

Wojciech Drożdż

Intelligent specialization' as a new strategy for regional development

Ekonomiczne Problemy Usług nr 100, 45-55

2012

Artykuł został opracowany do udostępnienia w internecie przez Muzeum Historii Polski w ramach prac podejmowanych na rzecz zapewnienia otwartego, powszechnego i trwałego dostępu do polskiego dorobku naukowego i kulturalnego. Artykuł jest umieszczony w kolekcji cyfrowej bazhum.muzhp.pl, gromadzącej zawartość polskich czasopism humanistycznych i społecznych.

Tekst jest udostępniony do wykorzystania w ramach dozwolonego użytku.

WOJCIECH DROŹDŹ
Szczecin University

INTELLIGENT SPECIALIZATION' AS A NEW STRATEGY FOR REGIONAL DEVELOPMENT

Introduction

Recently, terms of regional specialization and intelligent specialization increasingly frequently appear in documents developed by EU institutions, in particular in the Strategy Europe 2020 and its constituent part of the Innovation Union initiative. Intelligent specialization in countries and regions is presented as a key element of the new innovation policy as a response to serious economic challenges faced by the continent. The European Commission in its communications and positions encourages regions to develop their regional innovation strategies for smart specialisation which aim at ensuring full use of regional potential and synergies between regions. In consequence, this, should lead to enhanced use of structural funds and linking them with Horizon 2020, a new framework programme for research and development of new technologies. The objective of the article is to discuss significance of intelligent specialisations for the development of regions as well as presenting good practices of implementing those strategies (example of Skåne, Sweden).

1. Signification of innovation processes for European regional economies

The functioning of states and regions in the contemporary, increasingly globalised, economy is different than before. Rapid increase in production proc-

esses, access and processing of market information, financial flows, exchange of technologies, sales and consolidation of recognised brands and products, or increasing unification of consumer behaviour result in depreciation of traditional strategies and development models. Areas which still several years ago enjoyed stable growth need to struggle against the threat of economic slowdown or recession. This applies to both regions in states that up until recently, with a bit of envy, were referred to as highly industrialized and regions in post-communist countries where market economy has been in operation for the past twenty years. On the contrary, the increase in the role of regions in newly industrialized counties, which efficiently compete on the new market with former moguls, has become more vivid.

Ensuring and strengthening of the economic growth in European regions is directly linked with increasing the intensity and scale of innovation. These processes have their impact on social issues in regions, notably conservation of the natural environment, protection of health, and security of the public. This contributes to efficient solution of those issues. Therefore, innovation for European regions is the economic priority, but it is also an indispensable element of a modern approach to social issues and become a basis for socio-economic development of a region.

Demographic issues, high level of social assurance, strong attachment to tradition and stagnation, bureaucratization and excessive regulation are reasons of reduced competitiveness of European regions on global markets. Achieving and maintaining competitive advantage in long-term perspective depends on the innovation rate.

Competitiveness of European regions on the global arena is still possible. However, it is a complicated challenge for the European regional policy and activities and strategies in particular EU member states, as well as regional governments which shape their regional development strategies. Beyond any doubt, it is a time consuming task. However, in the times of financial shortages, the United Europe cannot afford to economise in the innovation sector. Other regions of the world, which already today enjoy a clearly higher level of innovation of their economies, progress swiftly forward without waiting for dormant and lazy EU counterparts. For this reason, not only is it necessary to increase spending on innovative economy significantly, but also increase its implementation rate. Time consumption is the second negative factor faced by European regions on their way towards innovation. If in coming years they fail to shorten

implementation processes at least twice, even major increase in R&D spending will not boost competitiveness of European regions. The last but not least negative factor reducing the implementation of innovation is the lack of communication and cooperation between the science and the business. Among highly developed areas of the world Europe is the worst example with this respect. Attempts to improve the situation by the Lisbon Strategy failed and EU regions still face the dilemma how to encourage researchers, scientists and inventors to better and more efficient contribution to the economy, and companies to recognise a real potential of close cooperation with research and development institutions.

Polish regions face the same problems regarding the implementation of innovation as other areas of united Europe; however their intensity, similarly to other countries of Central Europe, is much larger. Therefore, it is obvious that those countries require special support to increase intensity of any innovation measures. Previous experience of the 2007–2013 programming period shows that although current mechanisms supporting innovation contribute to increase in competitiveness of regions, they have impact on practically all spheres of the regional economy and do not produce a sufficient impulse for the most efficient actors in the region. Without determining regional specialisations it is going to be difficult to arrive at efficient innovation policy in Polish regions and finally improve their competitiveness against other regions in the contemporary global economy.

2. Factors for determining regional strategies supporting intelligent specialisations

Current documents developed by the European Commission include a slight criticism towards previous innovation policies, including regional innovation strategies created after 1994. So far despite the necessity to identify intelligent specialisations, mentioned in various documents, regions lack specific instruments and methodologies as well as support instruments.

National and regional innovation strategies for intelligent specialization (RIS3 strategies) are integrated, local economic transformation programmes which aim at implementing five important objectives:¹

¹ ec.europa.eu/regional_policy/sources/.../smart_specialisation_pl.pdf.

- directing support of policies and investment to key national/regional challenges and needs to ensure knowledge driven development,
- using strengths, competitive advantages and excellence potential of each country/region,
- supporting technology and practical innovation and stimulating investment in the private sector,
- engaging partners and encouraging them to innovate and experiment, and
- promoting strategies based on facts encompassing relevant systems of monitoring and evaluation.

According to domestic and foreign literature it is difficult to determine a definition and practical tools applicable to intelligent specializations.² It is, however, possible to list the following related rules, conditions and factors in the process.

Firstly, the strategy for intelligent specialization is based on local knowledge. Intelligent specializations need to be accompanied with major knowledge assets in the region in a given field originating from both science and business. It is not possible to develop intelligent specializations in fields which remain unknown in the region or require knowledge which does not exist in a given region. Secondly, innovation should have an appropriate scale. The development of intelligent specializations must lead to innovative products on the market or at least major improvement in manufacturing or distribution. This does not mean, however, that the ambition of all regions, in particular those that are less advanced in terms of technology, should create *General Purpose Technologies* (GPTs), such as laser or the Internet. Contrary, they should look for solutions within already existing GPTs. Concentration and critical mass are also crucial since they enable to determine the future intelligent specializations. On the one hand, one should not select too many areas of specialization to avoid excessive

² It is possible to refer to a definition quoted in documents determining cohesion policy in which the European Commission indicates that 'Intelligent specialization means identifying unique qualities and assets for each country and region, which highlight competitive advantage of a region and focuses regional partners and assets around achievement based visions. This also means the need to strengthen regional innovation systems, maximizing flow of knowledge and distributing benefits resulting from innovation in the entire regional economy.' Based on: Research and Innovation Strategies for Intelligent Specialization – Cohesion Policy in 2014-2020. Communication of the European Commission. http://ec.europa.eu/regional_policy/what/future/proposals_2014_2020_en.cfm.

dispersion of directions for development in a region and relevant support mechanisms. On the other hand, some specialization areas do not stand a chance for development if they are not capable of reaching the critical mass in terms of production factors, share in the market and knowledge and research assets.

Yet another attribute of intelligent specialization is its unique nature. It is assumed that selected areas of specialization are intelligent when instead of copying specializations of other regions become unique for a given region, in terms of production profile, unique services, products and knowledge or a special location. It is ideal when unique specializations in particular regions could complement each other and contribute to synergy. This should boost competitiveness of EU member states against third countries. This indicates the need to coordinate those activities on the EU and national levels.

An important factor for determining regional specialization is the position of companies. The process of finding and selecting intelligent specializations in the region should be based on knowledge and market experience of companies rather than services of consulting companies or scientific institutions which frequently provide excessively technocratic analyses. Otherwise there is a risk that pressure groups will take over the process or solutions selected will not be feasible in market conditions. This rule can rarely be observed by cooperating with only selected companies. It is therefore advisable to involve groups of companies through building clusters, associations or combination of companies and universities provided the latter actually have real contact with companies.

Summarising, it is possible to indicate possible roles and tasks to be performed by regional governments in the process of creating regional specialization strategies. Firstly, the process requires supporting of searching for market gaps. It may happen that we fail to convince a company that a given solution can be profitable because of a mere lack of possibility to overcome a market gap, a gap which involves to high risk that the cost of market trial of a new product will not be recovered. In such a case, the regional government may create a tool encouraging a company to experiment subject to sharing knowledge acquired with other companies in the region. The tool should include selection and evaluation mechanism for a given solution to be implemented.

The second area of support by regional governments should include monitoring and coordinating areas in which intelligent specializations are sought to add to the process a strategic and long-term dimension.

An equally important it to support identified specializations by allocating funding from the regional or EU budgets to promote investment in infrastructure and expanding the knowledge base, education, training and implementation research. All those areas should be supported by the regional government in the new programming period.

3. Example of intelligent specialization strategy in the Region of Skåne

The Region of Skåne is the most southward located part of Sweden. In the past 4 years, the region developed an innovation strategy supporting intelligent specializations. Thus, it is possible now to draw interesting conclusions and formulate recommendations for other regions in Europe resulting from the implementation of the concept.³

³ Conclusions presented in this part of the paper are based on the speech by Bjoerk Lagnevik, Director for Development at the Economy and Innovation Department, Skane Region, delivered on 5.06.2012 at the 8th International Self-Government Forum in Szczecin, Poland.



Economic typology

- non market services, agriculture & light industry
- MEGAs advanced services: finances & business
- high and medium technological industry
- textile, personal market services
- agriculture, non-market services, trade, hotels & restaurants, industry (light & construction)
- market & non-market personal services, weak in industry
- neutral central without big cities

Fig. Economic typology of European regions

Source: ESPON Data Base, [http://www.espon.eu/main /](http://www.espon.eu/main/).

Instead of one, Skåne has several regional specializations. Several sectors enjoy strong position and there is not one sector that prevails. It means that the regional profile of Skåne encompasses several sectors. The Region of Skåne covered a long way from traditional specialization based on heavy industry, such as shipbuilding, to the concentration on services and several areas in which the region had strong university base, including material science, medicine, mobile technologies, and food. Several clusters developed in the region and undoubtedly they determine very interesting fields for economic development in this part of Sweden in the years to come.

In the Region of Skåne, a directly elected regional parliament is responsible for regional development, economic growth, spatial planning, healthcare, public transport and culture. Since 2011, the region has a new strategy of innovation which sets an ambitious goal, namely positioning of Skåne until 2020 as the most innovative region in Europe. In this context, very important elements of the strategy include the way innovation supports the current economic system, entities taking part in the process and sources of funding.

While developing the strategy, the region created a map showing regional specializations. The map includes roughly 54 companies and organizations which support innovation in the region and do not contact each other. The success of the regional economy depends to a large extent on cooperation and thus the intelligent specialization strategy aims at developing economic links and promotes a dialogue between companies, and creates a common vision for the region to support companies and newly established firms. This process attracted also industry, higher schools, politicians and users.

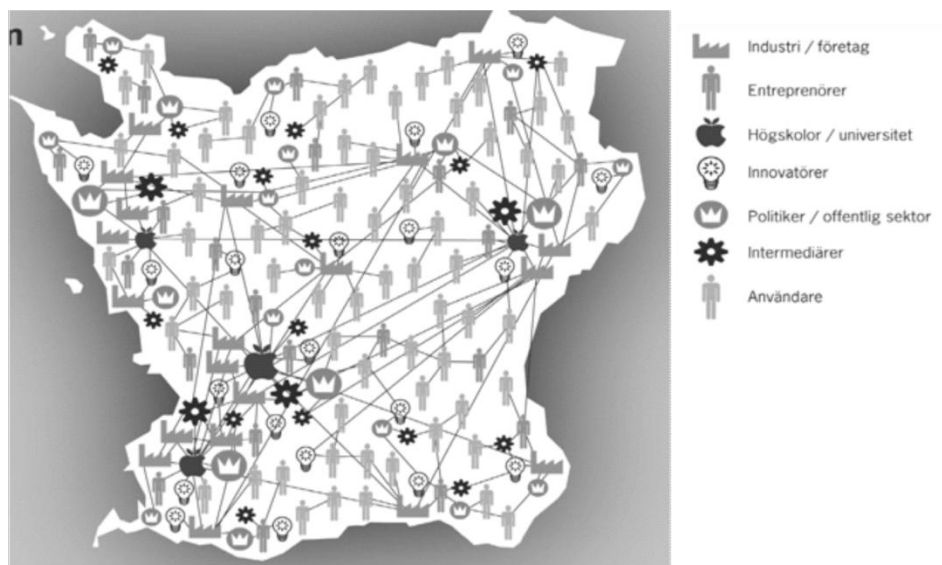


Fig. Entities in the innovation system in Skåne

Source: Region Skåne: Towards a RIS3 Strategy – Presentation, Seville, 3 May 2012.

The process of creating intelligent specialization strategy in the Region of Skåne took about 3 year and concentrated on determining strong regional potentials. At the beginning of diagnosing it was determined that the system supporting innovation was too complicated and too heavy in terms of supporting start-ups, in particular in the first phase of developing innovation. Although, various organizations acted at that stage supporting commercialization, in fact this did not lead to desired results. Then the region was compared with other regions on a global scale, various materials were collected and benchmarks developed. The region talked to numerous organizations, politicians in specific regions and this led to two conclusions. Firstly, it was necessary to involve industry in the innovation strategy. Secondly, it was advisable to create a collective leadership in the Region of Skåne. Moreover, official bodies were established with representatives of the science, business and the public sector.

The intelligent specialization strategy of Skåne includes areas and companies of similar activity thus reflecting an approach based on the triple helix or cluster initiatives. Since the region lacks any single dominating sector, links between sectors seem to be extremely important. In terms of cooperation areas, it

was assumed that those should focus on creativity, openness and diversity, to be able to generate action in particular sectors.

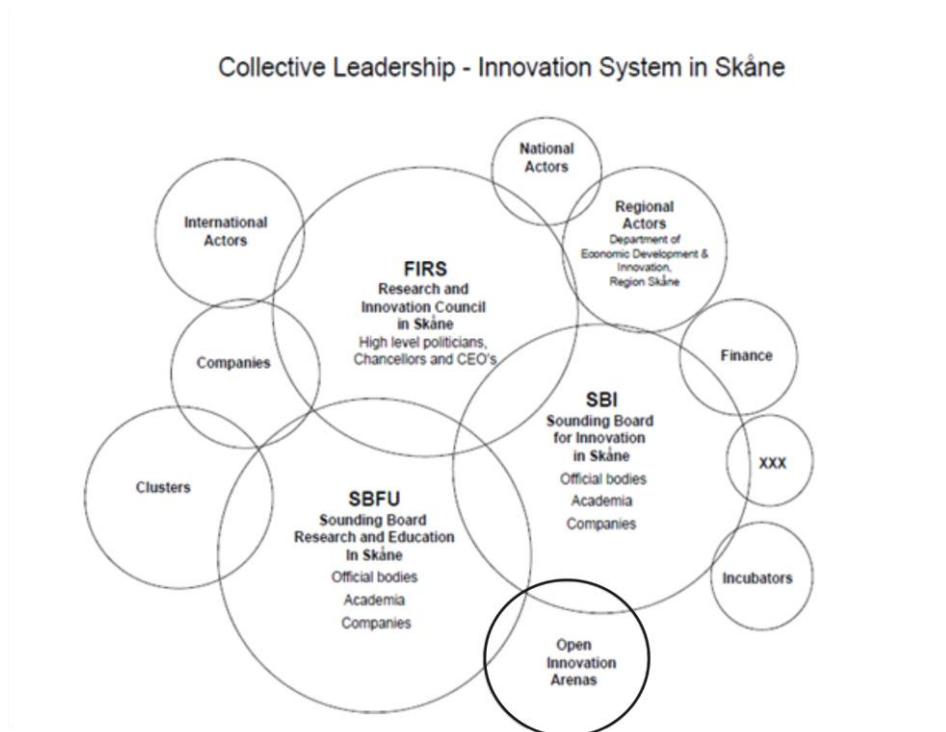


Fig. Collective Leadership – Innovation System in Skåne

Source: Region Skåne: Towards a RIS3 Strategy – Presentation, Seville, 3 May 2012.

The main stages of the innovation strategy included: functional analysis, global benchmarking, comparison with other OECD regions, involvement of domestic and regional organizations and developing cooperation with other regions, in particular regions of the Baltic Sea.

At the moment, the Region of Skåne coordinates intelligent specialization processes. The region succeeded in establishing an innovation council which members represent various groups, and introducing a management mechanism supporting the innovation process. Therefore, the region achieved a possibility of much larger influence of the process. The role of the region is to promote

possibly the best conditions supporting innovation, stimulating stakeholders and attracting various entities which can support the innovation process by continuous dialogue. All these activities turned out to be necessary to develop a common vision for the region and create a programme for the entire region. Moreover, common leadership is based on the previously mentioned elements and this enables the region to focus on the most important innovative areas in the region.

INTELIĞENTNA SPECJALIZACJA JAKO NOWA STRATEGIA ROZWOJU REGIONALNEGO

Streszczenie

Polskie regiony mają te same problemy z wdrażaniem innowacji co obszary zjednoczonej Europy, przy czym ich intensywność, podobnie jak w innych krajach Europy Środkowej, jest zdecydowanie większa. Wymagają one szczególnego wsparcia w zakresie zwiększenia intensywności działań innowacyjnych. Dotychczasowe doświadczenia wynikające z okresu programowania na lata 2007–2013 wskazują, że obecne mechanizmy wspierania działań innowacyjnych nie dają dostatecznie silnego impulsu dla tych najbardziej efektywnych w danym regionie. Nie wynika to oczywiście z zaniechania instytucji zarządzających danymi programami, ale z wielkiej trudności w rozpoznaniu specjalizacji regionalnej poszczególnych województw. Celem artykułu jest omówienie znaczenia inteligentnych specjalizacji dla rozwoju regionów, jak również prezentacja dobrych praktyk wdrażania tych strategii (np. Skania, Szwecja).

Tłumaczenie Wojciech Drożdż