

POSSIBILITIES FOR THE USE OF INNOVATION IN VIDZEME PLANNING REGION

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Abstract. Innovation in Vidzeme Planning Region is realised in the frame of National innovation system, the elements of which correspond to innovation and innovation system theories, and the best practices of which are applied in the most innovative countries of the world. Nevertheless, innovation in Vidzeme Planning Region is fragmented and is being introduced slowly, and its impact on economic development is faintly visible. It witnesses a problem, which was identified, analysed and its solutions searched by the authors. The aim of the paper is to research the potential of capacity building of innovation system elements in Vidzeme Planning Region. For the achievement of the objective the following tasks were carried out: 1) to analyse the most significant theories on innovation, innovation systems, and regional economic development; 2) to characterize and analyse the innovation system in Vidzeme Planning Region and capacity of innovation elements; 3) to work out the capacity building opportunities and directions of innovation elements of Vidzeme Planning Region. In scope of the research, the essence of innovation was identified, theoretical aspects of innovation system and its elements were examined; the elements of innovation system were defined; the existing elements of innovation system in Vidzeme Planning Region were identified, analysed and assessed; and proposed capacity building measures of the elements of innovation system were elaborated by the authors. The authors have concluded that Vidzeme Planning Region has the necessary elements of innovation system in place; the capacity of these elements is insufficient; and the preconditions and opportunities exist for increasing the capacity.

Key words: innovation, innovation system, regional economic development, Vidzeme Planning Region.

JEL code: O31, R11, R13, R58

Introduction

In the National Development Plan of Latvia for 2014-2020, the government of Latvia has set up for itself and for inhabitants of the country the objective - economic outbreak. A significant role in the achievement of the objective is assigned to growth of national economy and development of territories striving to grow. One of the tools, used for promotion of economic development in many countries around the world, is innovation. Successful creation and exploration of innovation requires understanding its nature, preconditions necessary for development and implementation of innovation, and elements, having impact on the number, frequency, and sustainability of innovation. All previously mentioned elements form innovation system. Innovation in Vidzeme Planning Region is realised in the frame of national innovation system, the elements of which correspond to innovation theories and innovation system theories and the best practices applied in the most innovative countries of the world. Nevertheless, innovation in Vidzeme Planning Region is fragmented and is being introduced slowly; its impact on economic development is faintly visible. It witnesses a problem, which was identified, analysed and solutions searched by the authors.

Hypothesis – the increase of capacity of elements of innovation system can have impact on the development of Vidzeme Planning Region. **The aim** - to research the potential of capacity building of innovation system elements in Vidzeme Planning Region. To achieve the aim, the following **tasks** were carried out: 1) to analyse the most significant theories on innovation, innovation systems, and regional economic development; 2) to characterize and analyse the innovation system in Vidzeme Planning Region and capacity of innovation elements;

3) to work out the capacity building opportunities and directions of innovation elements of Vidzeme Planning Region. In the research, the following **methods** were used: monographic, desk research, logically constructive, and graphical reflection methods; analysis and synthesis; econometric and statistical analysis methods.

The information sources used for the research were publications in international reference scientific sources and periodicals, strategies and policy documents, legislative acts, reports of governmental institutions, statistics, and information obtained in surveys conducted by the authors.

Research results and discussion

1. Theoretical aspects of innovation nature, elements and systems

The range of theoretical aspects of nature, elements and systems of innovation is comprehensive and manifold. The research of innovation started at the beginning of 20th century, when N. Kondratieff analysed long waves (cycles) and made a conclusion that innovation is one of their reasons. In accordance with N. Kondratieff's theory, long waves are developing because of origination of innovation clusters that initiate technological revolutions, and these revolutions initiate new industries (Smihula D., 2010). J. Schumpeter, who researched the nature of theory of innovation processes and the main concepts, explored these cognitions for definition of innovation, naming them "scientific and managerial combination of new production factors, motivated by entrepreneurial competences, and including development and implementation of products and methods; finding, acquiring and subduing of new markets; discovery and

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exploring of raw materials; creation of new industries and enterprises within these industries”, emphasising the connection of internal logics of innovation with acceleration of economic development. However, 28 years later he interpreted innovation as “changes, which are aiming to introduce and explore new types of consumer goods, new production and transport means and forms of organisation of production”, accentuating the role of entrepreneurs to bond invention and innovation and their ability to realize innovation in life (Abeltina A., 2008).

The research of innovation in Latvia was started comparatively recently - in the middle of 90s of the last century. Latvian researchers were involved into elaboration of national innovation concept, which defines innovation, national innovation system, and national innovation policy. V. Dimza (2003), A. Vedla (2007), A. Abeltiņa (2008), and others have provided the latest innovation research in the context of economy. There are several definitions of innovation used in economic environment of Latvia. In the National Innovation Concept, accepted by the Cabinet of Ministers on 27 February 2001, innovation is defined as “process, where new scientific, technical, social, culture, and other area developments and technologies are realised as a product or technology” (National Concept of Innovation, 2002).

During almost 100 years since innovation has been researched, scientists still in the whole world continue discussions about definition, nature and qualities of innovation. As much as ambiguous is the definition of innovation, is opinion of researchers about the nature of innovation. The question - what is innovation: instrument (tool) for achievement of preferable result, action (process) or outcome (product, service) - has not been unequivocally answered.

K. Freeman promulgates opinion, that “... innovation in economic sense is commercial exploration of a new product, process, system or facility.” (Freeman K., 1982) He as well as L. Soete holds a view that speed of economic development is directly dependent on emergence, development, and obsolescence of technological systems and emphasises the role of developing enterprises in innovation process. P. Drucker named innovation “a special tool for entrepreneurship, which endows resources with ability to create welfare” (Drucker P., 1985). B. Twiss calls innovation “a process, where invention or idea acquires economic content”. F. Nikson defines it as “totality of technical, production and commercial measures, which is influenced by new or improved production processes and facilities” (Abeltiņa A., 2008).

In nowadays, in the international environment the explanation of innovation elaborated by the group of experts established by the OECD - Organisation for Cooperation and Economic Development and included in Frascati Manual is widely used. In accordance with 2002 year’s edition of the manual, innovation is “all of the scientific, technological, organizational, financial and commercial steps, including investments in new knowledge, which actually, or are intended to, lead to the implementation of technologically new or improved products and processes” (Frascati Manual, 2002).

The proposed explanations of innovation and its nature differ and continue to progress as interpretations

ground on subjective experience and comprehension of researchers about economics and its processes.

The discussions about the role and impact of individuals and social processes on innovation were started among researchers in the middle of 80s of the last century. Abernathy and Clark (1988) added to the already defined innovation elements knowledge created and accumulated and experience of individuals and relation between participants of economic systems. Therefore, they more clearly marked the role of individuals, their relation, and interaction in innovation processes. Few years later J. Niosi (2002) included human capital as the first among all other elements of innovation system, regarding individuals as creators, depositors and distributors of productive knowledge. B. Lundvall (2008) added to those opinions the idea about significance of creativity of individuals as well emphasised the importance of the number of individuals as critical mass in innovation processes, saying that the most successful economies of the world are those, which involve the largest possible number of people, including front-line staff in creative thinking, doing, and exploitation of results. The authors agree with the opinion that as less “creative people” are separated from the rest of society, as more successful is economy.

The development factors or elements have also been viewed and analysed in the context of regional economic development. Intarakumnerd et al. (2002) and Padilla-Perez et al. (2009) have stressed the role of individuals and institutions in acquisition, creation and exploration of knowledge as well emphasised the necessity for socially and economically conducive environment promoting development. V. M. Cohen and D. A. Levinthal (1990) are accentuating the significance of a cognitive power. A. Rodriguez-Pose (1999) is stressing social, political and institutional environment of local territories. Some researchers (Granovetter, 1985; Knack and Keefer, 1997; Zack and Knack, 2001) pay attention to social environment, highlighting, that positive social environment and non-formal networks are promoting learning, transfer, and dissemination of knowledge much more effectively than it is realised in formal environment. Non-formal approach is enabling to reach targets, which cannot be realized without social contacts and mutual confidence (Trigilia, 2001).

Researchers of innovation and its systems as well researchers of regional economic development, whose works have been studied by the authors of the article, have regarded innovation and economic development as regionally ongoing processes, where local (in the context of the article - regional) social and institutional elements play an essential role. Only their opinions split on the question, which the most significant of these elements are. The authors of the article summarised the elements and structured them into four groups, taking into account both: innovation and regional economic development aspects, naming them “elements of innovation system necessary for promotion of regional economic development”. They are: RESOURCES (land, natural resources, and material and technical basis); PARTICIPANTS OF ECONOMIC SYSTEM AND THEIR COGNITIVE POWER (individuals, enterprises, and public and private institutions promoting innovation); INSTITUTIONAL FRAME (formal mechanisms created for coordination of economic processes: politics,

legislation, and regulatory system of operation); SOCIAL ENVIRONMENT (generally accepted public opinion, cultural and behaviour traditions and habits, and place and role of individuals and institutions in local, national, and international networks). All the elements were researched in Vidzeme Planning Region, which was viewed and analysed in the context of a planning region, the territorial unit of which is determined and approved in the Regulation No 391 "Regulations on Territories of Planning Regions", approved by the Cabinet of Ministers of the Republic of Latvia on 5 May 2009.

2. Vidzeme Planning Region in situation of global competition

Authors have researched four groups of innovation elements: 1) resources; 2) participants of economic system and their cognitive power; 3) institutional frame; 4) social environment. The article includes more detailed information about findings with regard to participants of economic system, their cognition, and institutional frame followed by a short summary of findings with regard to resources and social environment, accentuating the most significant cognitions.

Resources. Vidzeme Planning Region is located in the northeast part of Latvia and the European Union and is Latvia's major region by size (15.2 thousands km²), covering 23.6% from the total area of the country. The region has 290 km long internal border with Estonia and 46.4 km long external European Union border with the Russian Federation. Spatially and functionally, the region is linked with Latgale, Riga, and Zemgale planning regions. The region has a large number and various natural resources. Besides, 51.7% of the area is covered by forests, and it is 26% of the whole countries' wood resources. Whereas, 34% of the region's area is agricultural land, which is an important recourse for agriculture, which for its part is producing food products and raw materials for food production. The region is rich in landscapes, protected landscape districts, protected nature areas, parks, reservations, rivers, and lakes. There are 95 mineral deposits in the region in accordance to the data of **Latvian Environment, Geology and Meteorology Centre. The main types of mineral deposits are peat, quartz sand, dolomite, and clay. Moreover,** 35.2% of the whole countries dolomite is placed in Vidzeme Planning Region (Latvijas reģionu ekonomikas..., 2011).

The governors and managers of the resources very often are not aware of possibilities and ways how the recourses can be applied as well have no capacity to use these recourses effectively. This statement refers the most of mineral deposits, which are mainly used for production of traditional materials and not so much demanded in the market anymore. The researches and experiences studied have given evidence that the minerals can be used in unaccustomed areas. For example, clay is a raw material for production of cosmetics, porcelain, paint, and products for agriculture. The research institutions in Latvia have created and accumulated knowledge about qualities of minerals and their possible application, yet it has been prevented due to the lack of collaboration between researchers and governors and managers of resources. There is increasing demand for high added value food products in the world markets, for example,

organic and functional food. Natural resources of the region are appropriate for production and processing of such food, yet most of the food producers and processors of the region are not ready to start a business in a new niche and compete in global markets.

The authors have also analysed other natural resources, buildings, traffic infrastructure, and telecommunication networks. In addition, the role of location of the region as innovation element was analysed in scope of the research. The authors agree with the findings of other researchers that location, land, material, and technical resources are significant, yet these attributes cannot create innovation by themselves. They become valuable when ideas and knowledge are created about their exploitation. Whereas, ideas and knowledge are the basis for innovation.

Participants of economic system and their cognitive power. Information about participants was gathered and analysed in this chapter, considering quantitative and qualitative indicators. Cognitive power means - ability of individuals and institutions to perceive, acquire, evaluate, and apply knowledge.

In accordance to the data provided by the Central Statistical Bureau, the total number of inhabitants in Vidzeme Planning Region was 228 331 at the beginning of 2012, and it is 10.3% of the total number in Latvia. The comparison of the data of 2012 with the data of 2007 (total number - 240 347) reveals 5% decrease. The number of economically active inhabitants has slightly increased (0.4%) between 2009-2011, whereas the number of people until economically active age slightly decreased (0.5%). The present provision of labour force can be viewed as satisfactory. Though, some data is raising authors' concerns about the future: the region is the largest in size among other regions, yet the number of inhabitants is proportionally the smallest; there are only 29 877 persons until age of 14 living in Vidzeme Planning Region, and it makes up 10.16% from the region's inhabitants (corresponding indicator in Zemgale - 12.9%, Kurzeme - 13.97, Latgale - 13.69%).

The education level of inhabitants of the region was analysed taking into account the data about persons from age 25, when theoretically an individual has graduated a college or a university, acquired higher education, and started a full time work. Table 1 below is showing that more than one third of inhabitants have professional or vocational education. Less than 20% of the total number has acquired higher education and 43.75% inhabitants have secondary, basic, or lower education level. Taking into consideration the role of critical mass and capacity of human resources in innovation, these data should be viewed very critically.

While looking at the employment situation, the authors found that most of the inhabitants are employed by manufacturing industry (13 750 persons) and nearly the same number in areas of wholesale and retail (12 426). Only 1724 persons (2.19%) were working in area of professional, scientific and technical services (Central Statistical Bureau, 2012). There is no data available whether companies are employing researchers and high-level experts for development and implementation of new products and technologies.

Table 1

Education level of inhabitants of Vidzeme Planning Region on 1 March 2011

Education level	Number of persons	% from the total number
Total number of inhabitants (age 25-74), inter alias:	131 420	100
Doctor's degree	138	0.11
Higher education	25 261	19.22
Professional or vocational education	48 525	36.92
Secondary education	31 714	24.13
Basic/elementary education	23 401	17.81
Education lower than basic/elementary	2 129	1.62
Illiterate persons	252	0.19

Source: authors' construction based on the data of population census, aggregated by the Central Statistical Bureau (2011)

Table 2

Change of number of economically active statistical units in Vidzeme Planning Region in the time period 2008-2010

Economically active statistical units depending on legal status	2008	2009	2010
Total:	13964	13883	14533
Self-employed persons	6074	6279	6634
Individual merchants	908	912	900
Commercial companies	3882	3864	4010
Peasant and fishermen's farms	3100	2828	2989
Number of economically active individual merchants and commercial companies on 1000 inhabitants	20.2	20.4	21.1

Source: authors' construction based on the data of the State Regional Development Agency (2012)

There were 14 533 economically active statistical units in Vidzeme Planning Region in 2010 (Central Statistical Bureau, 2012). The data in Table 2 provide information that the major type of business in the region is self-employment (45.65%), but the least - individual merchants (6.19%). Commercial companies are composing nearly one third (27.59%) of the total number. The comparison of the data between 2008 and 2010 reveals the increase of the total number for almost 5%, and it has to be valued positively.

While analysing the data of enterprises' performance, it should be considered that medium and large size companies exporting products and services provide the most significant contribution to regional development. These companies have already learned to sight global market demands and find possibilities how to respond to these demands. This let the authors to conclude that participation in international environment is raising awareness on manifold nature of resources and processes and is creating the basis for development of cognitive power, which is a precondition for innovation. Micro and small size enterprises are operating at local, national markets, or external markets located very nearby: Russia, Lithuania, and Estonia. While working in a more "narrow" market, which demands mainly traditional products and services, companies are not aware of global challenges and are not motivated for innovation.

There is a large number of public and private institutions directly or indirectly supporting and promoting innovation in the region: the Administration of Vidzeme Planning Region, 26 local municipalities, three research institutions, Vidzeme University of Applied Sciences, seven professional and lifelong learning education institutions, two business and innovation incubators, Vidzeme Food Cluster, and more than 30 others in the region and 60 in the country.

Institutional frame. The overall scope of the research includes more detailed analysis of institutional frame, also observing national and European policies, legislation, and regulations. The article includes summary of the part of the study with regard to institutional frame of Vidzeme Planning Region, which performs activities in accordance to its main policy document - Vidzeme Planning Region Development Programme for 2007-2013. The programme as well as programmes of local municipalities include measures aimed to support innovation and entrepreneurship. The authors analysed several programmes and found that the programmes of local municipalities frequently do not respond to existing situation and the measures planned are not based on resources available and their exploitation possibilities. Sometimes programmes are reflecting the objectives and priorities stated in national policies as the relevance of local plans to national is one of evaluation criteria

Table 3

Attitude towards civic values depending on the age of inhabitants
 (% from the age group; answers «significant» and «very significant» are summed, $n = 1004$, of them - 103 respondents were inhabitants of Vidzeme Planning Region)

Age group	Consideration of laws and rules	Responsibility to pay taxes	Wish to be informed about ongoing in the society
All	87.1	77.0	75.8
18-24	82.6	73.1	70.2
25-34	86.2	67.4	73.4
35-44	89.4	77.6	72.8
45-54	87.6	76.9	78.7
55-74	88.2	85.1	80.1

Source: Latvia. Human Development Report 2010/2011. National identity, mobility and capacity, 2011

when municipalities are applying for the EU funds. The second significant aspect well seen in the programmes is the wish of municipalities to improve their public infrastructure at any price in buildings, the suitability of which is difficult to understand, instead of investing in measures promoting economic activities. Although local municipalities have included innovation and entrepreneurship support measures in the programmes, practically support frequently ends with dissemination of information about the EU Structural funds available for enterprises. The results of the survey of local municipalities provided by the Administration of Vidzeme Planning Region in 2012, show that municipalities do not cooperate with enterprises located in their territories (*Inovaciju ekonomikas attistibas...*, 2012).

There are two other documents including aspects of innovation and elaborated by two distinguished groups of experts in 2011: 1) The document „Latvijas regionu ekonomikas attistibas perspektivas un virzieni, 2010-2011”, 2) „Vidzemes ilgtermina attistibas scenariju analitiskais zinojums”. Both documents have permissive character. However, the second one should be highlighted with the regard to innovation as it accentuates the connection and interrelation of regional and global economy, the role of specialization, formal and non-formal cooperation, and networking necessary for innovation (*Vidzemes ilgtermina attistibas...*, 2011). The document is a good tool for encouragement and development of communication among various stakeholders interested in innovation.

Social environment. Although these elements were studied more broadly, the article includes an overview of the study about attitude of inhabitants towards civic values: consideration of laws and rules, responsibility to pay taxes, and wish to be informed about ongoing in the society as these aspects have to be viewed as significant with regard to innovative entrepreneurship and economic development. Looking at the data in Table 3 (below) it can be presumed that all age groups are dutiful (87.1% at the average), however the opinion about responsibility to pay taxes is much more lower (77% at the average). Moreover, inhabitants of the age group 25-34 years, potentially the most active entrepreneurs and innovators, are more negative towards responsibility to pay taxes - only 67.4%. Such trend is highlighting the necessity

to realise measures promoting society's awareness of significance of paying taxes as well measures promoting improvement of laws and regulations that affect entrepreneurship and innovation.

Awareness of ongoing in the society is another important aspect for innovation. Information can reach inhabitants occasionally and through purposeful search. The authors would not like to deny the significance and value of occasionally obtained information as some “qualitative” information, necessary for development of productive knowledge, can be found by chance in media, most often in internet, newspapers, and magazines as well through personal contacts. However, purposeful searching is more essential for the development of productive knowledge. In order to understand how inquisitive inhabitants are, their “wish to be informed about ongoing in the society” was studied by the authors. Looking at the data in Table 3 (above), it is evident that inhabitants over age 45 are more willing to be informed than people in the age group 18-44. In addition, education level affects the wish to be informed. If 81.2% respondents having higher education are willing to be informed, then the rate between inhabitants having primary and lower education is only 67.8% (Latvija. Parskats par..., 2011). There are no data available about the volume of “qualitative” information in the total range of information accessible and how inhabitants have used it so far. Possibly, lower wish to be informed among younger people and people with lower education level can be interpreted with lower cognitive power to appraise the value of information, differentiate the qualitative one from inferior, and apply it.

3. Evaluation of possibilities to increase capacity of innovation system elements and their impact on regional development

Information and data acquired lead to the conclusion that Vidzeme Planning Region has all the most essential innovation elements, yet the capacity of these elements is insufficient, and there is necessity to increase it. It can be realised by exploiting external and internal resources and available support tools and mechanisms. The hypothesis of the research - increase of capacity of elements of innovation system can have impact on the development of Vidzeme Planning Region - is vindicating, considering

that the region has all the most essential elements, there are possibilities for their exploitation, and there is a possible impact on the region's development. The authors provided an evaluation of anticipated economic impact in a case if two indicators used for measuring innovation and development level (applied by the EU Statistical Bureau and included in the EU Scoreboard report) would change. The indicators are:

1. **Amount of funding used for research and technological development (RTD) (% from GDP).** Change of the indicator affects processes ongoing outside VPR (decision of the national government to increase budget for RTD).
2. **Number of economically active individual merchants and commercial companies per 1000 inhabitants.** Change of the indicator affects processes ongoing inside and outside VPR (in the region: economic and entrepreneurship activities of inhabitants, availability and quality of support institutions, and other; outside the region: laws supporting entrepreneurship and innovation, supporting tools and mechanisms for starting and developing of innovative business).

Amount of funding used for research and technological development (% from GDP) have a direct impact on the number of applied patents, and applied patents have impact on the number of commercial enterprises potentially to be established and developed. The data from EUROSTAT was used for further research. In the next part of the research, the authors used the calculations and assumptions:

- 1) assuming that the government of Latvia decides to increase funding for RTD for 1%, the number of patents applied per 1 million inhabitants in Latvia will increase for 98 patents;
- 2) assuming that there are equivalent preconditions created for development and innovation in all the regions of Latvia, patents are applied evenly, appropriate to the number of inhabitants, thus, 20.8 patents applied can be prognosticated in Vidzeme Planning Region.

The number of economically active individual merchants and commercial companies per 1000 inhabitants is used for prognosis of income of local municipalities. This indicator is significant as municipalities' income adjustment impacts the development of local territories as well as the whole region. The data from the report „Regionu attīstība Latvija 2011” was used in the further research. Accordingly, the authors used the following calculations and assumptions:

- 1) if the number of economically active commercial companies per 1000 inhabitants increases for 1%, the income tax revenues in the budget of regional municipalities will increase for 1.37% on the average;
- 2) assuming that 20.8 patents will be applied in Vidzeme Planning Region, the establishment of 20 new economically active commercial companies owning productive knowledge can be prognosticated;
- 3) the establishment of 20 new economically active commercial companies owning productive knowledge will make 0.14% increase in relation to the overall number of region's inhabitants and 0.09% increase in relation to 1000 inhabitants;

- 4) assuming all the calculations and assumptions, 0.12% increase of income tax (per inhabitant) can be prognosticated;
- 5) the increase of local municipalities' income will ensure financial resources necessary for measures promoting development.

The obtained results enable the authors to prognosticate positive improvements in the indicators of innovation and regional economic development and confirm the hypothesis.

Conclusions, proposals, recommendations

1. The range of theoretical aspects of nature, elements and systems of innovation is comprehensive and manifold.
2. The most significant elements of innovation system are resources, participants of economic system and their cognition, institutional frame, and informal social environment. The existence and presence of all the mentioned elements is a precondition for innovation. Feasibility, creation and implementation of innovation directly depend on capacity of the elements of innovation system.
3. The capacity of the elements of Vidzeme region innovation system is not sufficient for having a substantial positive impact on innovation and growth of the region. Internal and external intervention is required for strengthening of the capacity of innovation elements.
4. Participants of regional economic system have substantially distinct comprehension about innovation, elements necessary for innovation, their own role, and the role of other participants in innovation processes. Connection and interaction of the governors of resources, the owners of productive knowledge and the institutions promoting and supporting innovation is weak.
5. Insufficient number of producers and users of productive knowledge has negatively affected the development of innovation. The cognition of participants of regional economic system is poor, and possibilities for its development are insufficient. In the region, human potential has not been assessed in the light of innovation.
6. Processes promoting innovation are not coordinated in Vidzeme Planning Region, thus decreasing innovation possibilities in the region.

Recommendations to the Administration of Vidzeme Plannin Region:

- 1) to elaborate recommendations regarding the directions and priority measures to be included in the next planning period (2014-2020) programmes for promotion and support of innovation in the regions of Latvia and submit them to the Ministry of Environmental Protection and Regional Development, the Ministry of Education and Science, the Ministry of Economy, and to the authorities administrating the European Union funds; .
- 2) to develop and implement the innovation processes' coordination system in Vidzeme Planning Region; .

- 3) to establish a regional fund for provision of support to research, technological development and implementation of innovation in micro and small size companies.

Recommendations to the Administration of Vidzeme Planning Region, local municipalities, institutions supporting the development of entrepreneurship, and innovation:

- 1) to study and gather data about competencies and productive knowledge of participants of regional economic system, and to identify opportunities and advantages in exploration of the knowledge identified;
- 2) to realise measures strengthening connection and interaction between governors of resources, owners of productive knowledge, and institutions promoting and supporting innovation;
- 3) to encourage the networking of participants of Vidzeme regional economic system with networks and institutions established outside Vidzeme Planning Region;
- 4) to implement measures raising awareness of society about innovation, processes of global economy, and possibilities of Vidzeme Planning Region in the global environment.

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