



Rubizmo

REPLICABLE BUSINESS MODELS FOR MODERN RURAL ECONOMIES



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Characterization of business environments
for innovative businesses

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¹ PU = Public
 PP = Restricted to other programme participants (including the Commission Services)
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Executive summary

Diversity of rural areas offers a wide range of context for gainful business activities within and outside agriculture, forestry and fishery. Some of the innovative activities include tourism, small scale production, crafts, bioeconomy, food and services. The diversity favours various innovations and business models across rural areas with significant potential for revitalizing rural economies. At the same time such heterogeneity of contexts poses challenges to policy making for supportive business environments that should be aligned to the specific conditions of the businesses in their respective localities. Business environments in the RUBIZMO project are conceptualized as the conditions or settings external to the businesses themselves, but directly or indirectly affecting the business. An assumption made is that, the capacity of individual businesses to shape or change the external conditions under which they operate (i.e. the business environment) is very limited.

This report aims to characterize the business environment of successful businesses across rural areas in Europe and to identify and better understand the elements of the business environment which facilitate or hinder businesses. Recognizing supportive or discouraging conditions offered by the business environment, and exploiting available opportunities in rural areas for innovation and market development, is seen as indispensable for developing a new business and replicating it.

A conceptual framework was developed to characterize business environments in general. The framework includes the following subarenas (fields) a) institutional development, b) technology and knowledge, c) funding, d) market structure, e) resource and infrastructure, f) consumers' need and value, and g) training and education. The subarenas are characterized by the transactions and processes, actors and cooperation, resources, institutions, steering structures, strategic focus, performance and innovation. The subarenas can be from local to global as well as topic or sector specific or general.

Results from the analysis of business environments surveyed for 67 business cases in 11 countries reveal significant differences of the conditions by sector and place. Each of the subarenas has its own unique feature which varies across sector and locality. The subarenas of institutional development, consumers' need and perception, and training and education proved to be crucial for the business performance in the bioeconomy and food sectors. Small businesses and businesses in an early stage reported the lack of technical support for technology and innovation as main barriers in their respective locality. The external conditions for market development were perceived as supportive by the interviewed businesses.



Businesses that cooperate as members of an association, cooperative or network reported higher levels of performance and even having the capacity of influencing their business environment. The reasons are to be found in improved access to technology and knowledge, funding, and resources. They also benefit from additional support for aligning their businesses to rules and regulations. In cases where no rules and regulations existed for specific products, processes and services, businesses in cooperation's stated to be able to participate in the co-design of institutions. In the subarena of consumers' value and perception, creating awareness for the value propositions of products and services was found to be a precondition for increasing the demand and getting enough support to develop the required institutional setting.

Learning and innovations in the institutional setting (i.e. changes of rules and regulations) and the participation of stakeholders in decision making processes characterizes business environments as dynamic. No "one-size-fits-all" policies and strategies exist for the development of business environments. A high degree of alignment between business models and business environments is needed. This requires businesses and business environments with a high adaptive capacity. For enhancing this capacity it is important to strengthen the interactions across subarenas and businesses on the basis of a thorough and shared understanding of the interdependences between business models and business environments.



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1. Introduction

Rural areas in Europe's are home to rich natural resources, features of spectacular landscapes, and homes to about 25% of its population with steady increase of roughly 0.3% per year since 2000¹. They face challenges such as outmigration, a scarcity of economic, quality infrastructure and technological opportunities to revitalize its surroundings and create a suitable living and working environment². In comparison to urban areas, rural areas often lag-behind in infrastructure such as information and communications technology (ICT) or transport, and have limited access to service, knowledge, skills, and opportunities for innovation and entrepreneurship.

In spite of the challenges, businesses in rural areas take advantage of what they possess to develop many inspiring responses. Diversity in landscape, geography, environment, land use, labour market, infrastructure, demography and culture as well as disparity in economic performance is a characteristic of EU rural areas. The importance of diversification in rural economies has grown, while the share of agriculture forestry and fishery in GDP has declined. In the EU-28 as a whole, around 6.8% of farms have at least one other source for income³. This share is lower in the southern and eastern Member States than those in the north east. This indicates the big opportunities in rural economies in other gainful activities outside agriculture, forestry and fishery. Some of the new gainful activities include tourism, small scale production, crafts, bioeconomy, and food and services. In recent years emerging ideas are offering a holistic, wide-ranging context in rural areas such as ecological modernisation, rural restructuring, the consumption countryside, multi-functionality, post-productivism, endogenous development, the network paradigm sustainable rural communities and globalisation⁴. The diversity indicates the richness and big potential for diverse economic activities and innovation in rural areas.

The diversification favours diverse innovation and businesses across rural areas which offer the opportunities to strengthen rural economies based on their own conditions. However, at the same time such diversity represents the challenges to develop policies and supportive business environments aligned to the specific requirements businesses or organization in rural areas. Further challenges on policy development can be expected in future due to climate change, policy reforms, and development in socio-economic and infrastructures. Thus, there is a need to better understand the diversity and complexity of the interplay between the business

¹ Naldi et al., 2015; European Union, 2018

² European Union, 2015

³ European Union, 2018

⁴ EDORA 2008, p. 2



organizations and the context of the business. This would enable policy makers to develop a flexible policy approach which takes into account the nature and need of the business, its impact in rural areas, and more importantly the business environment. In addition, such investigation would also enable entrepreneurs to understand the conducive and constraining factors in the business environment in the sector where they would like to start a business or entrepreneurship activity (innovation).

A business environment refers to factors external to a business which affects directly or indirectly the operation of the business. In the business environment the influence of the business to change the condition of the environment is very minimal and indirect. A study⁵ has indicated the following factors as important for rural innovation: diversification in local economies, need for technology advancement, footloose entrepreneurs attracted to rural areas, and market trend, quality of infrastructure and access to it, innovation in service provision, and growth and industry eco-innovation sector. The synergies between these factors may facilitate innovation and revitalize rural areas or may hinder such process.

Given the importance of understanding the business environment, this report aims to characterize the business environment of successful innovative businesses across rural areas. Understanding the nature of the business environment enables to understand the conditions (suitable or barrier) and exploit available opportunities for innovation and market development. Characterising the business environment includes understanding the various factors which defines it. These include policy framework, strategies, regulations, funding opportunities, infrastructure conditions, market structure and awareness of the stakeholders. This report investigates and describes the various factors which define a business environment individually and collectively.

A lot has been said on the big potential a bio-products or services, ecosystem services, and food will make for business development and create job opportunities for millions of citizens both in rural and urban areas⁶. The key consideration and assessment needed is what makes some businesses successful while others are not? What factors in the business environment facilitate or hinder businesses, in particular at their earlier stage of development? Are some of the factors more relevant to others? What are the key factors which new businesses need to consider before entering into business? These are some of the key issues addressed in this report through characterizing the business environment of various businesses in different sectors and regions.

⁵ ECORYS, 2015

⁶ European Commission, 2012; McCormick and Kautto, 2013



2. Conceptual framework of business environment

The effort to explain the role of business environment has been undertaken in various investigations over the last two decades. The World Bank has been working on the ‘Ease of Doing Business’⁷ project since early 2000 focusing on different rules and regulations which govern businesses. The concept that economic activities benefit from clear and coherent rules and regulations forms the basis of the project. While onerous regulations divert the resource, time and strategies of businesses away from developing their market strategies and innovation. The project investigates several regulations that businesses have to follow in order to operate their activities and realize their objective in a specific locality. The regulations include starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency.

The Doing Business project has captured several important administrative and regulatory business environments as it applies to local businesses. However, it does not include other relevant business environment such as policies, institutions, infrastructures, and resources which, directly or indirectly, influence the performance of businesses. The Doing Business project also does not consider the specificities of businesses in rural areas. This places the approach used by the World Bank, narrowly defined with a specific focus on aspects of regulations and its implementation.

The Donor Committee for Enterprise Development (DCED)⁸ is another approach for describing and analysing the business environment. It defines the business environment in a more comprehensive way than the “Ease of Doing Business” project by the World Bank. It conceptualizes the business environment as a composite of policy, legal, institutional, and regulatory conditions that govern business activities. It is a sub-set of the investment climate and includes the administration and enforcement mechanisms established to implement government policy, as well as the institutional arrangements that influence the way key actors operate. More specifically they dealt with rule of law, skills and human resource development (HRD), economic predictability, infrastructure, political stability, equitable and efficient labour markets, and open financial markets.

The two approaches base the condition of the business environment in relation to a business model where the value proposition is typically concerned with economic return from a provided good and/or service. However, the recent and emerging

⁷ World Bank, 2018

⁸ DCED, 2008



businesses such as sustainable business models⁹ have incorporated ecological and social value propositions in line with the economic return. These business models are expected to align their value proposition with the relevant stakeholder groups by considering environment/climate and society as key components of the essence of their business model. Similarly, rural entrepreneurship involves new combinations of place based or localized resources that create value not solely for the entrepreneur but also for the rural area and community¹⁰. It is not just the monetary incentives but the pursuit of personal, social and cultural aspirations are parts of such business models.

The types and number of stakeholders engaged with such businesses are more diverse than the conventional businesses. Likewise, due to the new value propositions included in the business model, there is a need for new resources, raw materials, innovation, technology, knowledge, education and even sometimes sources of funding which have not been considered or available before. More importantly, there are additional regulations which these businesses have to follow to operate and, in some cases, there might not be any regulations which could be considered as inhibiting factors for the new initiatives or businesses.

Businesses in such business environments are seeking to capture value or gain competitive advantage in a business environment which is characterized by tightened regulation, social pressures, climate change, contracting resource supplies and competition¹¹. Due to the diverse and newly added factors which become relevant for the business environment, the current conceptual frameworks, provided by World Bank and DCED, are ill-suited to capture the characteristics of the environment of the new and emerging businesses in rural areas.

RUBIZMO project is also aiming to understand the business environment or conditions that make a business successful in rural areas through creating on social, economic and environmental positive impacts. Thus, understanding a business environment should not be limited to rules, regulations or policy frameworks, but rather adopt a broader perspective for understanding the conditions which facilitate or hinder the operation of businesses. This is in particular relevant for businesses in rural areas where infrastructure, services, different resources, access to knowledge and technology are critically important but limited.

The various conditions described above have urged the need to develop a comprehensive and well-aligned framework to characterize the business environment. Thus, a new business environment framework is developed (see Figure 1) to capture the various factors of new and innovative businesses in rural

⁹ Bocken et al., 2014

¹⁰ Korsgaard et al., 2015

¹¹ Bocken et al., 2014



areas. The main analytical elements needed for a holistic understanding of business environment in rural areas are assembled in the framework in Figure 1. The framework draws the boundaries of the business environment to include external factors which directly affect the operation of the business and how it works. The business does not have a direct command or mandate to change conditions of the environment.

The business environment is further composed and characterized by various sub-arenas. The development of the sub-arenas is based on extensive literature reviews and conceptual frameworks on business environment and rural areas. The sub-arenas include the following seven major fields: 1) institutional development¹², 2) technology and knowledge¹³, 3) funding¹⁴, 4) market structure, 5) resource and infrastructure¹⁵, 6) consumers' need and value¹⁶ 7) training and education¹⁷. Each of these factors (from now on wards referred as sub-arenas) is defined below.

Institutional development: refers to the development of rules, regulations and policy instruments which could facilitate or hinder businesses or influence their relative competitiveness in the sector. A legally operating business has to comply with various rules and regulations to operate as a business entity. These include registering the business or property, getting electricity or credit, paying taxes, etc. In some cases, there are rules and policy frameworks which apply to few businesses only due to a difference in nature of products or services provided by the business model.

Technology and knowledge: availability of technology and knowledge has a potential to facilitate innovation and/or market development of businesses. It enables to open door for potential improving existing production and services or gives innovations and emerging businesses the required means and knowledge. The business's network with the available stakeholders such as research institutes, universities, professional associations are relevant to have access for such kinds of technology and knowledge.

Funding: the issue of funding is significantly important to new and innovative businesses, in particular at the early stage of the business life. The issue is even more challenging in rural areas and the sector of food and bio-based products. There is a notion that investors generally regard innovations or business ideas rooted in the farm or food sector as less attractive compared to investments in high tech sectors. The different sources of funding to finance a project or a business are included in this sub-arena.

¹² Roos, 2016, World Bank, 2018;2019; Besley, 2015; DCED, 2008

¹³ Naldi et al., 2015; Roos, 2016

¹⁴ World Bank, 2018; 2019

¹⁵ DCED, 2008; ECORYS, 2010

¹⁶ Mustalahti, 2018; Roos, 2016

¹⁷ World Bank, 2019



Market structure: refers to the number of businesses producing similar or substitute goods and services in the market. The structure determined the bases of the competition prevailing in the market. The interest and knowledge of consumers about bio-based products, circular based business models, and agro-ecology affects the demand for the products and services provided by such similar businesses.

Resource and infrastructure: refers to the different forms of communication (internet, phone), road, transport, and network which businesses use to facilitate their communication and transportation of goods, services and raw materials. In addition, infrastructure may also refer to services such as education, health facilities, water supply and other services which might improve quality of life. The availability and provision of such infrastructure and services not only attract and facilitate business to boost economic growth in rural areas but also attract employees to work and live in rural areas instead of e.g. commuting to nearby towns. On the other hand, availability of resources such as raw materials for production and providing services are relevant aspects for the ease functioning of the businesses.

Consumers' value and need: refers to user key priorities, product usage, knowledge, values and perceptions on products and services provided in the market. This factor is considered as relevant because it is the individual consumers who make choices of the goods and services in the market. In this regard, the role of culture, level of awareness and sense of urgency within society towards e.g. bio-economy products, eco-friendly services, and regional food are relevant aspects of the environment for investigation.

Training and education: is the different training and education which entrepreneurs and their employees in rural areas have received to improve their capacities. It also refers the education and training needed to create awareness to various stakeholders such as public agents, consumers, professional association and so on at different level. Given the emerging and innovative businesses across rural areas, context based trainings and education are important sub-arena to investigate in the business environment.



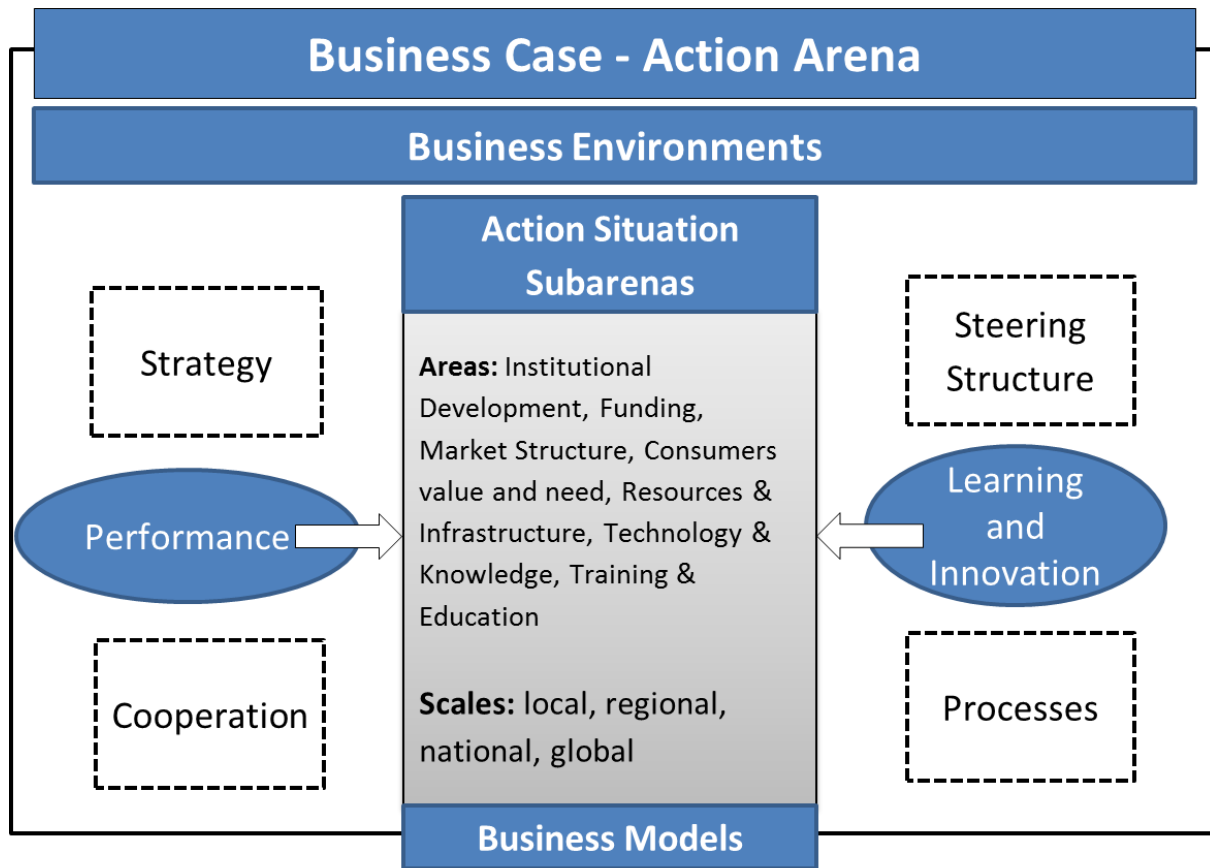


Figure 1: Business cases framework including business environments in rural areas

How the different sub-arenas are working to characterize the business environment of businesses depends on various factors. This report adopted and used factors from the Capacity WORKS framework (“Capacity WORKS: The Management Model for Sustainable Development¹⁸”) to investigate each of the sub-arenas. These factors include: 1) strategy, 2) steering structure, 3) cooperation, 4) process and 5) learning and innovation (see Figure 1). Strategy refers to agreement of stakeholders on the strategic orientation of goals and expectation from a process of negotiation and selection of various options available. Cooperation refers to the different network of people and organization to facilitate change. Clearly defining of whom the business is cooperating with, how and at what level enable to lead to plausible and positive output would. Steering structure is selecting a particular form of steering in favour of particular management structure which bases on communication and interaction between different stakeholders. The functions of the steering structure include resource management, strategy, decision making, coordination and conflict and risk management. Process involves structured negotiation about which process should be managed and which is essential in order to guarantee the acceptance and sustainability of the change process. Learning and innovation refers to focusing individual and businesses learning capacities in the

¹⁸ GIZ, 2011

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success factors. This could be at different levels: policy frameworks, organizational networks, organizations and individuals.

The business environment plays an important role for improving and creating suitable conditions for successful businesses. The performance of the sub-arenas produces a favourable business environment for developing a business model. In this process learning and innovation are key components of the framework. Through learning various stakeholders are working to improve the conditions of the business environment.



3. Methods

3.1 Research design

In order to capture the diversity in rural areas, the study has included diverse sources of businesses in the selection of the cases. The business cases considered for the RUBIZMO project are located mainly in rural areas including businesses whose activities are performed in rural areas. The project also considers businesses with activities along the “rural-urban continuum” - a concept that puts urban and rural areas in a single interlinked system. Thus, businesses that focus on the linkages and interaction between rural, peri-urban and urban areas in their business model are considered to be of interest for the project.

The selection of the cases started with a desktop review on various European funded projects under FP7, H2020, LIFE, EUREKA and INTERREG, as well businesses and projects funded by national programmes. In addition, businesses emanated from proven private initiatives or rural entrepreneurs were further included in the desktop business case selection. The process enabled the project to capture additional successful businesses in various sectors and localities in rural areas and along the “rural-urban continuum.”

After the desktop review, a first phone contact was made with representatives of the selected cases. An interview guide was used for gathering information. The phone contact aimed to have a detailed understanding of the business, its business model, activities, and its willingness to participate in the RUBIZMO project. The information gathered also enabled to identify and categorize the businesses into three key sectors: Food, Bio-based value chain and Ecosystem services. The information from the phone contact together with the data from the desktop review was used for the selection of the cases to be further studied. Over 140 businesses across 11 different countries were selected for the first round interview. These cases were considered as potential successful businesses for the project.

The first round interview was conducted using a semi- structured interview guide. During this round, detailed data about the businesses were collected. Information is collected on the following areas: Labour and infrastructure, business environment, market structure (at both production and market side), novelty, replicability/up-scaling potential and impact (social, economic, and environmental). The data collection was conducted by all partners and shared in a data base among all partners. This round of the interview serves as a data base for this report. Due to the need for additional information on few of questions, some of the interviewees are contacted for additional information on the business cases that they interviewed.



3.2 Selection of business cases

The selection of the businesses is mainly based on data collected in the first round interview. This round of interview gathered detailed information on each of the businesses which enabled analyses of the businesses. It also enabled to compare, contrast and select the cases for further investigation. The cases were selected applying a multi-criteria selection process. More importantly, the aim of the project i.e. “generates jobs and growth in highly diverse rural areas by stimulating the large-scale deployment of successful, innovative business models” is at the centre of the selection criteria. The RUBIZMO project partners developed the criteria to select the businesses. The main evaluation criteria developed and used during the selection of the cases include;

- Novelty: the level of innovativeness introduced in the business (this includes new or improved technology, product service or solution that could represent the adoption of new activities, new ways of linking the activities/structures or governing the activities etc.).
- Value proposition: based on the available alternative, what makes the analysed product/service more attractive for consumers?
- Replicability and upscaling: replicability refers to the business potential to be replicable in another, similar, rural areas. Upscaling refers to the business plan and measure in place to scale up the current business model so as to increase the business and create more jobs and economic growth in rural areas.
- Impact: this includes the various contributions of the business to the society and rural areas in general. These impacts are further divided and evaluated into:
 - o Social (rural job creation, attraction of knowledge and skills in rural areas).
 - o Economic (generation of economic value and return on investment capital)
 - o environmental (reduction in water and energy consumption, use of renewable energy, environmental certification, and contribution to circular economy)
- The willingness of the business to take part in the project and the next round of interview.



3.3 Description of study areas and business cases

Using the criteria listed in the previous section, the project has selected 67 different business cases. These businesses are further categorized into the following sectors: food (26) bio-based value chain (20) and ecosystem services (21) based on the main activities for their product and services. The cases are represented from 11 countries in Europe including Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Poland, Romania, Spain and Sweden. In the following sub-section the sectors (food, bio-economy and ecosystems services) are described in detail.

Food: businesses included in this section are focusing on new business opportunities that can arise from the application of advanced agriculture science, new technological development, advanced logistics tools to develop a new food value chains, the use of marginal land, and methods for sustainability management that take account of trade-offs within the water-energy-food nexus.

Bio-based value chain: refers to businesses developing their business model based on bio-based products, often with use of agri-food side streams and other non-food resources. Such businesses may rely on new forms of ownership, cooperation and cross disciplinary knowledge sharing mechanisms.

Ecosystem services: this category of businesses bases their business model on connecting communities, the environment and the economy to create diverse economic activities in rural areas. They offer leisure activities (tourism or sports), provision of goods (e.g. food, biofuel and water), maintenance and conservation of the environment services, wildlife and biodiversity.



4. Result: Characterization of the business environment in rural areas

4.1 Institutional development

The production and service of innovative and emerging businesses and the value chain in which they are trading their produces are subject to a wide range of regulations with complex interactions at different levels. These regulations range from registering the business as a legal entity to comply with various regulations and standards to ensure among others human and environmental safe products and services in the market. In many of the cases laws, regulations and policy frameworks are common to all businesses who are working in a specific member state or region. The results presented in this section are those findings which are critically important to the new and emerging business models in rural areas, specifically in the food, bio-economy and ecosystem service sectors.

The businesses have reported restrictive and sometimes contradicting regulatory frameworks which inhibit the new businesses to invest their full resources for innovation and growth in the new business model. These are related to regulation on the use of waste as a raw material, introducing new products and service into the market, certification and labelling process. The results show that the restrictive regulations are related mainly to diseases protection, and avoiding risks for humans and the environment. The restriction is not specific to one level but across the various levels of the public agents (local, regional, national and beyond). In this regard, businesses working in the sector of food and bio-based value chains reported such problem in their activities. While such report from businesses working in the ecosystem services are very minimal.

Some of the businesses reported that it is not primarily the legislation itself which is challenging, rather the administrative procedures and amount of time it takes to process applications. The businesses in the sector of ecosystem services have reported administrative procedures and requirement of several regulations to register the business as a legal entity as a main institutional barrier in the sector. When businesses combine two or more business models or if it has a unique business model, the administrative procedure to register and operate is very long and difficult to settle.

The other regulatory issue which is considered as a barrier is its complex nature and changes from time to time both at the EU and national level. For instance, the criteria to access subsidies are reported as complicate procedures. This is in particular more a barrier for small and medium businesses that are entering into the market than for big and well established ones. Explaining the situation an



interviewer stated that “The bureaucracy and frequent change of regulations and legal rules is an important barrier faced by companies, especially Small and medium-sized enterprises (SMEs), who do not have the capacity to negotiate with the authorities because they are not organized into professional associations representing their interests in dialogue with authorities” Firm #69. In some of the cases, the small businesses, such as owned by individual farmers, need support from consultancies to get the right funding and comply with the regulations. The SMEs do not have the capacities to negotiate with the public agents or are not organized into professional associations to represent their interest in dialogue with authorities at different level.

The complex nature of the legal framework is more exhibited when a business involves in different value chain. Such businesses need to handle various legislation, stakeholders and funding agencies to control the different parts of the value chain. Other businesses in the bio-based sector reported inconsistency in tax among the member states affects their business activities and revenues. For example, a tax for solid biofuel (pellet) is 24% in Greece while it is 6% in other EU countries. This affects the competition of the local business working in the production of pellet in Greece. Further, this aggravates smuggling of pellet from West Macedonia.

Another institutional barrier is lack of inclusive legal framework to govern the use of products and services provided by the businesses, in particular the “new” type of initiatives, products or services. In some of the businesses the study has observed lack of a precise legal framework or policy instruments that govern the use of raw materials, and providing products and services into the market. This mainly affects businesses in sectors related to the new and emerging business models in bio-based or innovative business models in the food sector. This is considered as a big threat as it hinders innovation and business development. One of the interviewees has described the working rules of the regulation environment as follows “Everything which is not allowed is prohibited” Firm #75. The lack of regulation also affects organic labelling. For instance a business stated that “Due to the lack of regulations, the leftover of tropical fish production could not be accepted and certified as organic even if there is no use of medicine in the production process” Firm #12. A business working on small traditional crafts has also reported lack of regulatory framework to treat the business model. Due to this such businesses are treated like big industry producers for taxes, and rules for work safety. The business reported that “There is no special treatment of traditional crafts like the French ‘entreprise patrimoniale’” Firm # 63.

Similarly, businesses are not allowed to use waste from slaughter house for gas production due to absence of regulation on the legislations. Sometimes the lack of regulations hinder innovation in businesses such as using wastes for production of biogas, producing new foods from insects, or others. This is due to the large



amount of time and resource it takes to get permission and due to the lack of stimulations from the local and higher level public agents and authorities. In other cases standard regulatory principles are available and followed by the businesses. But standards for certification are missing even if there is a high demand for certified eco-production.

The results also show that some of the businesses have passed through many stages to approve new regulation and others are in the process to make one. The common denominator which these businesses agree is the long and sometime frustrating process. One of the entrepreneurs' stated that *"There is a need to knock and open many doors before the final approval of the regulation to provide the product into a market"* Firm #75. Some businesses were dealing with these procedures collaboratively in some sort of consortiums including network, associations or cooperatives. It is found that businesses who are working in an association or network are able to make a strong argument and lobbying capacity to adopt new regulations. This is important due to the need for regular interaction of public agents, professional associations, research institutes, universities and other networks at the local, regional, national and EU level to create the awareness and relationship needed about the specific products and services.

4.2 Technology and knowledge

Availability and access to technology and knowledge enable businesses to produce and provide services from the available resource. In particular, new and emerging businesses in rural areas are often in need of knowledge, technologies and market development. The result shows that businesses have different access to technology and knowledge in their locality and beyond. Their access to technology and knowledge significantly vary based on the size of the business, business model, and their network or association they able to create.

The businesses' access to technology and knowledge is subject to the networks they create with the existing professional associations, research and academic institutes in their specific area of innovation and marketing strategies. In this regard, the more established and big businesses are able to create a strong network with various stakeholders in their locality, region and beyond. The new and emerging Businesses' access to knowledge and technology is mainly through existing associations, or networks in which they are member. This is in line with a report¹⁹ which states that remoteness can impede innovation if there is absence of non-local network.

The supports which are mainly reported in many of the interviewed cases are related to market development, know-how on market strategies, public administration, and possible funding options. The other businesses who do not have

¹⁹ ECORYS, 2010



any kind of support are the one who are not a member of any network or association. Some of them have reported that there is no such kind of association or network in their vicinity.

The access to technical knowledge is limited in many of the small businesses. In particular, those working in the bio-based sector do not have the required technical support from their surroundings. However, an association, which is purposefully formulated to facilitate innovation, reported that it is supporting farmers who like to develop a biogas plant from the very start. It helps them to develop their project, find the right actors and suppliers, estimate possible funding options and organising knowledge exchange sessions among farmers and organising visits to mechanized businesses producing biogas. In contrast, most of the well-established ones in the sector are able to use the available resources from research and academic institutes due to their network. Such businesses are able to cooperate with different institutes close to the areas with laboratory test, innovation and other technical cooperation. They also gain technical knowledge through participation in various seminars, workshops, conferences and networks they create at various levels.

The access and connection of new and small businesses to the available technical knowledge are restricted. The connection between the businesses and technical support is loose, in particular, at the early stage of the business life. The successful and innovative businesses are the ones able develop and manage their own technological development. For example, a business producing biogas has chosen to self-educate and manage through “learning by doing” and “try and error”. This has been an important part of the development of the concept “implementing the small scale gas plants” Firm #5. Even if there is a larger gas plant industry in their local area, they get assistance from other research institutes and universities. Another business involved in production of fruits and vegetables has developed its own processing technology through trial and error due to the lack of research facility in the area. These kinds of experiences were resource consuming for the entrepreneurs but at the same time an important characteristic of their innovation and marketing strategy.

Another business reported that it could not get technical support for the “re-conversion of a vineyard” from the research centre in the area. As a result, the business was forced to look for an external supplier which recommended buying cuttings from an Italian producer. Other businesses reported having obtained technical knowledge from another country as a source of innovation. Such businesses are in contact with companies from the sector which are not in the area of operation for developing and constructing parts of their plants. Another business stated that there is available technology and knowledge in the area, but faced difficulties to take advantage of existing initiatives for exploiting synergy effects.



4.3 Funding

The results show that many of the businesses in food, bioeconomy, and ecosystem services sectors have received financial support from various sources of funding. These include funding streams from EU, national and regional level. The majority of the businesses in fields related to the bioeconomy and innovative food production have received some funding from one of the various sources. Loans from bank, crowd funding and own sources of finance are other sources of funding which businesses use to get their business model funded. In some of the cases, the innovative idea of the business model development was related to the funding of the business especially during their earlier stage. Most of the businesses in this study have used a combination of sources of funding or financial support, while only few rely on their own funding.

Yet, some of the businesses stated the strict regulations and long process to get approval of funding. Due to the requirement, formalities and updates in the regulations some of the businesses even withdrew their application for funding. *“We tried once with public funding, and we had also won, but then we ourselves abandoned the approved budget because of the regulation that was continually updated”* Firm #60. Another business stated that *“We have applied for EU subsidies. However, we prefer private funds since EU regulations are too complex and sanctions are potentially possible”* Firm #88. Cases of businesses who renounced to public funding were well established businesses with access to other sources of financial support.

The business's access to funding depends on their network with different research institutes, universities and professional associations. Such networks enable them to create a consortium not only for applying for funding but also for knowledge and technology transfer. Business involved in networks are better able to make successful applications for funding, as writing the project proposal and application for funding requires specific skills and experience. On the other hand, some of the small and emerging businesses received support and advice from the cooperative or network in their vicinity regarding the available funding opportunities and application process.

The barriers most of the businesses face in the field of funding and finance are getting investors at the early stages of the business life. Businesses do lack of trust at the beginning of the business life from different financial institutions. *“During the early stage of the business, even if they are impressed with the innovative idea, investors are afraid to take risk and invest on insect production. But now after over 10 years on innovation and markets, we have enough investors who dare to invest for further innovation and upscaling”* Firm # 75.



4.4 Market structure

Individual consumers are key actors and drivers of market development as they make the choices on consumption of goods and services. The awareness and perception of the consumers on issues such as product quality, bioeconomy, climate change, environmental protection, eco-systems and others is a key factor for the demand for products and services consumed in a specific local context. When the consumers have a positive perception of the bio-based products and services, they tend to give preference to these products above conventional product. A business owner reported that due to the low awareness of the consumers for the quality of the product, the business could not sell their product at the local market. Instead consumers preferred a lower price product that contained artificial sugar. Other business owners reported that they had benefited from the awareness of consumers and other stakeholders as they could raise their profit and even attract volunteer to get engaged in the businesses' initiatives.

The difficulty to gain the consumers preference and enter the market is even more severe in the case of new businesses that provide conventional products and services or easily adopted by established businesses. Most of the businesses who reported competition from already established, larger industries and producers are those operating in the food sector. For instance, a business has developed a business model to provide local and seasonal food for supermarkets. After succeeding with their business model the supermarket chain itself adopted the business model and drove the new business out of the market for local and seasonal food. Thus, the new business has to lay off majority of its employee and obliged to develop a new business model -“providing local and seasonal food at the door together with recipe”.

The result also shows that new businesses that combine the provision of different products and services, such as tourism with training and education, are more able to compete on the market. These businesses are most frequently found in the ecosystem services sector. One of the business owners stated that *“The competition is not so much because the business model is not only providing a conventional rural tourism but also provide training module on solar energy and engineering for students in school and college, and rent the building to use for training purpose”* (Firm # 48). Another business owner reported that *“In addition to the afforestation projects it has, the initiative offers services, such as the Social Days, they cooperate with consultancies and carry out trainings and seminars”* (Firm #88).

The types of innovative products and services provided by the business are also decisive for the nature of the competition. Business owners whose businesses are based on providing bio-based products stated that competition is very low, and sometimes even inexistent. In such cases there is no serious competition to be



feared. For instance insect meal value chains for black soldier flies (*Hermetia illucens*) are practically non-existent in Germany. Similarly other innovative products and services provided across the case studies show that the competition from big companies is very low and none in some cases.

The presence or membership in an association or cluster supports the marketing development of the small and emerging businesses. The associations, cooperatives and sometimes some public agencies enable the creation and connection of the small and emerging businesses to develop market strategies and connect them with consumers. They provide to the businesses a technical support in advertising and promoting their products and services to the consumers. Some of the local authorities facilitate the promotion of the businesses through advertising the products to various stakeholders and consumers through providing free spots in organized events.

Yet, some business owners stated that small businesses do not receive equal treatment compared to large companies due to the low bargaining capacity. The big producers of wine, for example, have the capacity to negotiate with supermarkets on the price of their products while the smaller ones do not have such bargaining power, as they are not organized in associations or cooperatives to increase their capacities when negotiating with supermarket and other stakeholders.

4.5 Resources and infrastructure

Access to information and communication technologies, road, transport and other infrastructures are critically important in rural areas. These are not only to provide quality service to attract workers to live in rural areas, but also for the smooth operation of businesses in rural areas. The result of the study show that, most of the business owners reported having good access to the different services such as road, transport and ICT. They reported that the conditions of the infrastructures are not negatively affecting the operation of their business activities. While, few other businesses have indicated that the conditions of the road and ICT service were not good previously but has improved in recent years. Few other businesses are not satisfied with the quality of the road and transport services due to the quality of the road being negatively affected by the weather conditions.

The good infrastructures and services are creating opportunities that allow rural areas to eliminate disadvantages in comparison to urban areas as well as enable them to easily integrate in the “rural-urban economy”. The development of modern ICT services and good infrastructures is linking rural areas both virtually and physically to other territories, cities and beyond. In some of the cases external communications are all digital including social medias such as Facebook and Instagram. These conditions are facilitating new business models such as



“delivering food at the door” together with the recipe. These business models mainly reported in Denmark, Sweden, Germany, and Netherlands. Expressing the importance of the road and ICT services for the business model an interviewer stated that “Excellent transportation infrastructure, that is why we are able to deliver the groceries within 48 hours from order to the consumer doorsteps” Firm #19.

In terms of resource, acquiring employee is not mentioned as a problem in most of the cases. However, some of the businesses reported lack of access to qualified professionals, supervisors, and expertise for some of their activities. Due to this, one of the businesses has reported that they have moved their laboratory to a big town so that it can have access to expertise and make collaboration with research and academic institutes. Likewise, most of the cases reported that they have good access to raw materials for production and service. A business found in a single premise together with various other businesses reported that they are able to facilitate various services such as logistic, and ICT easily. Due to the availability of various businesses in the compound they are able to facilitate logistic companies such as DHL and postal offices to provide them service on a regular basis. In addition to easy access to various services, such premise with various enterprises enables them to exchange resources in a more efficient ways. The coordination of various businesses in a single premise in rural areas enable them to have a better access to various services which could have been difficult, impossible or very costly for a single business.

4.6 Consumers’ need and value

The sub-arena consumers’ need and value for bio-based products, local and seasonal products, ecosystem services and sustainable products and services is related to the consumers awareness and perception of climate change, need for substitution of fossil fuel and circular economy. The awareness of public agents, professional association and other stakeholders on innovative products and services may significantly affect their value system and preference for specific products.

The awareness and value system of users and stakeholders, with some delay, affect production decisions and consequently the demand for products and services provided in the market. Businesses in the study reported that the demands for some bio-based products are found to be very low due to the low awareness of the consumers. A business reported that due to the low awareness among consumers towards their bio-products they are not willing to prefer the products, rather prefer to buy conventional and low price products. Other cases reported the low awareness of the public agents, in particular at the local and regional level, as a problem for the business development.



Other cases in the food sector report that consumers prefer to give value for local, bio-based and organic food. The results show that businesses who are members of a cooperation, cluster or network are in a much better position to create awareness in the wider public and public agents than businesses who are working by themselves and without support of cooperation. An interviewee stated that *“The association has done a good job in creating awareness and market about the biogas. So it is popular not only in the region but at the national level and beyond. Due to this various group visit the business including from Norway”* (Firm #5).

The awareness and perception of consumers and other stakeholders for bio-based products and ecosystems not only affect the demand, but in some businesses it is reported that such awareness motivated consumers to work as volunteers for the new initiatives. These volunteers very much helped the businesses to advance their initiative and business model. A business reported that *“Due to our business model value for the local and seasonal food, we have volunteers who lobby for the product and service we are providing”* (Firm # 88). Similarly, the awareness of public agents for the specific product and service affects their decision making. In cases where the awareness of the public agents is low or negative, businesses have reported that, it requires a lot effort to create the positive awareness needed for approval and decision making, for instance to get the approval based on a new regulation to supply a specific product for the market.

In the study it is also found that the awareness of the community is not just only for products or services provided by the businesses. Rather, sometimes it becomes a source of innovation and new business models. A business owner has stated that *“Originally the business was created in 2011 to sell pharmaceutical equipment, along with the necessary monitoring tools.....one day the founder was contacted by a friend (farmer) who could not understand the reasons why its biomethanisation plant was not working so well. Then he realised that some of the monitoring tools could actually help monitoring and optimising the efficiency of the plant, and identifying potential issues. This is how the new business model is born in 2014”* (Firm #1).

4.7 Training and education

The results show that businesses received different education in forms of training, seminars or participation in workshops. Businesses owners reported the need for more training and education in the field of their business due to the need for constantly creating and implementing innovations, handling various consumers in the new niche market, and staying ahead in the competition with conventional products and services. Training and education is also needed for the various stakeholders in the business environment. In some of the cases, the low awareness of the consumers is reported as a problem for the low demand of the product and service provided on the market. Likewise public agents’ decision making for new



regulations and other interpretation depends on their awareness and perception towards specific new products. There is also a need to create awareness and convince potential consumers of the benefit obtained from bioeconomy products using various channels of communications. Studies show the high demand for education and communication on the characteristics and benefits of the bioeconomy. In its latest report, the World Bank²⁰ has stated a significant positive association between the availability of training programs for public officials and streamlined business regulations.

²⁰ World Bank, 2019



5. Discussion - business environment

In this report, new and emerging businesses in rural areas are explored with a focus on the business environment they are operating. The business environment is characterized using the sub-arenas: Institutional framework, technology and knowledge, funding and finance, infrastructure and resource, market structure, consumers need and value, and training and education. The results show that business environments greatly differ among the sectors and regions in which the businesses are operating. The developments and challenges experienced by the businesses related to their business environment are sector and region specific.

The regulations to be complied by the small and emerging businesses and the tedious process of making new rules and regulations for innovative businesses are diverting the resources of entrepreneurs away from developing their core businesses. The majority of restrictions and lack of regulatory framework were reported mainly from businesses operating in the bio-based sector followed by the food sector. These limitations affect innovative businesses to further advance their innovation and introduce new products and services in the market. The lacking stimulus for innovations comes due to the long and uncertain process of getting approval and issuing necessary regulations from the responsible legislative bodies. The institutional developments are influenced by various interest groups and therefore it is difficult to predict its outcome for a specific product or service, in particular when there are no rules and regulations in place yet. The results indicate that the political economy of the innovation and entrepreneurship is uncertain in terms of times, cost, revenue, process to get approval to provide the product or service to end users, etc. The high degree of uncertainty is not only on producing sustainable and innovative products or services but also for getting approval to introducing the product in the market. Operating in such grey legal area may also entail high financial risks for investors and other financial agencies in the business model²¹.

A major challenge for the small and emerging businesses are tedious and changing regulations. The support from associations or cooperatives regarding the laws and regulations was reported to be significantly important. Most of the small businesses benefited from some form of consortium for consultation, information, and networking to learn from others experiences. This is in line with a study²² which reported that the performance of rural businesses depend on the orientation of the business owners towards accessing new market or networking relationships.

The availability and access to technology and knowledge as an important sub-arena of business environments is quite diverse across businesses and sectors, and region

²¹ Simon, 2015

²² ECORYS, 2015



of operation. Access to technology and knowledge depend on the size of the business, products or service it provides, network it creates, and its membership in association or cluster, as well as region or remoteness of the businesses' location. The access to support is mainly through their cooperation or local networks they are member in. The support received by the small and emerging businesses is related to market development or some form of technical assistance in refining their market strategies. The access of these businesses to technology and innovation are quite limited in many of the cases. Rather, the technology and innovation support is more accessible for the well-established businesses in the form of collaborative research and innovation. The report of "trial and error" approaches for innovation as well as consulting other businesses from other regions or member states shows the need for more technical support and collaboration for innovation in the locality where the businesses are operating. The lack of access to technology and knowledge by new and emerging businesses could hamper innovation and entrepreneurship in rural areas. This is in line with a study²³ arguing that the capacity to exploit available knowledge in the environment is a crucial innovative capability of businesses. The access could be facilitated by local networks or cooperatives in the vicinity. The lack of knowledge and technology support also exposes businesses to operate in legally grey areas which may entail high financial risk and planning insecurity²⁴.

The competition with conventional products and services is very high and unequal in cases where big industries and established businesses have the competitive advantage over the new and emerging businesses. The competitiveness of the emerging businesses and business models in the sector of the bioeconomy and other innovative sectors was assessed as strong when the awareness and perception of consumers and other stakeholders towards bio-based products, ecosystem services, local and seasonal foods are good. Most of the successful businesses are either working in an environment where the awareness of the stakeholders is high or the businesses are able to create the awareness through the support of various stakeholders such as local authorities, associations or cooperatives. There are windows of opportunities to create a suitable business environment through increasing awareness and changing the perception of stakeholders. Technological and technical innovation needs to be streamlined with creating awareness in how societies understand and value bio-based and innovative food value chains as well as innovations in the market. It also requires facilitating ways for stakeholders to cooperate for governing emerging and new business models in rural areas.

Creating awareness is a base for creating and increasing market demand, innovations and suitable institutional environments. There is a need for a coordination of efforts from various networks, public agents and stakeholders at different level. Addressing the issue of awareness is critical as it also helps to deal

²³ Cohen and Levinthal, 1990

²⁴ Simon, 2015



with uncertain demand and market opportunities which hinder investment and innovation in the sector²⁵. This enables creating a favourable environment in rural areas. Due to the different policies and strategies among the member states towards businesses in the bioeconomy as well as the different level of awareness of stakeholder between regions, the type of education, approach and method of communication needs to be adapted to the expectations of the stakeholders and available technologies. In this regard, education and training could serve as a platform to create awareness and acquire new skills or keep up-to-date existing knowledge to the technology and innovation in the field. This would certainly have a positive impact on the business operating environment²⁶.

In regard to funding and finance, most of the businesses use various sources of funding. It is uncommon to find businesses, mainly, in the bioeconomy and innovative food sectors which rely only on a single source of funding. At the earlier stage of the business life, they are struggling to secure finance to the business. These have played a significant role in shaping innovation, economic growth and job creation in rural areas. Procedures for applying to the funding and subsidies are tedious due to the regulations and long administrative process before obtaining the final business approval from legislative bodies. Some of the cooperatives and associations provide support by offering information and technical expertise in the application process. The findings confirm the general notion that it is risky to rely only on a single source of funding.

The condition of road, transport and ICT are good in most of the businesses. Furthermore, due to the good infrastructures for facilitating logistic services, new business models are being developed. This is in line with a report²⁷ which stated that efficient infrastructure and a healthy business environment are positively linked to export performance. New business models based on infrastructural advantages are found particularly in Sweden, Denmark and Germany. In addition to the physical infrastructure and resources availability to be delivered, the awareness of the community for bioeconomy and local food is a key enabler for such business models. These new business models can potentially be replicated in areas with similar infrastructure, logistic services and awareness of the community. The development of such new business models is a strong argument for conceptualizing rural development is also taking place in “rural-urban continuum” where rural and urban places belong to a single interlinked system. The linkages and interaction of the various activities are between rural and urban areas.

²⁵ Bloom, 2018

²⁶ World Bank, 2019

²⁷ World Bank 2019; Portugal-Perez and Wilson 2011



6. Conclusion

Since the past two decades, various policies and strategies at the EU level have been devised to encourage rural innovation, knowledge transfer and research. Various innovative businesses are being developed in the diverse and rich rural areas of the member states. This report explored characteristics of business environments to better understand the conditions of emerging and innovative businesses in rural areas. An innovative conceptual framework is developed for analysing business environments to address the need for a comprehensive framework that comprehends the conditions of the new businesses in rural areas. Our framework comprises seven sub-arenas to characterise the business environment which aimed to fill the current gap of knowledge on the condition of supportive business environments. The project selected 67 businesses from 11 European countries through a rigorous procedure comprising various steps and interviews. The businesses were selected from three sectors: food, bio-based products and ecosystem services.

The results of the study show that the business environment is dynamic due to changes in the institutional setting, and involvement of various stakeholders and interest groups in decision making processes affecting the business environment. It is also found that the condition, suitability or barriers of the business environment differ by sector and region. Each of the sub-arenas in a business environment has its own unique feature in each sector and locality. There is no “one-size-fits-all” concept for a supportive business environment. As a result, the development of suitable business environment in rural areas needs to be aligned to fit the needs of the specific sector and local contexts. This requires investigating the conditions of the sub-arenas in the business environment separately and collectively. This includes: Institutional framework, technology and knowledge, funding and finance, infrastructure and resource, market structure, consumers need and value, and training and education. The approach potentially contributes to better understand the opportunities and hindrances for innovation in rural areas, but also to comprehend the conditions to replicate ‘successful’ business models in a different region or member state.

The characteristics of a business such as age, size, network and availability of cooperatives or networks are some of the few factors which determine the business’s access to the available opportunities or handle the barriers in the business environment. These characteristics of the business are also found to be important for influencing and changing the sub-arenas in the business environment. The new and emerging businesses in rural areas are beneficial or able to influence the business environment if there is a cooperative or network in their local area in which they could be a member.



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