Peer eXchange & Learning

Monitoring Smart Specialisation Strategies

Wielkopolska in the Polish multi-level system

Bologna, 10 November 2015
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Issues for discussion

- Main successes and bottlenecks in the design and implementation of RIS3 monitoring:

Successes	Bottlenecks
Coherent national-regional system	Competence building
Implementation of logic of intervention structure in the M&E system	Convincing the decision-makers to use the M&E results
Monitoring and evaluation as a part of entrepreneurial discovery process	Institutional capacity building at national level
Institutional capacity at regional level	Difficulties in making changes to ROP if M&E shows it is necessary

Issues for discussion

- Questions to discuss after the presentation:

1. What kind of competence in monitoring and evaluation should regional administration have so the system is stable and not expert-dependant? How best to build such competences?
2. Which are the best methods of communicating the M&E results to the decision-makers and regional stakeholders?

1. Does the M&E system in Wielkopolska and Poland seem sustainable? Can you suggest improvements?

Plan of the presentation

Regional and national monitoring systems are interconnected, so they will be presented interchangeably:

1. Overview of NIS in Poland and RIS3 in Wielkopolska
2. Overview of national and regional monitoring system

krajowa
inteligentna
specjalizacja

Polska

Polish National Smart Specialization

Overview of Polish National Smart Specialization

Governance

- Ministry of Economy coordinates National Smart Specialization and other economic and innovation strategies (Strategy for Effectiveness and Innovativeness of Economy and Enterprise Development Programme)
- Ministry of Infrastructure and Development coordinates regional innovation strategies in Poland
- National Group for Smart Specialization is an informal body where both ministries, all regions, Ministry of Science and other central institutions meet and agree coordination matters
- Working Groups for Smart Specializations areas are involved in the design and monitoring (in the future) of NIS

Overview of Polish National Smart Specialization

Priority areas

SUSTAINABLE ENERGY
- *High efficiency, low-emission and integrated energy production, storage, transmission and distribution systems*
- *Smart and energy efficient construction*
- *Environmentally friendly transport solutions*

NATURAL RESOURCES AND WASTE MANAGEMENT
- *Modern technologies for sourcing, processing and use of natural resources and production of substitutes thereof*
- *Minimising waste, including waste unfit for processing and use of waste for material and energy purposes (recycling and other recovery methods)*
- *Innovative technologies for processing and recovery of water and reducing its consumption*

HEALTHY SOCIETY
- *Medical engineering technologies, including medical biotechnologies*
- *Diagnosis and treatment of civilization diseases and personalized medicine*
- *Production of medicinal products*

AGRI-FOOD, FORESTRY-TIMBER AND ENVIRONMENTAL BIOECONOMY
- *Innovative technologies, processes and products of the agri-food and forestry-timber industry*
- *Healthy food (high quality and organic production)*
- *Biotechnological processes and products of household chemistry and environmental engineering*

INNOVATIVE TECHNOLOGIES AND INDUSTRIAL PROCESSES (HORIZONTAL APPROACH)
- *Multifunctional materials and composites with advanced properties, including nano-processes and nano-products*
- *Sensors (including biosensors) and smart sensor networks*
- *Smart grids and geo-information technologies*
- *Electronic based on conducting polymers*
- *Automation and robotics of technological processes*
- *Optoelectronic systems and materials*

Overview of Polish National Smart Specialization

Policy tools

Strategy of Innovativeness and Effectiveness of Economy (SIiEE)

Strategic document of the Ministry of Economy in the field of entrepreneurship and innovativeness of Polish economy

Enterprise Development Programme (EDP)

Operational programme for SIiEE

National Smart Specialization

National Operational Programme 'Smart Growth'

Main priorities:

- **Support of R&D activities in companies**
- **Development of business environment and of the potential of companies to perform R&D&I activities**
- **Support of innovation activities in companies**
- **Development of R&D potential in science sector**

Overview of Polish National Smart Specialization

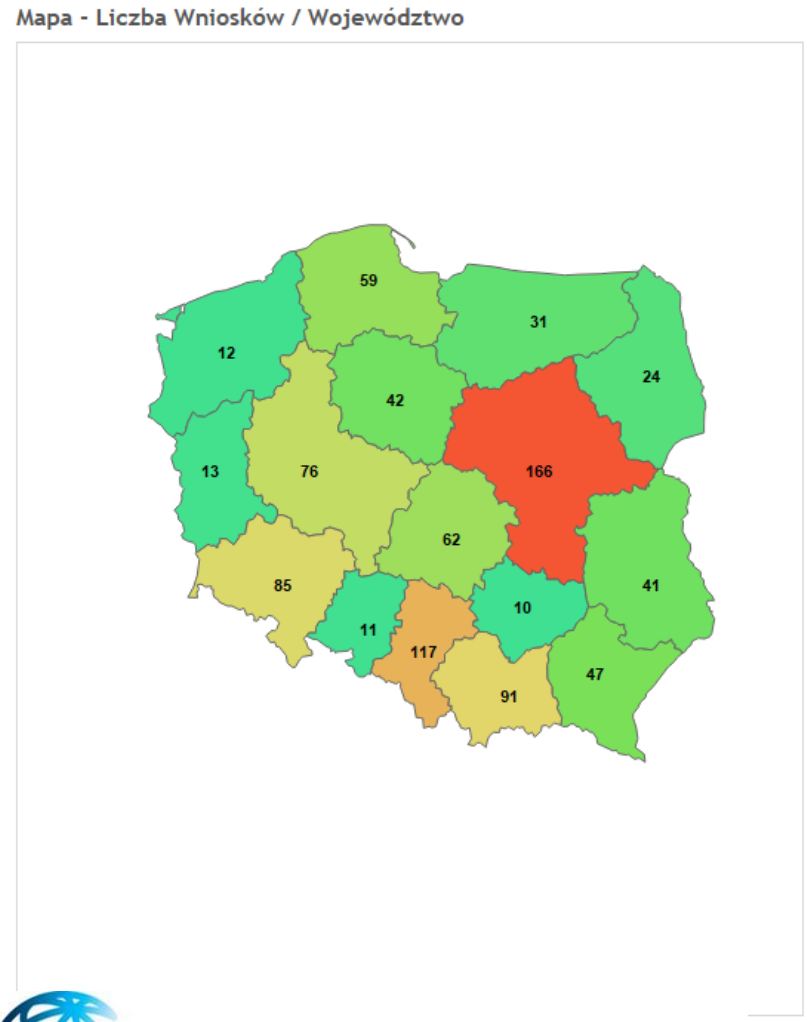
NSS current status

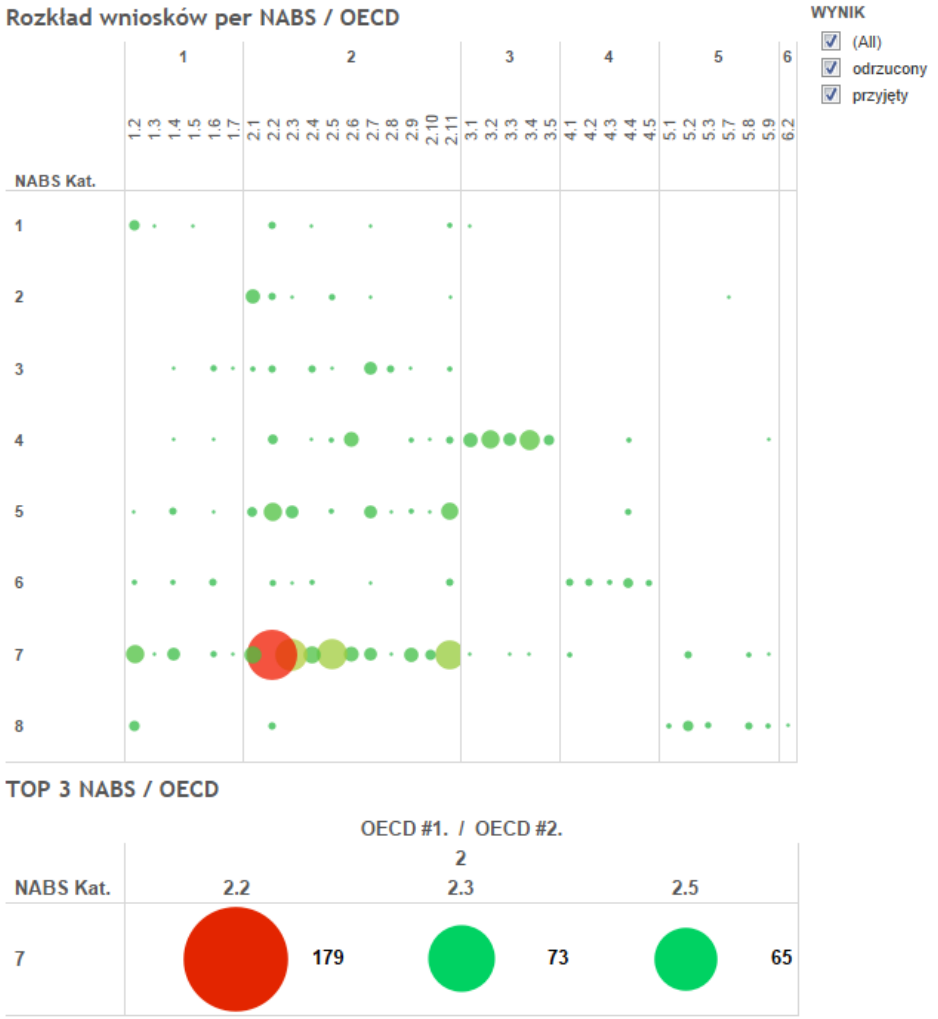
- NIS is approved by the government
- Action plan for NIS is approved by the EU Commission, and will be implemented fully by 2016
- A World Bank project for the Ministry of Economy on designing a model of entrepreneurial discovery is approaching the end: the methodology was tested in 4 regions and will be implemented in 2016.

Competitions are now opened for:	Competitions already closed for:
• Technological innovation loan • Internationalisation of Key National Clusters • Protection of intellectual property rights • Applied projects • Innovation voucher for SMEs • R&D infrastructure in companies • R&D infrastructure in science sector	• R&D for markets • Sectorial R&D projects • R&D connected with pilot production/demonstration installations • R&D in industrial companies

Some first results: Innovation map

Applications for R&D projects in companies in the first Fast Track competitions according to NABS and OECD classification

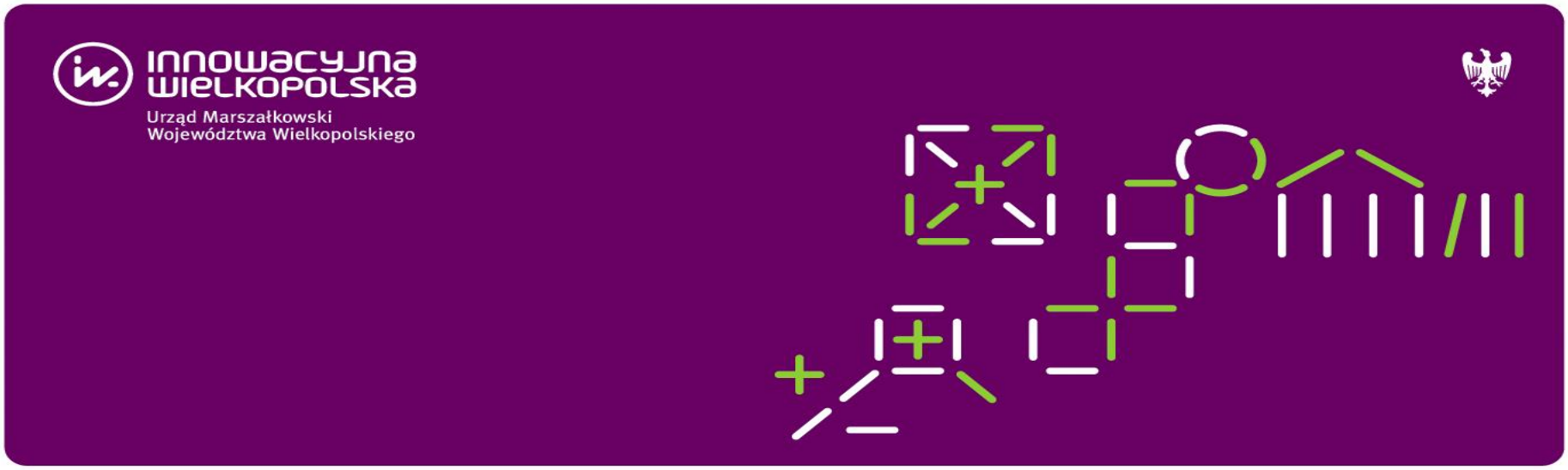




WORLD BANK GROUP

Overview of Wielkopolska RIS3

- **Governance**
  - Regional government (Marshall's Office) – Department of Economy coordinates RIS3 – specifically Wielkopolska Innovation Observatory
  - Inter-departmental team (Department of Economy, Department od Regional Policy, Department of ROP Implementation, Department of ESF, Department of Education) are responsible for coordination of RIS3 and ROP and other finance sources
  - Wielkopolska Smart Specialization Forum – connection with permanent entrepreneurial discovery process. Working groups for each area of specialization operate within the Forum



Wielkopolska Regional Innovation Strategy for Smart Specialization

www.iw.org.pl

Overview of Wielkopolska RIS3

- **Priorities**

  6 smart specializations and areas of inter-sectorial innovation (next slide)

- **Policy tools**

  –RIS3 and its strategic programmes

  –ROP, Thematic objective 1, 3 and part of 8

  –Instruments from other programmes: NOP, EU

- **RIS3 current status**

  –Pilot action in 2014 (vouchers for smart specializations)

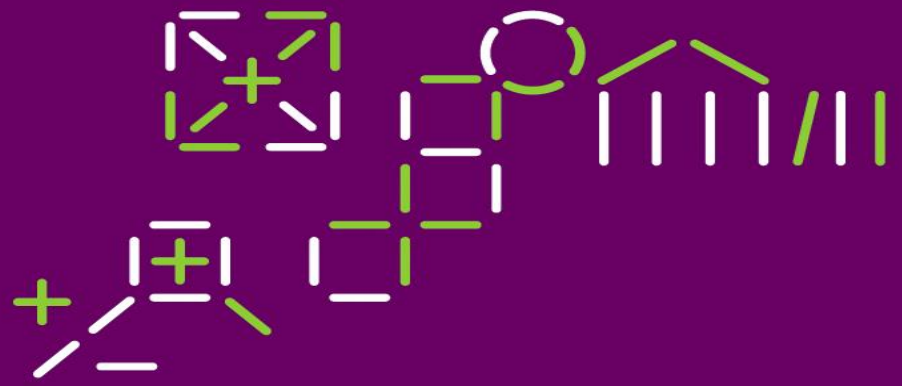
  –Accepted by the regional parliament in January 2015

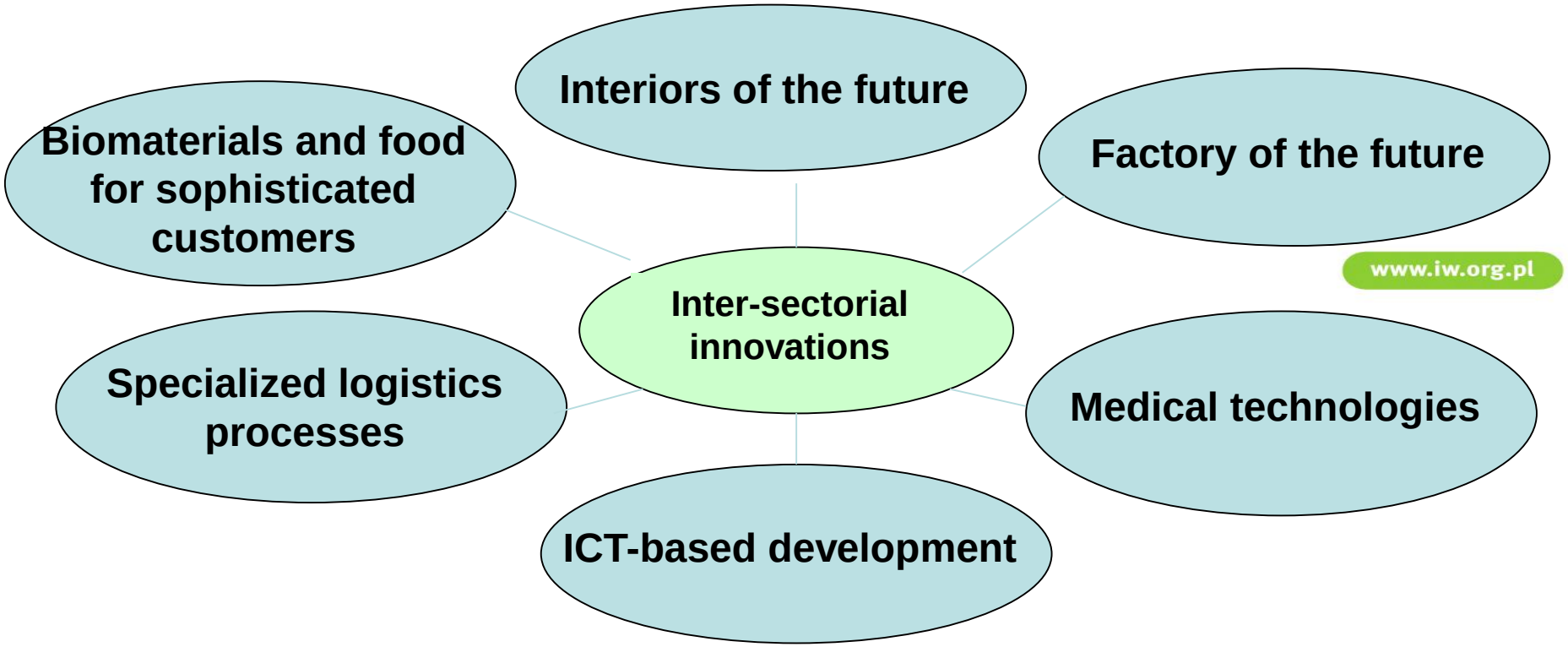
  –Accepted by the EU Commission in July 2015

  –Competitions to open 16th November: development of key areas of regional economy – highly innovative projects

Innowacyjna Wielkopolska
Urząd Marszałkowski
Województwa Wielkopolskiego

PRIORITY AREAS





RIS3 Horizontal Strategic Programmes

Innovative public administration

Innovative Companies

Efficient Business Support Institutions

Pro-innovative local government

Wielkopolska digital agenda

Education for innovation

krajowa
inteligentna
specjalizacja

Polska

National Monitoring System

National monitoring system (1)

- **Structure**

Ministry of Economy (Innovation Unit)	• Providing M&E for NIS • Coordination of national and regional monitoring
Ministry of Infrastructure and Development (Department of Competitiveness and Innovation)	• Coordination of 16 RIS3 (including monitoring)
National Group for Smart Specialization (informal body)	• Suggesting changes and discussing the results of monitoring
Working Groups for Smart Specializations	• Suggesting changes and discussing the results of monitoring

National monitoring system (2)

- **Current status of NIS3 monitoring**
  - A list of common indicators for most typical interventions has been agreed, the opening report will be ready by the end of the year
  - From January on, the Ministry of Economy will start official partnerships for monitoring and evaluation of smart specializations with research centres that have experience in that area
  - Full monitoring system will be developed as a part of Action Plan by 2016

Monitoring strategic objectives/vision/Monitoring the RIS3 priorities

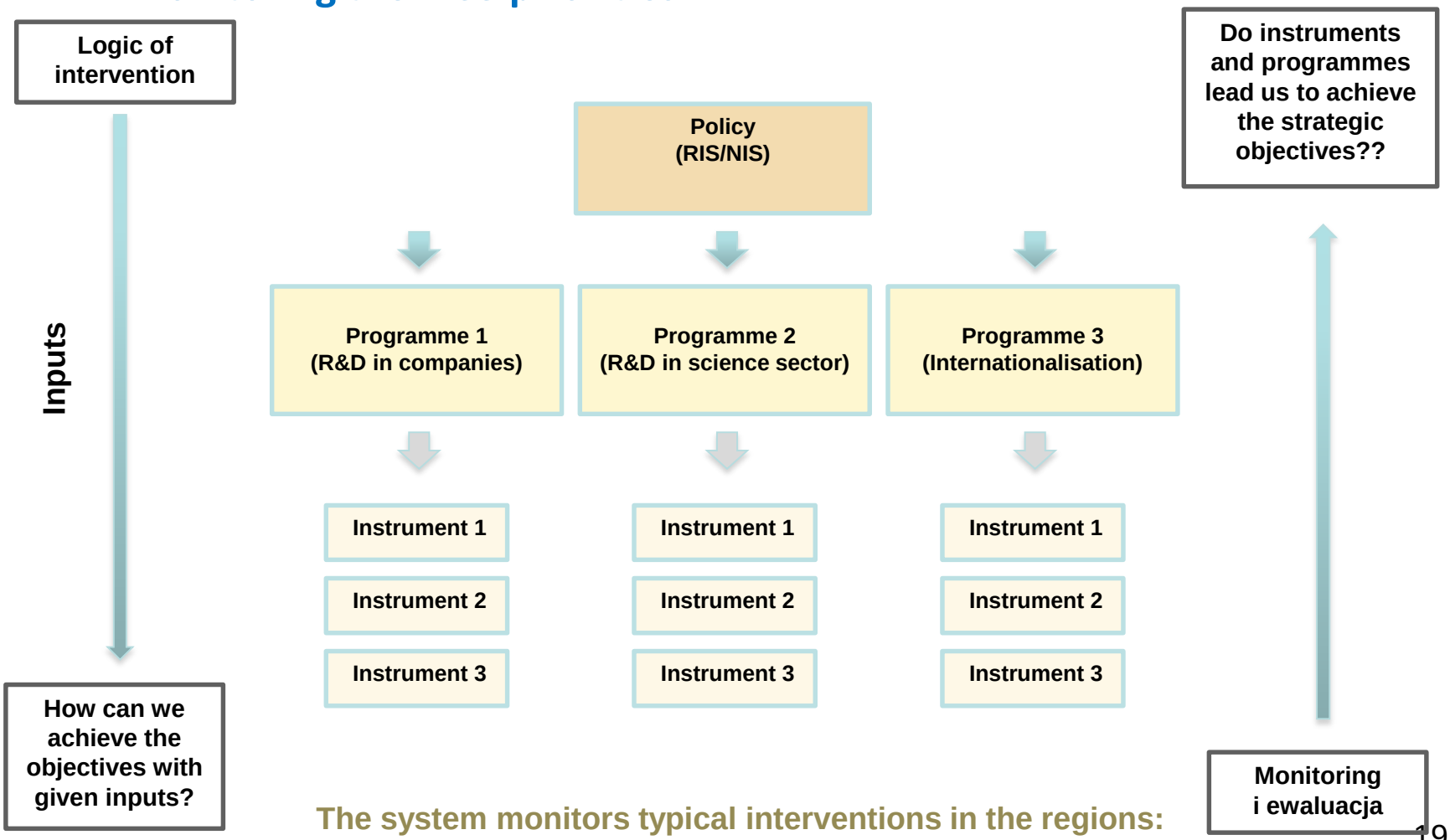
- There are different types of indicators at each level:

Policy level	Type of indicator	M&E stage
Policy/strategy goals	Context indicator (general and smart specialization)	monitoring
Strategic objectives	Result indicators	monitoring
Actions/instruments	Output indicators	monitoring
Policy/strategy goals	Strategic result (formerly impact)	evaluation

Expected result - To be defined as a part of Action Plan by 2016

National monitoring system (3)

- Monitoring strategic objectives/vision
- Monitoring the RIS3 priorities



The system monitors typical interventions in the regions:
innovativeness, R&D, internationalisation and cooperation
to enhance comparisons and benchmarking and make the data acquisition cheaper and more accessible

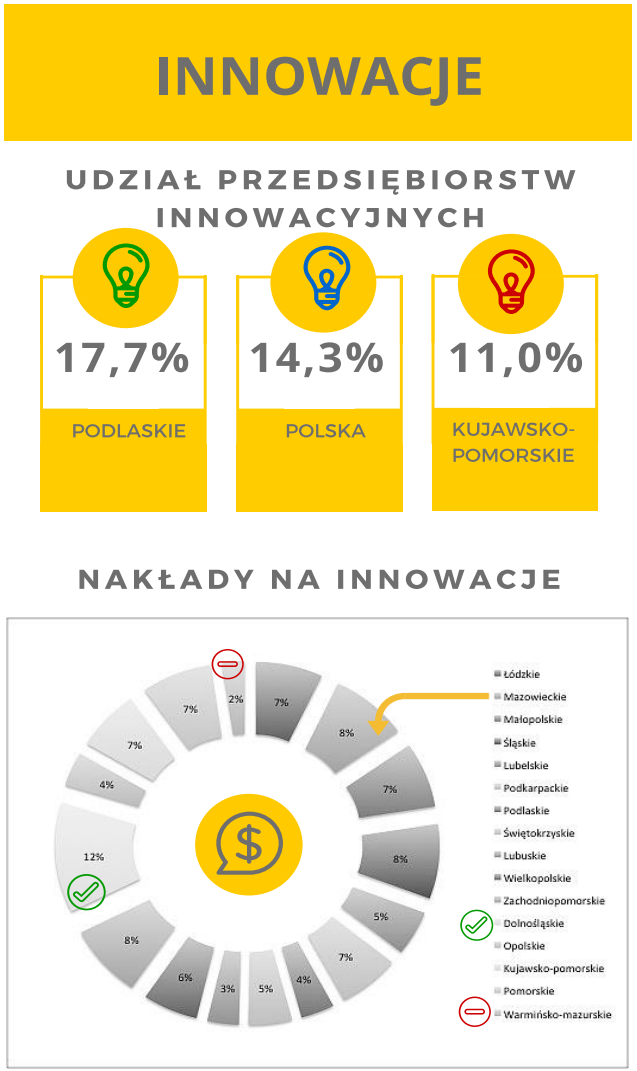
National monitoring system (4)

- Example of indicators from common indicator list - INNOVATION

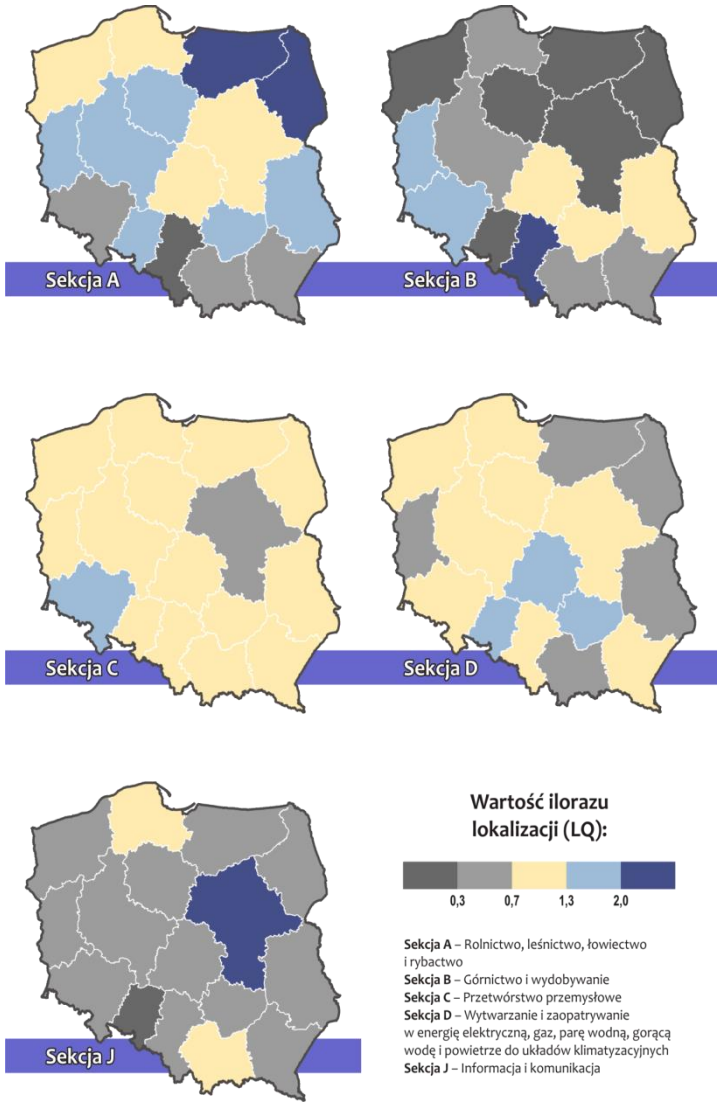
Type of indicator	Indicator
Context indicator (general)	• % of innovative companies in general population • % of sales of 'new to the market products' in general sales
Context indicator (smart specialization)	• Location quotients for economic sectors for employment, value added and number of companies • Shift-share analysis for the above
Result indicators	• % of companies that started innovation activities in a given year • % of companies that showed inovation expenditure in a given year
Output indicators	• No. of companies that received support in order to introduce products new to firm • No. of companies that received support in order to introduce products new to market
Intput indicators	• Amount (PLN) spent from ROP on innovation activity and R&D in companies • Amount (PLN) spent from NOP on innovation activity and R&D in companies
Strategic result (formerly impact)	• % of companies that started innovation activities for the first time as a result of intervention • % of companies that showed inovation expenditure for the first time as a result of intervention

National monitoring system – some results (5)

Innovation data



Location quotients for economic sectors

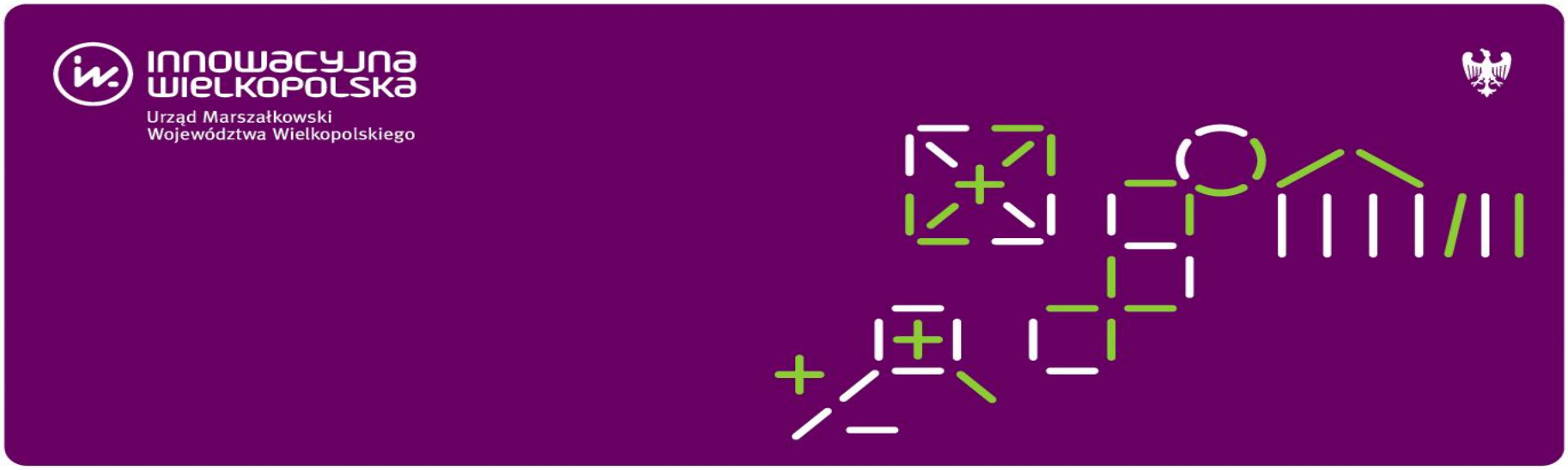


Monitoring system – National level(6)

- **Data & methods**
  - Common indicator list which includes new indicators that weren't previously accessible in public statistics (data from Ministry of Finance on exports, patent Office on patents according to detailed classifications and divided into regions, data from Ministry of Science on Science commercialization, new indicators on innovation from National Statistical Office, data divided into NACE codes)
  - Data from entrepreneurial discovery process (continuation of a World Bank methodology): interviews with companies, innovation maps, crowdsourcing, Business and Technology Roadmap
  - Data from partners: Smart specialization portal, Report on potential of development of national smart specializations in regions etc.

The data is to be communicated to a wide range of stakeholders in a transparent way. A smart specialization data portal with visualisation tools has been designed and tested but so far it lacks data

Difficulty: the elements are put in place but the data collection and interpretation (including portals and databases) has to be made operational and implemented

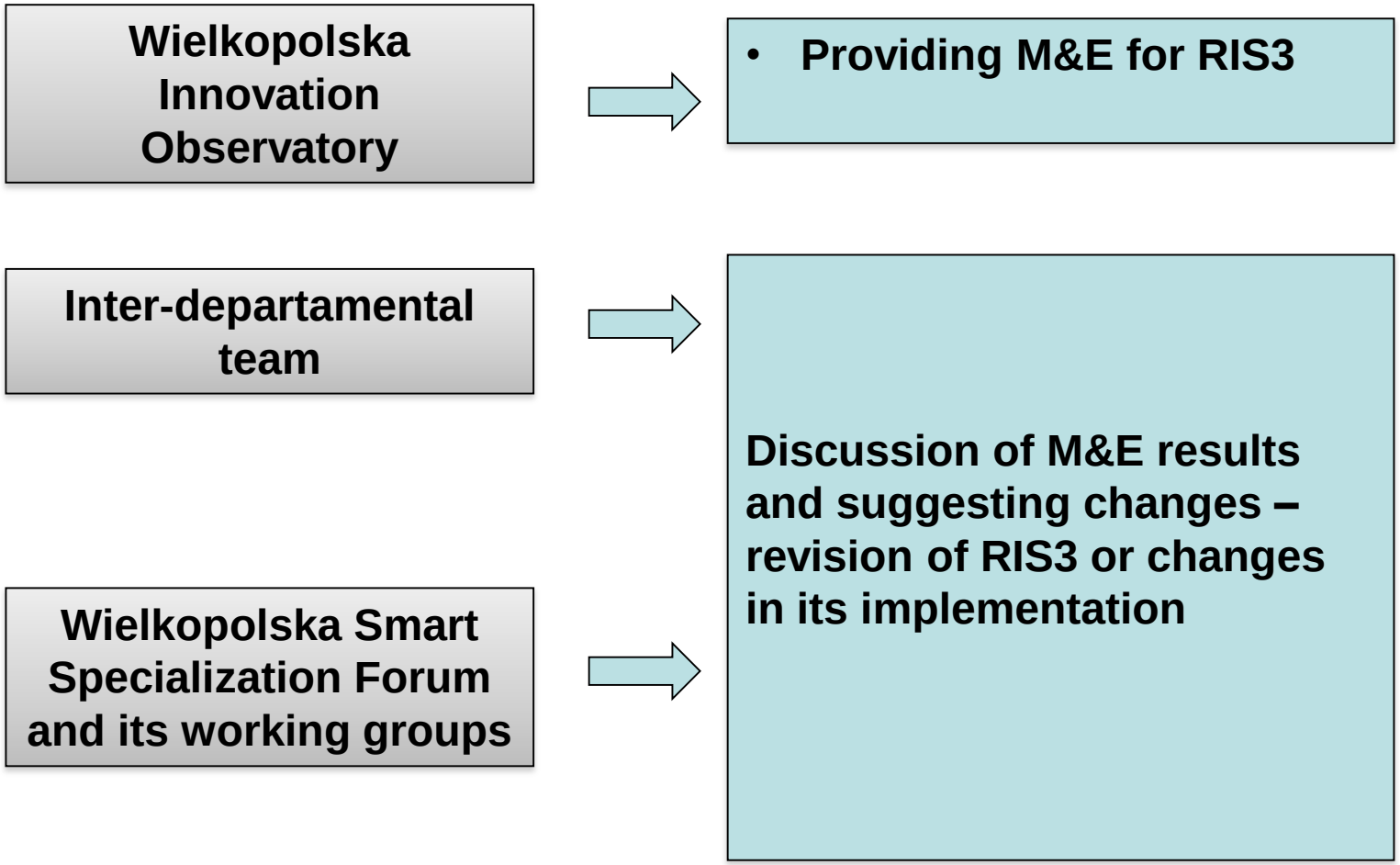


Wielkopolska RIS3 monitoring system

www.iw.org.pl

Wielkopolska RIS3 monitoring system (1)

- **Structure**



Wielkopolska RIS3 monitoring system (2)

- **Current status of RIS3 monitoring**

  RIS3 together with the monitoring and evaluation system has been accepted by the Commission and the first monitoring report is just being prepared

- **Monitoring strategic objectives/vision/Monitoring the RIS3 priorities**

Monitoring and evaluation activities:

- **Monitoring report** (once a year) with context, input, output and result indicators
- **Evaluation** (minimum once the programming period) – strategic result indicators
- **Innovation survey** of companies' needs (in 29 economic sectors) (once every 3 years)
- **National and international benchmarking** (national – common indicator list) (minimum once in the programming period)
- **Specialist analyses** concerning areas of specialization (minimum once in the programming period)
- **General analyses** of great social challenges and new socioeconomic and technology trends that can influence the region (minimum once in the programming period)

- **Expected changes**

  Described in the success vision for each strategic programme and area of specialization

Wielkopolska RIS3 monitoring system (3)

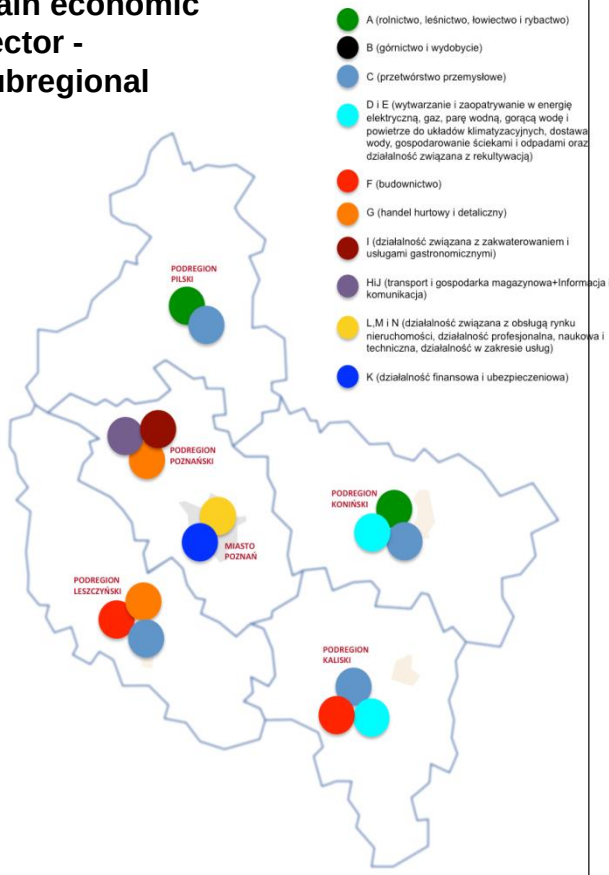
- Example of indicators – strategic programme – Innovative companies

Objective	Indicator
Strategic goal: Helping companies become more innovative, especially in priority areas	• % of innovative companies in areas of specialization
Strategic objective: Increasing the number of companies involved in R&D activities	• % of companies involved in R&D activities in areas of specialization
Action (instrument): R&D voucher for SMEs	• No. of companies that received support for starting R&D activities
Intput indicators	• Input indicators are counted per strategic programme as the amount spent on financing this type of actions in ROP, NOP and EU programmes that beneficiaries from Wielkopolska acquired
Strategic result (formerly impact)	• To be determined as an answer to research questions formed when observing results of monitoring activities

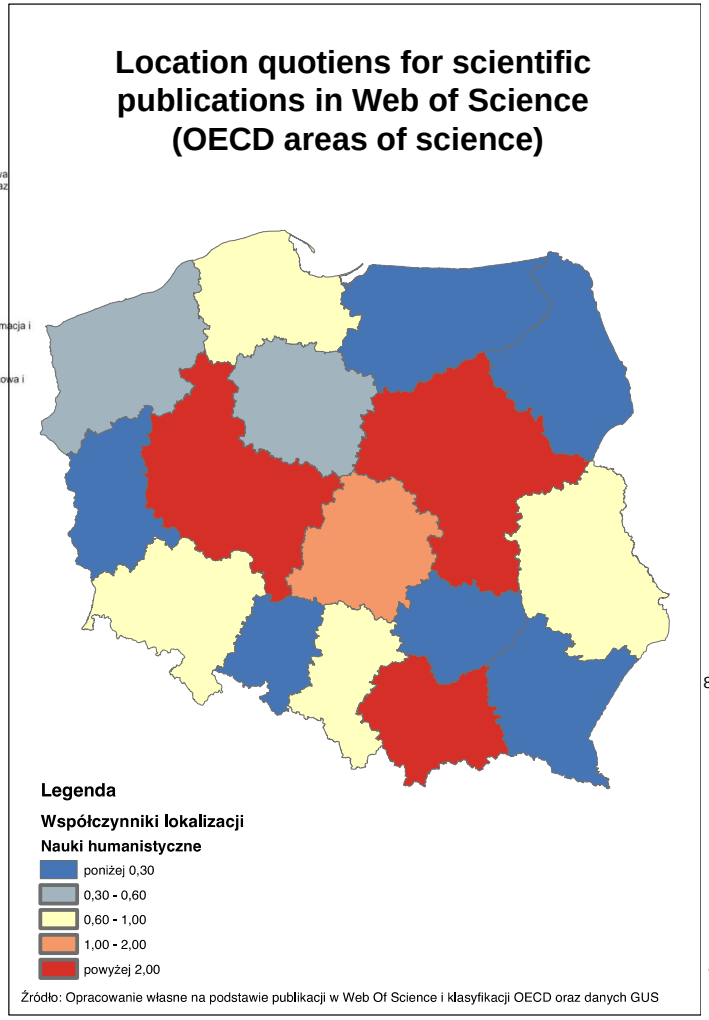
Wielkopolska RIS3 monitoring system – some results (4)

Economic specialization

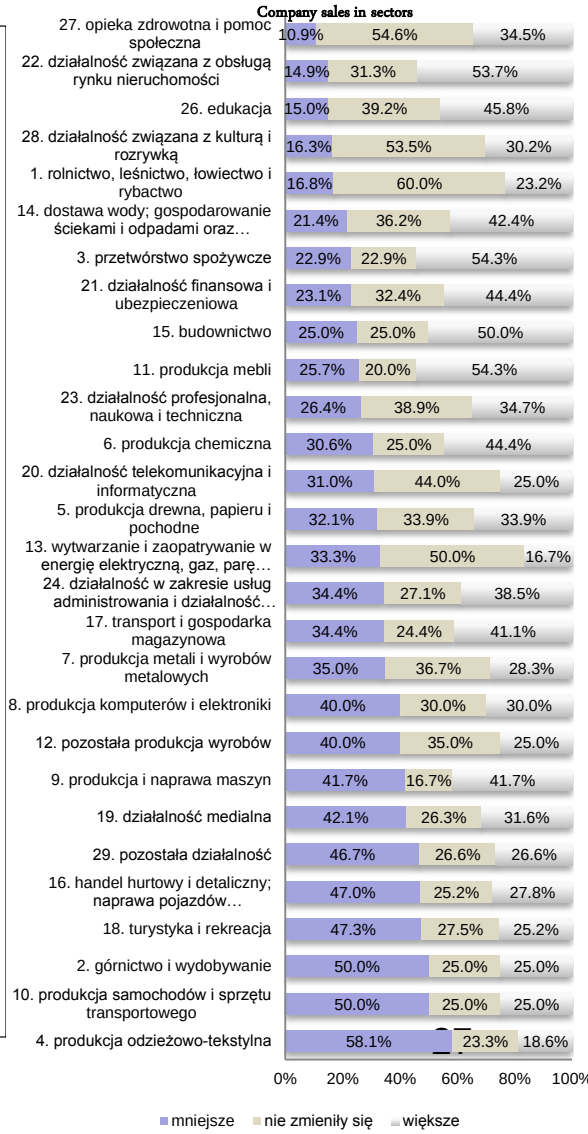
Main economic sector - subregional



Scientific specialization



Companies' innovation needs survey



Monitoring system – regional level (5)

- **Data & methods**
  - Common indicator list which includes new indicators that weren't previously accessible in public statistics
  - Internal data from ROP database and departments in the regional government that are concerned with innovation policy
  - Company survey (last edition: 3500 companies in 29 sectors)
  - Economic and sectorial commercial databases
  - Company self-assessment tool: innovation profiles of beneficiaries
  - Specialized analyses and expertise (benchmarking, trends etc.)

  The data is to be communicated to a wide range of stakeholders in a transparent way but at the moment an open data problem is not considered.

  Difficulty: some of the data should be gathered and processed by the regional government but there needs to be more competence-building there

National and regional monitoring systems - common features

Monitoring system (6)

- **Role of the monitoring system**

  Providing reliable, comparable and up to date data that enables responsible governance of the revision and implementation of NIS and RIS

- **Responsibilities**

  National level: Ministry of Economy that coordinates NIS will partner with research teams in order to provide monitoring

  Regional level: Wielkopolska Innovation Observatory coordinates RIS 3 and is responsible for monitoring

- **Stakeholders**

  National level – working groups for each specialization will discuss the results of monitoring and decide if those results call for any changes in NIS. National working group for smart specialization (central and regional institutions) agreed the types of data required for monitoring and will discuss the result in order to apply them to the ongoing entrepreneurial discovery process

  Regional level – working groups within the Wielkopolska Smart Specialization Forum can propose new subjects that need specialized analyses, must discuss the effects of monitoring and RIS3 implementation and can suggest changes and updates in RIS3 or its implementation

Monitoring system (5)

- **Using the monitoring evidence**

  To update NIS and RIS and change methods of their implementation

- **RIS3 revision**

  Regional level: The suggestions for RIS3 update can come from the Wielkopolska Smart Specialization Forum, interdepartamental team or Wielkopolska Innovation Observatory but they have to be confirmed by the results of monitoring and specialized analyses (if needed). Wielkopolska Innovation Observatory has to follow up on this and discuss changes with the Forum, accept them in the inter-departamental team and regional management board. If changes are significant, regional parliament has to vote on the update.

  National level: Suggestions for updates can come from working groups, regions or monitoring results. The Innovation Unit in the Ministry of Economy has to follow up on them. Significant changes in NIS have to be accepted by the government.

Summary & next steps

Conclusions

Successes	Bottlenecks
Coherent national-regional system	Competence building
Implementation of logic of intervention structure in the M&E system	Convincing the decision-makers to use the M&E results
Monitoring and evaluation as a part of entrepreneurial discovery process	Institutional capacity building at national level
Institutional capacity at regional level	Difficulties in making changes to ROP if M&E show it is necessary

Question 1: What kind of competence in monitoring and evaluation should regional administration have so the system is stable and not expert-dependant? How best to build such competences?

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- **Why**: Systems that are expert-led or expert-dependant are not sustainable in the long-term. Public administration should have basic competences in monitoring and evaluation so it can determine research questions, gather and process data etc. Institutional learning is an important success factor for RIS3 resign, implementation and revision.
- **What has been done**:

Country: From 2016 Ministry of Economy will partner with research teams (max 3) with high level of expertise on smart specialization

Region: Wielkopolska Innovation Observatory (WIO) was started in March 2015 and took part in analyses needed for RIS3 design. There was some initial competence building when the WIO employees helped process some data needed.

- **What worked**:

Country: Cooperation with regions on design a coordinated national M&E system

Region: agreement on data sources and finding stable sources of finance for M&E

- **What did not work**: *Both systems are still strongly expert-dependant*

Question 2: Which are the best methods of communicating the M&E results to the decision-makers and regional stakeholders?

Why: *There's no real culture of bringing the results of M&E activities into decision-making processes in Poland. There is also no great regional stakeholders' awareness of progress and changes in the innovation system, on the basis of which they can modify their own behaviour. Good communication methods can help attract the attention and interest of decision-makers and stakeholders but they still need to be better developed.*

What has been done:

Country: Opening report is being prepared on common indicator list with the use of info graphics and maps (little text)

A Smart Specialization data portal with basic visualisation tools has been created

Region: Basic data visualisation tools were used in presenting research done for identification of priority areas. Communication methods for M&E system still have to be designed.

What worked:

Using maps and info graphics in simple dashboards with simple expert interpretation

What did not work: *There is still not enough attractive and accessible information on M&E results. Main decision-makers rarely devote their attention to NIS and RIS3*

Question 3: Does the M&E system in Wielkopolska and Poland seem sustainable? Can you suggest improvements?

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Why: *The system is newly designed and has not been proven in practice yet. Therefore, any constructive criticism and feedback is invaluable.*

What has been done:

Country: Common indicator list is just being launched but it does not constitute a full monitoring system for NIS

Region: The first monitoring report is now being prepared

What worked:

Close cooperation between national and regional level and common data acquisition

What did not work: *System is still not proven to be sustainable*