

PRACE NAUKOWE

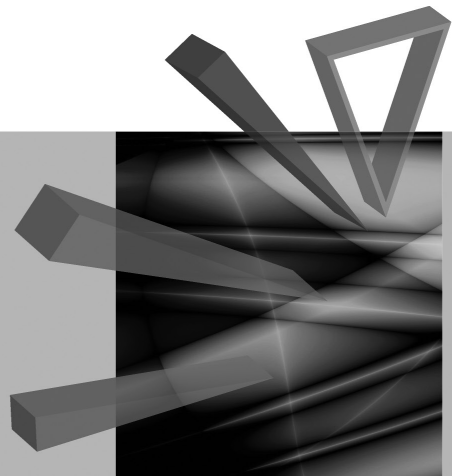
Uniwersytetu Ekonomicznego we Wrocławiu

RESEARCH PAPERS

of Wrocław University of Economics

324

Economy and Space



edited by

Stanisław Korenik

Niki Derlukiewicz



Publishing House of Wrocław University of Economics
Wrocław 2013

Copy-editing: Agnieszka Flasińska

Layout: Barbara Łopusiewicz

Proof-reading: Barbara Cibis

Typesetting: Comp-rajt

Cover design: Beata Dębska

This publication is available at www.ibuk.pl, www.ebscohost.com,
and in The Central and Eastern European Online Library www.ceeol.com
as well as in the annotated bibliography of economic issues of BazEkon
http://kangur.uek.krakow.pl/bazy_ae/bazekon/nowy/index.php

Information on submitting and reviewing papers is available on
the Publishing House's website
www.wydawnictwo.ue.wroc.pl

All rights reserved. No part of this book may be reproduced in any form
or in any means without the prior written permission of the Publisher

© Copyright by Wrocław University of Economics
Wrocław 2013

ISSN 1899-3192

ISBN 978-83-7695-391-5

The original version: printed

Printing: Printing House TOTEM

Contents

Preface	7
Marcin Baron, Artur Ochojski: The cluster of clusters concept in the perspective of regional policy-making and business practice	9
Jacek Chądzyński: Cooperation between communities and non-governmental organizations in Poland – results of a survey	27
Niki Derlukiewicz: Prospects for innovation development in the European Union according to the new Europe 2020 strategy	37
Paweł Dziekański: Financial synthetic index and the economic security of the region in the context of local government efficiency	46
Dariusz Głuszczuk: The enterprise financial sources and expenditure for innovation – case of Polish regions	62
Magdalena Kalisiak-Mędelska: Some aspects of public administration reforms in Poland after 1989 – the revenue autonomy of local governments	70
Magdalena Łyszkiewicz: Cost assessment in the delivery of municipal services	82
Anna Mempel-Śnieżyk: Smart specialisation and clusters in economic growth	92
Katarzyna Miszczak: Contemporary spatial planning and case of Poland ...	104
Mirosława Marzena Nowak: Place of dairy cooperatives in the regional development: case of Łódzkie voivodship, Poland	117
Ирина Солошич, Валентина Пидлиснюк: «Зеленая» экономика в контексте обеспечения перехода Украины к устойчивому развитию	126
Monika Szymura: Protection of authors' rights in knowledge-based market economy	136
Teresa Topczewska, Waldemar Siemiński: Integrated urban development planning at the regional level in Poland	144
Mehmet Topcu: Impacts of gated housing estates on housing values: Case of Konya, Turkey	155
Alicja Zakrzewska-Półtorak: Metropolization of the Polish space and its implications for regional development	167

Streszczenia

Marcin Baron, Artur Ochojski: Koncepcja klastra klastrów w perspektywie polityki regionalnej i biznesu	26
Jacek Chądzyński: Współpraca między społecznościami i organizacjami pozarządowymi w Polsce – wyniki ankiety	36

Niki Derlukiewicz: Perspektywy rozwoju innowacji w Unii Europejskiej według nowej strategii Europa 2020	45
Paweł Dziekański: Syntetyczny wskaźnik bezpieczeństwa ekonomicznego regionu w kontekście działalności władz lokalnych	61
Dariusz Głuszczuk: Wydatki oraz źródła finansowania innowacji w przedsiębiorstwach – przypadek polskich regionów	69
Magdalena Kalisiak-Mędelska: Wybrane aspekty reform polskiej administracji publicznej po 1989 roku – samodzielność dochodowa jednostek samorządu terytorialnego	81
Magdalena Łyszkiwicz: Zarządzanie kosztami w procesie świadczenia usług komunalnych	91
Anna Mempel-Śnieżyk: Inteligentne specjalizacje i klastry a wzrost gospodarczy	103
Katarzyna Miszczak: Współczesne planowanie przestrzenne na przykładzie Polski	116
Mirosława Marzena Nowak: Miejsce spółdzielni mleczarskich w rozwoju regionalnym: przypadek województwa łódzkiego, Polska	125
Iryna Soloshich, Valentina Pidlisnyuk: Green economy within the framework of implementation of sustainable development in Ukraine	135
Monika Szymura: Ochrona praw autorskich w gospodarce opartej na wiedzy	143
Teresa Topczewska, Waldemar Siemiński: Zintegrowane planowanie rozwoju miast na poziomie regionalnym w Polsce	154
Mehmet Topcu: Wpływ zamkniętych osiedli mieszkaniowych na wartość mieszkań: przykład Konya w Turcji	166
Alicja Zakrzewska-Półtorak: Metropolizacja polskiej przestrzeni i jej skutki dla rozwoju regionów	175

Anna Mempel-Śnieżyk

Wrocław University of Economics, Wrocław, Poland

SMART SPECIALISATION AND CLUSTERS IN ECONOMIC GROWTH

Abstract: The aim of the article is to present smart specialisation (potential, regions' domains which ensure competitiveness and contribute to innovativeness and regions' competitiveness) and cluster in achieving economic growth. The paper presents new trends in regional policy undertaken by the EU. This policy focuses on identification of intelligent specialisations by Member States' regions and on preparation of new development strategies – 3S *smart specialisation strategies* based on smart specialisations. The element connecting smart specialisation with clusters is the view that clusters are perceived as favourable and facilitating identification of smart specialisations in regions.

Keywords: smart specialisation, cluster, research and innovation.

1. Introduction

“Europe is facing major economic challenges that require an ambitious economic policy for the 21st century. The EU has set out its vision for Europe's social market economy in the Europe 2020 strategy [*Europe 2020*, 2013] which aims at confronting our structural weaknesses through progress in three mutually reinforcing priorities:

- smart growth, based on knowledge and innovation,
- sustainable growth, promoting a more resource efficient, greener and competitive, economy,
- inclusive growth, fostering a high employment economy delivering economic, social and territorial cohesion” [*Guide to Research...* 2012, p. 8].

Recently innovation has become a major factor of the dynamics of economic growth at the national and regional levels. One can notice lately that development is connected with and based on the innovation process. The ability to continually generate and adapt new technologies, organizational solutions and new knowledge contribute to socio-economic development [Gruchman 1992, p. 19]. The knowledge, technological development and continuous innovation are key elements for ensuring the development

and competitive advantage of particular economies. R&D sector, innovative environment, the ability of economies to implement research results are the basis for innovation. The task of authorities is, therefore, to create high potential for innovation in the field of cultural, strong internal economic, social and institutional ties. In the context of this paper, it may be underlined that there are greater chances for diffusion of innovations when they are connected with activities based on cooperation between different entities, hence the common saying that innovation emerges in networks. On the other hand, the great opportunities for diffusion of innovations are related to identification of potential, “power” of the region.

The aim of the article is to explain the issue of smart specialisations as the potential of region, and present clusters and smart specialisations as the one of the most important elements of economic growth in the present economy. The aim of this paper is also to present the relation between clusters and smart specialisations, and economic development.

Nowadays, to fully exploit Europe’s potential, regions are the main institutional partners for universities, R&D institutions as well as for small and medium enterprises. The above-mentioned elements play the key role in innovation process, which in turn makes them an indispensable for Europe 2020 strategy.

One of the activities currently undertaken by EU is to strive for development in the broad sense through, e.g., increasing innovativeness of economies in particular countries.

Presently the socio-economic development is meant to take place locally and regionally all over the world. In accordance with this assumption the European Commission is undertaking a number of projects with a view to enhancing innovativeness. An example of such activities is implementation of activities laid out in e.g. *Innovation Union* – the flagship initiative – as part of the Europe 2020 strategy, focused on investing in research, innovation and entrepreneurship [Innovation Union... 2013]. The next one, the *Digital Agenda for Europe* initiative, aims to deliver sustainable economic growth and social benefits from ICT is also part of Europe 2020 [Digital Agenda... 2013]. Another document *Regional Policy Contributing to Smart Growth in Europe 2020* is related to smart specialisation and also creating a new platform *Smart Specialisation Platform – 3S Platform* [European Commission 2010a]. According to the above-mentioned document, the EU calls for developing a strategic and integrated approach to innovation, which maximizes the European, national and regional potential for research and innovation, promoting the concept of smart specialisation – in commission communication *Regional Policy Contributing to Smart Growth in Europe 2020*, promoting increased investment in research, innovations and entrepreneurship area.

2. R&D and innovations

Economic growth of EU economy faced challenges which are consequences not only of phenomena occurring in the world economy but also of the economic

downturn. The issues of expenditure on R&D and innovation are undertaken by many researchers all over the world. Some of them claim that regions or countries that are not leaders in any of the major domains of science or technology are related to the issue of specialisation in R&D and innovation. Many researchers would argue that these regions/countries need to increase the intensity of knowledge investments in the form of high education and vocational training, public and private R&D, and other innovation related activities. Particular regions have various innovation capacities depending on factors presented in Figure 1.

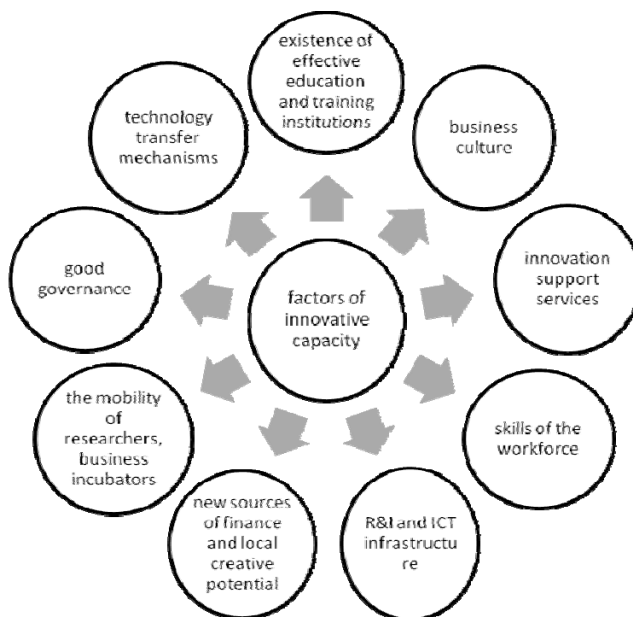


Figure 1. Factors composing the Regional Innovation Performance Index

Source: own research on base [European Union 2011].

Innovation capacity can be influenced as well by IT infrastructure, skills of work force, business supporting institutions in particular region and business culture, ability to transfer technology, innovative entrepreneurship spirit. Regional innovativeness can be measured by Regional Innovation Performance Index. RIPI is composed of many factors presenting regions' performance. Performance in research and innovation varies significantly across EU regions. Differences between regions in terms of innovative performance are shown in Figure 2. One can see that the majority of Polish regions have low innovation performance and only five of them achieved medium-low innovation performance. The highest index is found in regions of the following countries (in the descending order): Finland, Sweden, Great Britain, the Netherlands, Belgium and France.

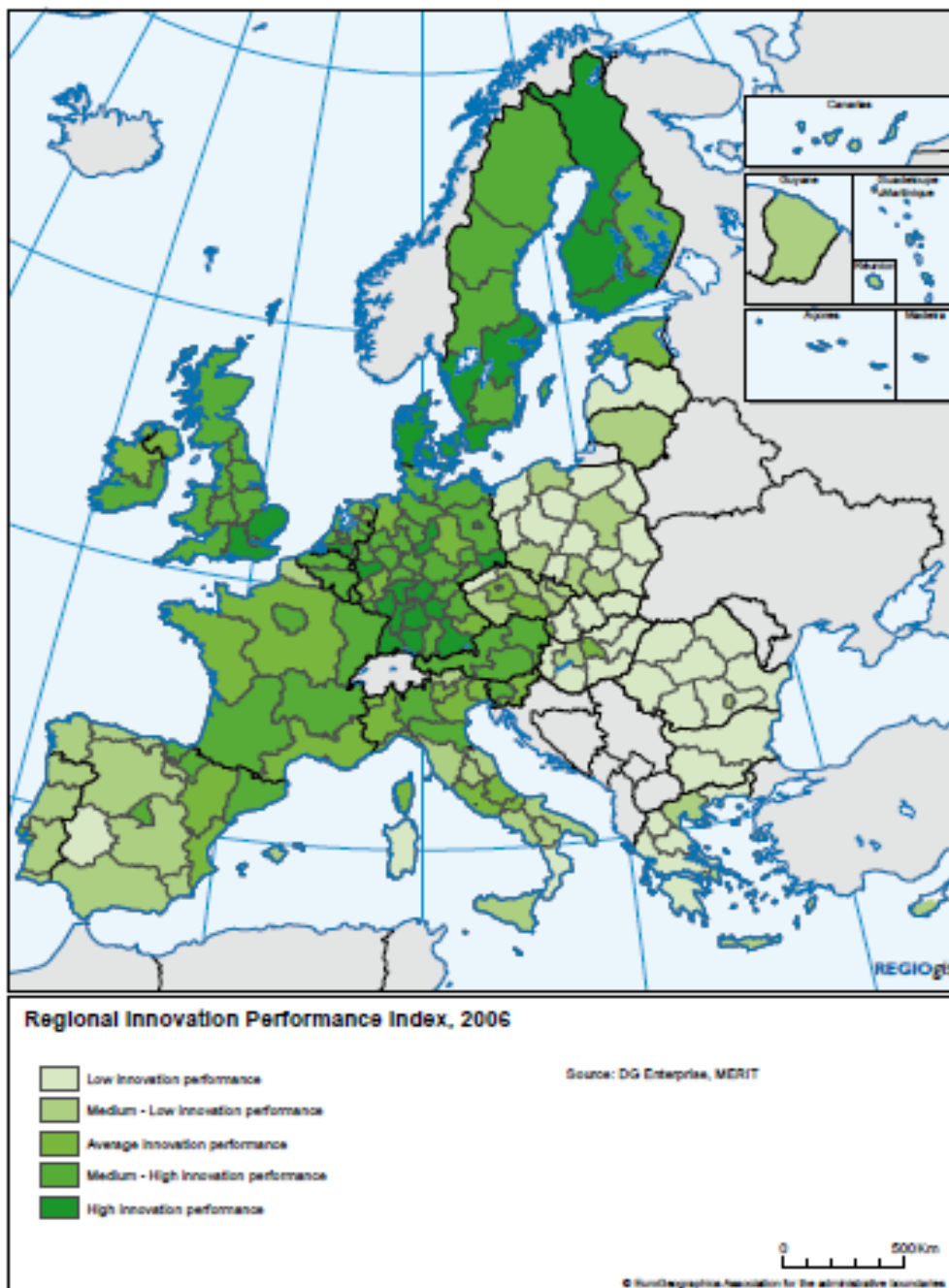


Figure 2. Regional Innovation Performance Index

Source: [European Commission 2010a, p. 3].

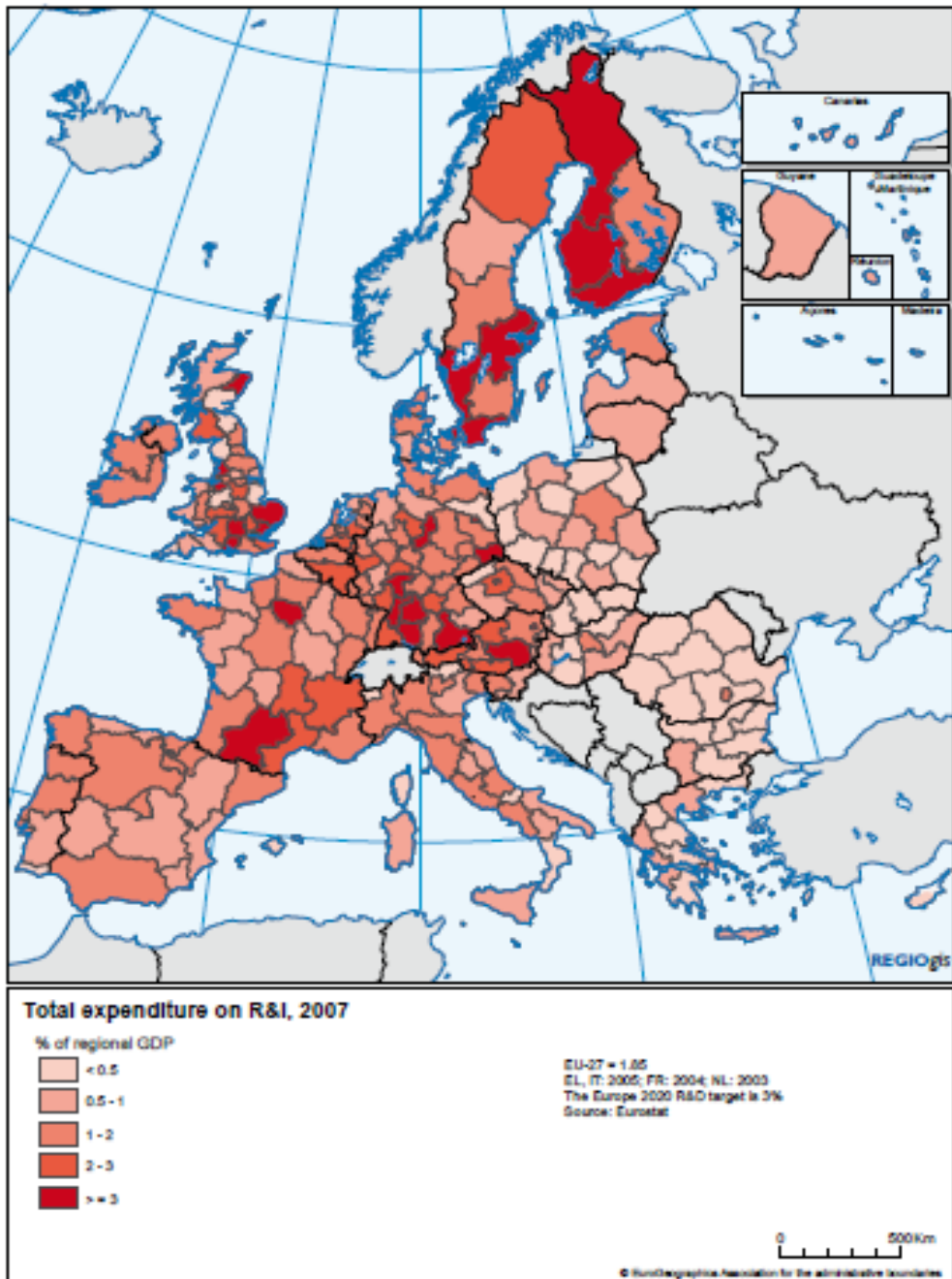


Figure 3. R&I expenditure

Source: [European Commission 2010a, p. 4].

The next Figure 3 presents the gap between total R&I (research and innovations) expenditure and the R&I target of 3% of GDP varies greatly across regions.

3. New approach – smart specialisations

Smart specialisation concept appeared as an answer to searching new, more sustainable growth concepts and is still developing. Smart specialisation is an alternative to a policy that promotes investment across several areas and sectors irrespective of a region's industrial structure and knowledge capacity (concerning human capital, universities, research organisations etc.).

According to Ch. Ketels (see Figure 4) there are new and old approaches to achieving competitiveness by region.

OLD APPROCHES ANSWER	NEW APPROCHES ANSWER
<ul style="list-style-type: none"> • Identifying old markets and try to enter them e.g. nanotechnology, biotechnology <p style="text-align: center;">↓</p> <p style="text-align: center;">Failure to succeed in intensely competitive market without unique assets</p>	<ul style="list-style-type: none"> • Identifying your assets, including your existing cluster base • Actively pursue opportunities in areas adjacent to current strengths and leading towards higher value added <p style="text-align: center;">↓</p> <p style="text-align: center;">Long term development of sustainable competitive advantages</p>

Figure 4. Approaches in achieving competitiveness by region

Source: own work on base: [Ketels 2013].

This concept also was proposed because of the need to invest limited public funds more efficiently in regional economic development. Consequently the European Commission wants national and regional authorities across Europe to draw up research and innovation strategies for smart specialisation. According to this approach smart specialisation places greater emphasis on innovation and focuses scarce human and financial resources in a few globally competitive areas in order to boost economic growth and prosperity. Smart specialisation is crucial for the actual effectiveness of research and investment in innovation.

It is extremely important that according to the European Commission's proposals on cohesion policy for the period 2014–2020, smart specialisation will be a precondition for the use of funds from the European Regional Development Fund in 2014–2020. Thanks to this the resources for R&D will be spend more efficiently and more useful for regional specialisations. Additionally the implementation of Europe 2020 strategy will be more effective.

The confirmation of EU Commission's interest in this concept is publishing of numerous documents related to smart specialisation and launching the so called 3S

Platform, which provide professional advice to EU Member States and regions on the design of their innovation strategies for smart specialisation. Presently, according to interactive maps [*Smart Specialisation...* 2013], the majority of Member States' regions belong to 3S Platform. Among Polish regions only Opole, Silesia, and West Pomeranian voivodships are not included (as of 4.07.2013). 3S Platform provides guidance material and good practical examples, organizes information sessions for policy makers and those participating in conferences, facilitates peer-reviews and supports access to relevant data etc. [*Smart Specialisation...* 2013].

On 3S Platform there is also a definition of smart specialisation. How are smart specialisations defined by researchers? D. Foray, P.A. David and B. Hall's proposition is presented in "a learning process to discover the research and innovation domains in which a region can hope to excel" [Foray et al. 2009].

"More generally, smart specialisation involves a process of developing a vision, identifying competitive advantage, setting strategic priorities and making use of smart policies to maximise the knowledge-based development potential of any region, strong or weak, high-tech or low-tech" [*What is Smart...*].

Smart specialisations are essential for truly effective research and innovation investments, provide better adaptation of research and innovation policy in a regional context and related to strengthening regional innovation systems, maximising knowledge flows and spreading the benefits of innovation throughout the entire regional economy [European Commission 2011, pp. 2–5]. Smart specialisations identify the unique characteristics and assets of each country and regions and are based on a realistic assessment of what can be achieved with limited resources. They play global role for every regional economy – irrespective of if they are driven more by manufacturing and new technologies, services and services innovation, or both. Smart specialisations focus on each region's competitive advantages, and concentrate regional stakeholders and resources around their future vision.

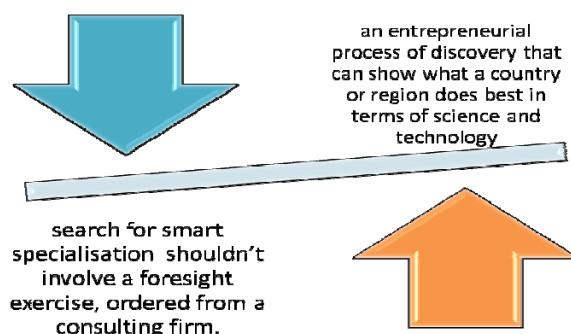


Figure 5. Identification of smart specialisation

Sources: own work.

Identification of smart specialisation should be based on quantitative and qualitative assessments and really suited to the capacity, capabilities and needs in the region. It is therefore necessary to focus on the areas of real potential and strengths in the region. The process of selecting smart specialisation requires participation of key partners and companies in the field of innovation: the cooperation between enterprises, research centres and universities. That is why clusters are perceived as helpful and needed in identification of the most promising areas of specialisation in a country or region.

4. Clusters as the critical element for smart specialisations

Cluster – a term which at first was not clear to everyone, a few years ago perceived by some researcher as passé concept, today is often discussed among entrepreneurs, politicians and scientists. Strong processes of globalization currently taking place in the world have developed and strengthened the position of the cluster as one of the key factors in the development of regional and national economies. Consequently the more markets are globalizing, the stronger the tendency to invest resources in the region more attractive for some industries. To some extent the strength of clusters influences the economic prosperity of regions [European Commission 2009]. One can observe a growing interest of companies in this form of cooperation, as more and more of them are convinced that companies in cluster develop faster [Sokół 2006].

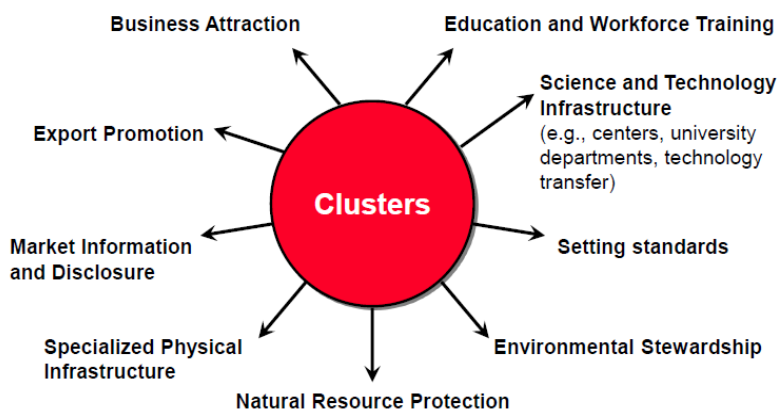


Figure 6. Cluster in economic growth

Sources: [Ketels 2013].

The inflow of resources to attractive regions influences the development of clusters located in this region, which affects the stimulation of the growth and “specialisation” in the region.

The regional policy related to clusters has to concentrate on areas of existing or potential regional advantage [European Commission 2008], investment in knowledge infrastructure, science parks and business incubators [European Union 2010] and boosting the network relations between regional authorities, enterprises and universities. That is why clusters are useful when defining smart specialisation.

Clusters, as the bridge towards modern industrial policy, facilitate the change towards regional competitiveness based on the upgrading of traditional economic activities through innovation while facilitating the emergence of new products, processes and services which are competitive on the global market. To have an impact on regional growth, clusters are built on local strengths, help to create synergies between businesses, universities and research entities and respond to market opportunities. “Clusters are an important component of regional smart specialisation strategies since they offer policymakers the opportunity to better streamline different policies towards the objective of stimulating growth through innovation. Clusters can provide a fertile combination of entrepreneurial dynamism and contribute to the building of a knowledge-based economy, in line with the Europe 2020 strategy” [European Commission 2010b]. Many of European regions were able to fulfil their potential because of clusters located in these regions. The facilitation of interaction among stakeholders in a cluster is vital for its innovation impact, since intangible factors, such as access to tacit knowledge and opportunities for networking, became more important assets than those associated with proximity of suppliers.

Clusters are the basic element of identification of priority areas. The European Commission recommends 3X3 approach, whose aim is to use clusters in: the designing and implementation of 3S strategy, identification of regional competitiveness and resources, determining priorities and competitiveness of the region. It is also important that identifying smart specialisations by means of clusters helps avoid copying the development priorities of other regions. Every region has its own strengths and should base their strategy on them. Smart specialisations are innovation potential, based on assets and capabilities of particular regions. In order to define smart specialisation regions undergo the process of “entrepreneurial discovery”, i.e. engaging key innovation stakeholders and businesses, research centres and universities [Foray et al. 2009].

It is worth noting that using clusters in the process of identifying smart specialisations can be one of the propositions or just a part of the entire process.

5. Conclusions

Present economy changing with time has involved changes in the knowledge and new technologies. Economies of many countries faced the problem how to achieve economic growth. The response to the occurring changes in the economy is establishing systems of correlations, spatial structures aimed at ensuring economic growth of individual regions and, as a result, their effect. Forming the clusters, skills of adaptation to the changing market circumstances and the innovations are among the indicated driving forces of the development. Clusters have an impact on regional growth because of flexibility of enterprises, due to which entities operating in a given local environment may easily react to the appearing needs of purchasers. Important is also high adaptability of entities inside cluster to frequent and rapid changes and trends in the modern economy. Clusters make purchase within the territorial system, which reduces stock storage costs, shortens the time of delivery of materials or semi-finished products, which also reduces transport costs, entities joint incur costs related to obtaining information on education, have access to the most recent knowledge, increasing their innovation, which would be impossible to achieve by a single small or medium enterprise.

In present economy supporting clusters is a popular economic development strategy. Smart growth, based on knowledge and innovation is one of priorities of the European Union. The presented trends in regional policy – how to achieve this growth – focus on identification of smart specialisations by Member States' regions and on preparation of new development strategies – 3S *smart specialisation strategies*. Economic developers in Europe are examining this new approach to regional development – the concept of smart specialisation.

The conducted research helps explain and understand importance of clusters as favourable and facilitating identification of smart specialisations in regions. It is precisely at the regional level that the most interaction and cooperation between element of innovative regional system occur. Clustering is one of the answers to achieve economic growth in accordance with knowledge-based economy assumptions. Therefore clusters are perceived as a critical element for identification smart specialisations. *Smart Specialisation Platform* created by EU Commission and smart specialisation as obligatory condition in obtaining funds from ERDF confirmed the importance of this approach.

References

- Digital Agenda for Europe. A Europe 2020 Initiative*, 2013, http://ec.europa.eu/information_society/digital-agenda/ (16.04.2013).
Europe 2020, 2013, http://ec.europa.eu/europe2020/index_en.htm (15.04.2013).

- European Commission, SEC (2008) 2637: 33, http://ec.europa.eu/enterprise/policies/innovation/files/clusters-working-document-sec-2008-2635_en.pdf (10.05.2013).
- European Commission, 2009, *EU Cluster Mapping and Strengthening Clusters in Europe* INNOVA Paper n° 12, file:///C:/Users/Anna/Downloads/NBNA23903ENC_002.pdf (10.05.2013).
- European Commission, 2010a, *Regional Policy Contributing to Smart Growth in Europe 2020*, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Brussels, http://ec.europa.eu/regional_policy/sources/docoffic/official/communic/smart_growth/comm2010_553_en.pdf (05.05.2013)
- European Commission, 2010b, Commission Staff Working Document accompanying the Commission Communication on Regional Policy contributing to smart growth in Europe 2020, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010SC1183:EN:NOT> (05.05.2013).
- European Commission, 2011, *Research and Innovation Strategies for Smart Specialisation. Cohesion Policy 2014–2020*, http://www.clusterplattform.at/fileadmin/user_upload/clusterbibliothek/2779_smart_specialisation.pdf
- European Union, 2010, *Smart Guide to Innovation-Based Incubators (IBI)*, http://ec.europa.eu/regional_policy/sources/docoffic/2007/working/innovation_incubator.pdf (10.05.2013).
- European Union, 2011, *Regional Policy for Smart Growth in Europe 2020*, http://ec.europa.eu/regional_policy/information/pdf/brochures/rfec/2011_smart_growth_en.pdf (15.04.2013).
- Foray D., David P.A., Hall B., 2009, *Smart Specialisation: The Concept*, Knowledge Economists Policy Brief No. 9, Policy instruments for RIS3 Clusters by Jaime del Castillo, Belen Barroeta and Jonatan Paton, working paper, http://ec.europa.eu/invest-in-research/pdf/download_en/kfg_policy_brief_no9.pdf?11111 (10.05.2013).
- Guide to Research and Innovation Strategies for Smart Specialisation (RIS 3), 2012, March, http://s3platform.jrc.ec.europa.eu/en/c/document_library/get_file?uuid=e50397e3-f2b1-4086-8608-7b86e69e8553 (15.04.2013).
- Gruchman B., 1992, *Nowy paradygmat rozwoju regionalnego*, „Ruch Prawniczy, Ekonomiczny i Socjologiczny”, nr 2, Poznań.
- http://ec.europa.eu/regional_policy/sources/docgener/informat/2014/smart_specialisation_en.pdf (05.05.2013).
- <http://s3platform.jrc.ec.europa.eu/home;jsessionid=Kg4qRLzGbgYBx8xGwrB312JGh5yFcg4nCKcmYjYwqmN0XGNTTrD1y!-2095593081!1368093478074> (10.05.2013).
- Innovation Union. A Europe 2020 Initiative*, 2013, http://ec.europa.eu/research/innovation-union/index_en.cfm (16.04.2013).
- Ketels Ch., 2013, *Clusters and Public Policy: Recent Learnings, Current Challenges*, Lisbon, Portugal, www.observatorio.pt/download.php?id=909 (10.05.2013).
- Smart Specialisation Platform S3*, 2013, <http://s3platform.jrc.ec.europa.eu/s3-platform-registered-regions>.
- Sokół A., 2006, *Koncepcja klastrów i ich rozwój w aspekcie funkcjonowania MSP*, [in:] L. Pałasz (Ed.) *Potencjał rozwojowy obszarów wiejskich w aspekcie wstąpienia Polski do Unii Europejskiej. Tworzenie i poprawa struktury agrarnej gospodarstw rodzinnych*, Wydawnictwo Akademii Rolniczej, Szczecin.
- What is Smart Specialisation?*, Smart Specialisation Platform: <http://s3platform.jrc.ec.europa.eu/home;jsessionid=x21hTNCXTs3jhKJ7hXSFYwQGm8GkMGvQ1lc9118z52L8KpBLJHh9!1363157316!1397588631300>.

INTELIĞENTNE SPECJALIZACJE I KLASTRY A WZROST GOSPODARCZY

Streszczenie: Artykuł porusza kwestie inteligentnych specjalizacji (potencjału, domen regionu, które zapewnią konkurencyjność i przyczynią się do wzrostu innowacyjności i konkurencyjności regionu) i klastrów jako przyczyniających się do wzrostu gospodarczego. Autorka wskazała na nowe kierunki w polityce regionalnej podejmowane przez Unię Europejską, koncentrujące się na zidentyfikowaniu, sprecyzowaniu inteligentnych specjalizacji, przez regiony krajów członkowskich i na sporządzeniu w oparciu o nie nowych strategii rozwoju, tzw. 3S *smart specialisations strategies*. Elementem wiążącym tę tematykę z klastrami jest stanowisko, że klastry są postrzegane jako sprzyjające, ułatwiające identyfikację inteligentnych specjalizacji.

Słowa kluczowe: inteligentna specjalizacja, klaster, badania i innowacje.