

## POLAND: Towards a RIS3 strategy





krajowa inteligentna specjalizacja Dublin, 3-4 July 2014 Zbigniew Kamieński





#### Which issues we would like to discuss and why?

#### What we expect from the peer-review?

- 1. Exchange of experiences and best practices in developing thesmart specialisation strategies
- 2. To present and discuss the implementation and monitoring phase as regards to the national and regional levels
- 3. To discuss the entrepreneurial discovery process challanges

#### Questions we would like peers to discuss after our presentation:

- 1. How to co-ordinate the monitoring and verification system on the national and regional level? How to provide synergy?
- 2. How to better engage business in the entrepreneurial discovery process from the national perspective? Should the process involve individual enterprises or rather business centres/chambers?
- 3. How to define the criteria of the smart specialisation assessment under Operational Programmes (NACE? Individual expert assesment?)
- 4. Are you going to use/are you using the opportunity of spending 15% of structural funds to support the areas not mentioned under 'smart specialisations"? If yes, how?





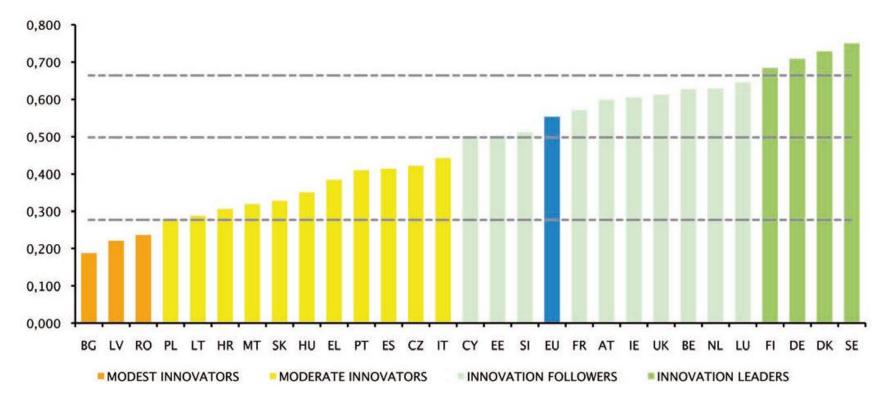
#### We are challenged to:

- build an innovation culture (thinking about innovation as cooperative advantage)
- rise R&D spendings (GERD/PKB=0,9%) including private spendings (BERD/PKB= 0,33%)
- rise level of cooperation (enterprises & science)
- increase risk acceptance
- adjust human resources with the use of our new strategy (SIEE), new operation programmes (OPSG)





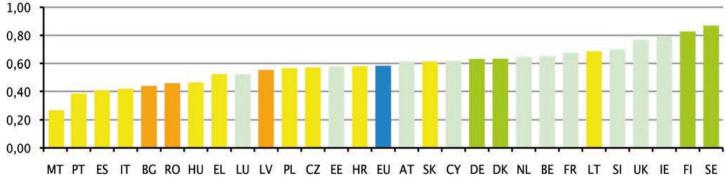
#### Poland's performance in Innovation Union Scoreboard (IUS) 2014 1/2



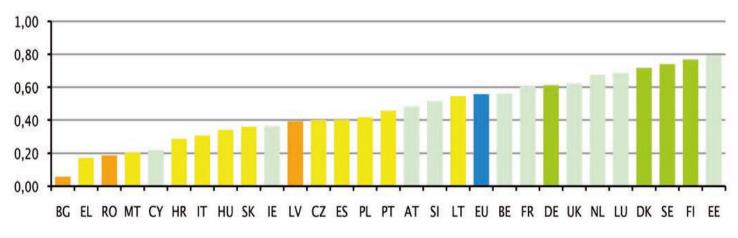




#### Poland's performance in Innovation Union Scoreboard (IUS) 2014 2/2



#### Poland's performance in human resources



#### Poland's performance in finance & support







#### **National level**

a) co-ordinated by three ministries: Ministry of Economy (the leader of the process), Ministry of Science and Higher Education and Ministry of Infrastructure and Development

b) demarcation with other ministries competences and operational programmes such as: defence, food industry, environment

c) implementation-Ministry of Economy/PAED-Ministry of Science and Higher Education/NRDC

d) monitoring & evaluation
 -Provided by the Ministry of Economy in close co-operation with PAED and in line with the regional smart specialisations

#### **Regional level**

Co-ordinated independently by each region by Marshall's Offices (16 regions)



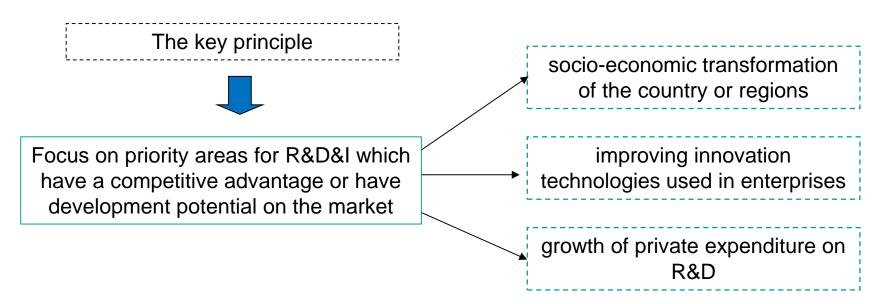
## The road to smart specialisation





#### National Smart Specialization in Poland – the framework

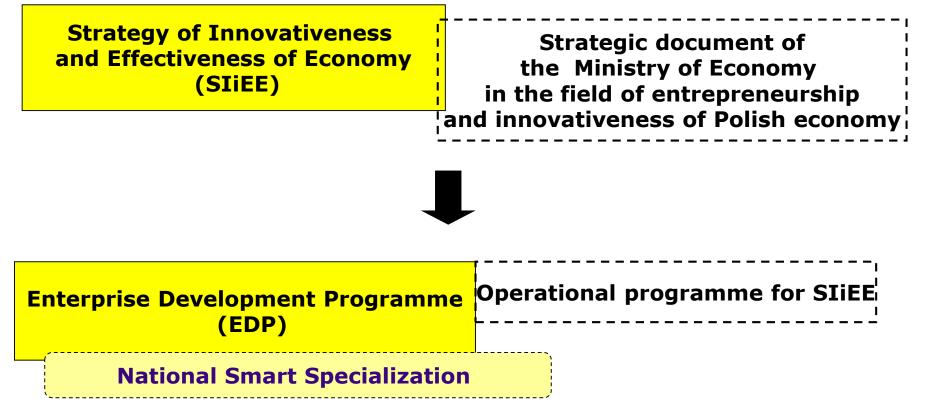
The result of the National Smart Specialisation in Poland will be areas of smart specialization on the national level, along with a mechanism for reviewing and updating the selection in progress.







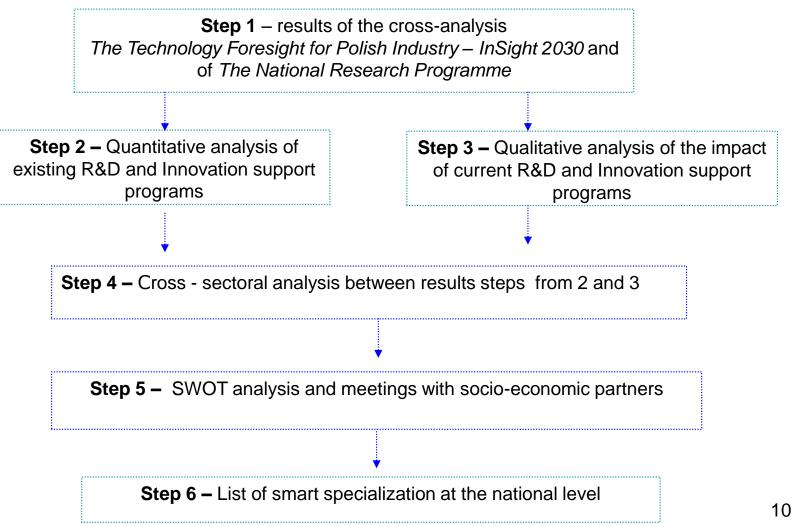
#### The key documents in the proces of designing National Smart Specialisation







#### The process of identifying R&D&I priority areas in Poland







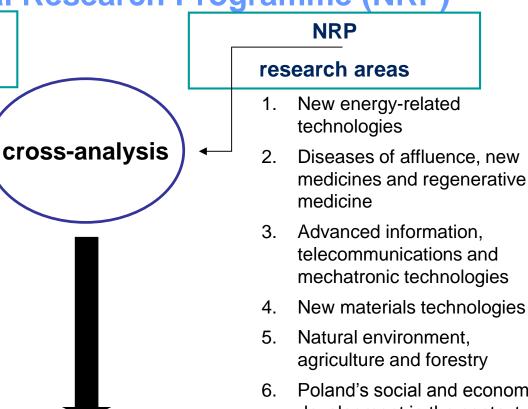
#### **Technology Foresight for Polish Industry – InSight** 2030 vs. National Research Programme (NRP)

#### InSight2030

#### research & economy areas

- Industrial biotechnology
- **Microelectronics** 2.
- 3. Photonics
- 4. Advanced manufacturing systems and materials
- 5. Nano-processes and nano-products
- 6. ICT
- 7. Co-generation technologies and improvements in energy efficiency
- Natural resources 8
- 9. Healthy society
- 10. Green economy

37 cross-sectoral technologies aggregated in 22 main areas of specialisation under consultations with experts and enterpreneurs



- Poland's social and economic development in the context of globalising markets
- State security and defence 7.





# Quantitative and qualitative analysis of existing R&D&I support programmes

The identification of **22 areas of specialisations** gave evidence to conduct additional analysis, serving as a verification, indicating the economic sectors which have the best economic effects (quantitative analysis – statistical data (CSO, Eurostat, regional data)) and activity in the field of participation in development projects and cooperative relations (qualitative analysis – companies projects financed by ERDF and the national budget).

economic impact	new products on the market, as a share of GDP
market potential	expenditures on R&D, the value of private and public investments
readiness to cooperate	cooperative relations (clusters)
export potential	export and internationalization





#### **Smart specialization areas in Poland**

	<ul> <li>SUSTAINABLE ENERGY</li> <li>High efficiency, low-emission and integrated energy production, storage, transmission and distribution systems</li> <li>Smart and energy efficient construction</li> <li>Environmentally friendly transport solutions</li> </ul>
<ul> <li>NATURAL RESOURCES AND WASTE MANAGEMENT</li> <li>Modern technologies for sourcing, processing and us natural resources and production of substitutes there</li> <li>Minimising waste, including waste unfit for processin and use of waste for material and energy purposes (recycling and other recovery methods)</li> <li>Innovative technologies for processing and recovery water and reducing its consumption</li> </ul>	<ul> <li>Pof HEALTHY SOCIETY</li> <li>g • Medical engineering technologies, including medical biotechnologies</li> <li>• Diagnosis and treatment of civilization</li> </ul>
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	<ul> <li>INNOVATIVE TECHNOLOGIES AND INDUSTRIAL PROCESSES (HORIZONTAL APPROACH)</li> <li>Multifunctional materials and composites with advanced properties, including nano-processes and nano-products</li> <li>Sensors (including biosensors) and smart sensor networks</li> <li>Smart grids and geo-information technologies</li> <li>Electronic based on conducting polymers</li> <li>Automation and robotics of technological processes</li> <li>Optoelectronic systems and materials</li> </ul>





#### The openess of the document

- "living" document, open for changes and modification basing on the entrepreneurial discovery process, outcomes of the monitoring & evaluation systems
- monitoring of the outcomes on-going
- evaluation once a year/ ex-post





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## **Entrepreneurial discovery process**







#### **Entrepreneurial discovery process**

Strategic thinking is guided by the principle that <u>the essence of the</u> <u>entrepreneurial process of discovery is to support bottom-up activities and</u> <u>initiatives that will lead to smart growth and optimal utilization of</u> <u>resources</u>, in particular those that will effectively engage the private sector in the operation and funding of research and innovation, as well as public consultation and active dialogue.

The process of entrepreneurial discovery has been initiated already in 2011, with the launch of the project *Technology Foresight for Polish industry - InSight2030*, indicating the scientific and economic priorities and updating of the *National Research Programme*, indicating research and scientific priorities.





#### **Entrepreneurial discovery process – key actions** 1/3

- **InSight2030 project** identifying key technologies for Polish industry engaged socio-economic partners, including businesses, in such activities as: brainstorming, STEEP analysis, SWOT analysis, cross-analysis of influences, expert panels, expert research with Delphi method and in the construction of scenarios
- In 2012 and 2013 the Ministry of Economy, the Ministry of Infrastructure and Development, the Ministry of Science and Higher Education organised many workshop and consultations with representatives of industries, entrepreneurs and scientists to discuss issues related to the future development of Polish economy.





#### **Entrepreneurial discovery process – key actions** 2/3

- Ministry of Economy during the consultancy process in 2012 has organised i.a 14 sectoral meetings with 87 representatives of the industries – the outcomes of the process were taken into account during the NSS creation
- The involvement of entrepreneurs in the process of entrepreneurial discovery is also done through sectoral programmes implemented by the National Centre for Research and Development (NCRD), which comprise a sequence of activities allowing companies to identify research topics (e.g. in clusters or technology platforms) for the implementation of research projects designated by them.





#### **Entrepreneurial discovery process – key actions** 3/3

• **Clusters** – the activity of cluster concentrations has been the subject of analyses in the process of creating R+D+I priorities, while the process of monitoring and updating national smart specializations will make use of the results of recommended competitions for key national clusters (Operational Programme Smart Growth)

• As part of the streamlining of the process of entrepreneurial discovery the Ministry of Economy cooperates with the World Bank with a **pilot project under which the study will be conducted among more than 1,000 companies in 4 regions** in selected areas of smart specialization, indicating the endogenous potential and the demand of companies for public intervention. Good practice will be used, presented by international experts who will prepare Polish experts for their use in the process of entrepreneurial discovery in Poland





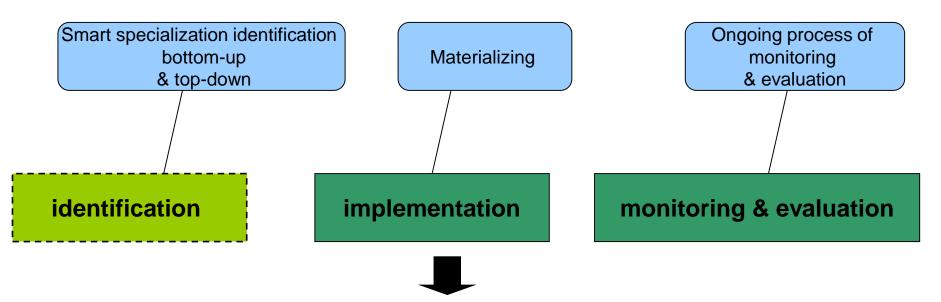
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## Implementation system





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Instruments

#### **Projects under structural funds:** OP SG 2014-2020, ROP

## Projects financed from the national budget:

- Implemented by the PAED & NCRD

#### **Objectives**

Achievieng goals defined in the strategy Europe 2020 and specific goals defined for each smart specialization

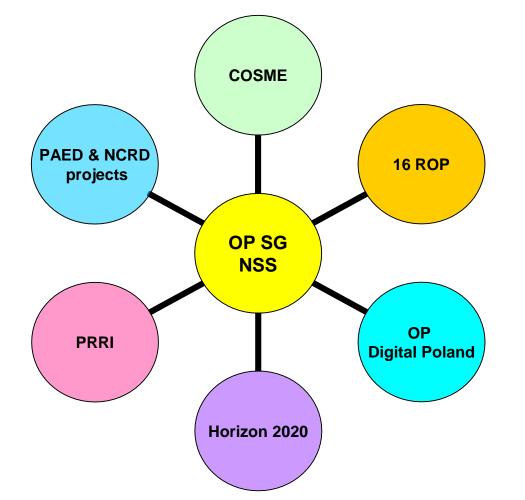
Development of the competitiveness (globally) and socio-economic transformation (domestically)





#### The implementation of smart specializations under OP SG

The synergy between national smart specialization and OP SG and other programmes





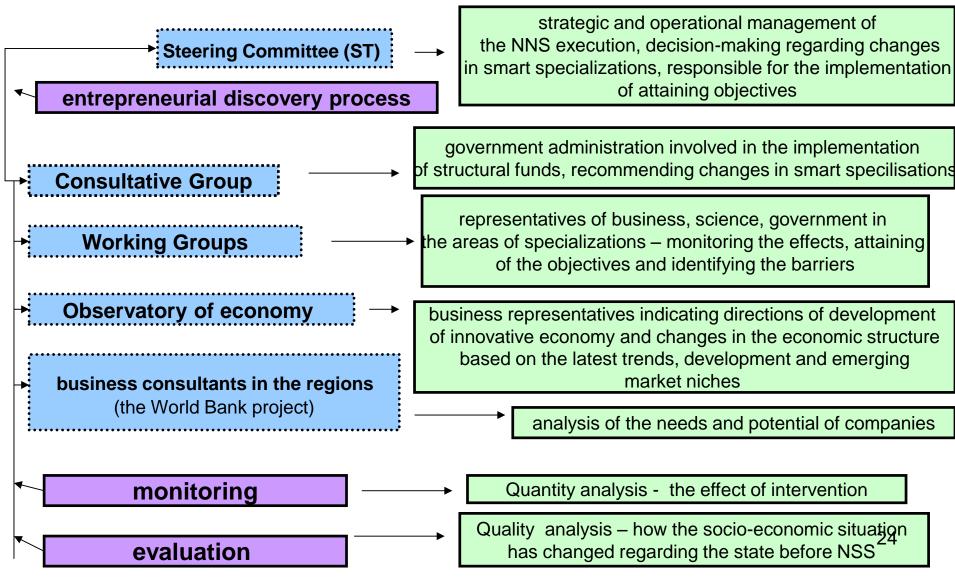


## **Monitoring & evaluation system**



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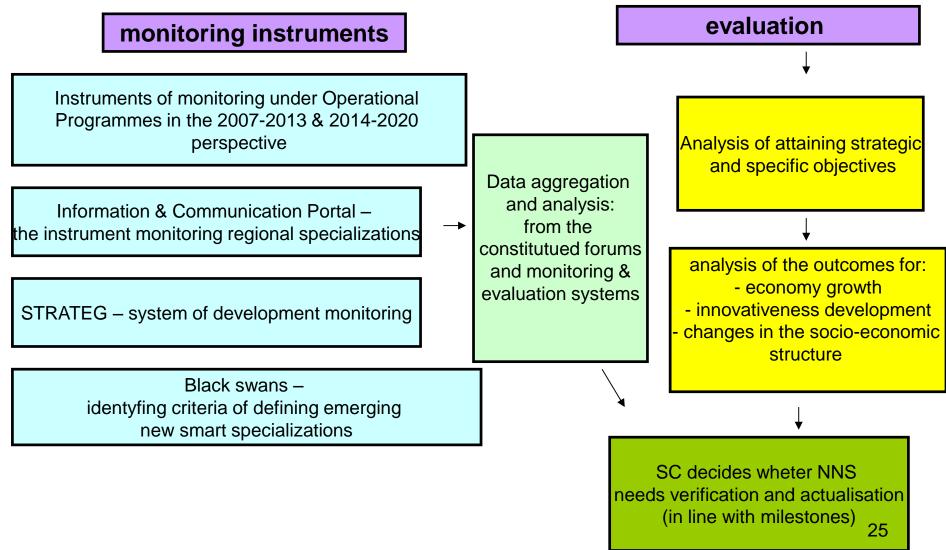
#### The logic of the system







#### **Monitoring and evaluation**







## **Action Plan**





#### Action Plan for ex-ante conditionality for Thematic Objective 1

20 actions to be taken in the following areas:

- Entrepreneurial discovery process
- Evidence-based policy
- Precise definition of smart specializations
- Roadmapping budget, timetable, responsible bodies
- Synergy between national and regional level
- Implementation of National Smart Specialization
- Monitoring, evaluation and communication



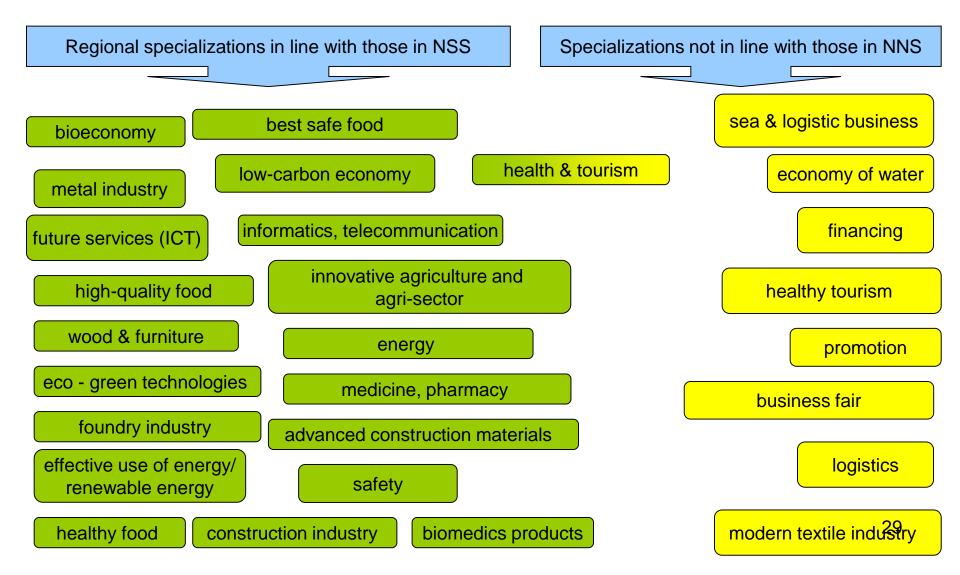


# National vs. regional smart specializations





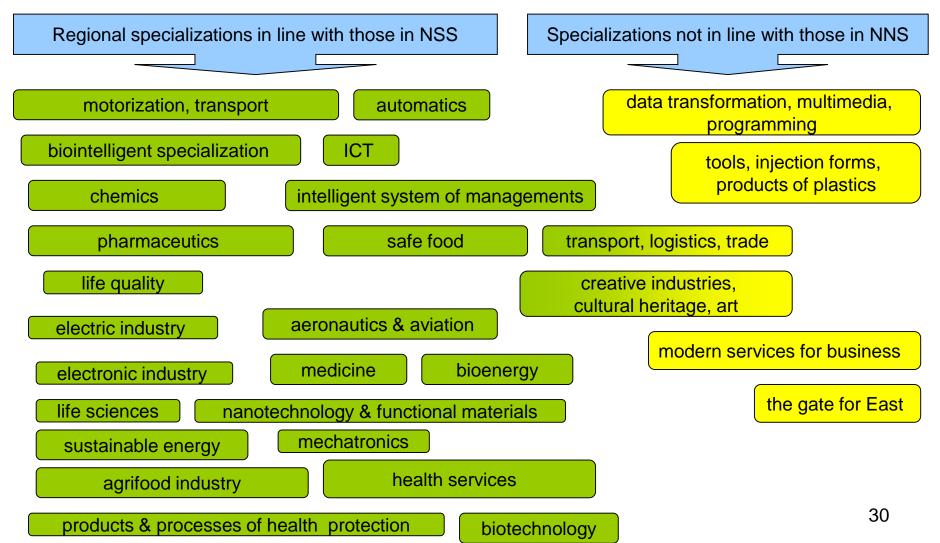
#### Relation of national and regional specializations 1/2







#### **Relation of national and regional specializations** 2/2







#### **Co-ordination between national and regional level**

## Separated works on identification of smart specializations

#### BUT

- thematical synergy
- co-ordinated system of monitoring
  - common "wind of change"





#### **KETs in Polish National Smart Specialisation**

#### NSS shows the huge development potential of Polish business & science in KETs technologies

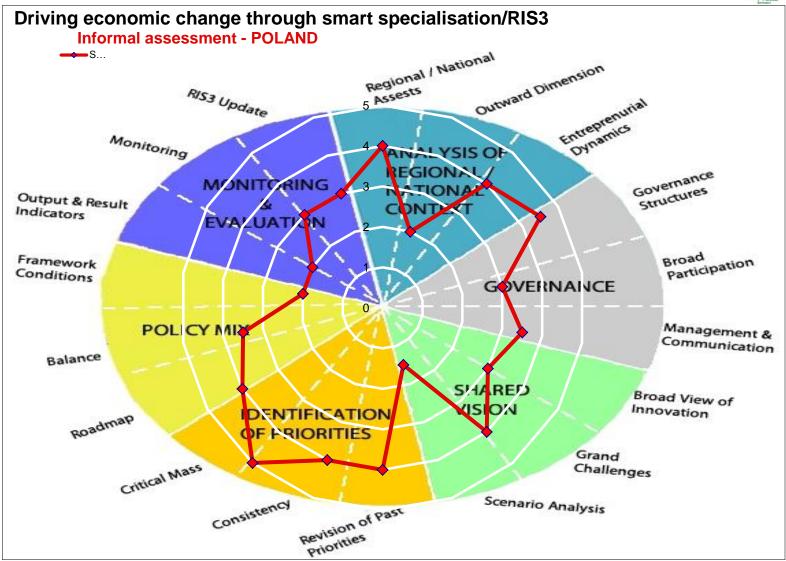
#### There is a full synergy between KETs technologies and R&D&I priorities indicated in Polish NNS

## **Poland's self-assessment**





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# Questions you would like to discuss with your critical friends:

- 1. How to co-ordinate the monitoring and verification system on the national and regional level? How to provide synergy?
- 2. How to better engage business in the entrepreneurial discovery process from the national perspective? Should the process involve individual enterprises or rather business centres/chambers?
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### **Summary and next steps**

#### **Conclusions:**

- NSS is the integral part of the Enterprise Development Programme, which was accepted by the Government of the Republic of Poland on 8 April 2014
- NSS is an open document, which will be the subject to ongoing review and updating on the basis of the monitoring system and ongoing socioeconomic changes
- Implementation of NSS will take place both through the implementation of national programmes (e.g. NCRD, PAED projects) and with the use of EU funds under the operational programmes, mainly OP SG
- Ministry of Economy is during the process of developing the details of monitoring, actualisation and verification process which will be in a close co-operation with the regional authorities and taking into account regional smart specialisations
- 20 actions to be taken under Action Plan till the end of 2015





Q1: How to co-ordinate the monitoring and verification system on the national and regional level? How to provide synergy?

- Should the national and regional smart specilialization strategies be complimentary or independent documents?
- Should the national and regional levels have common monitoring system and indicators or should they be developed independently?
- Should the actualization of regional R&D&I priorities influence the national ones? If yes, to what extent?





## Q2: How to better engage business in the entrepreneurial discovery process from the national perspective?

- What is the best way to engage enterprises on constant basis? How to ensure their involvement and should there be any system of incentives for those co-operating?
- Should the process involve individual enterprises or rather business centres/chambers?
- How to avoid "false knowledge" from the lobby groups of enterprises that will try to push the smart specialisation in the direction of their interest?





Q3: How to define the criteria of the smart specialization assessment under Operational Programmes?

- How to recognize smart specializations from the application projects? Should it be NACE or individual expert assessment to state that the project concerns smart specialization? Or others?

- Should the supported smart specialization be the final product or should it also be allowed to consider it as the part of other, larger product/service?





Q 4: Are you going to use/are you using the opportunity of spending 15% of structural funds to support the areas not mentioned under 'smart specialisations"? If yes, how?

- What instruments will allow supporting other areas than identified as smart specializations?
- What would be the process of selecting areas for support under 15% spending? Would it be the instrument for the identification of emerging specializations?





## Thank you for your attention!

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