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THE COMPETITIVE ADVANTAGE OF POMORSKIE VOIVODESHIP IN STRATEGIC DOCUMENTS BASED ON THE REGIONAL INNOVATION STRATEGY

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Introduction

The transformation of national or regional economies towards knowledge-driven economies has now become prerequisite for improving their competitiveness. A competitive economy cannot be built without supporting the development of innovation, since the level of development of an area is increasingly influenced by the region's ability to generate and adopt new technologies, knowledge and organisational solutions. Such an area needs not be a whole country, since a region is an equivalent entity in market processes. The enterprises, institutions, research and development centres situated in its territory, as well as the authorities governing the area have an impact on the pace and direction of the region's development. As innovation is becoming increasingly important for the development of regions, it has become necessary to develop and implement documents that define and specify guidelines for implementing an effective system of innovation generation in a particular area. This task has been assigned to regional innovation strategies.

The issues of competitiveness and innovation with respect to economies and territorial units interconnect and blend into each other. Analysis of the two concepts shows that the essence of one concept overlaps or complements that of the other concept. By adopting a comprehensive approach to innovation and competitiveness we can understand their complex nature and their role in the process of development (cf. Kot/Dybała 2007, p. 62).

The essence of competitive advantage

Competitiveness and competing are concepts inextricably related to business activity conducted in the presence of other entities offering similar goods or services. Nowadays the term "competitiveness" has a wider dimension and range than in the past. It does not refer exclusively to businesses, nor does it only relate to price or quality level. It can also have a form other than cost-related. It applies to economies, including regional economies, and can also be

understood in terms of the ability to ensure prosperity or provide benefits of technological development.

While it can be interpreted in the traditional way, as the expression of technological dominance or lower prices of goods and services produced or rendered in the region compared with other areas, it may also have a wider meaning encompassing a group of qualities that determine the level of attractiveness of a region from the point of view of residents or businesses. While referring to competitiveness, we should bear in mind that it is connected with flexibility. Thus, we interpret this concept as the ability of regions to adapt to changing conditions to maintain or improve their position relative to other territorial units (cf. Winiarski 1999, p. 9).

The factors that determine the competitiveness of regions include, above all, the R&D potential, human capital, innovative and organisational potential and the SME effectiveness (cf. Strahl 2002, p. 101). Another important factor is the institutional environment, which indirectly supports the process of improvement in competitiveness by facilitating business activity. This is the task of business support institutions, such as regional development agencies or business incubators. These institutions also include business entities necessary for the functioning and development of the region's economy, i.e. insurance, educational, consulting and financial institutions.

Competitiveness is connected with an advantage, which shows in what way and to what extent a particular organisation and its products are better than others. The advantage makes it possible to set it apart from other organisations and outdistance them by emphasising the unique qualities of products offered. This usually involves better quality, superior service or lower prices. Regions may also stand out by offering products and services perceived as unique, thus building their competitive advantage. In such cases the advantage entails emphasising their strengths by taking up the opportunities present in the environment and eliminating or minimising weaknesses or threats (cf. Strahl 2002, p. 105). It should highlight the qualities that make the offer attractive to present and future users. The chief target groups for which the offer is prepared and diversified are the residents, investors and tourists (cf. Sekuła 2012, p. 131). Territorial units usually strive to stand out by stressing their unique location, but the advantage may also arise from the condition of the economy, infrastructure or the quality and level of education.

The competitiveness of a region may also be assessed according to how successfully the territorial authorities compete for different external benefits, including, above all, subventions, grants and aid funds from the European Union and international financial institutions and for the siting of major infrastructural, ecological and social projects within its territory. The com-

petitiveness of a region is also reflected in the acquisition of new investments in the manufacturing and service sector (especially innovative enterprises), the location of head offices of important institutions and their branches, foreign and domestic tourist traffic, or being entrusted with the organisation of major events or meetings of national and international importance (cf. Koźlak 2008, s. 181).

Innovation and its characteristics on a regional scale

The starting point for understanding the essence of innovation is the definition proposed by J. Schumpeter more than 80 years ago — in 1927 (cf. Glapiński 2004, p. 109). It is a new combination of means of production, which can occur in the following situations:

- introduction of a new commodity on the market, not yet known to consumers, or a new variety of a known commodity,
- introduction of a new method of manufacture, not yet tried in a particular industry,
- opening up of a new market, where a particular industry has not yet been present, irrespective of whether the market previously existed or not,
- acquisition of a new source of materials or semi-finished products, irrespective of whether the source previously existed or has been created,
- new organisation of a particular industry — break-up of a monopoly or its creation.

Thus, innovation may apply to a product, manufacturing process, materials, form of organisation and markets — either new ones or used for the first time under particular conditions.

The contemporary definitions elaborate, supplement or focus on one of the cases described by Schumpeter. E. Okoń-Horodyńska proposes the following concise definition, highlighting the continuity, novelty and need to implement innovations: "[...] innovation is a process whereby the existing possibilities are transformed into new ideas and put into practical use" (Okoń-Horodyńska 2003, p. 47).

Some definitions, apart from explaining the term, also systematise or divide the concept. One example is the OECD definition, which describes innovation as a change to a product or manufacturing process, explaining that it may be regarded as new from the point of view of the enterprise introducing the innovation or the region in which it is implemented. According to this definition, innovations can be divided into creative (absolute) or imitative-adaptive ones (cf. Derlukiewicz 2007, p. 35). The former type consists of previously unknown ideas,

whereas the latter includes those new to a particular entity or region, thus encompassing innovations being adaptations of ideas used in a different place or at a different time (cf. Derlukiewicz 2007, s. 35).

Innovations are directly connected with the condition of the economy, particularly its competitiveness. The more innovative the economy, the better the country's competitive position. The innovation level of regions depends on the level of innovation in the region's enterprises and how they contribute to the increase in productivity, achieve better economic results and therefore participate in the increase of GDP in the region. A high innovation level of a region in turn increases its appeal for domestic and foreign investors (cf. Koźlak 2009, p. 103). The innovative nature of the economy involves entrepreneurs' readiness and ability to seek and implement the effects of research and development, new concepts and inventions (cf. Kowalak 2006, s. 15). The entrepreneurs should not only take action on the greatest, national scale. It is equally, or sometimes even more important to increase the level of innovation on the regional scale. The competitiveness of regions is improved largely due to the development of innovation.

The importance of regions for the development of the entire country has been reflected in the role assigned to EU regional policy which, year by year, is exerting an increasing impact on the socio-economic life of EU member states. The role of regions in taking measures that stimulate economic development is becoming increasingly important. It is even said sometimes that it is the regions where most innovations are initiated and transferred to the economic life. This process is assisted by regional innovation systems, which consist of a group of interconnected enterprises and institutions located within a specific territory, contributing to or acting for innovation and technological advancement (Markowski 1999, p. 108). The competitiveness of a region largely depends on the efficient functioning of system, which therefore should focus on supporting the innovative potential of SMEs, assistance in start-ups and the transfer of knowledge and technology to newly formed enterprises. The three main factors determining upward trends in a region are thought to include: high technology, innovative nature of economic undertakings and highly qualified human capital (cf. Strahl 2002, pp. 100-101), so regions most frequently compete for investments of innovative nature, human capital and labour markets. The individual systems cooperate with a view to promoting innovation. The entities engaged in cooperation include, on one side, the R&D environment, believed to be the source of innovation, and on the other side — entrepreneurs, utilising and popularising the ideas commercially. The first group of entities constitutes the supply side of the process of creating and implementing innovations, whereas the other group is the demand side — the innovation level of regional economies increases as a result of SME's striving to acquire new technologies.

Factors of innovation development and the structure of regional innovation strategies

The regional innovation strategy is the basic instrument of implementation of the innovation policy at the regional level (cf. Salus 2009, p. 119). The idea of formation of regional innovation strategies dates back to the early 1990s. The measure aimed at counteracting any barriers to the innovation capabilities of EU member states was the creation of Regional Technology Plans. One of the aims of the above mentioned documents was to induce regions to create innovation strategies. The first sign of a strategic approach to innovation is considered to be the preparation of technology plans. This was followed by studies with the aim of support the creation of regional innovation systems. The implementation of the projects, referred to as Regional Innovation and Technology Transfer Strategies or Regional Innovation Strategies, was begun in 1994. The former placed particular emphasis on technology transfer, recognising it as the key factor in the process of raising the innovation level in regions. Their implementation was to increase the competitiveness of European economies in relation to the leading economies of the United States and Japan. Although not all measures produced the desired effects and to unequal extent, the positive experience of implementation of projects supporting regional economy innovation in the case of certain regions resulted in the inclusion of affiliated countries among the countries engaged in the projects.

The development and implementation of regional innovation strategies at the voivodeship level is assumed to be one of the fundamental measures, or even the main one, for raising the innovation level of regional economies. The studies, drawn up as regional innovation strategies, have to fulfil the following conditions (cf. *Innowacje...* 2005, p. 216-217):

- be based on public-private partnership, with the final version subject to social consensus,
- have a demand-related nature, thus focusing on the enterprises', especially SMEs', needs for innovation,
- be community-driven and involve regional R&D entities,
- emphasise the commercialisation of scientific research resulting in the implementation of innovative projects in companies, R&D and business-supporting ventures, as well as solutions concerning co-operation at the regional level.
- the region embarking on the creation of a regional innovation strategy should draw on the experience of other European regions.

A correctly constructed innovation strategy (cf. Innowacje... 2005, p. 217):

1. identifies the state of knowledge-based industry in the region,
2. identifies and utilises the region's assets,
3. indicates the methods of operation of local and regional leaders and supports lobbying for technological innovations,
4. contains solutions that boost the development of entrepreneurship,
5. promotes investment in innovations,
6. defines the system of relations development and co-operation between entities that form regional innovation networks,
7. specifies the methods of supporting the potential of R&D and educational institutions,
8. clearly defines long-term goals.

Thus, a correctly drawn up document should contribute to the development of a competitive advantage, as highlighted in point 2.

A strategy is a document containing integrated and co-ordinated actions, presenting the targets to meet and tasks to complete in a specified time, in relation to changing internal and external determinants and taking account of the available resources. With respect to the methodology of structuring, it is no different from other documents of this type. Each strategy, including innovation strategies, should consist of three consecutive steps: development (definition), implementation and assessment. The factors determining how successfully a regional innovation strategy is implemented are divided into two categories: related to the character of a region and strategy-related. The first group includes the following: economic situation, institutional conditions, innovation level of companies, educational system, presence of entities — enterprises and research centres — interested in innovation and the condition and situation of these entities. The elements of the other group are: experience of pursuing an innovation policy, strength and independence of regional authorities, political support for strategy implementation, degree of expert involvement, motivation and acceptance of risk-taking and the funds allocated¹ for strategy implementation (cf. Mackiewicz 2006, p. 185).

¹ For the possibilities of financing pro-growth activities by voivodeship self-governments refer to e.g. Markowska-Bzducha 2010, p. 225-235.

A correctly prepared document constitutes a tool for developing the innovation potential of a region or maintaining an already high innovation potential. An essential part of the strategy is reaching consensus among the three main groups of entities involved in its development and implementation. The former two, referred to above, include enterprises and academic centres, constituting the scientific research base. The third group consists of local and regional authorities, performing a stimulating role in starting co-operation and supporting the development of initiatives between the enterprise and R&D sector. Their activities are not limited to developing an effective system for implementing regional innovation strategies, but also include pooling public resources to support these measures (Brol 2009, s. 55).

Cooperation usually begins in specific circumstances. To ensure that it progresses in a desired and effective manner, it is necessary to create conditions in which entrepreneurs are willing to start co-operation. The first step is to make entrepreneurs aware of the benefits from co-operation. Spatial proximity of enterprises and R&D entities promotes information and knowledge exchange between the participants in the process of increasing the region's competitiveness. It is up to the enterprises to express their needs, whereas the academic entities ought to present their capabilities of adjusting their activities to the character of these needs. The co-operation should complement and fulfil the regional development policy. This method of co-operation in the framework of regional innovation strategies greatly extends the scope of dialogue and co-operation between the key players in the region.

Innovation strategies are usually developed as documents supplementing regional development strategies. While the former chiefly focus on accelerating development by improving the competitiveness of the economy, the latter apply to all aspects of life in the region, not only to the economic sphere, but also to the social aspect, health care, environment, public security etc., and are therefore given a superior status. The relationship between development strategies and innovation strategies has been regulated by law. Art. 11 par. 1 of the Act on voivodeship self-government stipulates that the aims of development strategies should include raising the competitiveness and innovation level of voivodeship economy, but this is just one of the areas to which a strategy should apply. The above regulation also refers to the cultural, social and historical sphere. As a document of a wider scope, including other action areas in the region apart from competitiveness, it may be considered to have a superior status.

To sum up, the prerequisites for the achievement of stable, long-term economic growth include a continuous improvement in the knowledge level and creation and implementation of new organizational and technical solutions, that is, innovations. The tools contributing to an increasing competitiveness of regions are regional innovation strategies, which concentrate on actions leading to improvements in technology level and development of human capital due to

the co-operation between entrepreneurs and R&D centres with participation of local governments.

A profile of Pomorskie voivodeship

The Pomorskie voivodeship is situated in northern Poland. From the point of view of territorial division it is a self-governing community directly below the national level. It is one of the 16 regional territorial units in Poland. The capital is Gdańsk, a city with a population of more than 450,000. It consists of 20 powiats (counties), including 4 cities with powiat rights and 16 land powiats. There are 123 gminas (communes) in its territory, 25 of which are urban gminas, 17 are urban-rural gminas and the remaining 81 are rural gminas. With respect to population and area (2.2 million and 18,300 km², ranking 7th and 8th in the country, respectively) it occupies a middle place in the classification of Polish voivodeships. The regional GDP was over PLN 76.2 bn in 2009, accounting for 5.7% of the national GDP. GDP per capita exceeded PLN 34.200, which was equal to 97.3% of the national average. Only 1/3 of the population of Pomorskie voivodeship worked, which placed the voivodeship 11th in the country. The voivodeship achieved a far higher place in terms of the number of national economy entities per 10,000 inhabitants. There were 1161 per 10,000 population, which ranked it 4th in Poland. The voivodeship is characterised by a high entrepreneurship rate. The number of entrepreneurs (per 10,000 population) was higher by nearly 100 (865) than the national average (770). The expenditure on R&D activity per capita was below average (PLN 219), but this relation is due to the high rate achieved by the leading Polish voivodeship Mazowieckie (over PLN 800). Pomorskie ranks 5th to 7th in this category (cf. Statistical Yearbook...).

As suggested by the above data, Pomorskie is placed in the middle of rankings of Polish regions. On the one hand, it may therefore be referred to as an "average" Polish voivodeship, but on the other hand it shows the necessity of developing and implementing documents which would enable it to gain a competitive advantage over other regional units in Poland.

Building the competitive advantage of Pomorskie voivodeship in the priorities of the Regional Innovation Strategy²

Development work on the Pomeranian innovation strategy was initiated in 2002. It was then that the official title of the document was adopted: Regional Innovation Strategy for Pomorskie Voivodeship. The abbreviation RIS-P is used interchangeably.

The document was created in order to improve the competitiveness of Pomorskie voivodeship compared to other regions in the country and, in view of the forthcoming EU accession, also in relation to the Community regions. It develops one of the major priorities set out in the voivodeship strategy, that is, competitiveness. While referring to the issue of competitiveness, the Development Strategy for Pomorskie Voivodeship adopted in 2000, did not contain the aims, programmes or tasks corresponding to the requirements to be met by regional innovation strategies, and therefore it was decided that a separate document would be created.

The Pomorskie Voivodeship Executive Board officially started the implementation of RIS-P in May 2003. The project was developed by a consortium of public universities in Tricity and business support institutions, led by Gdańsk University of Technology. This university has also been the unit implementing the document as part of EU's Sixth Framework Programme. Earlier, on 22 December 2004, the RIS-P strategy was unanimously adopted by the Sejmik of Pomorskie Voivodeship. Towards the end of 2005 the Pomorskie Voivodeship Executive Board appointed the Steering Committee for Regional Innovation Strategy. The Committee's tasks include supervision over the implementation of the strategy, monitoring and co-ordination between the projects implemented as part of the strategy.

The time frame of the strategy covers 9 years — between 2005 and 2013. The first two years, i.e. 2005 and 2006, constituted the initial stage, devoted to the development of the RIS-P system. In 2007 stage II began, referred to as the implementation period. This is the period assigned for the the fulfilment of the main aims of the project and the related measures. Over these years, i.e. until 2013 Pomorskie voivodeship will have PLN 17 million at its disposal for the purpose of strategy implementation.

The principal document is divided into several parts. The assumptions, preceded by a description of the voivodeship's economic potential, R&D sector, institutional sphere, SME sector and areas beyond Tricity, have been presented in Chapter 7 and the subsequent chapters. The project part contains the mission, general objective, key objectives, specific objectives, tasks to

² Information on the Pomeranian innovation strategy was sourced from the Regional Innovation Strategy (RIS-P) website — <http://www.ris-pomorskie.pg.gda.pl/> (20/02/2012).

complete, and elements not described in this study, such as priorities, measures to be implemented, the monitoring system or the assumed results of implementation. It ought to be based on the conclusions drawn from an analysis of the present state of affairs. One of its elements is SWOT analysis presenting the region's assets that should be utilised in building the competitive advantage of a particular area.

The SWOT analysis was conducted in four groups: for the industry sector and enterprises in the region, for the R&D sector of the region, for support institutions and for areas outside the Tricity metropolitan area.

The importance of a particular asset is determined by its impact marked on a scale from 1 to 3, where 1 indicates the greatest impact. The following are all the assets of the region given the highest rank (not divided into groups):

- high flexibility of business activity,
- world-class level of the shipbuilding industry,
- potentially good opportunities for co-operation between the shipbuilding industry and SMEs.
- relatively high conformity of the directions of R&D activities in R&D entities with the needs of enterprises,
- very good HR base,
- well-developed R&D structures,
- strong local industrial centres,
- high potential for food processing industry and fishing industry,
- presence of successful innovative enterprises.

A characteristic feature of the region's strengths is their general and universal character. Only two of the assets listed refer to the unique characteristics of the region. Subsequently, it results in problems with their highlighting while formulating the objectives and, consequently, in building the competitive advantage.

The mission, reflecting the fundamental intention of the innovation strategy, has been formulated as follows: "development of a competitive, innovation-based economy for improving the standard of living of the Region's community." Thus, it expresses the main assumptions

providing reasons for the development of strategic documents concerning innovation. Furthermore, it specifies the subject of actions, which should eventually involve the communities inhabiting a particular area. Presumably, other comparable projects use similar wording. It is a characteristic feature not only of innovation strategies, but also most spatial development strategies, where specific details are elaborated on the objective and task level. It may be for this reason — a highly general character of the mission — that the element which is to be the competitive advantage of the region has not been highlighted.

In some strategic documents the mission is also the general objective. It is not so in the case under consideration. It was assumed that the desired state, as an effect of the implemented strategy, is reflected by the general objective, that is: "building an effective and efficient system of supporting the development of innovations with a view to achieving a high competitiveness of the Region." Thus, as a result of activities over nearly ten years, a system of innovation development support will be created in Pomorskie voivodeship. The general objective, according to the disaggregation rule, was broken up into lower level objectives, referred to as key objectives in the document under consideration. They aim to present the desired situations in the individual areas of co-operation. Four key objectives were formulated, designated with the symbol "H", i.e.:

H1 — building consensus and partnership for the development of information society and innovation in the region,

H2 — developing an innovation culture and pro-innovative education,

H3 — supporting the development of areas beyond the Tricity metropolitan area through innovation,

H4 — supporting the development of SMEs in the region through a wide use of the innovation potential of the Tricity metropolitan area.

Although the graphical presentation of the key objectives in RIS-P project does not suggest their hierarchic order or subordination, it was mentioned that H1 and H4 objectives are treated as crucial, whereas the most important, top priority objective is H1, which stresses the need to build an information society and act to improve the innovation level in the region. This approach seems reasonable. H1 objective should be treated as the fundamental one, while the emphasis of H4 objective on the Tricity metropolitan area arises from the belief that conurbations have the potential to ensure the region's high competitive position on a national scale. The innovation processes are the most dynamic in metropolitan areas, from which innovations diffuse into other parts of the region. On the other hand, it should be noted that none of

the objectives directly mentions improvement in competitiveness, although their achievement will undoubtedly contribute to better competitiveness.

As a rule the objective list in strategic documents is broken down into two levels (cf. Strahl 1996, p. 70), which means that the next step should involve formulating the tasks. However, due to the extent of the subject matter of the strategy, it was decided that one more level of objectives would be introduced, referred to as specific objectives. There is a total of 32 specific objectives, 12 of which apply to the first key objective, eight — to the second objective, seven — to the third objective and five to the last, fourth objective. Tasks were formulated based on the specific objectives. Their implementation leads to the achievement of the individual specific objectives.

Analysis of the specific objectives leads to a similar conclusion as in the case of the key objectives. Emphasis is placed, above all, on creating opportunities for co-operation, on disseminating information on the strategy itself and its subsequently implemented tasks and on pro-innovation education of a number of target groups: entrepreneurs, young people, local authorities and other organisations and entities. Social capital is undoubtedly an essential element of RSI and the process of innovation generation; another important factor is the quality of service of business support institutions, which are meant to co-operate and assist to meet the objectives, but it seems that the strategy does not sufficiently highlight the unique qualities characteristics of the region, setting it apart from other voivodeships with their own innovation strategies. Pomorskie has many distinctive qualities, such as the high concentration of high technology enterprises or the broadly defined shipbuilding industry. The high, world-class level of the shipbuilding industry was stressed in the SWOT analysis, but the fact was not reflected in the objectives, whereas the tasks only provide for consultations, meetings and co-operation agreements between companies from related industries.

Summary

In order to relate comprehensively to the document of the Regional Innovation Strategy for Pomorskie Voivodeship, it should be noted that its subject matter is in compliance with the requirements that apply to regional innovation strategies. It was developed with the aim of defining the role to be played by territorial self-government in the process of improving innovation level. What should be stressed is the strong commitment of highest voivodeship authorities, led by the voivodeship marshal. A definite advantage of this document is the idea of creating favourable conditions for the functioning of innovation support mechanisms and initiating co-operation between multiple entities.

A characteristic feature of the document is its universal character, whereas the specific features of the area it applies to have not been elaborated. It is only by assuming that RSI is developed in order to achieve a competitive advantage through transfer enhancement and utilisation of new technologies that we can come to the conclusion that the innovation strategy will enable Pomorskie voivodeship to achieve such an advantage. However, we cannot arrive at this conclusion if we define the advantage as overtaking other regions by highlighting own assets.

In other words, the document only indirectly gives consideration to the issue of competitive advantage. It does not directly assume that the voivodeship will strive to achieve an advantage in any of the areas connected with its strengths. It certainly does not disqualify the document as a whole, but it should be kept in mind that each Polish voivodeship has an innovation strategy and it was one of the aims of RIS-P to improve the voivodeship's competitive position in relation to other regions in the country.

At this stage of implementation it is difficult to speculate about the scale of impact of Pomeranian RSI and whether and to what extent it may contribute to the resolution of key issues and contribute to the region's competitiveness. The actual strategy implementation period, i.e. stage II, has not elapsed yet and the effects cannot be examined at present. Initial results connected with the development of RIS-P implementation system in 2005-2006 lead to the conclusion that the tasks planned for that period have been completed.

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