Smart Government for Smart Specialisation – Building Capacity for Policy design and implementation

Case of Poland

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S3 Governance

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 (need for coordination)

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

d) monitoring & evaluation
3 Ministries - of Economy, Infrastructure and Development, Science

Regional level
Co-ordinated by each region by Marshall’s Offices (16 regions) with a feedback for national level
The key documents in the process of designing National Smart Specialisation

- **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**
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 principle:

- Focus on priority areas for R&D&I which have a competitive advantage or have development potential on the market

- socio-economic transformation of the country or regions through .... boosting innovation and growth of private expenditure on R&D
The process of identifying R&D&I priority areas in Poland

**Step 1** – results of the cross-analysis
*The Technology Foresight for Polish Industry – InSight 2030 and of The National Research Programme*

**Step 2** – Quantitative analysis based macro and micro data

**Step 3** – Qualitative analysis of the impact of current R&D and Innovation support programs

**Step 4** – Cross-sectoral analysis between results steps from 2 and 3

**Step 5** – SWOT analysis of first smarts and meetings with socio-economic partners

**Step 6** – List of smart specialization at the national level
Technology Foresight for Polish Industry – InSight 2030 vs. National Research Programme (NRP)

InSight2030 research & economy areas

1. Industrial biotechnology
2. Microelectronics
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
8. Natural resources
9. Healthy society
10. Green economy

NRP research areas

1. New energy-related technologies
2. Diseases of affluence, new medicines and regenerative medicine
3. Advanced information, telecommunications and mechatronic technologies
4. New materials technologies
5. Natural environment, agriculture and forestry
6. Poland’s social and economic development in the context of globalising markets
7. State security and defence

37 cross-sectoral technologies aggregated in 22 main areas of specialisation to be evaluated again with experts and entrepreneurs
Smart specialization areas in Poland

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

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

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

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
The openness 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
Implementation system
Smart specialization identification
bottom-up & top-down

Materializing

Ongoing process of
monitoring & evaluation

Identification

Implementation

Monitoring & evaluation

Instruments

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

Projects financed from the national budget:
- Implemented by the PAED & NCRD

Objectives

Achieving 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

- PAED & NCRD projects
- PRRI
- COSME
- 16 ROP
- OP Digital Poland
- Horizon 2020
- OP SG NSS
- Horizon 2020
Monitoring & evaluation system
The logic of the system

Steering Committee (ST) → strategic and operational management of the NNS execution, decision-making regarding changes in smart specializations, responsible for the implementation of attaining objectives

Consultative Group → government administration involved in the implementation of structural funds, recommending changes in smart specializations

Working Groups → representatives of business, science, government in the areas of specializations – monitoring the effects, attaining of the objectives and identifying the barriers

Observatory of economy → business representatives indicating directions of development of innovative economy and changes in the economic structure based on the latest trends, development and emerging market niches

business consultants in the regions (the World Bank project) → analysis of the needs and potential of companies

entrepreneurial discovery process → Quantity analysis - the effect of intervention

monitoring → Quality analysis – how the socio-economic situation has changed regarding the state before NSS

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
Thank you for your attention!

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