

# How are smart specialisations selected?

## **Back to future - that is to say. where do smart specialisations originate from and who decides about their scope?**

The document National Smart Specialisation (NSS) is the effect of cooperation and consensus of public administration employees, entrepreneurs and scientists.

Owing to this fact, the process of identification of smart specialisations is a participation process, since it engages social, economic and scientific partners, in order to allow for discovery of the fields in that a given country has resources and growth potential, a chance to mark its presence in the international market, and also the fields that will offer answers to social and environmental challenges.

The main principle of smart specialisations is to ensure participation of the widest group of stakeholders (public administration, entrepreneurs, scientists, representatives of non-governmental organisations, society) in their identification, verification and updating. This authority has the opportunity to express their needs for innovative solutions in their closest surroundings.

## **Would you like to join the process of identification and updating of smart specialisations? You are invited!**

### **How did it all start?**

Defining of national smart specialisations took place in the scope of two processes: the process of defining developmental directions in the field of innovation and industry and also the bottom-up process of identifying niches and competitive advantages of the country based on the existing resources.

In 2011 *the National Research Programme (NRP)* indicated strategic directions of scientific research and developmental works that defined targets and assumptions of the long-term scientific, technical and innovative policy of Poland. The purpose of the NRP is concentration of public funds on the priority directions of scientific research and developmental works from the point of view of the needs of the Polish society and international competitiveness of the Polish economy. The NRP covers seven strategic, interdisciplinary directions of scientific research and developmental works:

1. New technologies in the scope of energetics
2. Lifestyle (civilisation) diseases, new medicines and regenerative medicine
3. Advanced information, telecommunication and mechatronic technologies

4. Modern material technologies
5. Natural environment, agriculture and forestry
6. Social and economic growth of Poland in conditions of globalisation of markets
7. Safety and defensive capability of the country

In 2012 *The Technology Foresight for Industry – InSight2030* research was conducted, in which the condition of Polish industry was diagnosed, as well as one identified the key technologies determining the development and competitiveness of Polish industry until 2030, including technologies in which Poland could achieve commercial success on the global market.

As a result of the project *InSight2030* 10 key technologies were defined:

1. Industrial biotechnologies
2. Nano-processes and nano-products
3. Advanced manufacturing systems and materials
4. Information and telecommunication technologies
5. Micro-electronics
6. Photonics
7. Technologies of co-generation and rationalisation of energy management
8. Natural resources
9. Healthy society
10. Green economy

In 2012 evaluation was also conducted concerning specialisation of the country's economy, based on the data concerning, among others, expenditure for R+D, employment, export and patents, and the activity of enterprises was analysed in developmental projects and corporate links.

In 2013 as a result of conducted analysis of the country's potential in the scope of scientific, technological and industrial specialisations, a list of cross-sector areas was defined, subjected to broad consultation with experts, as well as social consultations and inter-departmental agreements. As a result of these actions, 18 national smart specialisations were identified, which were subsequently supplemented in the years 2014-2015 to include the additional 2 specialisations. In 2018 a review of smart specialisations was conducted and their number was limited to 17. Since 1 January 2019 there has been a valid new list of 15 national smart specialisations.

**Works concerning smart specialisations are continued!**

**The National Smart Specialisation is an open document, subjected to continuous verification and updating, based on entrepreneurial discovery process monitoring system and analysis of occurring social and economic changes on a country scale and on global scale**

**What is the entrepreneurial discovery process?**

**Entrepreneurial discovery process** is a process that ensures engaging of entrepreneurs and scientists in defining of the areas of priority for the Polish economy, whose development will contribute to economic growth, improvement of innovativeness of applied solutions, and also will take into consideration the current social and environmental needs and barriers. Thanks to engagement of stakeholders, the investments in such defined areas, will not only generate an added value for economy, but they will also ensure tailor-made solutions, aimed at current barriers and challenges. This will allow to avoid investments in the fields, where there is no demand from the side of the market, or the society.

For the purpose of conducting of the entrepreneurial discovery process, the Ministry of Entrepreneurship and Technology applied various methods, covering foresight type analyses (including SWOT analysis, PEST analysis, DELPHI questionnaire), analysis of statistical data and quality data (method of *desk research*, interviews with entrepreneurs), cross analyses, social consulting, workshop meetings, bilateral meetings with the key stakeholders, conferences, sessions of NSS Working Groups and NSS Consultation Group and NSS Consultation Group, *smart labs* and *thematic partnerships*

**Smart Labs** are focus groups, composed of the representatives of enterprises, scientific institutions, business environment institutions, public administration and a moderator (it may be a representative of the private sector, a business angel, a business environment institution), formed for the purpose of identifying new, emerging specialisations, verification and updating of the existing specialisations and initiation of cooperation and implementation of common projects in identified fields.

The tasks of Smart Labs are as follows:

- verification/deepening/modification of smart specialisations and finding new specialisations;
- working out of "BTR – Business Technology Roadmaps" of a given sector of economy, indicating to its potential for growth;

- discussion about business and technological trends;
- initiating and maintaining cooperation for development of projects in the scope of R+D+I, including creation of common projects.

Entrepreneurs identified as leaders in the respective areas participate in the meetings of Smart Labs.

The list of fields identified for Smart Labs was selected in the survey "*Smart Panel*" in the scope of entrepreneurial discovery.

Fields for Smart Labs were identified based on the evaluation of 5 criteria

- Criterion 1: Existence of R+D potential,
- Criterion 2: Economic specialisation level,
- Criterion 3: Existence of cooperative links,
- Criterion 4: Competitive position in the international arena,
- Criterion 5: Potential for working out the solutions concerning the key challenges of the contemporary societies.

In the years 2017-2018 12 meetings of Smart Labs were held in 4 fields (the sector of innovative plastics, the space sector, video games applied in various fields of life, medicines with high added value) and 3 analyses of *Business Technology Roadmaps* - BTR were prepared for the sectors of: space, pharmacy and plastics The BTR document presents - from the perspective of business - the strategic goals and technological areas indicated by the line of trade, whose accelerated development creates a chance for gaining competitive advantage. The BTR is an expert analysis and it forms one of the sources of information for the decision taken by the Steering Committee concerning possible changes and modifications of NSS.

**Are you an entrepreneur or a scientist? Would you like to join the process of creating innovative policy in Poland? Take the matters into your own hands and develop smart specialisations! You are invited!**