

REGIONAL INNOVATION STRATEGY OF THE VOIVODESHIP OF KUJAWSKO-POMORSKIE FOR YEARS 2014-2020

Dear Readers,

the priorities adopted in the new programming period of the EU structural funds for the years 2014-2020 create a great opportunity for the increase in innovation in the whole European Union, Poland and the Kujawsko-Pomorskie region.

Our region intends to join Poland's most developed regions in terms of innovation by 2020. Our ambitious goal is to become the fifth most innovative region in Poland.

Already in 2010 Marshal's Office of Kujawsko-Pomorskie commenced the works on the update of Regional Innovation Strategy 2014-2020. Those intensive works enabled to answer such fundamental questions as:

- What is the innovation level of Kujawsko-Pomorskie region?
- What factors impact the innovativeness of the region?
- What are region's comparative advantages and what mechanisms of smart specialisation selection may be created in the process of increasing the economic innovativeness of the region?

Responses acquired defined the starting point for developing updated Regional Innovation Strategy 2014-2020. New strategic and operational goals, as well as new actions have been developed with active participation of key stakeholders in our region, representing e.g. universities, research and development institutions, entrepreneurs' representation, business milieu institutions, employers' organisations, NGOs, including also local government bodies of all levels.

I am convinced that the new version of the Regional Innovation Strategy for Kujawsko-Pomorskie region with a timeframe ranging until 2020, shall fulfil our expectations, while its implementation will ensure significant boost in innovation and increase in competitiveness of the region vis-à-vis other country's regions and Europe. It will also influence the perception of the region by its current and future inhabitants, who will continue to fulfil its private and professional aspirations, linking their future with Kujawsko-Pomorskie region or migrating and settling here.

The Marshal of Kujawsko-Pomorskie Region



The strategy is comprehensive. It takes into account the most important development needs of our region, its specialisations and potential. It affects entirety of the most important spheres of economic and social life, which are pivotal for innovation: education, science and economy.

HOW THE STRATEGY WAS DEVELOPED

THE PROCESS OF ESTABLISHMENT OF THE REGIONAL INNOVATION STRATEGY



WITHIN THE FRAMEWORK OF THE PROCESS

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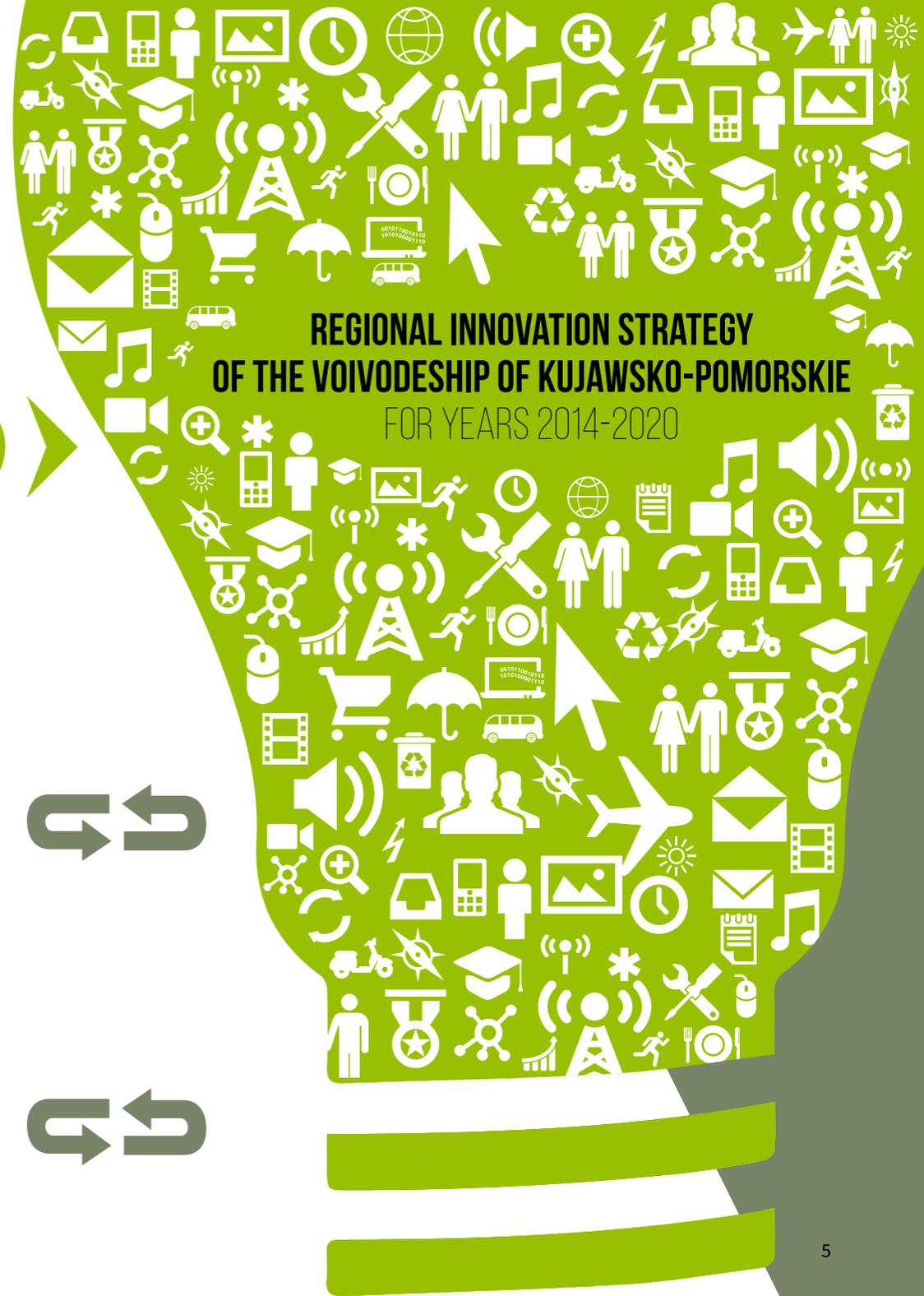
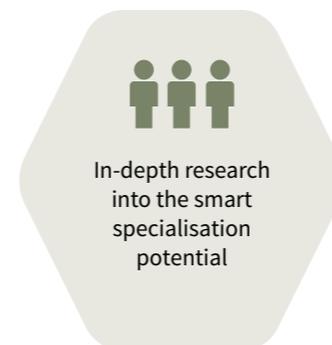
WE HAVE CARRIED OUT

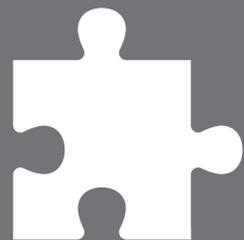
- 260 individual interviews
- 6 group interviews
- 350 CATI interviews
- 4 in-depth queries
- 12 case studies
- Delphi survey research – 2 rounds of 1085 responders each
- SWOT survey involving 2870 people
- expert panels – foresight method – 122 experts involved, 250 kept updated

2

WE HAVE ORGANISED

- 6 meetings with the Regional Board
- 10 meetings with Innovation Expert Panels affiliated with Regional Board
- 25 meetings and RIS presentations within the framework of public consultation
- 10 meetings aimed at setting up smart specialisations
- 19 presentations of RIS outlines for local stakeholders' groups





INNOVATION POTENTIAL — THE DIAGNOSIS



In 2013, the area of Kujawsko-Pomorskie region amounted to 18,000 sq. m. It was inhabited at that time by 2.09 M people.



In 2013, 77 patents were granted to applicants from the region, vs. 2339 patents in Poland.



The number of students in 2013, accounted for 4.5% of students in the country.



In 2013, both domestically and on international scale, Kujawsko-Pomorskie region noted negative migration balance (-1619 and -1026 persons respectively). Mostly productive-age migrants leave the region.

Registered unemployment rate amounted to 18.2% at the end of 2013.

Further to the REGON registry, at the end of 2013, there were 191,300 businesses registered in the region.

In 2013, in the 15+ age group, persons with basic vocational education dominated amounting to 28.1%. Higher education share was 17.0%.

The share of students taking up technical or science studies in the region is low – amounting to only 20.5% in 2013.

Among R&D sector enterprises, a low internal R&D expenditure is noted. In 2013, they accounted for 1.37% of total R&D expenditure in Poland.

R&D expenditure ration per capita amounted to 109.3 PLN in 2013 vs. Poland's average of 374.6 PLN.

Innovative industrial enterprises in 2011-2013 accounted for 4.4% in small enterprises, 31.4% in medium enterprises and 53.3% in large enterprises.

In 2013 the most popular studies were: economy, administration and pedagogy. The students of these directions accounted for 34.8% of all students in the region and 5.3% of the students of these directions in Poland.

In 2013, the share of net revenue on sales of innovative products in total net sales revenues among small industrial enterprises amounted to 0.29% (vs. 3.24% in Poland).

In 2013, 64.5% of households in Kujawsko-Pomorskie region had a computer with internet access.

In 2013 1.4% of service business in the region and 3.7 of manufacturing businesses incurred R&D expenditure.

88% of innovative companies does not use business millieu Institutions, but regards highly the cooperation with universities.

In 2013 industrial enterprises of Kujawsko-Pomorskie incurred approx. 0.8 B PLN of expenditures on innovative activity (accounting for 3.9% of such expenditures in Poland).



In the years 2011-2013, out of industrial enterprises, the most (9.1%) introduced product innovation. Lower share introduced process (8.8%), organisational (7.0%) or marketing innovations (5.8%).

In the service enterprises group, the highest share introduced marketing innovation (7.8%). Much less introduced organisational (6.4%), process (6.3%) or product innovations (3.7%).



Business milieu Institutions may be regarded as low specialised, as only 1/5 of them has their offer focused on particular industries.

In 2014, among industrial enterprises, the share of net revenue on the export sales of innovative products in total revenues amounted to 2.07% (vs. 4.66% in Poland).

In the recent years, the number of enterprises where R&D activity occurred has been growing – in 2014 there were 114 of them. They accounted for 4.6% of such enterprises in Poland.

In 2013, only 3.7% of industrial enterprises and 1.4% of service entities in the region incurred expenditures on R&D activity.

In the years 2011-2013, 26.2% of innovative industrial enterprises and 42.2% of innovative service enterprises cooperated in innovative activity with other enterprises or institutions.

R&D sector units in the region have well educated human resources (in 2013, 63.6% of the R&D resources had a scientific degree).

In 2012, the internal expenditures on R&D share in GDP in Kujawsko-Pomorskie region amounted to 0.43%, i.e. 0.46 pp. less than in the whole country.



The ratio of R&D expenditures per 1 employee in R&D field amounted to PLN 52.6 k in 2013, vs. Poland's average of PLN 99 k.

In the years 2011-2013, in Kujawsko-Pomorskie region, 15.2% of all industrial enterprises with headcount exceeding 9 persons, carried out innovative activity.

R&D

KEY CHALLENGES

EDUCATION

- Lack of systemic cooperation between education and industry, and between grammar schools, academic institutions and businesses/enterprises
- Low share of graduates, in particular in science and technology
- Insufficient match between vocational training and innovative economy
- Emigration of youth from the region

SCIENCE

- Low expenditures on R&D activity
- Insufficient links between science and economy
- Lack of adaptation of scientific facilities to the needs of regional industry
- Too little industrial applications of scientific results, patents, licences
- Region not sufficiently associated with highly sophisticated science

ECONOMY

- Low innovativeness, in particular of the SME sector
- Low R&D outlays of businesses
- Weak links of the economy with the science sphere
- Lack of strong networking links
- Lack of real and sustainable system of support of the technology transfer and innovation development
- Lack of human resources familiar with R&D activity

DIGITAL ENVELOPE

- The need to radically develop next generation internet infrastructure
- The need of new ICT development
- The need for digital economy based on high-speed internet

STRENGTHS



EDUCATION

- Developed network of schools, including vocational ones
- Sound potential in the area of higher education
- Focus on youth education
- Initiative for development of innovative education based on Astrobase project
- Measures aimed at digitalisation of education



SCIENCE

- Significant scientific potential of region's universities
- Significant potential for the development of universities leveraging EU-funding
- Initiatives focused on the set up of laboratories for the industry
- Projects under the technological voucher programme

ECONOMY

- Well-developed industry
- Strong spa sector
- Highly competitive large enterprises
- Relatively high share of innovative and new products in the offer of large enterprises
- Strong industries of: foodstuffs, chemical, mechanical and metal manufacturing, plastic processing and automation
- Developed business milieu facilities and financial institutions



DIGITAL ENVELOPE

- Sound educational and scientific base for ICT and programming specialties
- Large number of IT companies focused in one sub-region
- Implementation of e-education projects



THE VISION OF REGION'S INNOVATION



THE VISION

Increase in Kujawsko-Pomorskie region's competitiveness vis a vis the rest of the country, through progressing towards the performance of most innovative Polish regions, such as: Mazowieckie, Dolnośląskie, Śląskie, Małopolskie and Podkarpackie, which will allow to join the group of Europe's moderate innovators.



ULTIMATE OBJECTIVE: DYNAMIC INCREASE IN REGION'S INNOVATIVENESS

The ultimate objective of The Regional Innovation Strategy of the Voivodeship of Kujawsko-Pomorskie for Years 2014-2020 will be attained through the increase of Kujawsko-Pomorskie region's competitiveness in the country. The ultimate goals' implementation encompasses three strategic objectives. Moreover, a component resulting from the European Digital Agenda was defined, indicating actions aimed at shaping the economy based on common access to broadband internet and data processing.



STRATEGIC OBJECTIVES

- Shaping innovative and creative attitudes in region's society
- Shaping the science sector as the environment for innovative economy
- Shaping regional knowledge- and innovation-based economy
- Digital envelope



RESULTS

- Developed, modern and flexibly adapting to the circumstances educational system, encompassing all education levels, efficiently shaping pro-innovative social attitudes
- Developed system of shaping pro-innovative attitudes through knowledge and skills
- Science sector being an efficient support for regional innovative economy, particularly in its specialisation areas
- Innovative economy leveraging networking, knowledge-based and widely using digitalisation effects
- The region of sophisticated scientific research
- The increase of region's competitiveness through acceding to Europe's moderate innovators



EDUCATION



STRATEGIC OBJECTIVE I: SHAPING INNOVATIVE AND CREATIVE ATTITUDES IN REGION'S SOCIETY

Under the strategic objective “shaping innovative and creative attitudes in region’s society” the priority is to develop education system adequately.

■ Operation objective I.1. Development of innovative education

The operational objective is aimed at development of innovative education “from the kindergarten up to the A-levels”.

It is designed to strengthen and develop the educational system on primary, secondary and upper-secondary level and shaping entrepreneurial and pro-innovative attitudes in the youth.

1. Introduction of innovative education from grammar school until A-levels

This measure is aimed at comprehensive and systemic development of education on the level of primary, secondary and upper-secondary general and vocational schools. The development is to be achieved through modernisation, aimed at increasing the quality of education, adaptation to the usage of latest digital techniques and developing pupils’ attachment to the region.

2. Introduction of innovative vocational education

This measure is directed at particular needs of modernisation and development of vocational education system, which should respond to the needs of modern regional economy, prepare graduates for the employment in region’s businesses and maintain strong links with regional economic sectors.

■ Operation objective I.2 Development of resources education for innovative economy

This operational objective is aimed at development of higher

education so that it is able to provide adequate human resources for innovative economy, particularly in the areas related to smart specialisations.

1. The increase of sciences and technology graduates

This measure is aimed at increasing the number of students on science and technology faculties and increasing Ph.D. students in the area of science, technology, natural science, medical science and agriculture. The increase of students’ number should be linked to the increase in education quality, provision of knowledge and skills in demand among regional business and preparedness of graduates to develop and implement innovative solutions at their future employers.

2. The launch of an internship and training programme

The measure is aimed at supporting the set up of internships and trainings programme, the aim of which is to prepare students, Ph.D. students and graduates for employment in the region and to practically apply the knowledge and skills acquired during the studies. The objective is also to enable students to acquire direct contact with businesses. They would facilitate the choice of specialisation in line with businesses’ needs. In case of internships for graduates the objective is to acquire practice necessary for efficient utilisation of the knowledge and skill acquired during studies and facilitating employment in the region.

3. Education of highly qualified R&D&I resources for innovative businesses

The measure is aimed at supporting development of highly qualified resources for businesses, acquainted with the details of the R&D&I works (R-Research, D- Development, I-Innovation) through fostering close, systemic links of Ph.D. dissertations with regional industry and providing knowledge base for the research and development departments of regional businesses.

■ Operational objective I.3 Shaping pro-innovative attitudes, creativity and promotion of the RIS of Kujawsko-Pomorskie region

This component is directed at shaping pro-innovative and entrepreneurial attitudes among entrepreneurs and selected groups of inhabitants of the region as well as promotion of this Strategy.

Under this component, non-typical actions related to culture, including physical culture, art, education and other areas, may be implemented, contributing to the increase in the interest in the region and to the increase of social and economic significance of the region vs. the country and Europe.

SCIENCE



STRATEGIC OBJECTIVE II: SHAPING THE SCIENCE SECTOR AS THE ENVIRONMENT FOR INNOVATIVE ECONOMY

The strategic objective assumes shaping the science sector so that it becomes an effective background for the developed innovative economy, including mainly in the areas of smart specialisations.

■ Operational objective II.1 Development of the research and development potential for innovative economy

The operational objective is aimed to ensure development of the research and development potential for innovative economy.

1. Creation of the research and development infrastructure rendering services for the economy

The measure is aimed at creation/extension of research and development potential in order to enable provision of highly sophisticated R&D services for the economy. It is implemented through the support of development of laboratories rendering advanced research and development services for enterprises and strengthening of human resources by employing scientists (from outside the region) with material scientific track-record, particularly in relation to smart specialisations.

2. Introduction of systemic cooperation of universities and scientific facilities with the industry

The action is aimed at development of the cooperation of universities and scientific facilities with the industry through supporting the creation of organisational units responsible for comprehensive preparation and implementation of given university’s or scientific facility’s cooperation strategy with the regional industry, especially in the area of smart specialisations. An important element thereof is the support for creation of spin-offs on the pre-incubation stage.

„Innovation broker” is an organisation unit of an university or a scientific unit aimed at coordination of research,

identification of the opportunities for commercialisation and transfer of technology, coordination of development processes of scientific directions and human resources development and (in case of adequate action) coordination and preparation of practices and internships for students and graduates as well as cooperation with the regional government in the implementation of the objectives of the RIS of Kujawsko-Pomorskie region. The setup of “innovation broker” must entail definition and implementation of formal and legal conditions of research, management of intellectual property (including research results), and division of proceeds from the sales of IP rights and creation of spin-offs based on research results.

■ Operational objective II.2 Development of highly advanced research

This operational objective is aimed at supporting the creation of regional scientific specialisations, which will provide direct or indirect support for the development of smart specialisation in the economic area. Supported fundamental and applied research, carried out on an European or world level, must contribute significant value added for the region by establishing the image of dynamically developing region with several highly advanced scientific specialisations.

Shaping region’s specialisation in highly advanced scientific research

This measure is focused on increasing the level of research, by supporting the extension of lab base and research projects aimed at development of highly sophisticated scientific research, related to establishing regional scientific specialisations supporting the development of regional innovative economy, including establishment of Centres of Excellence. The research must contribute value added for the region by establishing the image of dynamically developing region specialising in couple science and forming the base for applied research.

photo: Tymon Markowski

ECONOMY



STRATEGIC OBJECTIVE III:

SHAPING REGIONAL KNOWLEDGE- AND INNOVATION-BASED ECONOMY

This strategic objective is aimed at shaping regional economy as knowledge- and innovation-based economy, leveraging the opportunities created by developed digital economy founded on ultra-fast next-generation internet.

Operational objective III.1 Development of innovation and networking links of businesses

For this purposes we will focus on enterprises: their R&D activity, the needs of small and micro enterprises and the links between them.

1. Establishment of the innovation in enterprises through R&D activity

The measure is aimed at building innovation-based competitive edge of the businesses. It is implemented through intensifying R&D activity, carried out in cooperation with universities and scientific units and supporting the acquisition of protective rights to industrial and intellectual property.

2. Establishment of innovation in small and micro enterprises sector

The measure is aimed at building innovation-based competition edge in micro and small enterprises sector through offering of the support for purchases of advisory services and supporting the creation of new entities (spin-offs, spin-outs and start-ups) based on innovation and/or knowledge developed at universities and scientific units.

3. Establishment of networking and international links

The measure is aimed at creation and development of networking links between businesses for a closer cooperation, leading

to the increase of enterprises' potential through synergic effects, enabling the region's businesses to compete globally, develop exports of new innovative products, invest abroad and develop their human capital.

Operational objective III.2 Increasing the impact of the business milieu institutions network

The operational aim is focused on strengthening the impact of regional network of business milieu institutions and development of economy's innovation by supporting advisory services in the area of technology transfer and innovation, business internationalisation and digitalisation of the economy.

1. Establishment of pro-innovative advisory services and business milieu institutions' integration

The measure is aimed at supporting the development of regional economy, in particular of micro, small and medium enterprises, through development of pro-innovative advisory services provided by business milieu institutions. An important aspect of this measure is also the creation of links between particular business milieu institutions. Services proposed must match the demand from businesses.

2. Development of industrial and technology parks

The measure is aimed at support of infrastructure development which will serve the businesses as industrial and technological parks. An important goal of this measure is also the support for establishment and maintenance of technology incubators, which will help startups in launch and operation of the business. Beneficiaries (the clients of parks and incubators) should be open to new solutions and innovative. Parks and incubators should arise in the neighbourhood of R&D companies or units, be focused on particular industries, concentrated on the support for micro- and small enterprises and engage in the system of internships and trainings for pupils, students and graduates.

3. Extension of regional financial instruments

The measure is aimed at development of innovation of enterprises through fostering the regional sphere of financial engineering instruments as providers of financing necessary to implement pro-innovative undertakings.

4. Establishment of innovative public administration

The measure is aimed at supporting the development of innovative public administration through the introduction and development of e-administration services and a modern procurement system, compliant with the new innovative approach to public procurement, focused at stimulation of innovation by creating demand on innovative products, services and technologies.

DIGITAL ENVELOPE

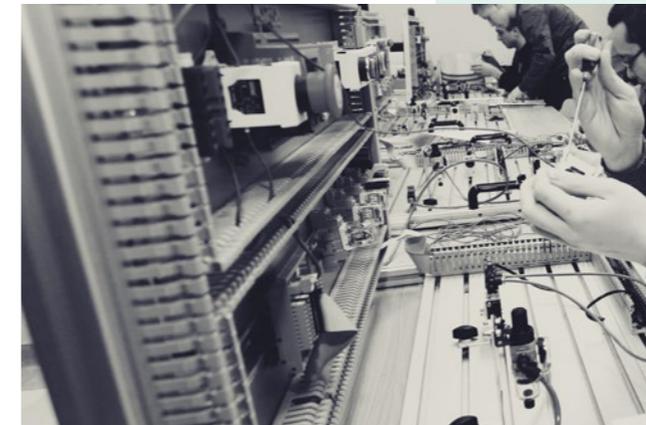


photo: Jacek Smarz

THE OBJECTIVE OF THE „ENVELOPE“: ESTABLISHMENT OF ECONOMY BASED ON COMMON ACCESS TO ULTRA-FAST INTERNET

IV. Digital envelope

The aim of digital envelope, as an integral part of the Strategy, is to establish the development direction in the area of expansion of next generation internet and new data processing methods, common usage of network applications in the economy and stimulating demand for new digital services.

Operational objective IV.1 Development of internet infrastructure

The objective directed at launching next-generation internet, which pursuant to the European Digital Agenda, will ensure access to minimum 30 Mbps transfer speed to 100% households, including 100 Mbps transfer speed in 50% of households.

Launch of next-generation internet

The measure is aimed at identification of currently operating internet infrastructure, planning and implementation of the development of next-generation internet with 30 bps and 100 Mbps transfer speeds across the whole region.

Operational objective IV.2 Development of innovative digital economy

The operational goal aimed at the development of innovative digital economy, through the support of research on new data processing technologies, stimulation of demand on new solutions and systems and support for implementation of new solutions in the region's economy.

Research in IT and highly sophisticated IT applications

The measure is aimed at development of innovative digital economy through the support of research on new data processing technologies, stimulation of demand on new solutions and systems and support for implementation of new solutions in the region's economy.

DEVELOPMENT THROUGH SMART SPECIALISATIONS

THE DEFINITION AND REVIEW OF SELECTION CRITERIA OF SS AREAS

Smart specialisation is an inclusive and entrepreneurial process aiming at identification of region's economy branches, which will constitute its comparative advantage vs. domestic and European regions and which is:

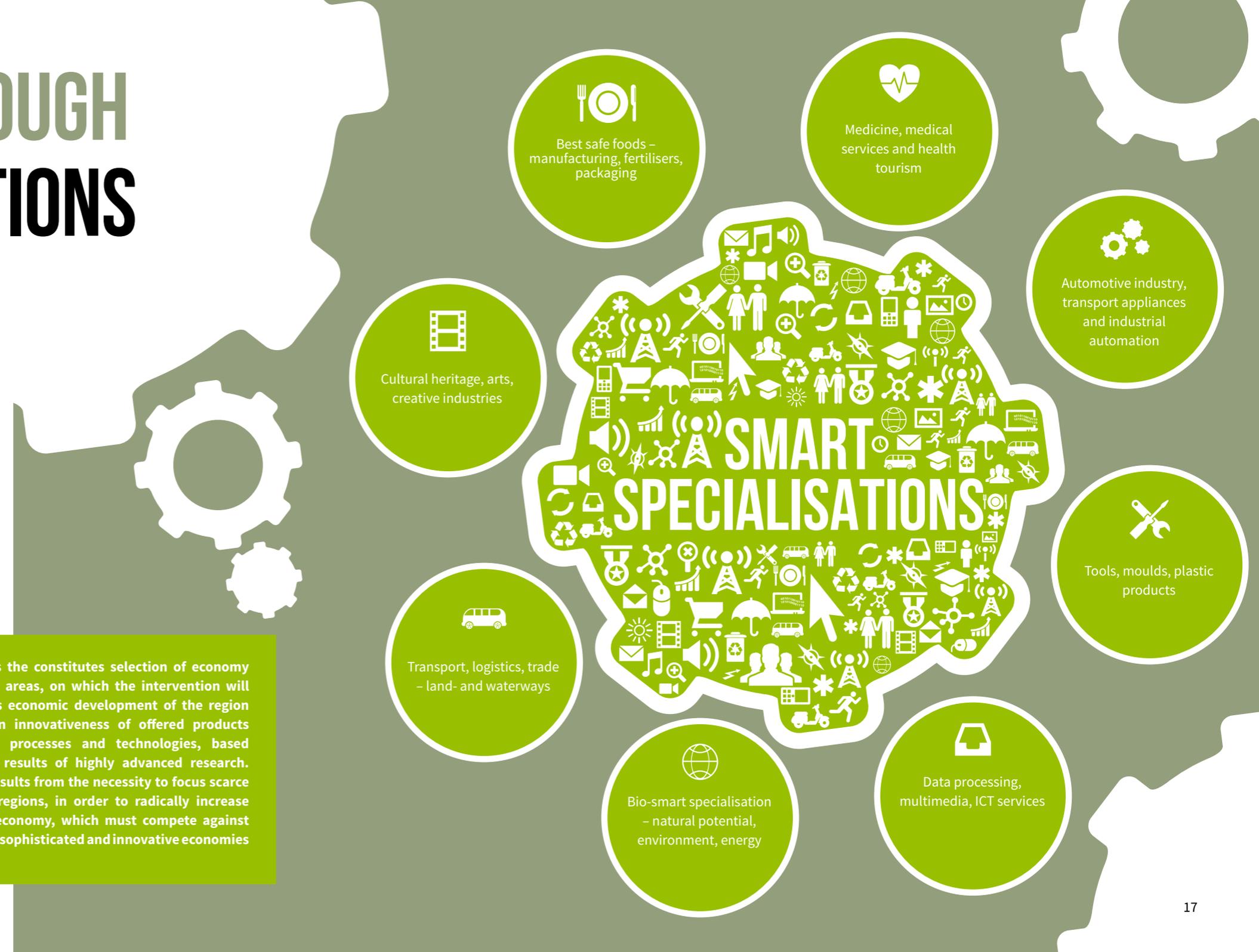
- rooted in the economic tradition of the region,
- technologically and communication-wise linked to other sectors, enabling development of clusters and other cooperation ties,
- knowledge-based or able to develop based on knowledge,
- able to absorb innovation and focused on Research, Development & Innovation activity,
- supported in its development and operation by the sphere of education and science,
- able to develop deep and attractive labour market.

Components of smart specialisations:

- Innovation
- Research & development
- Unique regional know-how
- Transfer of innovation
- Modernisation and transformation
- International impact
- Profitability
- Human resources
- Region' economic tradition



Smart specialisation means the constitutes selection of economy sectors and related science areas, on which the intervention will be focused. It's objective is economic development of the region through radical increase in innovativeness of offered products and services and applied processes and technologies, based on the implementation of results of highly advanced research. The idea of specialisation results from the necessity to focus scarce resources available to EU regions, in order to radically increase the innovativeness of the economy, which must compete against increasingly technologically sophisticated and innovative economies of non-European countries.



IMPLEMENTATION PRINCIPLES OF THE REGIONAL INNOVATION STRATEGY

THE OBJECTIVES AND MEASURES PROVIDED FOR IN THE STRATEGY WILL BE IMPLEMENTED TAKING INTO ACCOUNT THE FOLLOWING PRINCIPLES:

<p>The specificity of actions</p>	<ul style="list-style-type: none"> • The actions and projects of the Strategy will focus on solutions stimulating innovative development of the region • Accurate identification and crystallisation of the problem, as well as correctly specified, in line with its specificity, intervention paths
<p>Precise focus of intervention</p>	<ul style="list-style-type: none"> • The intervention will be precise and focused on the identified problem • Actions and projects undertaken under the Strategy should impact areas closely linked with the most significant issues of the pro-innovative development of the region
<p>Comprehensive and systemic intervention</p>	<ul style="list-style-type: none"> • The support will be provided to actions and projects which envisage comprehensive approach to an identified problem, related to the pro-innovative development of the region
<p>Radical modernisation</p>	<ul style="list-style-type: none"> • Within the framework of Strategy implementation, only those actions and projects which warrant maximisation of positive outcomes will be perceived as key • As a rule, the results of the projects should provide European or world level.
<p>Creativity and cultural resources</p>	<ul style="list-style-type: none"> • When implementing the Strategy, actions and projects promoting creativity and leveraging on cultural resources of the region will be preferred • In the projects leading to the creation of new products, such products should be characterised by innovative design and taking into account their specificity, they should take into account region's culture and promote the region as developing, modern and innovative • Products should be labelled with a regional brand





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The Kujawsko-Pomorskie Region



Science and Innovation Agenda