from their subsidiaries involved in primary production. Herbs and vegetables producer conduct market delivery by themselves without middle segments (wholesale traders) and 100% of nuts is exported. In case of herbs and vegetables, the amount of export is small, since there is high demand on local market.

Major players for tea producer are big suppliers of materials and customers are local retail shops and distributors.

Herbs and vegetable producer company is a member of Georgian Farmers Association, Packaging Association and Herbs Association. The company has cooperation with local agricultural extension services but only for statistical data.

Wine producer has a cooperation with Rural Development Agency, Georgian Farmers Association. The producer is a member of packaging cluster and Imereti Wine Association.

The other respondents cannot name any governmental and non-governmental organizations which are important players in the sector.

As for government support programs, herbs and greens producer benefited from "Preferential Agrocredit" program and from different donors' support. Nuts producer participated in co-financing leasing program of the Rural Development Agency (RDA). One wine maker is beneficiary of "Plant in the Future" program and mechanization program. Another winery applied but had not been granted but has a need of cellar equipment and wine bottles. One honey maker benefited from "Produce in Georgia" and need further support for vehicles. Other honey makers did not apply for any of those programs. Tea producer company benefited from "Plant in the Future" program. Now support is needed for the marketing and popularization of product.

The Role of Small and Medium Companies

Taking into consideration that 99% of Georgian primary agricultural producers are households (family farms), the role of SMEs is substantial as they produce a big share of all agricultural product produced in Georgia. In case of herbs and vegetables, 30% of all herbs and vegetables sold are produced by small size farmers. It refers to honey producers as well and there are many successful small size honey producers in Georgia and obviously in Imereti. Small wineries produce high quality and demanded product and besides their small size, there are some exporting small wine makers in Imereti. Small wineries keep important part of wine production and have "niche" product.

Value Chain

Value chain of all respondents goes outside of Imereti region. Big companies cover whole Georgia and goes outside of the country. Besides, one wine maker and honey maker go to the international market. In case of herbs and vegetable producer, primary product is purchased from local farmers and nuts producer is purchasing nuts in every region of Georgia where nuts are harvested. Both companies buy machinery and

equipment abroad. Packaging materials in case of all eight respondents are purchased in Georgia, outside of Imereti region.

The part of value chain which have the most potential in most of the cases were named primary production. One honey maker and one wine maker highlighted sales as the part of value chain where they see the most potential.

As mentioned above, herbs and vegetables producers have many own components are own (production, storage, logistic, transportation and distribution/market delivery), except packaging materials and machinery/equipment, which is purchased. Suppliers are local farmers, local big companies and foreign companies. Products are sent to the laboratories abroad.

For Nuts producer, there are local farms and own subsidiary company which supplies primary product, machinery-equipment suppliers are foreign companies, packaging materials suppliers are local companies, transporting (by own vehicles, by rented and in some cases, farmers deliver themselves), storage (own storage facilities). The company has its own laboratory for the checking and verification of the quality of the product produced. Customers are big supermarkets all over Georgia. Total number of countries where the products have been exporting was around 10. At present there is export only in Bulgaria.

Wine producers have their own vineyards, wine production, tourism related services. There are no suppliers of materials in Imereti. Value chain components are vineyard equipment suppliers, wine production equipment suppliers, bottles suppliers, labels, corks, packaging, everything is purchased outside of Imereti region. There are products' quality verification laboratories in Imereti. They own vehicle and conduct distribution if needed. Wine is sold in retail shops and in case of one winery, wine is exported to 14 countries (60% of whole production).

Components of honey making production are suppliers of wooden materials, packaging materials, laboratory, remedies, wholesale traders. Only packaging materials are purchased locally. Has own vehicle and if needed vehicle is rented. Customers are local shops, distributors and exporters (only in case of one company, which exports to Germany, France and Turkey).

Suppliers of tea producer company are local companies: machinery, agricultural inputs, packaging materials. Customers are big supermarkets and retail shops. Commercial banks and bank loans are also part of value chain (facilitators) of all respondents.

Covid 19 Impact

It was difficult to maintain production and sales for wine makers and honey makers as well. Since the number of tourists decreased and the export market was less accessible, wine making exporter company's sales was reduced by 30%. There was big financial losses for another wine making company as well. The cellar did not have any tourists visits during last two years.

As for honey makers, one company has a reduction of sales by 70%. The impact was negative for other two honey producers as well. For instance, bee venom production stopped, because it was fully exported. There were problems in exporting honey as well.

Nuts sales overallly reduced by 10-15%, but in comparison of 2020, 2021 is more promising since the sales are increasing.

For herbs and vegetables producer, Covid pandemic became opportunity as it caused the increase of sales, because product is packed and demand increased on packed product. There were problems in distribution during lockdown.

It was difficult to survive during 2020 for tea producer but adaptation was more or less successful.

Plans, Challenges and Opportunities for the Future

Skills They Need to Develop

There is need of skills improvement in the primary production of herbs and vegetables. It is very important to develop professional education and skills of farmers. It is very difficult to find good agronomists. Another field

where skills development is needed is greenhouse management. The great potential has primary production and post-harvesting management and it should be improved.

Primary producers of nuts need to keep standards and norms of nuts harvesting. They need skills development and training. Due to the low quality of nuts, some stocks can not gain export certification.

Wine makers need management skills, communication skills. Besides, there is a need of more knowledge, especially experience from other wine producing countries. Small local wineries needs support from government and private sector in terms of trainings, experience sharing etc.

All directions needs support, especially vineyards. There is a big potential. It is essential to use controlled agricultural inputs. There is a need of knowledge on new diseases. All these needs to be supported. More qualified wine makers are needed and local producers need support to participate in international festivals and exhibitions, which is expensive.

Honey makers need more information on diseases, because the major problems is to cope with different bee diseases.

In case of tea producers. there are no specific skills that need to be trained up.

Use of Technologies and Prospects of Co-operation and Technology Transfer

Technology, Innovation and R&D

Agricultural sector needs diverse modern technologies to increase productivity and income of producers. For instance, technologies used in herbs and vegetables production mostly are in greenhouses. In the production process all necessary standards are introduced. For instance, GLOBALGAP, GEOGAP and HACCP standards are introduced. Own patent is also registered. Innovative approach and searching for a new method is important in all stages of production. Herbs and vegetables producer company conducts training of local farmers in their own training facilities, including training in harvesting and post-harvesting technologies. In nuts production, the most technologically developed is processing sub-sector, where laser technologies are used. Also mechanical nuts collecting and separating equipment are important to save time and human resources, because it avoids hand work. Everything in the nuts processing needs to be automatized. There are technologies in storage facilities for all agricultural products produced. Wine making needs good technologies as well as innovative approach in marketing. For honey makers, in terms of technology, using quality remedies is the most important, which enables high productivity. Therefore, disease control is the most technologically equipped.

Main determinants of innovation potential are modern demand and desire to develop. Also, marketing, home delivery services conducted by companies is innovative for Imereti agriculture. Diversity of bee product produced is the determinant of innovation. Lack of information, knowledge and financial resources are main preventions for innovative activities.

As for investment in technology and innovation, there are investments in greenhouses, packaging and logistics, machinery and equipment, vineyards (in case of wine makers).

As for R&D, herbs and vegetables producer company conducts R&D in all directions, including research in market, product design and development of new products, production technologies. The others did not indicate any R&D activities. There is no R&D cooperation with other companies and academic or research institutions. Only cooperation with academic sector is to have students or graduates on working internship (from ATSU, from VET Iberia) and cooperation with other companies are only for exchange of experience and information.

ATSU has some research activities, including PHD thesis in the agriculture, including in nuts production tea production.

Other Pre-Identified Smart Domains to Cooperate With

Local Tourism-Related Services, Hotels, and Similar Accommodation, Manufacture of Machinery/Equipment and Electrical Machinery/Apparatus and Manufacture of Wood and Wood Products and Wholesale of Non-Agricultural Intermediate Products, Other Specialized Wholesale trade was mentioned and those domains

were named as partner or potential partner, but in most responses there was tourism, more specifically agritourism. Besides, there is nuts cluster in Khoni municipality, local wine union in Baghdati Municipality and Imereti Wine Association. Big size producers (for instance herbs and vegetables producer) are members of different business associations.

Approach to S3

Awareness of S3

Five out of eight respondents have not heard about S3. Three of them have heard but had no understanding of it.

Vision of the Future Role

Respondents see the big potential of agriculture in the future and average rate of agriculture role for the development of S3 is 5. All respondents rated 5.

Willingness to Cooperate in the Future

Only two respondents are not willing to cooperate to assist the team working on the issue in identifying and involving other stakeholders.

Prospects of the Eight Pre-Identified Smart Domains

All respondents agreed that identified eight smart domains are priority for Imereti region and one sector, Transport and Logistic has been added. One respondent doubted about priority and strategic value of Production of Meat and Meat Products, Water, and Mineral Water domain.

2.7 Manufacture of Wearing Apparel

Introduction

In this smart domain, the total number of interviews conducted was 8. All respondents were selected from the list provided by local authorities and business register data provided by the National Statistics Office of Georgia (Geostat). Two respondents are big size producers and other eight small producers. Geography of respondents also are diverse: two big factories are from Kutaisi, others from Tskaltubo Municipality (two respondents), Zestafoni Municipality (two respondents), Tkibuli Municipality and Kharagauli Municipality. One big company is Joint Stock Company and another LTD. All small producers are sole entrepreneurs. It should be mentioned, that in the list of producers provided by local authorities, there are 11 companies and only two of them have been interviewed. Two of them promised to meet but did not come to the meeting, one company could not confirm, two stopped their operations, two was busy to meet, one refused to meet and it was possible to contact one company. There were five other companies listed in the Geostat business register, which did not want to meet with us.

The domain incorporates the following sub-sectors: Manufacture of Wearing Apparel. Manufacture of Knitted and Crocheted Apparel. The production of various types of clothing (traditional, for adults, for children, uniforms, special purpose clothing, etc.) and accessories are the main products produced by companies interviewed in this domain.

Current Situation of the Domain

Key of Success, Strengths, Problems and Challenges

For big apparel factories, key of success is skilled labor and technologies (machinery/equipment). Respondents think that the sector is developed in Imereti because there is a cheap labor and the advantage of the company is that the product is handmade. Low salaries make the cost of production lower and supports its competitiveness. There is a tradition in Imereti of having successful light industry as well coming from old, Soviet times and even before. As big factories representatives indicate, the challenge is competition with imported products. Also, it is difficult to maintain personnel. This is also big challenge.

Small ateliers representatives said that key of success are high demand and growing business opportunities. Especially, demand on specific apparel for instance clothes for children, on specific products such as clothes for concerts and musical performances. Successful technological (sewing technologies as well as modern equipment) work is also essential, which enables to produce quality product. Personal and professional development also play a big role in the productivity of the domain. The domain is developing, and this is the strength. Problems relate to insufficient materials and as sector is increasing demand on skilled labor is increasing. One respondent mentioned that they tried many times to find volunteer and to train free of charge, but there was nobody willing to learn. Problem relates to the lack of selling opportunities, lack of financial resources and absence of modern sewing technologies and to limited opportunities of enlarging the business. Pandemic was also big problem and challenge, which decreased demand, especially on costumes or other types of clothes for concerts, anniversaries, other musical performances etc.

Major Players in Domain and Governmental and Non-Governmental Organizations

Big apparel producers receive materials and order from contractor and produce the product. In case of one producer, it receives materials from partners, produce the clothes and the same partner take it back to the market. These partners are British and German companies. This product is exported. There are small orders from local clothes designers but the principle is the same, contractor orders and takes the clothes back. This factory does not work with retail or wholesale traders. Machinery is purchased abroad. All cooperation is signed contract based.

In case of another big company, it mostly works on public procurement (tenders). Receives order and produce the product. The product is also not delivered to retail store. Sometimes the company also orders another apparel producer companies. Materials suppliers (fabric) and machinery suppliers mostly from Turkey.

Suppliers of small ateliers are mostly local companies. Only one respondent said that some material (fabric) is imported from Turkey as well. Others purchase materials from local traders, local markets. For example, from big wholesale market in Tbilisi as well as from Kutaisi. As for customers, they mostly serve individuals, but there are private companies and public institutions as well among their customers. There are some specific groups of customers, private schools, kindergartens, musical ensembles etc. Most of them directly serve customers, only one producer distributes to the shops. One small producer mentioned that its products are exporting to Europe quite often because Georgian migrants are ordering clothes. In order to use export potential, small companies need support for participation in exhibitions and festivals.

None of respondents can name any local governmental or NGO institutions which are important players in the domain. Only one sole entrepreneur mentioned about cooperation with Georgian Farmers Association and UN Women.

As for government support programs, four respondents are beneficiaries of "Produce in Georgia", including one big company. Another big company mentioned that they have plans to apply. So does one small atelier. One small producer also grants from Georgian Farmers Association which was used for equipment. All these grants and supports are used for equipment. Only one respondent said that never applied and no need for it. One small apparel producer received grant from G-Cloth project and purchased the sewing machine. Almost all respondents have desire to use government support program mostly for new sewing equipment.

The Role of Small and Medium Companies

There are many small apparel producer companies and their role is important, because they work on small segment, small orders and fill the gap as they work with local small customers and satisfy demand of individuals. Big companies are not working on small orders and small business is driving in this domain, since there are not many big companies operating.

Value Chain

Value chain of all respondents goes outside of Imereti region. Big companies cover whole Georgia and goes outside of the country. Only one small company has all its value chain components in Imereti region. Others go to Tbilisi for materials and equipment.

Big companies have material and machinery from abroad as well as from distributor companies. Orders are outside of Imereti region. No any value chain part is developed locally. Only small additional supporting materials (oil, heating etc.) are purchased from local suppliers. Product is sold abroad and also delivered to local contractors. No any of value chain part is developed in Imereti region for big companies.

Small producers have mostly self-supply of materials from Tbilisi big wholesale market. Sewing equipment is also purchased in Tbilisi. Customers are mostly local individuals or specific groups of customers. For small ateliers supply side component is developed in Imereti, but only one producer is depended on it.

Covid 19 Impact

Covid pandemic impact was negative for most of the respondents. In case of one small apparel producer during 2020 orders decreased by more than 50%, In 2021 the situation improved but overall decrease was still 40%.

Pandemic was opportunity for one small producer, since they started work on facemask, got certificate from authorities and there were too many orders and was difficult to satisfy. One big company also started producing face masks but, international orders decreased by 30% during the first year of pandemic.

Plans, Challenges and Opportunities for the Future

Skills They Need to Develop

For big companies:

- There is a need to increase its size and, in this case, there is the problem of additional skilled labor
- There are weak skills of the management of technological process.

For small companies:

- Need to develop embroidery skills
- Main skill needed is handwork abilities and the knowledge of new methods of sewing
- Need of advertisement campaign including in social media. Therefore, the skills of social media management is needed
- Skills of working with new, modern machinery
- There is a need for organizational skills and sense of responsibility in order to timely serve customers
- Needs embroidery making skills. It will improve design of the product
- Production of clothes and for it more knowledge and skills are needed.

Part of value chain which has the most potential is sewing of clothes, especially children's clothing and clothing for musical ensembles.

Use of Technologies and Prospects of Co-operation and Technology Transfer

Technology, Innovation and R&D

In the wearing apparel production sector technologies are mostly used in machinery and equipment. The is also need innovations in designing. Small size producers mentioned that modern technologies are mostly used in big factories, while big factories respondents emphasize the importance of technological upgrade of sewing machines. Investments are mostly done in machinery and equipment. Big companies are regularly investing in machinery and equipment. There are no R&D activities conducted by any of respondents and there is no collaboration with academic or research institutions or with any other companies towards R&D. There is no patent registered.

According to responses determinants of innovations are: market demand (customers' desires), new sewing techniques, demand on national and religious clothes. Factors of preventing innovation are insufficient financial resources, lack of knowledge and education, absence of skilled labor.

As for innovative scientific or education institutions in Imereti region, VET "Iberia" was named by two respondents and Kutaisi International University by two respondents as well.

There are some apparel production working research activities at ATSU.

Other Pre-Identified Smart Domains to Cooperate With

Four respondents do not have cooperation with other smart domains and they think there is no potential of cooperation. Other four responded positively and two of them see potential of cooperation with Local Tourism Related Services, Hotels and Similar Accommodations, one with Agriculture Production and Related Services and one big factory has cooperation with Wholesale of Non-agricultural Intermediate Products and Other Specialized Wholesale.

Approach to S3

Awareness of S3

All eight respondents have not heard about S3.

Vision of the Future Role

Respondents see the big potential of Wearing Apparel Production domain in the future and average rate of wearing apparel industry's role for the development of S3 is 4.

Willingness to Cooperate in the Future

Only two respondents are not willing to cooperate to assist the team working on the issue in identifying and involving other stakeholders.

Prospects of the Eight Pre-Identified Smart Domains

All respondents agreed that identified eight smart domains are priority for Imereti region and one sector, Educational Sector has been added.

2.8 Manufacture of Machinery/Equipment and Electrical Machinery/Apparatus

Introduction

Respondents in this domain were chosen using lists of local authorities and GEOSTAT. A total of 148 interviewers were approached via phone or email. Respondents either did not respond or said that their activities were not related to the domain. Four interviewers responded and confirmed their domain-related activities, with one refusing to be interviewed. All businesses whose contacts were on the submitted lists were contacted, with the exception of those whose activities were related to vehicle maintenance and repair. The interviewed sole entrepreneur is a representative of such a business.

One respondent is a large company from a Kutaisi FIZ, and the other two are small producers, one of whom is a sole entrepreneur. The small producers are from Tskaltubo and Baghdati Municipalities.

The domain incorporates the following sub-sectors: Manufacture of Machinery and Equipment; Manufacture of Electrical Machinery and Apparatus. Solar panels, machinery and equipment repair, and refrigerator assembly are among the products and services offered by the businesses that were interviewed.

Current Situation of the Domain

Key of Success, Strengths, Problems and Challenges

According to FIZ respondents, the key to success is product quality as well as the quality of the materials used. Respondents believe that the sector is developing in Imereti as a result of tax incentives in the FIZ and Georgia's trade regime with EU countries. The challenges for this respondent are the increases in product prices caused by the payment of taxes when importing products into Georgia. Household appliances were assembled in a free industrial zone in Kutaisi and exported entirely outside of Georgia. This company is no longer in operation.

The key to the sole entrepreneur's success is the ability to create parts for various machines. For a sole entrepreneur, working with old equipment is a weakness.

The last respondent works with universal refrigeration equipment, assembling, installing, and repairing it. He believes having a business that deals with this type of equipment are the key to success. According to him, the problem stems from a shortage of professional staff, insufficient financial resources, and a lack of state financial support for this industry.

The large company exports its products to 45 different countries. Small businesses require financial assistance in order to export their services and products. The entrepreneur does not consider export.

According to the respondent from FIZ, the production and installation of solar panels have potential and should be supported by GoG. The entrepreneur sees an opportunity in auto repair. The small business sees potential in the production of refrigerators.

The FIZ company benefits from tax breaks and does not require additional financial assistance. Other respondents do not receive financial assistance from GoG. The company requires assistance in disseminating product information as well as overcoming bureaucratic barriers during waste disposal from the FIZ.

Major Players in Domain and Governmental and Non-Governmental Organizations

The Ministry of Justice, Ministry of Internal Affairs, Ministry of IDPs from Georgia's Occupied Territories, Labor, Health, and Social Affairs are the main/important players from governmental organisations for the third respondent. The respondent from the FIZ and sole entrepreneur say they are not cooperating with the state. All the respondents said they had no experience of cooperation with the NGO sector.

The Role of Small and Medium Companies

The large company believes that SMEs can benefit from products that aid in the production of their goods. Packaging materials and fastening tapes, for example. Machine and equipment repair is a common service provided by small businesses.

Value Chain

The large company imports products from China, assembles them in Imereti and sells its final products in Europe and America. The small company imports equipment from Turkey and Europe, installs it and serves customers throughout Georgia.

All respondents see domain potential in the production. Both large and small businesses see production as the most promising part of their value chain. The sole entrepreneur finds it difficult to answer about the most promising part of his value chain.

Large and small businesses believe that the most developed value chain components in the region are product assembly. It is difficult for the sole entrepreneur to identify this type of component.

Covid 19 Impact

The damage done to all three respondents because of Covid 19 was significant. They were forced to stop business activities due to employee infections and sales declined. To deal with the effects of the COVID-19 pandemic, the state institutions' regulations must be strictly followed, and victim support programmes must be implemented.

Plans, Challenges and Opportunities for the Future

Skills They Need to Develop

The large company confirmed Georgia's shortage of qualified personnel. It was noted that vocational schools do not train people in the profession they require because the sector is underdeveloped and there is a lack of demand for people in the specialty they require. They don't have any specialists replace the ones who were already in place. The sole entrepreneur himself provides the necessary training for job seekers.

The small company noted the need for staff training, but found it difficult to name specific areas. The sole entrepreneur himself provides the necessary training for job seekers.

Use of Technologies and Prospects of Co-operation and Technology Transfer

Technology, Innovation and R&D

Respondents either find it difficult to answer which sub-sectors in the domain are the most developed in terms of technology, innovation and competitiveness or think that no sector is developed in this regard.

The large company conducts market research on its own, gathering information about new technologies. Together with Georgian Frigo and Imer Frigo, the small business is conducting market research. Other respondents do not have R&D collaborations with other companies. The sole entrepreneur has no collaboration with academic or research institutions and conducts no research.

None of the respondents made any investments in innovation or technology. They are unable to engage in innovative activities due to a lack of financial resources.

They lack knowledge of the most innovative scientific and educational institutions/organizations.

Other Pre-Identified Smart Domains to Cooperate With

Respondents based outside of FIZ confirm that they work with representatives from the following domains: Manufacture of Wood and Wood products; Production of Meat and Meat Products, Water and Mineral Water; Local Tourism Related Services, Hotels, and Similar Accommodation; Wholesale of Non-agricultural Intermediate Products and Other Specialized Wholesale; Manufacture of Wearing Apparel. The third company does not collaborate with companies from other smart domains.

Approach to S3

Awareness of S3

All respondents have not heard about S3.

Vision of the Future Role

All three respondents see the possibility of expanding their businesses in the future, both in terms of volume and product and service diversification. They recognize the need to learn new skills when they will use new equipment.

According to the interviewers' self-assessments, the average rate of the domain's role for the development of S3 is 4.

Willingness to Cooperate in the Future

All respondents are willing to cooperate to assist the team working on the issue in identifying and involving other stakeholders.

Prospects of the Eight Pre-Identified Smart Domains

Respondents either agreed that the identified eight smart domains are priorities for the Imereti region or indicated that they do not know which other domains are priorities for the region.

2.9 Academia, Researchers

Introduction

The total number of interviews conducted with actors from academia and researchers was three. More specifically, 2 representatives of academia and one research center. The interviewers were selected according to the recommendation of central and local authorities and based on their activities. Taking into consideration the limited number of interviews in this sector, academic institutions were represented by new state university, KIU and the most active VET, Iberia.

However, the academic sector is not big in Imereti region and there are three main universities. Except KIU, there are ATSU and UNIK.

The list of faculties, programs, researches and PHD theses of KIU, ATSU and UNIK were reviewed and this information is given in the report. At present, ATSU has the following faculties linked with priority S3 domains: faculty of Exact and Natural Science, faculty of Technical Engineering, faculty of Technological Engineering, and Agrarian faculty. The following educational programs are implemented in these faculties, and the following departments operate: shoe and leather care, decorative and applied fabric, Light Industry Technology, Textile Technology, Mechanics and Mechanical Engineering, Tourism and Landscape Architecture, Agro-engineering, etc. There are two faculties at this private regional higher education institution in the UNIK: the Faculty of Medicine and the Faculty of Social Sciences, Business, and Law. The UNIK offers programmes in tourism, business administration, finance, accounting, and auditing, among others. KIU is welcoming students into the following English language undergraduate degree programs developed in partnership with TUM International: Management, Mathematics, and Computer Sciences.

Each of the three universities conducts research and has research-related structural units. ATSU and UNIK have Research Support Centers. KIU's strategic development plan envisions the establishment of a Hadron Therapy Center. This research center will offer its facilities for scientific research in particle physics, radiation physics, and biophysics, as well as support operations of the Proton Therapy Center, coupled with the faculty of Medicine at KIU. KIU is delivering study programs in computer science, technology, engineering, and mathematics, innovations, and entrepreneurship. Resources of these study programs can be used by local companies operating in priority S3 domains and graduates can highly contribute to the development of these domains and sectors within domains.

Respondent educational institutions did not mention about students' research, but from the webpage of ATSU⁴, students prepared PHD thesis or study papers on food production, agriculture, tourism, including PHD thesis in the different fields of agriculture, tourism, apparel production as well as scientific works in innovations and technologies. These research works might be used by private companies as well. UNIK conducted research on city and regional development, the service sector, including tourism⁵. In conclusion, it can be said, that there was not big choice in the selection of academic and research institutions. ATSU Research Support and Development Center for the interview was recommended by respondent NGO.

From the regional ten VETs, one was selected based on the recommendations of the respondents and MRDI, Iberia VET was selected for the interview. Iberia is actively working with pre-identified smart domains.

Approach to S3

⁴ The dissertations of ATSU can be found here <https://atsu.edu.ge/index.php/disertaciebi-geo>

⁵ More information about the research conducted by UNIK can be found here <https://www.unik.edu.ge/Science/110>

Awareness of S3

Only university representative knew about S3, but did not know if the approach is piloted in Imereti. Second academia representative (from Vocational Education and Training (VET) Institution) have heard the term “smart specialization” but did not know the meaning. Respondents from research center also knew about S3 but had not good understanding of S3.

Linkage with S3, Resources and Where Respondents See Themselves in Relations to S3

Academia respondents responded positively that its current activities might be linked with S3. Specifically, respondents from the university thinks that S3 related works are directly aligned with the strategic plan of the university, since they study the priority economic sectors of Imereti region, in order to assess the demand on labor. Before the launch of the university the priority sectors of Imereti region has been studied, in order to assess the demand on labor. So the study programs were selected according to the result of this research. Planning of study programs will be according to the demand in the future as well. Respondent from VET mentioned that they are flexible to plan study programs according to the measures of S3 strategy and at the present VET has programs in tourism and hospitality, as well as in agriculture.

Both academia respondents indicated that they have interest and willingness as well as human and academic resources to contribute to the development of S3.

Research organization representative stressed that the organization works on technological improvement of transport system, tourism services, supports SMEs, start-ups in skills development and all of those activities are linked with S3. One of the smart domains (Local Tourism related Services, Hotels and Similar Accommodations) will directly benefit from this work. SMEs are well represented in almost all smart domains (especially Agriculture Production and Related Services, Local Tourism related Services, Hotels and Similar Accommodations, Manufacture of Wearing Apparel, Manufacture of Wood and Wood Products). Transport Sector has linkage with all priority S3 domains and there will be indirect benefit. As for resources, they think that resources can be allocated according to agreement. All S3 priority domains could be supported by their products. But, there is not active practice of cooperation between research and private sector in Georgia. Imereti region is not exclusion. As emphasized in the findings and conclusions of this report, research potential is not actively used and there is no research based cooperation between academic sector and private sector. There is no cooperation on research among private companies.

Academic sector sees their role and involvement very important in the planning and implementing S3 strategy. For instance, PHD programs which are going to start as well as bachelors' programs, will improve students R&D skills. Those students might be used in order to be actively involved in R&D activities in the region. If the university management knew about S3 they would have accordingly planned PHD programs and research. Their motivation and incentives are to employ students in Imereti region. VET representative said the role of educational institutions is essential. There is a need to have a reliable information about strengths and weaknesses of the region and its municipalities. It will help VET to plan its study programs. VETs are flexible in designing and planning study programs. It is possible to prepare skilled and professional specialist within 1 year. Both academic institutions have efficient and successful cooperation with private sector. Even more, they have special and efficient formats of cooperation with private companies. For instance, university has following cooperation formats: 1. University has platform for cooperation with private sector, so called Industry Advisory Council, consisted with representatives of Chamber of Commerce and Industry and foreign companies. The council meets on a quarterly basis and prepares the action plan how to cooperate with private sector. 2. Within the working meetings with private and public sector priority cooperation directions are identified. 3 Employers can fill the questionnaire in order to confirm their interest to cooperate and later the memorandum is signed with particular employer to send students for practice, employment etc. This format mostly aims to set the grounds of cooperation. As for VET, cooperation with private sector is efficient in terms of practical as well as theoretical work. Private companies are main beneficiaries. At the same time, many representatives of smart domains mentioned about their cooperation with VET “Iberia”. Both of them are public institutions. University representative rated its own role for the development of S3 at 3 and VET representative rated 5.

Research center has its role very promising, since without primary scientific research and R&D it will be difficult to have success in S3 priority domains. For instance, supporting S3 domains in design of new services or products in terms of digitalization, including mobile applications, online platforms etc. For S3 domains it is essential to have personnel with technical skills. Motivation and incentives for them is the use of their

products by S3 sectors. These products are robots, artificial intelligence products, logistic hubs etc. Research center has an active cooperation with scientific and public sector. General willingness to cooperate with smart domains was declared. No specific products were mentioned for particular domains. Research center rated its role for the development of S3 4.

The main strength of academic sector is academic and technical knowledge. There are some domains listed in priority domains, where university graduates can be used. For example, Manufacture of Machinery/Equipment and Electrical Machinery/Apparatus domain. Students are skilled in mathematics, computer sciences. As for weakness, respondents mentioned that human capital is oriented at high-paid jobs and there is high demand on labor with some particular skills and not many graduates are equipped with technical skills. Another weakness is absence of a data on demand on labor in S3 priority domains. Cooperation with business happens only by exchange of information on the particular needs of human resources and this data is often absent.

Strengths of researchers was indicated as follow: the work on practical needs and use of scientific approach. Weakness is unused potential to implement more projects then the center has at present.

Vision of the Future Role

University representatives responded that in 10 years the university will be educational hub not only for Georgia and VET representative believes that there will be more demand on technical skills. University has 5 years' development plan and after 3 years the next 5 years' plan will be prepared. There are some priorities for 10 years as well, but it is still difficult to know how the country and region will be developing on 10 years' perspective. R&D activities will be reflected in the plan.

Research center representatives said there might have a big role in 5 years taking into consideration that use of robots, artificial intellect is increasing. There is increasing demand on logistics hubs as well.

Willingness to Cooperate in the Future

All respondents are willing to cooperate to assist the team working on the issue in identifying and involving other stakeholders.

Prospects of the Eight Pre-Identified Smart Domains

All respondents agreed that identified eight smart domains are priority for Imereti region and in addition, they propose to add IT (information and communication) sector, transport and logistics sectors.

Support Stakeholders Need

Academia representatives believe that academic sector needs data which will show the priorities of economic development for Imereti region and for whole Georgia as well. This will help university to define its own role. There is also need to have more active cooperate with business associations. Increase of the coverage and the focus of VET study programs is also essential.

It was difficult for them to name the most innovative public, educational and research organizations.

Covid 19 Impact

All respondents indicated that Covid 19 pandemic has negative impact on all smart domains and the negative impact on Local Tourism Related Services, Hotels and Similar Accommodations was huge. Manufacture of Machinery/Equipment and Electrical Machinery/Apparatus was also affected.

2.10 NGOs

Introduction

The total number of interviews conducted with actors from NGOs was four. The NGOs were selected according to the recommendation of local authorities and based on their activities.

Approach to S3

Awareness of S3

One out of 4 NGO was familiar with S3 and another has heard but has no understanding of it. The other 2 organizations were not aware of S3.

Linkage with S3, Resources and Where Respondents See Themselves in Relations to S3

From NGOs, only one respondent responded positively that its current activities might be linked with S3 under joint projects of European and Georgian municipalities, for instance in Kutaisi, where business development at municipal levels is discussed.

All NGO representatives also confirmed their interest to be part of S3 strategy development and implementation process. Three NGO respondents offered human and time resources, one of them even office space if needed. As for financial resources, two NGOs are positive to allocate financial resources if needed. Only one NGO declared only interest but no human, time or financial resources.

All NGO respondents mentioned about big intellectual potential of civil society sector, which should be used in regional development, especially in such a new approach as S3. Incentives might be the positive economic results of S3 strategy. They think that non-governmental sector needs more information about S3 in order to see benefits of S3 and its strategy for whole region.

NGO representative said that academic sector in Georgia is not developed as it is in European countries and therefore, NGO sector might fill this gap. Therefore, the role of NGOs is essential. They think that involvement of NGO sector is important because NGOs can fill the coordination gap. As for cooperation, NGOs have cooperation with all institutional sector, but the most developed is the cooperation with public sector, then comes the private sector and cooperation with academia is not as active as in case of other institutional sectors. NGO representatives rated their role for the development of S3 at around 3.

As NGO representatives answered, the strengths of NGO sector are flexibility and an ability of quickly learning of new methods, policy or approach. There is a big mobility in NGO sector. Another strength is the expertise and educational resources, as well as availability, financial flexibility, openness and transparency. Experience in the preparation and implementation of strategies is one more strengths of NGO sector. As for weaknesses, first of all its instability and lack of long-term projects and programs. The another weakness is that NGO sector is not proportionally represented in all municipalities. In some of municipalities it is strong and in some of them quite weak. Besides, NGO representative said that there are not many NGOs in the region and the resources might not be enough for cooperation with all smart domains.

Civil society institutions mostly work on social policy, democracy, human rights and advocacy. As mentioned above, NGOs can contribute to the development of S3 strategy. It will be difficult to anticipate what kind of direct support can NGOs provide to S3 domains. If there will be opportunities for NGOs to implement relevant projects, human and administrative resources can be allocated.

Vision of the Future Role

NGO representatives said that in the future they see themselves as equipped with substantial knowledge and experience to be able to highly contribute in S3 process. NGO respondents also said the role of NGOs will be important in the resource mobilization and NGO sector should be at the lead position of the supporting development of smart domains.

Willingness to Cooperate in the Future

All respondents are willing to cooperate to assist the team working on the issue in identifying and involving other stakeholders.

Prospects of the Eight Pre-Identified Smart Domains

All respondents agreed that identified eight smart domains are priority for Imereti region and in addition, they propose to add IT (information and communication), education and healthcare sectors.

Support Stakeholders Need

NGO representatives said that both public and private sector should believe that S3 is a successful tool for regional development and gives a lot of benefits to them as well. There is need of knowledge and experience, especially in local authorities. Access to finances and vertical and horizontal coordination. Improvement of skills of personnel, marketing, digitalization is also important. There is not sufficient investment in these fields. In public sector, staff also needs to be trained. Qualification of staff is not sufficient in many municipalities.

It was difficult for them to name the most innovative public, educational and research organizations.

Covid 19 Impact

All respondents indicated that Covid 19 pandemic has negative impact on all smart domains and the negative impact on Local Tourism Related Services, Hotels and Similar Accommodations was huge. Then comes Manufacture of Wearing Apparel. The least affected was Agricultural Production and Related Services. Covid 19 pandemic related measures should be in all strategic documents.

2.11 Business Support Organizations

Introduction

In this priority area, the total number of interviews conducted was 2. One responded was representative of Chamber of Industry and Commerce (GCCl) in Imereti Representation, who is the President of Association of Herbs at the same time. For the second interview the President of Imereti Wine Association was selected. Selection of GCCl was obvious, because it is the larger business association in Georgia having thousands of members and has a representation in Imereti region. As for Imereti Wine Association, it was recommended by some private sector respondents.

Approach to S3

Awareness of S3

GCCI representative was familiar with S3 but never been involved in any activities related to S3. The another respondent was not aware of S3.

Linkage with S3, Resources and Where Respondents See Themselves in Relations to S3

Both respondents linked their activities with S3. GGCI directly works with business sector and its members are almost in all priority smart domains. Cooperation with all business activities, including priority smart domains. Imereti Wine Association works towards supporting wine makers, including tourism service providers.

The role of GCCl is important since the organization as well as other local NGOs have substantial knowledge of local environment, private sector and challenges. President of Wine Association said that NGOs involvement in S3 will give them advocacy opportunity. As for association, involvement in S3 will strengthen its members. It will be incentive for association members to be actively involved in the process. S3 strategy and its measures will support local wine makers.

Both respondents declared the interest to be part of development and implementation of S3 strategy. There are sufficient resources at GCCI and Wine Association has human resources, but financial resources not available so far.

GCCI rated its role for the development of smart specialization in the region at 4 and Wine Association 5.

Vision of the Future Role

There are the plans for GCCI to have larger coverage of private sector in membership and Wine Association aims at new types of grapes grown and new wines produced in case of proper work.

Willingness to Cooperate in the Future

Both respondents are willing to cooperate to assist the team working on the issue in identifying and involving other stakeholders.

Prospects of the Eight Pre-Identified Smart Domains

Both respondents agreed on the list of priority domains and GGCI mentioned that production of shoes should also be added as a priority smart sector.

Strengths, Weaknesses and Cooperation with Other Institutional Sectors

GCCI Strengths are following: more than 1000 local members and direct cooperation with all of them. Weaknesses: there are some other companies, which are still no members. As Imereti wine is a new world wine, it has a big potential and needs support. Weaknesses of wine sector are lack of wine education, lack of information and new visions in wine making. VET "Iberia" and ATSU have been doing some projects and studies related to wine sector.

Both respondents have strong linkage with public sector and ready to cooperate with all institutional sectors. Wine association named some organizations: DMO and National Wine Agency. GCCI could not name most innovative public, educational and research organizations which are connected to smart sectors. Wine Association indicated VET "Iberia".

Respondents could not name any innovative institutions.

Support Stakeholders Need

Public and private sector need more communication and information provision, as well as more motivation to see the benefits of S3 for the region.

Covid 19 Impact

A big negative impact was on Local Tourism related Services, Hotels and Similar Accommodations and Production of Meat and Meat Products. Manufacture of Wearing Apparel almost stopped, especially during first "lockdown". There was also negative impact on Mining and Production of Basic Metal Products. There was big negative impact particularly on wine makers who was badly affected by decrease of tourism and demand on wine in retail stores and at the family farms. Home wine makers also had a decrease in sales, because they sell wine for special events (weddings, anniversaries), and lockdown and restrictions of big gatherings caused the decrease of sales. Support is needed for small wineries to participate in international festivals and exhibitions.

2.12 Government Officials, Public Sector

Introduction

In this priority area, the total number of interviews conducted was seven. The interviewers were selected based on the beneficiary's recommendation, their related activities, and an effort to reach out to a variety of stakeholders. Representatives of the regional authority, city-type and community-type municipalities, various state agencies supporting business, and the state structure responsible for regional policy in the country were interviewed.

Approach to S3

Awareness of S3

S3 was new to one municipality and one state agency. The remaining five respondents were aware of and involved in the smart specialisation topic.

Linkage with S3, Resources and Where Respondents See Themselves in Relations to S3

All respondents mentioned their connection to smart specialisation, such as:

- The Kutaisi City Municipality helped the MRDI identify companies in smart domains. They are eager to participate in the strategy's development and implementation. If the experts prepare one case study, they are ready to do so for another sector. From smart domains, they assist the hotel industry.
- In the Imereti region, RDA promotes agricultural activity, innovation, and the use of scientific potential in agriculture.
- MRDI implements the EU-funded program PIRDP in Imereti and the program's third priority (Improvement of competitiveness and support to innovations of SMEs) is somewhat related to smart specialisation.

In addition to their institutions, respondents recommend including the following actors from identified smart domains in the development and implementation of a smart specialisation strategy: National Agency of Mines, National Agency of State Property, Georgian Ministry of Environment and Natural Resources Protection, FAO, USAID, PIN, Mashav Fund, ATSU, Jikhaishi Village College, LDA Georgia, KIU, Tbilisi based Universities: San Diego University, Free University, and Agrarian University.

The experience of concurrent implementation of different programmes, as well as the ability to cover several sectors and municipalities with these programmes, was named as a strong point of national public institutions. They see a lack of human and time resources as a weakness, as well as an inability to support any sector until the GoG identifies that sector as a priority for them.

Municipalities consider the availability of financial resources and information to be assets. Municipalities' weaknesses have been identified as follows: There is a lack of knowledge about S3, among municipal staff; There is no practice of having a permanent team working on the project; In decision-making, there is a reliance on state structures; Did not have the necessary funds to carry out the delegated functions; There aren't enough people to bring this up; There is a lack of information about academic circles' scientific activities.

KIU, ATSU, GCCI were named as the most innovative NGOs, educational and research organisations associated with smart domains. Respondents believe that the following assistance is required for the academic sector to become more active in supporting smart domains:

- Assist in the implementation of research and gather information on research conducted by research organisations in support of smart sectors in other countries.
- Have access to study for Stakeholders.
- More funding and Infrastructure for research.
- Information on the specialties that are required in the region.
- A forecaster of labour demand in the region.
- The ability to switch quickly on implementation of new programmes.
- Identifying studies that are available in the region.

Vision of the Future Role

The respondents think, that in the future, it will be:

- Mechanisms for supporting smart domains.
- Innovative enterprises and the initiatives required for their development.
- Examples of implemented smart specialisation projects.
- A possibility of completing the necessary projects.

Willingness to Cooperate in the Future

All respondents are willing to help the team working on the issue identify and involve other stakeholders.

Prospects of the Eight Pre-Identified Smart Domains

There are no objections from respondents to the eight smart domains that have been identified. The majority of them, however, believe that if resources are insufficient to support all domain development, some domains should be prioritised over others. Respondents preferred the following:

Manufacture of Machinery/Equipment and Electrical Machinery/Apparatus; Agricultural Production and Related Services; Local Tourism Related Services, Hotels and Similar Accommodation; Mining and Production of Basic Metal Products. Dairy and dairy product production, Building material manufacturing, and the extraction and processing of inert materials. Different opinions were expressed about the Production of Meat and Meat Products, Water and Mineral Water.

Support Stakeholders Need

Various types of support for different levels of the public sector were identified during the interviews. Municipalities require the support and decision-making power of state institutions in order to support local businesses. In the case of sector coordination, business-supporting state institutions need to increase competence; to create a financial instrument, they will require both human and financial resources.

It was deemed critical to raise public awareness about smart specialisation and for actors to learn from European smart specialisation experiences.

Covid 19 Impact

All respondents agreed that the Covid 19 pandemic is having a negative impact on Local Tourism-Related Services, Hotels, and Similar Accommodation and Manufacture of Wearing Apparel. Agricultural Production and Related Services and Mining and Production of Basic Metal Products in their opinion were the least affected.

Respondents named market diversification, finding alternative markets, digitalization, and developing crisis management skills as supportive measures for businesses. Due to a lack of information on the impact of Covid 19 on the regional economy, representatives of the state structure found it difficult to name measures against Covid 19 for Imereti.

3. Market Analysis of the Identified Sectoral Niches

Introduction

Analysis of the smart domains identified narrowed areas where the selected smart domains might have competitive advantages. During this identification and assessment of sectoral niches, several factors were taken into consideration, such as: export competitiveness, favorable conditions (nature, labor), endemic, cultural, historical, and traditional importance, and link to other smart domains, linkage with educational sectors, the importance of innovations and new technologies.

Using these criteria, the following sub-sectors were identified:

- Ferroalloy production - Domain: Mining and Production of Basic Metal Products.
- Wine production – Domain: Agriculture and Related Services.
- Production of herbs and vegetables - Domain: Agriculture and Related Services.

Concentrating on wine and on herbs vegetable production does not mean that there are no other sub-sectors having competitive advantages and producing “niche” products. The number of companies interviewed as well as the number of sub-sectors was limited and not all sub-sectors were covered and analyzed.

Ferroalloy Production

Manganese ore is found in Imereti in the municipalities of Chiatura and Sachkhere. The gross-balance of workable manganese ores of all commercial categories is estimated as 239 million tonnes, which include manganese oxide ores - 41.6%, carbonate ores - 39%, and peroxide ores - 19%. Georgia began producing manganese in 1879. Manganese ore is used to make ferroalloys. Imereti is home to several ferroalloy manufacturing companies that export their products to various parts of the world. Georgian Manganese LLC (GM) is Georgia's leading producer and exporter of high-quality ferroalloys and manganese ore. The Zestafoni Ferroalloys Plant, the Chiatura Manganese Ore Mine, the Vartsikhe-2005 Hydro Power Plant, and the Ferromedi Medical Clinic are all operated by GM. GM production includes ferromanganese, silicomanganese, ferrosilicon, sinter, etc.

Ferroalloys are manufactured by companies of various sizes, all of which work for export. Ferroalloy manufacturers use a lot of electricity. As a result, in order to increase production capacity and thus exports, companies require electricity at a price that allows them to compete in the international market, as well as infrastructure that allows them to receive the electricity they require.

Collaboration between companies and the academic and R&D sector needs to be deepened. This requires the creation of a platform for the exchange of information on mutual needs and capabilities.

In 2015 with the support and active participation of Chiatura Manganese Ore Mine along with the leading companies in the field, was established Ferroalloys producers and manganese miners association. The goal of association is to take care of the development and promotion of the industry, increase the share of exports.

Wine production

In every region of Georgia, grapes are grown and wine is made. The Kakheti region is a winemaking powerhouse. In 2020, they produced 239 thousand tonnes of grapes, accounting for 75.5 percent of the country's grape production. Imereti is Georgia's second-largest grape-producing region after Kakheti, as illustrated in Figure 1. Imereti is one of the most diverse regions of Georgian winemaking, climatic conditions, and soil composition are very different, and so the wines are also different.

Traditional winemaking here as well as in other regions is linked with “Qvevri”⁶, which is called “Churi” in Imereti. The white wine of Imeretian type has beautiful yellow color, full, quite harmonious and cheerful. Imereti is famous for Sviri Krakhuna, Obchuri Tsolikouri and Kvalituri Tsitska. The place of origin wines – Svir⁷

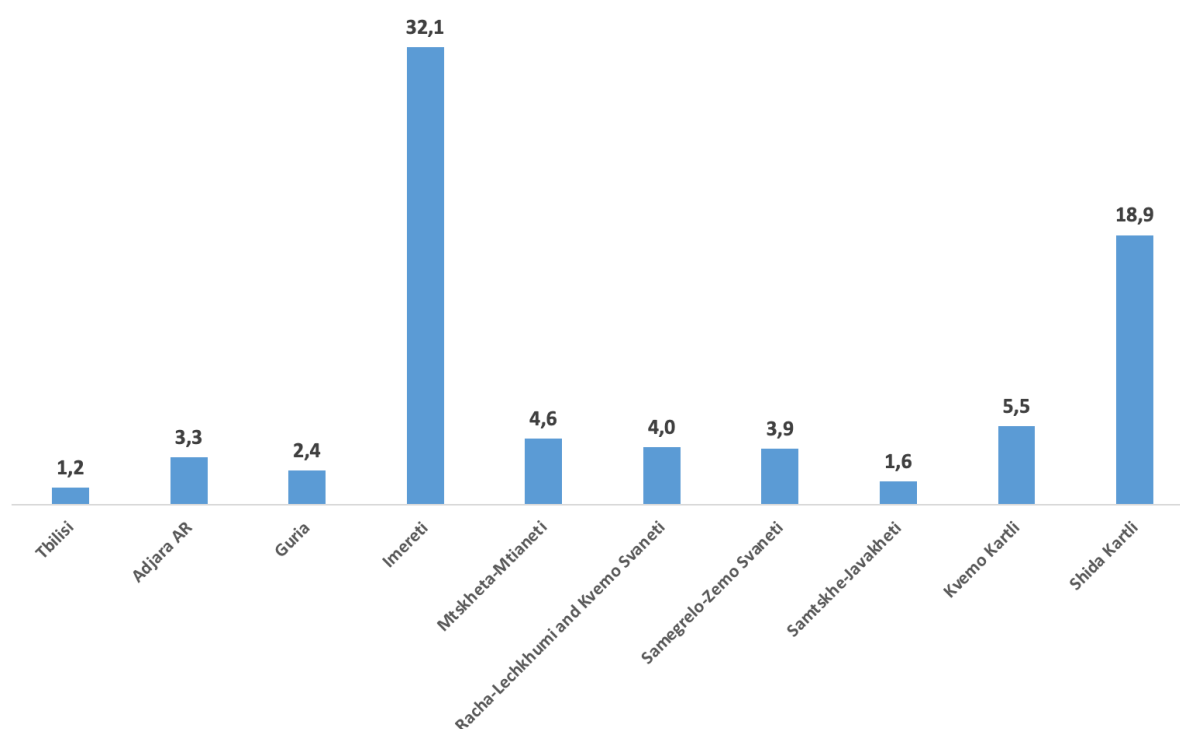
⁶ Earthenware vessel used for the fermentation, storage and ageing of traditional Georgian wine

⁷ Village in Zestafoni Municipality

should be noted among them, in which three sorts of grapes - Tsitska, Tsolikouri and Krakhuna are used. Sviri is the only place in Imereti, which has Protected Designations of Origin. There is ongoing work for the registration of Protected Designations of Origin (wine micro zone) in Baghdati Municipality where EG interviewed wine maker.

Based on information of National Wine Agency of Georgia, there are endemic 13 red grape varieties and 9 white grape varieties in Georgia. 3 red grape types belong to Imereti endemic grape varieties and 3 white grape types belong to Imereti endemic grape varieties. The total number of wine varieties produced in Imereti is 17.

Figure 1. Grape production by region⁸ (thousand tons, 2020).



Source: National Statistics Office of Georgia (Geostat)

As Imereti wine is a new world wine, it has a big potential, including export potential and there are many local wine makers in Imereti, exporting wine abroad. Taking into account the importance of wine making in Imereti region and the number of wine producers, during the interviews it has been mentioned that wine production sector needs to be separately identified as strategic and priority.

Key of success for wine makers are growing demand on wine, especially from new wine regions such as Imereti as well as wine making historical tradition and involvement of youth. During last year, many young people are interested in wine making and they are coming back to the villages and bring new interest and modern, innovative approach to production and marketing. This is the strengths and incentives for other young people. As mentioned above, wine also has a substantial export opportunity.

Small wineries keep important part of wine production and have "niche" product. Small wineries produce high quality and demanded product and besides their small size, there are some exporting small wine makers in Imereti.

⁸

Except Kakheti

Wine making has a direct linkage with tourism, especially to agritourism and gastro-tourism. The most of small wine makers have tourism related services, such as wine degustation, wine harvesting, accomodations.

During recent years a special attention is given to the wine making sector in Imereti. Association of Imereti Wine as important players has been formed and there are plans of formation local wine union in Baghdati Municipality.

There is active cooperation between wine makers and academia. Local educational institutions have a special study programs, projects and studies towards wine production.

Wine making needs good technologies as well as innovative approach in production, packaging and in marketing in general.

Herbs and vegetable production

During last decade, production of greens and vegetables as well as export have been substantially increasing. Production of greens and vegetables is developed in all regions of Georgia, but there are many successful and export oriented production in Imereti region, especially greenhouse production. About 60% of the population in the Imereti region is directly or indirectly engaged in agriculture, and the vast majority produce herbs and vegetables. Greenhouse agricultural production is one of the important and strategic sub-sectors for Imereti agriculture. The most popular, strategic and successful is herbs production, which is well developed in Tskaltubo Municipality due to the traditions and natural-climate conditions. Shelf life of herbs and vegetables produced in Imereti is quite long, which creates favorable conditions for storage, transportation and export.

There are big herbs and vegetables producer companies in Imereti region and those big companies cover all segments: primary production, planting, harvesting, storage, packaging, logistic distribution and delivery to the market. There is a growing demand on herbs and vegetables in global market, especially in EU market and Deep and Comprehensive Free Trade Area (DCFTA) Agreement with EU gives local producers a huge opportunity to export. There are successful cases of export from Imereti region. There is Herbs Association active in Georgia where Imereti based companies are actively represented. 30% of all herbs and vegetables sold at local market are produced by small size farmers.

In general, agricultural sector needs diverse modern technologies in order to to increase productivity and income of producers. The role of technologies is quite essential for the production of herbs and vegetables and mostly in greenhouses. Production process needs all necessary standards to be introduced. For instance, GLOBALGAP⁹, GEOGAP (Georgian standard, analogue to GLOBALGAP) and HACCP¹⁰ standards. There is own patent of herbs producer company registered in Imereti. Innovative approach and searching for a new method is important in all stages of production of herbs and vegetables, including training of primary producers in harvesting and post-harvesting technologies.

As for R&D, herbs and vegetables producers conduct R&D in all directions, including research in market, product design and development of new products, production technologies. There is no R&D cooperation with other companies and academic or research institutions. Only cooperation with academic sector is to have students or graduates on working internship.

Herbs and vegetables production sub-sector has a linkage with tourism, specifically with agritourism.

⁹ Standard on Good Agricultural Practices

¹⁰ Food safety management system in agricultural production – Hazard Analysis Critical Control Point

4. Main Statistics and Trends Demonstrating the Existence of a Critical Mass per Identified Domains

According to the official statistics, by January 1, 2022 there were 26318 active companies in Imereti region. The total number of active companies operating in the selected priority domains were 2318. The number of active business enterprises by each domain is given in the table below.

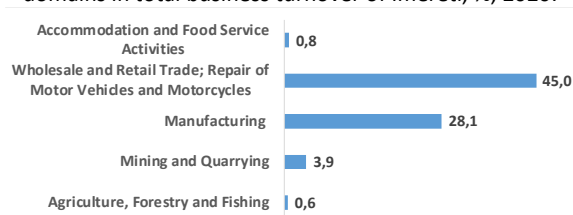
Table 2. The number of active business enterprises in the Imereti Region, including the pre-identified smart domains

Domain	Number	Share in the total number, %
Mining and Production of Basic Metal products	111	0.4
Manufacture of Wood and Wood products	110	0.4
Production of Meat and Meat products, Water and Mineral Water	189	0.7
Local Tourism Related Services, Hotels and Similar Accommodation	319	1.2
Wholesale of Non-agricultural Intermediate Products and Other Specialized Wholesale	666	2.5
Agricultural Production and Related Services	66	0.3
Manufacture of Wearing Apparel	157	0.6
Manufacture of Machinery/equipment and Electrical Machinery/apparatus	700	2.7
Other sectors	24 000	91.2
Total number of active enterprises in Imereti	26 318	100

Source: Geostat

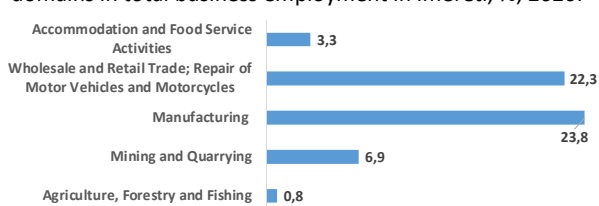
Referring to the turnover and employment by each domain, this data is for Imereti region is only available at the level of sections (NACE rev.1.1), not at the level of below section. For example, the data could be presented for whole section Agriculture, Forestry and Fishing and not at the level 01.1 (Growing of crops; market gardening; horticulture). This refers to all priority domains. Therefore, the data on turnover and employment is presented only for wider sectors (sections)¹¹.

Figure 2. Share of turnover of sections covering priority domains in total business turnover of Imereti, %, 2020.



Source: Geostat

Figure 3. Share of employment in sections covering priority domains in total business employment in Imereti, %, 2020.



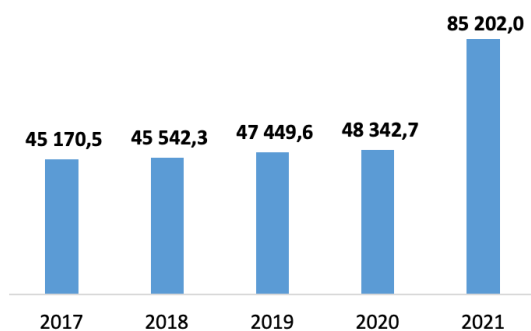
Source: Geostat

As shown on the chart, in 2020 the sum of turnover of those sections was 3,378.2 million GEL, which is 78% of total regional business turnover. As for employment, in 2020 those sectors employed 30187 persons, which was 60% of total business employment. The total number employed in the business sector was 52961.

The data on export from Imereti region has been prepared based on registration (legal address) of the company and not based on actual place of business. This means that if the company is registered outside of Imereti but operating in Imereti and exporting from Imereti, this data is missing in external trade statistics. The value of export from pre-identified priority domains as well as by the each domain is shown on the charts below.

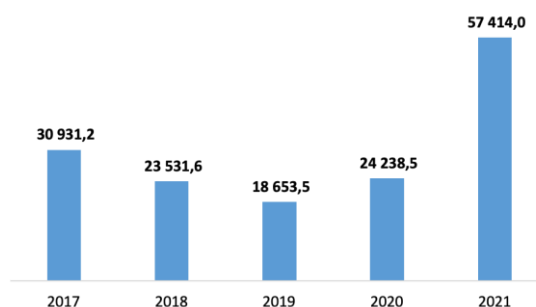
¹¹ Data from households (family farms) are not included. Family farms dominate in agriculture and related services.

Figure 4. Export of Products by Imereti Registered Companies in Selected Priority Domains, Thousands of GEL



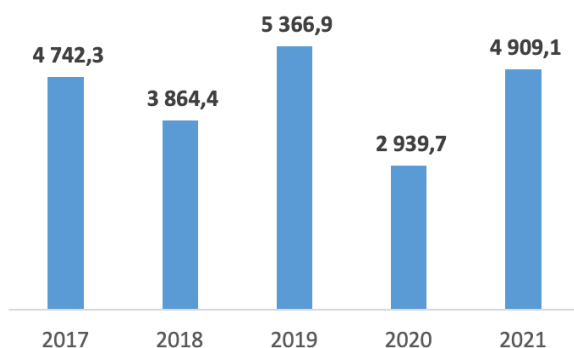
Source: Geostat

Figure 5. Export of Products by Imereti Registered Companies in Mining and Production of Basic Metal Products Domain, Thousands of GEL



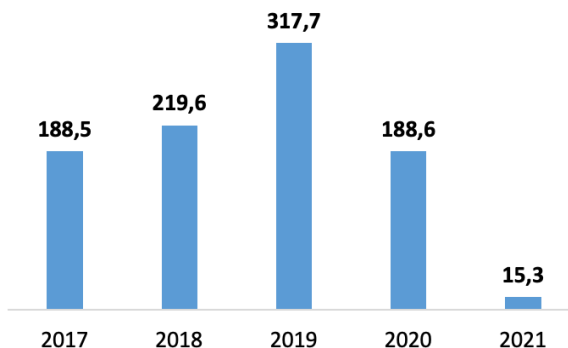
Source: Geostat

Figure 6. Export of Products by Imereti Registered Companies in Manufacture of Wood and Wood Products Domain, Thousands of GEL



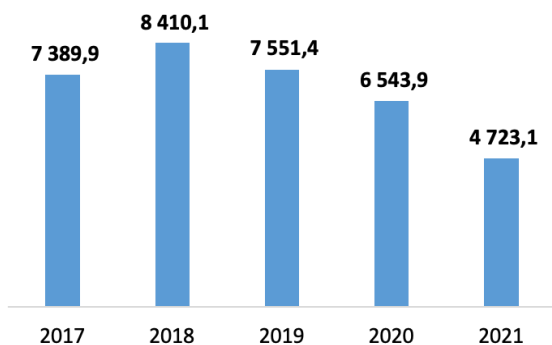
Source: Geostat

Figure 7. Export of Products by Imereti Registered Companies in Agricultural Production and Related Services Domain, Thousands of GEL



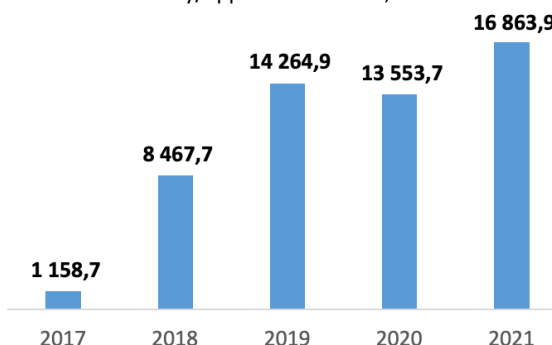
Source: Geostat

Figure 8. Export of Products by Imereti Registered Companies in Manufacture of Wearing Apparel Domain, Thousands of GEL



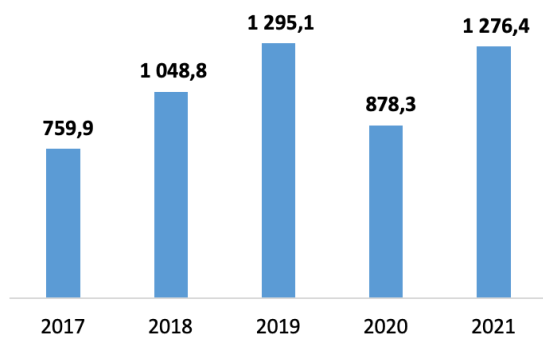
Source: Geostat

Figure 9. Export of Products by Imereti Registered Companies in Manufacture of Machinery/equipment and Electrical Machinery/apparatus Domain, Thousands of GEL



Source: Geostat

Figure 10. Export of Products by Imereti Registered Companies in Water and Mineral Water Sector, Thousands of GEL

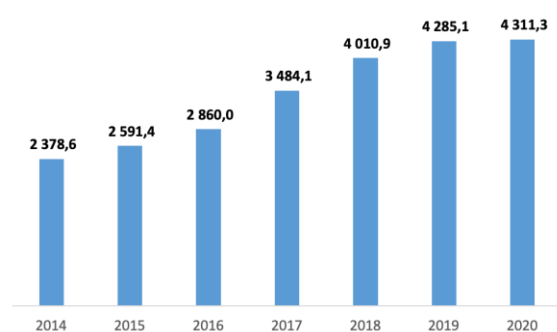


Source: Geostat

5. Analysis of the Potential Impact of the COVID-19 Pandemic on Relevant Economic Indicators in the Identified Domains

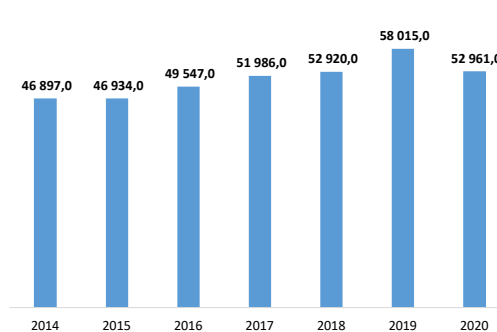
In addition to the Covid 19 pandemic impact analysis of selected smart domains given in the first part of the report, official statistics data has been reviewed in order to assess the impact of pandemic on all smart domains. Impact on entire business sector shows that in comparison with 2019, the turnover of business sector has been increased by 0.6%. In 2020 deflator (percentage change) was 7.3%. Taking into consideration annual changes in prices, the real growth of turnover was negative, it was -6.3%.

Figure 11. Imereti's Business Sector Turnover, Millions of GEL.



Source: Geostat

Figure 12. Number of employees in the business sector.



Source: Geostat

Referring to employment, in 2020 the number of persons employed in business sector decreased by 9%. Analysis of Covid 19 pandemic impact on each selected sections is shown in the table 3 below.

Table 3. Selected Sections Turnover, million GEL

Section	2019	2020
Agriculture, Forestry and Fishing	21.0	24.8
Mining and Quarrying	96.9	167.6
Manufacturing	1,197.0	1,210.0
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	1,978.5	1,939.5
Accommodation and Food Service Activities	66.1	36.3
Total turnover of business sector	4,285.1	4,311.3

Source: Geostat

Percentage change for each section is not available. If we apply the same deflator (7.3%) to all selected sections, the annual real growth of turnover for each sector will be following.

Table 4. Real Growth of Selected Sections' Turnover, %

Section	2020
Agriculture, Forestry and Fishing	-3.7
Mining and Quarrying	59.0
Manufacturing	0.5
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	-43.1
Accommodation and Food Service Activities	-34.5

Source: Own calculation based on Geostat data

Impact of Covid 19 pandemic on employment in each section is shown in the table below.

Table 5. Impact of Covid 19 pandemic on employment in each section.

Section	2019	2020	Percentage Change (%)
Agriculture, Forestry and Fishing	541	420	-22.4
Mining and Quarrying	2,458	3,632	47.7
Manufacturing	13,720	12,589	-8.2
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	14,099	11,823	-16.1
Accommodation and Food Service Activities	2,536	1,725	-32
Total employment in business sector	58,015	52,961	-8.7%

Source: Own calculation based on Geostat data

This analysis proves that the most affected sections of Covid 19 pandemic were tourism and wholesale and retail trade and the least affected mining and quarrying. There was negative impact on agriculture and on manufacturing as well.

6. Main findings, Conclusions, and Recommendations

The survey identified the following main findings, conclusions, and recommendations for the pre-identified smart domains as well as stakeholder groups:

Main Findings

Mining and Production of Basic Metal Products

- Mining and metal product exports are expected to increase further. Producers of these products are among the region's largest employers. In 2020, 57% of total business employment was employed in these domains.
- SMEs play a minor role in the mining industry. Additional assistance is required for SMEs to succeed in metal production.
- Significant challenges arose with COVID 19 for small businesses more than for large ones, and for metal producers more than for mining companies.
- Skill shortages have an impact on businesses of all sizes and sectors. The main issues are a lack of relevant training institutions, the high age of employed personnel, and young people's lack of interest in relevant professions.
- The respondents use modern technologies and innovations in metal products production.
- Some respondents identified ATSU and KIU as institutions for innovative scientific or educational research. Respondents, on the other hand, collaborate with universities from Tbilisi.
- Respondents do not collaborate with other smart domains and do not see the potential for collaboration.

Manufacture of Wood and Wood Products

- The region has the resources to manufacture products, the products are exported, and the domain is one of the region's largest employers.
- Worker qualifications, employee age, obsolete machinery and equipment, and periodic legislative changes in the wood manufacturing sector without adequate company preparation are the main challenges in the domain.
- Some respondents are aware of and supported by the state or donor assistance programme, but they require additional financial assistance to purchase modern equipment.
- Businesses of all sizes are important and have the potential to succeed.
- The value chain of medium and large businesses is beyond Georgia.
- There is no R&D cooperation with academic, research, or scientific institutions.

Production of Meat and Meat products, Water and Mineral Water

- The most advanced production technology is used by large meat producer companies. There is a need for innovations towards packaging of meat products in order to make products more attractive. In terms of technology, machinery, glass bottle production technologies are important for mineral water producers.
- There are some R&D practises only in large meat product producers' companies, but only one company is doing it with the assistance of another. Mineral water companies are also conducting R&D on their own. In the domain, there is no R&D collaboration with academic, research, or scientific institutions.
- Not any value chain components are well developed in the region. There is no single company in both sectors, whose value chain is fully located in Imereti region.
- The most of respondents identify Agricultural Production and Related Services as well as Local Tourism Related Services, Hotels and Similar Accommodations as potential other S3 domains to cooperate with.
- The majority of respondents are unable to name any governmental or non-governmental organisations and the most innovative scientific institutions that are significant players in the domain. ATSU was mentioned by only one respondent.
- The impact of the Covid-19 pandemic differed between domain sectors and within sectors.

- It is extremely difficult for small businesses to operate, compete with large corporations, and survive in the meat processing industry. Small businesses play an important role in farming and primary production.

Local Tourism Related Services, Hotels and Similar Accommodation

- In response to a question about R&D activities, half of the responding hotels say they don't do it, while others say they investigate new tourist markets with their own resources. There is no R&D cooperation with other companies and academic or research institutions.
- Only one small hotel's value chain is fully based in Imereti region (from suppliers' side). The others go outside of Georgia and in many cases, outside of the country.
- The most of respondents identify Agricultural Production and Related Services as potential other S3 domain to cooperate with.
- The most of respondents cannot name any governmental and non-governmental organizations and the most innovative scientific institutions which are important players in the domain. Only two respondents mentioned ATSU and VET Iberia.
- Negative impact of Covid pandemic was big. Overall decrease of number of visitors varies between 40%-90%, depending on the size of the hotel.
- The role of small hotels is essential since tourism is growing industry in Imereti region. However, there are many things to do with regards of service providers skills and infrastructure.

Wholesale of Non-Agricultural Intermediate Products and Other Specialized Wholesale

- Domain does not employ many people.
- Wood wholesale exports its goods and has a value chain that extends beyond the borders of the country.
- SMEs play an important role in this domain.
- There are no government assistance programmes used by the domain.
- Participants are unable to assist the team in identifying and involving stakeholders.
- The domain does not see the potential in terms of technology and innovation.

Agricultural Production and Related Services

- Agriculture has export potential and increasing demand. Therefore, agricultural sector needs diverse modern technologies in order to increase productivity and income of producers. New technologies and innovations are important for all sub-sectors covered by the survey. Production of herbs and vegetables has the most successful and efficient innovative approach.
- R&D activities are not conducted in this domain. There is no R&D cooperation with other companies and academic or research institutions. As for cooperation with other companies, Herbs Association and Imereti Wine Association are acting in the region.
- There are not many suppliers of materials in Imereti and the most of value chain components are not well developed locally. It refers to all type of agriculture production covered by this survey.
- The most priority S3 domain respondents are ready to cooperate is Local Tourism Related Services, Hotels and Similar Accommodations, more specifically agritourism.
- The most of respondents cannot name any governmental and non-governmental organizations and the most innovative scientific institutions which are important players in the domain. Only two respondents mentioned ATSU and VET Iberia.
- Impact of Covid pandemic was different for different types of producers.
- The role of SMEs is substantial.

Manufacture of Wearing Apparel

- There are not many technologies and innovations used in the production process. Investments are mostly done in machinery and equipment. Wearing apparel production has big export potential which needs to be supported by technologies and innovations.
- Absence of R&D activities. There is no R&D cooperation with other companies and academic or research institutions.

- No any of value chain part is developed in Imereti region for big companies. There are not many suppliers of materials in Imereti and the most of value chain components are not well developed locally. Only one small size producer is fully depended on Imereti suppliers and customers.
- Priority S3 domain respondents are ready to cooperate with Wholesale of Non-agricultural Intermediate Products and Other Specialized Wholesale, Local Tourism Related Services, Hotels and Similar Accommodations and Agricultural Production and Related Services.
- The most of respondents cannot name any governmental and non-governmental organizations which are important players in the domain. Half of respondents cannot name most innovative scientific institutions. Two respondents mentioned Kutaisi International University and two of them VET "Iberia".
- Impact of Covid pandemic was different for different producers. It was opportunity for two wearing apparel producers.
- The role of SMEs is essential.

Manufacture of Machinery/Equipment and Electrical Machinery/Apparatus

- Apart from tax incentives from the FIZ, respondents received no financial assistance from GoG.
- The domain has no prior experience working with the NGO sector and does not collaborate with state institutions.
- All respondents indicated that the COVID-19 pandemic had a negative impact on all respondents.
- None of the representatives invested in innovation or technology. There is no real collaboration between the domain, academia, and R&D.
- Respondents anticipate future growth in terms of volume and product and service diversification.
- The respondents are willing to help the team working on the issue identify and involve other stakeholders.

Academia, Researchers

- Respondents from the university thinks that S3 related works are directly aligned with the strategic plan of the university. Resources of these study programs can be used by local companies operating in priority S3 domains and graduates can highly contribute to the development of these domains and sectors within domains. PHD thesis or study papers prepared at educational institutions might be used by private companies. Students might be used in order to be actively involved in R&D activities in the region. VETs are flexible to plan study programs according to the measures of S3 strategy.
- All respondents indicated that they have interest and willingness as well as human and academic resources to contribute to the development of S3. Research center has its role very promising, since without primary scientific research and R&D it will be difficult to have success in S3 priority domains. All S3 priority domains could be supported by products of research center according to the specific needs.
- There is no research potential not only in Imereti, but in whole Georgia, which might be used by private sector. Research component of private sector is weak and far from EU standards in Georgia.
- It was difficult for them to name the most innovative public, educational and research organizations.
- All respondents agreed that identified eight smart domains are priority for Imereti region and in addition, they propose to add IT (information and communication) sector, transport, and logistics sectors.
- All respondents indicated that Covid 19 pandemic has negative impact on all smart domains and the negative impact on Local Tourism related Services, Hotels and Similar Accommodations was huge.

NGOs

- The links between NGOs and S3 are extremely weak.
- Respondents indicated that they have interest and willingness as well as human and academic resources to contribute to the development of S3. Resources of NGOs can be used to contribute to the development of S3 strategy. If there will be opportunities for NGOs to implement relevant projects, human and administrative resources can be allocated.
- It was difficult for them to name the most innovative public, educational and research organizations.
- All respondents agreed that identified eight smart domains are priority for Imereti region and in addition, they propose to add Information and Communication and healthcare sectors.

- All respondents indicated that COVID-19 pandemic has negative impact on all smart domains and the negative impact on Local Tourism Related Services, Hotels and Similar Accommodations was huge.

Business Support Organizations

- Respondents have strong linkage with public sector and ready to cooperate with all institutional sectors. They declared the interest to be part of development and implementation of S3 strategy. There are sufficient resources at GCCI and Wine Association has human resources, but financial resources not available so far.
- Public and private sector need more communication and information provision, as well as more motivation to see the benefits of S3 for the region.
- Respondents agreed on the list of priority domains and GGCI mentioned that production of shoes should also be added as a priority pre-identified smart domains.
- Support is needed for small wineries to participate in international festivals and exhibitions
- Respondents are willing to cooperate to assist the team working on the issue in identifying and involving other stakeholders.

Government Officials, Public Institutions

- Smart specialisation is a topic that public institutions are aware of and actively involved in. They will assist the team in identifying and enlisting additional stakeholders.
- KIU and ATSU are the most innovative educational research institutions associated with pre-identified smart domains, according to public sector representatives, while Imereti GCCI is the most innovative among BSOs.
- The pre-defined eight smart domains were acceptable to representatives from the public sector. However, the majority of them believe that if resources are insufficient to support all domain development, some domains should take priority over others.
- Raising public awareness about smart specialisation is important for government officials.
- The public sector requires continuing to learn from European smart specialisation experiences.

Conclusions

The most companies in given pre-identified smart domains basically are not benefiting from the local value chain components.

The most of supply side value chain components of big companies in all eight pre-identified smart domains go outside of Imereti region and Georgia. Only minor inputs or materials can be purchased locally and it mostly refers to small size companies.

SMEs represent a major part of production and their role is essential.

SMEs play important role, especially in sectors such as:

- Manufacture of Wood and Wood Products.
- Local Tourism Related Services, Hotels and Similar Accommodation.
- Wholesale of Non-agricultural Intermediate Products and Other Specialized Wholesale.
- Agricultural Production and Related services. Taking into consideration that small size of agriculture holdings in Georgia, agriculture primary producers are also small size farmers.
- Manufacture of Wearing Apparel.

Big companies dominate only in the Mining Production and Production of meat and meat products.

Technology development is important for all pre-identified smart domains, but companies lack necessary funds and knowledge for technological upgradation.

Technologies for Manufacture of Wearing Apparel, Local Tourism Related Services, Hotels and Similar Accommodation are machinery and equipment, while Agricultural Production and Related Services, Production of Meat and Meat Products, Manufacture of Wood and Wood Products, has technology upgrade not only in machinery and equipment but also in the process and methods of production. The state does not provide companies with the necessary support for technological development.

Innovations are prevented due to the lack of financial resources and education.

There are some innovations introduced in the pre-identified smart domains and it refers to the marketing, design, and storage. Most of the respondent companies were not well determined what can be mentioned under innovations.

No efficient local R&D activities and no efficient and successful cooperation with research.

Currently, there is very little R&D activity in the pre-identified domains. Some businesses incorrectly refer to their activities as R&D. Some companies conduct R&D on their own, and in a few cases, R&D is conducted by other contractor companies. There is no collaboration with the educational and research sectors for R&D purposes. Private companies are not utilising all of the educational sector's available resources (studies, research).

Basically, there are weak linkages among the most pre-identified smart domains.

There is active linkage between Local Tourism Related Services, Hotels and Similar Accommodations and Agricultural Production and Related Services, as well as between Manufacture of Wood and Wood Products and Wholesale of Non-agricultural Intermediate Products and Other Specialized Wholesale. Other pre-identified smart domains are not having active linkages among each other.

Patent registration and use are low in the domains.

There is only one case of patent registration in each of the pre-identified domains of Meat and Meat Products, Water and Mineral Water; Agricultural Production, and Related Services. The other pre-identified domains do not use patents and do not have their own registrations.

Some other sectors might also be considered as smart.

All respondents were positive towards pre-identified smart domains and few other sectors were also mentioned as potentially smart, including production of shoes, IT sector, healthcare, production of furniture, transport and logistic.

Government assistance programmes must be further developed.

Government support programmes are actively used in the Manufacture of Wood and Wood Products, in the Production of Meat and Meat Products, Water and Mineral Water, in Agricultural Production and Related Services and in Manufacture of Wearing Apparel. The other 4 pre-identified smart domains are not using government support programs, but this does not mean that there is no need in those domains for government support assistance. In general, if we summarise the needs of all 8 domains, they are almost all common and refer to the purchase of new machinery and equipment, expansion of production, and training of the personnel¹².

Recommendations

- To analyze value chain components of the selected promising priority domains at the next stage of the project.
- To include SMEs supporting measures in the Smart Specialization Strategy of Imereti region.

¹² The Annex 6 contains information on government assistance to the domains.

- To conduct training of companies in smart domains in the use and promotion of technology and innovations. To initiate grants and other support components in the regional programs and projects for existing companies and not only for start-ups.
- To promote the dialogue between research and private companies in order to improve the quality of cooperation, exchange of information.
- to assist academia and the R&D sector in preparing smart domain analyses and forecasts.
- To streamline the research agendas of Imereti's academic sector, Georgian Technical University, and Georgia's Shota Rustaveli National Science Foundation toward pre-identified smart domains, and to strengthen Imereti's and Georgia's academic sector's connection to regional business needs.
- To facilitate cooperation among smart domains.
- To assist smart domain' companies in communicating with one another.
- To enhance dialogue between the business and public institutions at the regional and national levels.
- To collect all relevant information at the next stage of the project.
- To assist companies in the communication with local and central government in order to have sufficient information about government support programs as well as on donors' support projects and programs.

7. Recommendations Concerning the Further Discussion of the Most Promising and Interdisciplinary Priority Domains

Introduction

In terms of development potential, R&D activities, collaborations with academic and R&D institutions, innovation trends, and export potential, the table 6 below summarises the findings of the evaluation of the domains.

Table 6. Domains' main characteristics

N	Domain	Development potential ¹³	R&D Activities ¹⁴	Collaborations with Academic and R&D Institutions ¹⁵	Innovation trends ¹⁶	Export Potential ¹⁷	Linkage with other domains ¹⁸
1	Mining and Production of Basic Metal Products	Medium	High	High	High	High	2
2	Manufacture of Wood and Wood Products	High	Medium	Medium	Medium	High	1, 5
3	Production of Meat and Meat Products, Water and Mineral Water	Low	High	Medium	Medium	Medium	4, 5, 6, 8
4	Local Tourism Related Services, Hotels, and Similar Accommodation	Medium	Medium	High	Low	Low	2, 3, 6, 7, 8
5	Wholesale of Non-agricultural Intermediate Products, Other Specialized Wholesale	Low	Medium	Low	Low	Low	6
6	Agricultural Production and Related Services	Low	High	Medium	High	High	2, 4, 8
7	Manufacture of Wearing Apparel	Medium	Low	Medium	Low	Medium	4, 5
8	Manufacture of Machinery/Equipment and Electrical Machinery/Apparatus	Low	Medium	Medium	Low	High	2, 3, 4, 5

¹³ The number of companies chosen for interviews by public institutions is used to assess Domain's Development Potential. Considered that respondents identified by public institutions will participate in the Entrepreneurial Discovery Process more than other businesses. The presence of up to 15 interviewers indicates a low level of potential. A number of interviewers of up to 50 indicates a medium level of potential. Having more than 50 interviewers indicates a high level of potential. The manufacture of wearing apparel is an exception. Because a large number of respondents are SMEs with low levels of innovation and a low weight in the region's economy, the level of evaluation here is reduced.

¹⁴ The information is taken from interviews with domains. The level of R&D Activities is rated as low if no research has been conducted in the domain. If only one or two research are found, the level is rated as medium. The level of research is rated as high if the number of research is between three and six. The number of research represents the total number of research mentioned by any of the interviewers. Cases where respondents indicate that they themselves conduct some kind of research are added to the total amount of research.

¹⁵ Interviews with domains provided the data for this table. If collaboration with academic or R&D institutions is one or less, the level of collaboration is rated as low. The level of collaboration is rated as a Medium if two or three collaborations are discovered. When the number of collaborations is four or more, the level of collaboration is rated High. The total number of collaborations mentioned by any of the interviewers is represented by this number.

¹⁶ The domain's innovation trends are assessed based on any interviewee mentioning that they conduct research and/or development activities and have any collaborations with Academic and R&D institutions. If no such collaboration takes place, the domain's innovation trend is rated as low. If there is one example of such cooperation, it is rated as medium. If there is more than one example of such cooperation, the trend is rated as high.

¹⁷ The domain's export potential is estimated by the share of exporting respondents in the total number of respondents. If this share does not exceed 10%, the potential is considered low. When the share is up to 30%, the potential is rated as medium. If the share exceeds 30%, the potential is rated as high.

¹⁸ The numbers represent the domains with which respondents reported having collaboration.

Based on the results obtained from the interviews with domains:

- While many interviewees see opportunities for the region in the Manufacturing of Machinery/Equipment and Electrical Machinery/Apparatus, interviews have revealed that there are currently insufficient companies for EDP.
- The Wholesale of Non-Agricultural Intermediate Products, Other Specialized Wholesale domain's innovation trends, export potential, and collaborations with academic and R&D institutions are all very low. This domain does not have the capability to be smart for the Imereti region at this moment.
- Local Tourism-Related Services, Hotels, and Similar Accommodation domains were named by interviewers as having a higher priority among others the pre-defined domains. At the same time, its contribution to Imereti's economy is insignificant, innovation trends are weak, and the prospect of change in the near future is dim.
- The Mining and Production of Basic Metal Products in Imereti has been designated as a specific domain, accounting for a significant portion of the region's economy. The domain has a large number of businesses operating in it. Existing businesses can be expanded, and new businesses can be founded. High levels of R&D activity, collaborations with academic and R&D institutions, innovation trends, and export potential characterise this domain.
- Imereti's traditional domain is the Manufacture of Wood and Wood Products. A large percentage of the manufactured products are exported, and the products are in high demand among the region's businesses. The domain has the potential to boost innovation. As a result of the state's introduction of new deforestation regulations, the number of companies operating in the domain may be reduced. As a result, choosing the right number of companies for EDP may be difficult.
- R&D activities and innovation trends in the production of Meat and Meat Products, Water, and Mineral Water are mostly present in large businesses. Their number and the ability of other companies to grow in the domain are limited. This could be a problem for EDP.
- Among the pre-selected domains, Agricultural Production and Related Services is the most diverse in terms of sectors and products. Based on the interviews, we can conclude that the production of herbs and vegetables is one of the most promising sectors among those examined. The interviewee's company has innovation trends, R&D activities, and export potential. This, however, only applies to large corporations. The number of interviews conducted does not allow for similar conclusions to be drawn for any other specific sector. However, it should be noted that agriculture is not one of Imereti's most important industries.
- The Imereti region has a long history of the Manufacture of Wearing Apparel, and this domain has growth potential. It is now focused on large orders from global contractor companies. Skilled and cheap labour is the key to success for large apparel factories. Small ateliers are also seeing increased business opportunities. Innovation trends and R&D activities are in their early stages in the domain, and the number of companies involved is small.

Based on the survey findings, in comparison with the others, five most promising and interdisciplinary priority “strong” domains and sectors have been selected.

- *Mining and Production of Basic Metal products*
- *Manufacture of Wood and Wood products*
- *Production of Meat and Meat Products (Production of Meat and Meat Products, Water and Mineral Water)*
- *Production of Herbs and Vegetables (Agricultural Production and Related Services)*
- *Manufacture of Wearing Apparel (alternatively: Textile industry, covering more than wearing apparel)*

Mining and Production of Basic Metal products

Chiatura is Georgia's largest manganese reserve and one of the world's largest, with estimated reserves of 239 million tonnes of manganese ore grading around 26 percent manganese metal. The production of ferroalloys is a priority sector for the region and the country; it is a traditional industry in the Imereti region with significant growth potential. Imereti-produced ferroalloys were exported twice as much in 2021 as they were in 2019, and the cost of exported ferroalloys has increased threefold or more. According to the company that mines Tkibuli's coal, mining could be phased out after ten years. Tkibuli coal, on the other hand, is the only one in the Caucasus and is in high demand.

The domain provides opportunities for both SMEs and large companies to grow. Natural resource extraction and processing is carried out by medium and large businesses. Small businesses manufacture metal products, but they also have the opportunity to expand due to increased product demand.

The companies made investments in the enrichment plant, equipment, and machinery. There have been instances of domain' collaboration with Academic and R&D institutions in the region and Tbilisi.

Domain produces a wide range of metal products, including ferroalloys, coal, metal construction, gabions, and other metal products. Their value chain extends beyond the region. Large or mining companies cover the entire country and venture beyond Georgia. The domain export includes both neighbouring countries and countries from all over the world. Export volumes can be increased if the necessary infrastructure is in place and better standards of the products.

There are a sufficient number of companies in the domain for EDP. There are examples of sectoral collaboration that can then be used to support the S3 process. There are illustrations of collaboration with public structures, but there is a need for improved relationships. There are challenges with qualified personnel in the domain. Their assistance in this regard can be another example of collaboration between public structures and the domain.

According to the Mapping of smart specialisation in Georgia: economic and innovation potential for Imereti region¹⁹, mining and quarrying have a static economic potential.

The domain is ready to help the team working on the issue in the identification and involvement of other stakeholders.

Manufacture of Wood and Wood products

Imereti's traditional industries include the manufacture of wood and wood products. Despite state regulations and the crisis caused by the impact of COVID19, the domain remains important to Imereti. The importance of the region for the domain was mentioned in the report the Mapping of smart specialization in Georgia: economic and innovation potential for Imereti region²⁰.

The presence of wood manufacturing companies in the region with export potential, as well as companies manufacturing wood products that are diversifying their products and expanding their area of operations, is an important factor for the domain's future success. Companies that manufacture wood products are ready to expand their sales in other regions of Georgia as well as in foreign countries if they have the necessary equipment.

SMEs are critical for the domain. The majority of small businesses are engaged in wood products. Manufacture of wood is being done by medium and large businesses.

There are companies that create innovative products and/or combine wood products with other products, such as metal products. Collaborations with academic and R&D organisations are just getting started in the domain.

The domains from the most promising and interdisciplinary priority domains listed below have confirmed their cooperation with the domain Mining and Production of Basic Metal products, and Production of Meat and Meat Products. There are representatives in the domain who are ready to assist the team working on the issue by identifying and involving other stakeholders.

60% of the domain's representatives have the ability to manufacture furniture. Although furniture production accounts for a small portion of Imereti's manufacturing sector, official data show that its exports increased twice as much in 2021 as they did in 2020. The majority of the furniture manufacturers in the region are small and medium-sized enterprises (SMEs). It should also be noted that the government has promoted furniture manufacturing as an appealing sector for investors in recent years. If manufacturing furniture companies are added to the domain, the number of companies with innovation potential involved in the EDP process will

¹⁹ Mapping of smart specialisation in Georgia: economic and innovation potential for Imereti region. Report prepared by Hugo Hollanders as an independent expert under a contract to the Joint Research Centre. 23 July 2020

²⁰ Mapping of smart specialisation in Georgia: economic and innovation potential for Imereti region. Report prepared by Hugo Hollanders as an independent expert under a contract to the Joint Research Centre. 23 July 2020

increase, as will the domain's importance to the region's economy. This is one of the few clusters established in Georgia with the assistance of GIZ and the German Society for International Cooperation. For further development of the strategy, furniture production can be grouped with the domain and titled "**Manufacture of Wood, Wood Products, and Furniture.**" In the domain also should be included design companies.

Production of Meat and Meat Products

For the purposes of the survey this was grouped domain, combined by production of meat and meat products and mineral water. Production of meat and meat products was selected as promising and priority smart sectors. Mineral water production mostly depends on the stock of resources and there is no big potential of the increase of the size of production. Besides, there are only two big companies in the sector and they operate according to the license they got and there is less potential for other companies to enter to the market.

The main reason for the selection of meat production is the size of companies operating in the sector, amount of investment and coverage of many components of the production and sales. There is not only food production but fast food restaurants and own retail shops. Those companies have big chain of the product realization, covering almost whole Georgia. Value chain of meat producers are widely spread throughout Georgia and goes abroad. Meat is imported as well as purchased from local producers, machinery and equipment is imported, food supplements and packaging materials are purchased inside the country. Laboratories for the verification of the quality of the products are actively used and standards of production are introduced.

Meat producers invest a lot in the marketing and education of personnel, in machinery, infrastructure. There is need of technology and innovations not only in the infrastructure (machinery and equipment, storage, elevators) but in the meat production technology as well. The last requires regular training of the meat production experts. Innovative approach is needed in the process of production as well as in the marketing. For instance, there is a practice of using mobile phone applications in the fast food restaurants.

There are no cooperation practices with academic sector. Research potential of local universities is not used by any of the meat producer companies. Some R&D activities could be mentioned, which is done by contractor company and by themselves and this relates to the market and new product research.

Meat production sector has active linkage with three other domains: Agricultural production and Related Services, Local Tourism Related Services, Hotels and Similar Accommodations and Wholesale of Non-agricultural Intermediate Products and Other Specialized Wholesale.

Production of Herbs and Vegetables

This is one of the most promising sector among others analyzed and is part of agricultural production domain. The company interviewed has its own storage, logistic, transportation and market delivery. A lot of is invested in machinery and equipment, which is purchased abroad. Product is sold outside of Imereti region. Big supermarket chains are main contractors and product is sold in every region of Georgia. Export potential is huge and at present, there are successful cases of export.

The most technologically equipped is greenhouses, where substantial investments are needed together with knowledge and innovations. There are investments in packaging and logistics, machinery and equipment. Innovative approach and searching for a new method is important in all stages of production. All necessary standards are introduced in the production process. Production process is innovative, since the primary product is purchased from local farmers. Company trains local farmers in harvesting and post-harvesting technologies at its own training facilities.

R&D is conducted in all directions, including market research, product design and development of new products, production technologies. There is no R&D cooperation with other companies and academic or research institutions.

There is active cooperation with Local Tourism Related Services, Hotels and Similar Accommodations.

On the one hand, herbs and vegetable production is part of big Agricultural Production and Related Services domain which might be assumed as promising separately and on the other hand, there was meat production sector from another domain as “smart” and promising to. Actually, this two sector can be grouped into one and titled as **“Agribusiness and Meat Processing”**.

Manufacture of Wearing Apparel

This domain is traditional for Imereti region having big growing potential, since it is oriented on big orders. There is also successful cooperation with foreign contractor companies which order the products. For big apparel factories, key of success is skilled labor. There are growing business opportunities for small ateliers as well.

Value chain of big companies cover whole Georgia and goes outside of the country, while small ateliers mostly concentrate on local components. Some materials are purchased in Tbilisi and some inside Imereti region. Big companies have material and machinery from abroad as well as from distributor companies.

In the Manufacture of Wearing Apparel domain technologies are mostly used in machinery and equipment. Investments are mostly done in machinery and equipment. Big companies are regularly investing in machinery and equipment. Big factories respondents emphasize the importance of technological upgrade of sewing machines. There is also need innovations in designing and development of local brands. There are no R&D activities conducted by any of respondents and there is no collaboration with academic or research institutions or with any other companies towards R&D.

There is potential of cooperation with Local Tourism Related Services, Hotels and Similar Accommodations, Agricultural Production and Related Services and Wholesale of Non-agricultural Intermediate Products and Other Specialized Wholesale.

Besides wearing apparel production, some respondents mentioned successful leather production industry and shoes production industry in Imereti. Manufacture of Wood and Wood Products domain representatives mentioned about importance of quality furniture textile production and linkage with textile producers. Therefore, for the further studies, leather, shoes and textile production can be assessed and grouped into one domain and titled **“Wearing Apparel, Leather, Shoes and Textile Production”**.

8. Recommendations for the future EDP

The detailed title and description of the promising priority domains

According to paragraph 9 of this document, promising priority domains for the Imereti region can be eventually grouped and titled as follows:

1. *Mining and Production of Basic Metal products*. Specifically, it combines: Manufacture of basic iron and steel and of Ferro-alloys. Mining of non-ferrous metal ores, except uranium and thorium ores. Casting of metals.
2. *Manufacture of Wood, Wood Products and Furniture*. Specifically, it combines: Manufacture of wood and of products of wood and cork, furniture; manufacture of articles of straw and plaiting materials; Sawmilling and planning of wood; impregnation of wood; wood products design.
3. *Agribusiness and Meat Processing*: Specifically, it combines: Production, processing, and preserving of meat and meat products; Herbs and Vegetables.
4. *Wearing Apparel, Leather, Shoes and Textile Production*: Specifically, it combines: Manufacture of wearing apparel, except fur apparel; Manufacture of knitted and crocheted apparel; Production of leather, shoes, and textile.

Identification of key topics to be discussed within thematic EDP workshops

General topics:

- S3 and S3 in Imereti.
- Identified priority Domains. Domain's product and niches.
- Explaining the rationale for selecting priority domains and defining groups.
- EDP's international experience. Examples of good practices / success stories.
- EDP's contribution to S3 - strategic objectives, roadmaps, policy mix (including instruments), and indicators.
- Reasons for the formation of EDP working groups, group work tasks, deliverables, and decision-making process during EDP workshops.
- Trends in the domain, challenges, SWOT analyses, and sectoral visions.
- Common vision on the domain and agreed priority niches in the domain.
- Creating an ecosystem to support the domain, including science, education, and human resources, infrastructure, and related businesses.
- A platform for domain' companies and domain to collaborate on capacity building, benchmarking, and information sharing.

Domain-specific topics

- Domain sub-sectors, products, and niches: Mining and Production of Basic Metal products; Manufacture of Wood, Wood Products and Furniture.
- Each domain's SWOT analysis, sectoral visions, and shared perspectives.
- Support ecosystem for each domain.
- Cooperation between domains: Mining and Production of Basic Metal products and Manufacture of Wood, Wood Products and Furniture; Manufacture of Wood, Wood Products and Furniture and Wearing Apparel, Leather, Shoes, and Textile Production.
- Regional VETs capacity and domain's needs.
- Academia and R&D's products and capabilities, and the requirements of the domains.

Key stakeholders that should be invited to working groups during the EDP

Based on the interviews, key stakeholders who should be invited to working groups during the EDP for promising priority domains were identified. Annex 3 contains a list of possible EDP participants. Stakeholders who could assist the team with EDP were also identified during the interviews (see annex 4).

Adequate promotion of EDP to ensure stakeholder involvement.

To ensure stakeholder participation in the EDP workshops, it is necessary to hold meetings by domains where information about S3 is provided, activities already implemented in Imereti to develop a smart specialisation strategy, and results achieved, objectives of the EDP workshops. The workshops dates and times is to be agreed upon with key stakeholders.

Draft timeline and resources needed

Timeline

The main activities required to conduct EDP workshops are presented in table 7.

Table 7. Main activities required to conduct EDP workshops in 2022

Activity	March	April	May	June	July	September - October
Approval of the smart domains list for Imereti						
Identification participants from new sectors and conduct interviews						
Verification of EDP potential participants						
PR campaign, public promotion						
Kick-off conference						
Preparation of a presentations: about S3, as well as the activities and outcomes associated with S3 process in Imereti, EDP						
Preparation of EDP work plan and methodology for Imereti						
Identification of the coordinators, ambassadors and the facilitators						
EDP training for co-ordinators of the EDP process						
A detailed plan for EDP workshops						
Conduct the EDP workshops by 4 domains						
Final conference						

Required resources

The resources needed to conduct EDP workshops indicated in the table 8.

Table 8. Main resources required to conduct EDP workshops in 2022

Activity	Local expert	International Expert
Identification participants from new sectors, included interviews, determination of the possible coordinators and the facilitators for EDP Workshops	2	-
Assisting the coordinators and Facilitators of the EDP workshops	2	-
Preparation of a presentation about S3 and EDP	-	1
Preparation of a presentation about identified priority domains	2	-
Support EDP workshops preparation and management process (Assisting coordinators/facilitators in their tasks, Mobilizing and moderating WGs, Preparing records of the meetings, participation in the kick-off and final conferences, etc)	2	1
Preparing final SWOT analysis; Shaping vision, the final name of priority domain; Elaborating Policy mix (objectives and actions with indicators); Preparation and oversight of the delivery of all written inputs	2	1
PR campaign, promotion from top government level (plan, implementation)	2	1

List of abbreviations and definitions

ATSU	Akaki Tsereteli State University
BSO	Business Support Organizations
CA	Contracting Authority
CSO	Civil Society Organizations
EDP	Entrepreneurial Discovery Processes
EG	Expert Group
FR	Final Report
FIZ	Free Industrial Zone
Geostat	National Statistics Office of Georgia
GO	Government Organizations
GoG	Government of Georgia
GTU	Georgian Technical University
JRC	Joint Research Centre of the European Union
JRCIE	Joint Research Centre International Expert
IMs	Imereti Municipalities
UNIK	Kutaisi University
KIU	Kutaisi International University
LTD	Limited company
MRDI	Ministry of Regional Development and Infrastructure
N(N)LP	Non-entrepreneurial (Non-commercial) Legal Person
NPO	Non-Profit Organization
PI	Public Institutions
PIRDP	Pilot Integrated Regional Development Program
SRAI	State Representative Administration Imereti
ToR	Terms of Reference
TUM	The Technical University of Munich
VET	Vocational Education and Training

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Annexes

Annex 1. Government Assistance to the Domains. Need for Future Cooperation

No any respondents from the mining and production of metal products benefited from any government support programs. Only 2 respondents (out of 10) applied to “Produce in Georgia” but were not financed. One company mentioned that the government is helping to remove various barriers. There is need for more communication with the government and financial assistance will be essential for purchase of machinery and equipment.

7 respondents out of 10 in manufacture of wood and wood products have not benefited from any government support program. One applied but was not supported. The other 6 has never applied for assistance. Three are beneficiaries of “Produce in Georgia” program. There is need of assistance for purchasing new sawmills and woodworking machines, for expansion as well as for purchase of high-quality timber.

No any respondents from the wholesale of non-agricultural intermediate products have not benefited and even applied for any government support program. As for needs, sector needs support for expansion, for new office spaces, including shops and workshops. There is also need for preferential loan. Reduction of bureaucratic barriers has also been mentioned.

Only one respondent from the manufacture of machinery/equipment and electrical machinery/apparatus sector has applied to “Produce in Georgia” program but could not get funding. Other 2 respondents have never applied. Referring to needs, there is need of purchase of modern equipment as well as in marketing.

More than half of respondents from the production of meat and meat products sector has benefited from government support programs. The total number companies interviewed was 8 and 4 of them are beneficiaries of “Produce in Georgia” Program and one has benefited from “Preferential Agrocredit” program. Other three respondents never applied for any government support programs. As for future cooperation with government, there is need of some regulations improving cooperation between producers and retails, since there is some discriminating attitude from big supermarkets. The companies need support in gaining knowledge, for the upgrade of machinery and for the enlargement of the production.

Both mineral water producers are beneficiaries of “Produce in Georgia” program. One respondent mentioned that needs support for the production of glass bottles, since because the purchase of glass bottles is expensive, and the company intends to produce bottle itself.

Only one respondent hotel (out of 8) has benefited from ‘Produce in Georgia’ project. One respondent mentioned that applied but was not financed. There is need of assistance in order to obtain additional land for the enlargement.

As for agricultural producers, 5 respondents are beneficiaries of different government support programs. Two respondents benefited from “Plant in the Future” program, one from “Preferential Agrocredit” program, one from leasing co-financing program and one from “Produce in Georgia” program. One respondent applied for “Preferential Agrocredit” program many times but was refused. Referring to needs, for wine producers there is need of cellar equipment and wine bottles. Beekeeper needs support for purchase of vehicles. Tea producer needs assistance in the marketing and popularization of product.

Half of wearing apparel producers (4 out of 8) are beneficiaries of “Produce in Georgia” program. One producer benefited from the project of Georgian Farmers Association at the same time. Two other respondents mentioned that they plan to apply to “Produce in Georgia” for enlargement the size of the company. As for future cooperation for assistance, there is need of new modern equipment, for more working space.

Annex 2. Self-assessment of the interviewers'/domain's potential in the development of smart specialisation in the region²¹

#	Pre-Identified Smart Domain/ Actor, Contributed to Any of the Domain	Rating
1	Mining and Production of Basic Metal products	3.9
2	Manufacture of Wood and Wood Products	3.6
3	Production of Meat and Meat Products, Water and Mineral Water	4.1
4	Local Tourism Related Services, Hotels and Similar Accommodation	3.4
5	Wholesale of Non-Agricultural Intermediate Products and Other Specialized Wholesale	3.7
6	Agricultural Production and Related Services	5.0
7	Manufacture of Wearing Apparel	4.0
8	Manufacture of Machinery /Equipment and Electrical Machinery/Apparatus	4.0
9	Academia, Researchers	4.0
10	NGOs	3.3
11	Business Support Organizations	4.5
12	Government Officials, Public Institutions	3.2

²¹ The data is compiled using responses to the following interview question: "How would you rate (on a scale of 1 to 5) the potential of your sector for the development of smart specialisation in the region?". The arithmetic mean of the self-assessments of interviewers is used to calculate ratings.

Annex 3. Possible EDP Participants

Mining and Production of basic Metal products	Manufacture of Wood, Wood Products and Furniture ²²	Agribusiness and Meat Processing	Wearing Apparel, Leather, Shoes and Textile Production ²³
Interviewed Participants			
Chiatura Manganese Georgia Ltd	Madera Georgia Ltd	LTD "Extra Meat"	LTD "Aia Textile"
Metalline Ltd	International Kimber Production Company Ltd.	LTD "Gurmani"	Joint Stock Company "Imeri"
Eco Metal Ltd	Liko 1 Ltd	LTD "Onima"	Sole entrepreneur Tsisana Soselia
Sole Entrepreneur Giorgi Dolidze	Georgian Wood & Industrial Development Co. Ltd	LTD "Adena"	Sole entrepreneur Makvala Vepkhvadze
"Aisi" Ltd	Ltd Merkani	LTD "Eqimbeqi"	Sole entrepreneur Mariam Tskhovrebashvili
Saknakshiri Ltd	Sole Entrepreneur Shmagi Gogolashvili	Sole entrepreneur Levak Kapanadze	Sole entrepreneur Nargiza Gakhokidze
Metalolami Ltd	Sole Entrepreneur Barnakhi Chkhobadze	LTD "Baghdati Agrarian Market"	Sole entrepreneur Nona Bogveradze
Ende+ Ltd	Sole Entrepreneur Ramini Kldiashvili	LTD "Togo 99"	Sole entrepreneur Tamta Kapanadze
Charkhosani Ltd	Sole Entrepreneur Zaza Saldadze	LTD "Herbia"	
Gabioni Ltd	Sole Entrepreneur Teimuraz Javakhadze	Imereti Greenery	
	CRP-Wood		
	Sole Entrepreneur Lasha Sakvarelidze		
Participants Named by Interviewees'			
Georgian Manganese LLC	CRP Wood Ltd.	Greenhouses in Samtredia	Marionela
Ambicon Steels LLC			Jakardi
Ltd. GTM Group			Kutaisi Textile Ltd
LTD Kutaisi Auto Mechanical Plant (KAMP)			Georgian Textile Ltd
LTD Kavkasia 2007			Tuana Textile Ltd
Rusalloys Ltd			
Participant BSOs			
Association of Ferroalloy Manufacturers and Manganese Miners	Forestry Association	Herbs Association	
	Georgian Young Foresters Association	Georgian Farmers Association, Abasha Regional Office	
Participant Public Institutions			
State Representative	State Representative	State Representative	State Representative

²² Once key stakeholders from the furniture manufacturing and wood product design industries have been identified, their names should be added to the list.

²³ Once key stakeholders from the manufacturing of knitted and crocheted apparel, production of leather, shoes, and textile industries have been identified, their names should be added to the list.

Administration in Imereti	Administration in Imereti	Administration in Imereti	Administration in Imereti
Zestafoni Municipality	Kutaisi City Municipality	Tskaltubo Municipality	Tskaltubo Municipality
Chiatura Municipality	Baghdati Municipality	Samtredia Municipality	Samtredia Municipality
Tkibuli Municipality	Sachkhere Municipality	Kutaisi City Municipality	Kutaisi City Municipality
Kutaisi City Municipality	Enterprise Georgia	Enterprise Georgia	Enterprise Georgia
Enterprise Georgia	Georgia's Innovation and Technology Agency (GITA)	Georgia's Innovation and Technology Agency (GITA)	Georgia's Innovation and Technology Agency (GITA)
Georgia's Innovation and Technology Agency (GITA)	Ministry of Education and Science of Georgia	Ministry of Education and Science of Georgia	Ministry of Education and Science of Georgia
Ministry of Education and Science of Georgia	The Ministry of Economy and Sustainable Development	The Ministry of Economy and Sustainable Development	The Ministry of Economy and Sustainable Development
The Ministry of Economy and Sustainable Development		LLC Imereti Agrozone	
Participant Academic and R&D Organizations			
LEPL Shota Rustaveli National Science Foundation	LEPL Shota Rustaveli National Science Foundation	LEPL Shota Rustaveli National Science Foundation	Akaki Tsereteli State University
Akaki Tsereteli State University	Akaki Tsereteli State University	Akaki Tsereteli State University	Kutaisi International University
Georgian Technical University	Kutaisi International University	Kutaisi International University	VET Iberia
Kutaisi International University	Agricultural University of Georgia	Agricultural University of Georgia	Technological Center of ATU
VET Iberia	VET Iberia	VET Iberia	
Technological Center of ATU	Technological Center of ATU	Technological Center of ATU	

Annex 4. The interviewers, ready to assist the team in identifying and involving other stakeholders²⁴

Table 1. Stakeholders from Pre-Identified Smart Domains

Mining and Production of Basic Metal products	Manufacture of Wood and Wood Products	Production of Meat and Meat Products, Water and Mineral Water	Local Tourism Related Services, Hotels and Similar Accommodation	Agricultural Production and Related Services	Manufacture of Wearing Apparel	Manufacture of Machinery /Equipment and Electrical Machinery/Apparatus
Chiatura Manganese Georgia Ltd	Madera Georgia Ltd	LTD "Extra Meat"	Hotel "Magnolia"	LTD "Herbia", Zurab Janelidze	LTD "Aia Textile"	LTD "Aionrise"
Metalline Ltd	International Kimber Production Company Ltd.	LTD "Gurmani"	Hotel "Argo"	LTD "Edelling", Shota Sakdrishvili	Joint Stock Company "Imeri"	Sole entrepreneur Mikheil Shvangiradze
Eco Metal Ltd	Liko 1 Ltd	LTD "Onima"	Hotel "Imeri"	Sole entrepreneur "Bias Wine"	Sole entrepreneur Tsisana Soselia	LTD "Matsivara"
"Aisi" Ltd		LTD "Adena"	Hotel "King David"	Sole entrepreneur Amiran Shanidze	Sole entrepreneur Mariam Tskhovrebashvili	
Saknakshiri Ltd		LTD "Eqimbeqi"	Hotel "Oboloa"	Sole entrepreneur Vepkhia Nadiradze	Sole entrepreneur Nona Bogveradze	
Metalolami Ltd		Sole entrepreneur Levak Kapanadze	Hotel "Tskaltubo Plaza"	LTD "Golder Leaf"	Sole entrepreneur Tamta Kapanadze	
Ende+ Ltd		LTD "Sairme Mineral Waters"	Best Western Kutaisi			
Charkhosani Ltd		LTD "Zekari Water"	Sole Entrepreneur Maia Kezevadze			
Gabioni Ltd			Destination Management Organization (DMO)			

²⁴ All interviewers from Wholesale of Non-Agricultural Intermediate Products and Other Specialized Wholesale domain stated mentioned that they will be unable to assist the team.

Table 2. Actors, Contributed to Any of the Pre-Identified Smart Domains

Academia, Researchers	NGOs	Business Support Organizations	Government Officials, Public Institutions
<p>Kutaisi International University</p> <p>VET "Iberia"</p> <p>Technological Center of Akaki Tsereteli State University</p>	<p>Young Economists Association of Georgia, Imereti representation, National Association of Local Authorities (NALA)</p> <p>Tkibuli Development Fund</p> <p>Imereti Development Center</p>	<p>Imereti Regional Chamber of Industry and Commerce</p> <p>Association of Herbs</p> <p>Imereti Wine Association</p>	<p>Kutaisi City municipality</p> <p>Samtredia Municipality</p> <p>Rural Development Agency</p> <p>State Representative Administration in Imereti</p> <p>Enterprise Georgia</p> <p>Georgia's Innovation and Technology Agency</p> <p>Regional and Mountain Development Department at MRDI</p>

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