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National Foresight Programme “Poland 2020”

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Sponsors: Ministry of Science and Higher Education, Poland

Type: National foresight exercise

Organizer: Institute of Fundamental Technological Research of the Polish Academy of Sciences (IPPT-PAN)

Duration: January 2006 – June 30, 2008 **Budget:** €1,300,000 **Time Horizon:** 2020 **Date of Brief:** Nov. 2007

Purpose

The National Foresight Programme “Poland 2020” is the first national foresight exercise being carried out in Poland. It is being conducted in three research areas: sustainable development of Poland, information and telecommunication technologies, and security. Its main aim is to set up paths of scientific research and development capable of accelerating long-term social and economic growth. Another equally important goal is to trigger public debate on visions of Poland’s future. The realization of the programme has been preceded by a pilot foresight project in the area of “Health and Life” research.

Rationale and Design of the National Foresight Programme “Poland 2020”

The idea for the National Foresight Programme for Poland emerged in 2003 and is associated with the person of the Minister of Science and Information Society Technologies at that time, professor Michał Kleiber. It was included as one of the measures to foster innovativeness in a document called “Plan for promoting growth in the years 2003-2004”, adopted by the Council of Ministers on July 1, 2003 and launched in the fourth quarter of 2003. The resulting pilot foresight programme was carried out in the area of “Health and Life” research. The choice of this research area was dictated by a large public concern for this issue, by the ongoing change in the demographic structure of Polish society (the problem of an aging society), the Polish traditions of producing safe, that is uncontaminated food, and by attempts to find niches on the Polish pharmaceutical and medical markets. The pilot project in the health and life research area was the first step in the realization of the National Foresight Programme. The overall

programme was initially supposed to cover the following research areas: “Sustainable Development of Poland”, “Information and Telecommunication Technologies” and “Security”. Due to changes in political administration, the programme was not continued until 2006.

Why Is a National Foresight Programme Needed in Poland? Socio-economic Factors to be Considered

In Poland, the following social and economic conditions crucially affect implementation of national and other foresight projects:

- Lack of a systematic approach to challenges that arise from progress in science and technology.
- Overinterpretation of the notion of “autonomy of scientific research”.
- Tendency to copy policy innovation patterns that are not necessarily relevant or appropriate.
- Relatively small share of industry in R&D expenditure.
- Insufficient public debate.



- Lower level of economic development as compared to the EU-15 countries.
- Bureaucracy in public administration.
- Dislike for long-term thinking.

The above factors can be seen as obstacles to properly carrying out the programme. At the same time, they cast light on the need for Poland to develop a well-thought-out national research and development strategy of its own. A nation-wide foresight exercise is the first step in this direction. Its aim is:

- to lay out a vision for Poland’s development by 2020;
- to set up the main paths of scientific research and development – in consensus with the main beneficiaries – for accelerating social and economic growth in the long run;
- to put the research results into practice and to set priorities accordingly when it comes to allotting public funds;
- to demonstrate the significance of scientific research to economic growth and show how the economy can successfully adopt it;
- to adjust Polish science policy to the requirements of the European Union;
- to align science and innovation policy with the needs of a knowledge-based economy.

Implementation of the national foresight programme in Poland is expected to render the following results:

- to identify lines of strategic research and development that will guarantee fast economic growth in the medium and long term;
- to streamline expenditures from public funds;
- to create a common language suited to cultivate a public debate and a culture of thinking about the future, leading to coordinated efforts towards economic growth and improvement of the quality of life in Poland.

How Is the Programme Structured?

A steering committee has been installed to assume consultancy and supervisory functions to ensure the proper implementation of the programme. This body is to act under the Ministry of Science and Higher Education, in cooperation with the Foresight Unit based at the Department of Science Strategy and Development of the Ministry and a support group comprised of young researchers from Polish universities and research centres. The steering committee is responsible for:

- supervising over the proper execution of the national foresight programme;
- selection of experts to be involved in the programme;
- choice of methods in executing the programme;
- determining the scope of each research area;
- approving the programme's financial plans;
- approving the reports on each stage of the programme.

The other main bodies involved in project realization are:

- a coordination consortium,
- expert panels.

The consortium members are the Institute of Fundamental Technological Research of the Polish Academy of Sciences (IPPT PAN) – project coordinator, the Institute of Economics of the Polish Academy of Sciences (INE PAN) and Pentor Research International; they are responsible for organizing and managing the project. The Institute of Fundamental Technological Research of the Polish Academy of Sciences is responsible for project management and coordinating the work of the expert panels. The Institute of Economics of the Polish Academy of Sciences is in charge of analysing statistical data and providing other analyses associated with the foresight procedure, such as: PEST (political, economic, social, and technological) analysis and cross-impact analysis. Pentor Research International is assigned the tasks of conducting a two-round Delphi survey, organising public debates, and providing consultancy and supervisory services for the promotion and dissemination activities in the context of the National Foresight Programme “Poland 2020”.

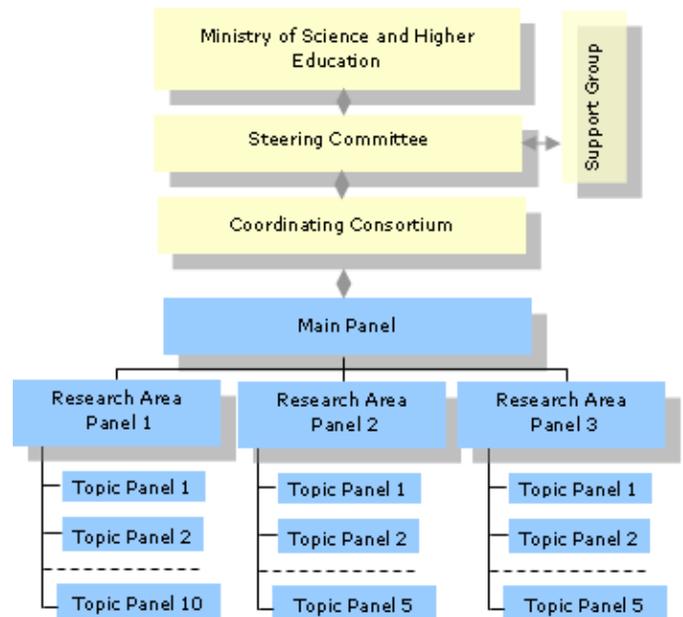


Fig.1. The simplified organizational structure of the National Foresight Programme “Poland 2020”

The expert panels (a main panel, three research area panels, and 20 topic panels) are preoccupied with conceptual work, as the basis for further analyses by the coordination consortium. The main panel is comprised of renowned specialists in the areas covered by the foresight programme, experts on social and economic issues, and representatives of the potential beneficiaries and users of foresight from industry, politics, and the media. Its main tasks include:

- developing a first outline of a vision of Poland’s development by 2020, with a special focus on the science and research sector and its ties to the economy;
- supervision over the entire project in terms of content;

- laying out the guidelines for the work of the research area panels in terms of content.

There are three research area panels composed of key experts, who manage and coordinate the work of the topic panels.

The research area panels are:

Sustainable Development of Poland (Quality of life, Sources and use of power resources, Key ecological problems, Environmental protection technologies, Natural resources, new materials and technologies, Transport, Integration of ecological policy with sectoral policies, Product policy, Sustainable development of regions and areas);

Information and Telecommunication Technologies (Access to information, ICT and the society, ICT and education, E-business, New media);

Security (Economic security (external and internal), Intellectual security, Social security, Technical and technological security, Development of civic society).

The main tasks of the topic panels include: assessment of current knowledge in the areas in question, analysis of major issues and macro topics of each research area using selected foresight methods, and the formulation of Delphi statements.

Topic panels are composed of renowned experts in the respective fields, representatives of academic and research institutions, industry, innovative enterprises, institutions promoting technology transfer, media, etc.

The work of the research area and topic panels is supported by experts from partner institutions, which include universities, such as Warsaw School of Economics, Warsaw University of Technology, and agencies and associations, such as Polish Agency of Enterprise Development, Polish Federation of Engineering Associations, and the Polish Technological Platforms.

What Methods Are Applied?

Among the methods employed in the National Foresight Programme “Poland 2020”, the most important ones are: expert panels, SWOT analysis, Delphi survey, PEST analysis, cross-impact analysis, and scenario-building.

Out of the methods listed above, the Delphi method, which has not yet been used on such a large scale in Poland, will be of crucial importance. The general procedure for the implementation of National Foresight Programme “Poland 2020” is presented in figure 2.

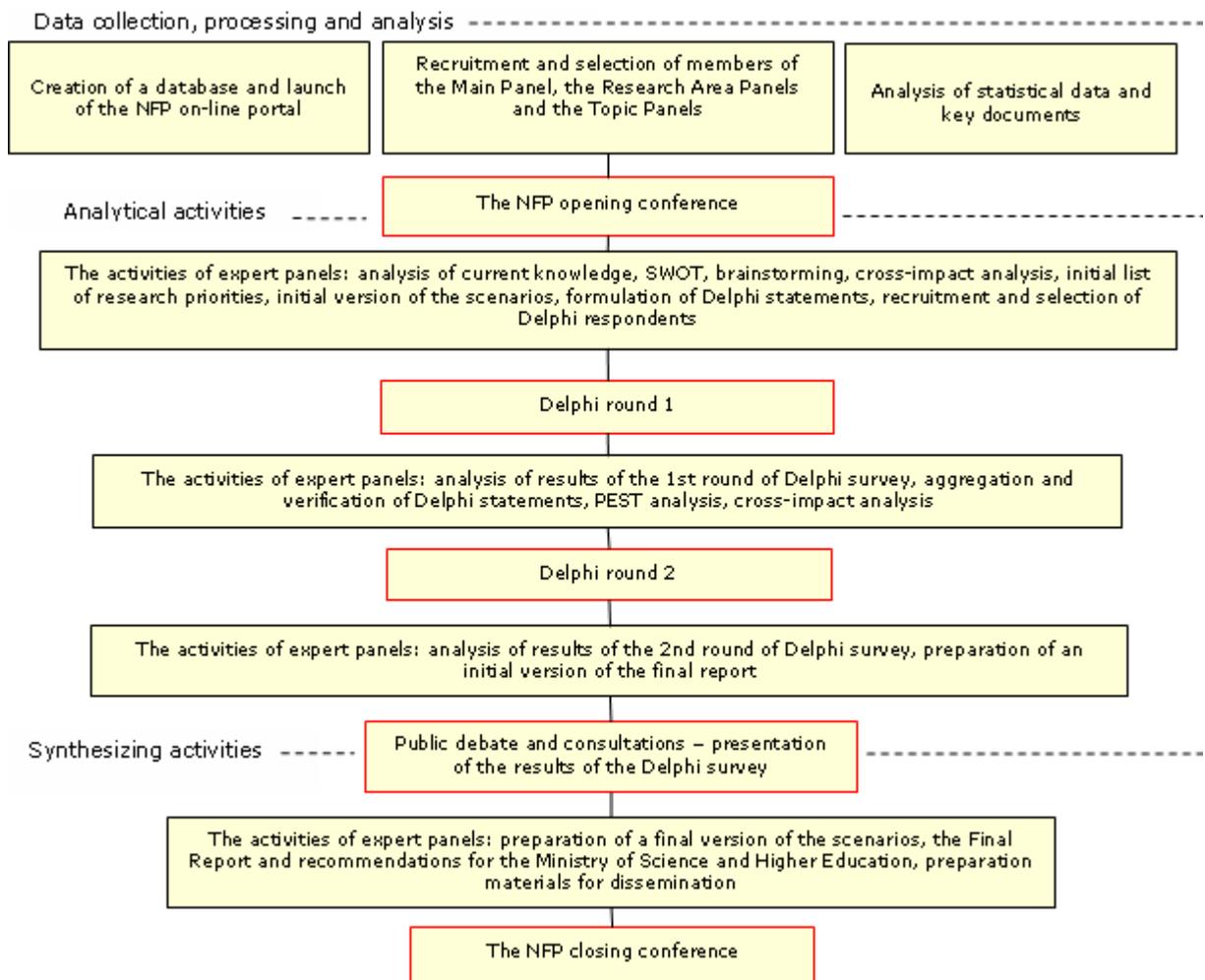


Fig. 2. General procedure for the implementation of National Foresight Programme “Poland 2020”

The National Foresight Programme “Poland 2020” as a Social Project

As the essence of foresight projects is to involve representatives from business, academia, media, government, political groups and, finally, the general public in debate about the future, two models of consultation will be used in the project:

- a closed consultation model, reserved for persons having outstanding professional and academic background – expert consultations,
- an open consultation model, open to anyone interested in the project – public debate and public opinion polls.

As part of the expert consultations, a Delphi survey will be conducted. Representatives from science, business, public administration, media, and non-governmental organizations will be invited to participate in the survey. Building scenarios on social and economic developments also requires knowledge on social reactions to the situations described in the scenarios. For this reason, the results of the Delphi survey and the preliminary development scenarios will be subject to a debate involving participants from many different walks of life. The website of the National Foresight Programme “Poland 2020” (www.foresight.polska2020.pl) provides another method for broad social consultations. Users are able to express their opinions on the materials published on the website by filling out an anonymous survey and participating in an online forum. Thanks to this, the National Foresight Programme “Poland 2020” portal will serve as a platform for broad public discussion and for an exchange of views concerning the economy, its growth forecasts, and evaluations of the project's progress and results.

Additionally, the National Foresight Programme “Poland 2020” portal serves as the basic tool of the programme's information and promotion campaign. It supports

- communication within scientific circles,
- communication between scientists and users of science and technology,
- and broader education of society, the government, and politicians.

What Is Planned? What Has Been Done?

On March 1, 2007, the official opening ceremony of the National Foresight Programme “Poland 2020” was held. In May, the expert panels began their work. The topic and research area panels engaged in:

- preparing a list of the main research topics,
- preparing an initial list (20-30 for each topic panel) of research priorities (technology, method, technique, and procedure),
- assessing and reducing the number of proposed priorities drawing on agreed upon criteria of selection (scientific research, implementation, economic, social, and environmental criteria), and
- selecting macro-priorities for the Delphi statements.

In the following weeks (October-November), Delphi statements will be formulated on the basis of these macro-priorities. By the end of 2007, the first round of the Delphi survey will be conducted. The second round of the Delphi survey and analysis of its results will take place from January to February 2008. Since the National Foresight Programme “Poland 2020” is officially to be completed by June 2008, the programme's final report will be presented and the closing conference held around this date.

The results of National Foresight Programme “Poland 2020” will serve the Ministry of Science and Higher Education as a guideline to verify and complement the strategy for the development of science in Poland by 2015.

Sources and References

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About the EFMN: Policy Professionals dealing with RTD, Innovation and Economic Development increasingly recognize a need to base decisions on broadly based participative processes of deliberation and consultation with stakeholders. One of the most important tools they apply is FORESIGHT. The EFMN or European Foresight Monitoring Network supports policy professionals by monitoring and analyzing Foresight activities in the European Union, its neighbours and the world. The EFMN helps those involved in policy development to stay up to date on current practice in Foresight. It helps them to tap into a network of know-how and experience on issues related to the day to day design, management and execution of Foresight and Foresight related processes.

