



EFMN

WWW.EFMN.INFO The European Foresight Monitoring Network

The Polish Foresight Pilot - Health and Living 2013

Foresight Brief No. 038

Authors: Maria Lepeta, The Polish Ministry of Education and Science maria.lepeta@mni.gov.pl
Sponsors: Ministry of Science and Information Society Technologies
Type: A National foresight on health and life-science research
Organizer: Ministry of Science and Information Society Technologies
Duration: 2004-2005 **Budget:** € 190,000 **Time Horizon:** 2013

Purpose

This pilot Foresight project in the area of Health and Living was aimed at speeding up the process of predicting development paths that would lead to improvement in the health and quality of life of Polish citizens. This activity provides a basis for determining the paths of science and technology policies that support economic priorities and for building broad consensus on complex social issues. The 'Health and Living' area was selected for analysis due to the widespread perception that the biological and medical sciences develop very fast nowadays and this pace of change poses new challenges for policy makers across a range of domains.

Public Support for Foresight on Health and Living

The Foresight Programme was initiated by the Minister of Science and Information Society Technologies. It was part of a list of tasks intended to support innovation laid out in a national policy document entitled 'The Plan for Pro-Growth Efforts for the Years 2003-2004'. This plan was adopted by the Council of Ministers on 1 July 2003 and launched in the fourth quarter of 2003. The Pilot Foresight activity – 'Health and Living' was funded by the Ministry of Science and Information Society Technologies.

The Foresight Programme was developed on the basis of discussions with various actors who provided advice on issues such as the time, extent and methodology to be adopted. It was financed by the PHARE SCI-TECH II programme to support the restructuring of research organisations and improve technology transfer in the new member states.

A variety of case studies were analyzed in preparation for the development of the pilot foresight programme. In particular technology foresight exercises conducted in Ireland, Great Britain, Germany and Australia were examined. Finally it was decided to focus the efforts of the programme on the following fields:

- Health and Living
- Sustainable Development
- ICT Technologies
- Safety

The field of 'Health and Living' was chosen as the topic for the pilot phase. This choice was dictated by the high level of public support for the subject. Interest in these issues has been stimulated by:

- Changes in the demographic structure of Polish society in particular the challenges posed by an ageing society
- Polish traditions of producing clean food and by
- Attempts to find niches for Polish enterprise in the areas of medicines and pharmaceutical products



Moreover the area of ‘Health and Living’ is one in which various theoretical and applied fields and disciplines of science converge. It covers issues related to the process of the aging of the population, the prevention and treatment of various diseases, new drugs, transplantation and regenerative medicine, new materials and medical equipment, health threats connected with condition of our environment in particular the impact on health of the quality of air, water and other aspects of the natural environment.

There is a need to speed up the development of new ideas and the creation of new medical technologies which have already reached a high level in Poland or the world or which may be considered as fast developing and offering good opportunities or exploitation. The area of Health and Living corresponds

with one of the current strategic objectives of the European Union’s Science and Social Policy.

The main goal was therefore to contribute to research and policy for Public Health by helping to:

- Define priorities in the area of research and technological development by detecting potential opportunities.
- Encourage other social groups to participate in the debate on the future.
- Present the significance and achievements of scientific research to economic growth and the possibilities for them to be absorbed by the economy.
- Change the focus of research and innovative policy from that for a traditional economy to that for an economy based on the creation and exploitation of knowledge.

Methodological Issues

Due to time and cost restrictions the methodology of the Pilot Foresight Project was based on the following foresight tools and techniques:

- A **Steering Committee** nominated by the Minister of Science was set up in order to coordinate all activities. Subsequently this committee appointed the **Main Topic Panel** to coordinate the Pilot Foresight Project. A group of four experts was chosen from the scientific groups of **The State Committee for Scientific Research**. This committee was a central administrative body whose members were representatives of scientific circles and government officials. The task of the four experts was to nominate experts to the Pilot Foresight Project.
- Eleven **thematic panels** in the health area were selected based on nominations of institutions and organizations authorized to name the candidates. This stage of the work involved the completion of a questionnaire by nominees and a process of co-nomination. Each panel was composed of a group of 10 to 18 experts coming from science, industry and public policy.
- **Identification of Key Technologies** using specifically selected criteria and developed by the **Main Topic Panel** experts. This work makes it possible to determine priorities for a country’s science, technology and innovation policies on the basis of future needs of the economy and society.
- **SWOT Analysis** was applied to each segment of ‘Health and Life Science’.
- **Expert Panel Discussions** involving groups of 10 to 15 experts were very effective in providing measurable results in relatively short time and made it possible to increase the number of actors involved representing various interests and social groups.
- **Social Consultation** was employed not only to optimize and substantially motivate the choice of priorities but to enable a broader group of stakeholders to express their

views on priorities to ensure the country’s development. The aim was to involve a cross section of society to help achieve buy-in to the results eventually obtained.

The following project-phases of the project can be identified:

- All thematic panels gathered the data and prepared SWOT analyses.
- A set of criteria to select priority research areas was established.
- First lists of priorities were prepared by panels.

The eleven thematic areas were:

- Primary and secondary prevention.
- Diagnosis and treatment of disease. This concerned all diseases which occur on a large scale or which are capable of spreading quickly among members of the population.
- Methods and technologies supporting intensive therapies.
- Veterinary protection of public health.
- Medical and psychological rehabilitation.
- Bioinformatics and biomedical engineering.
- New bio- and nanotechnologies in medicine and health-care.
- Conditions of the quality of life.
- Food safety and health.
- Food production and the environment as well as environmental protection.
- New pharmacological methods and social pharmacy.

All eleven themes mentioned were analysed during three or four meetings of each panel. Members of thematic panels described weaknesses and strengths of represented area and after the discussion critical areas were identified and final reports based on these activities were prepared.

The ‘social consultation’ was carried out by the Pentor Institute for Opinion and Market Research, an organisation which specializes in public opinion surveys. With their help four

focus-group interviews were conducted, 20 in-depth interviews were undertaken and a survey with 120 experts was carried out.

The final report was based on the findings of the surveys as well as reports from each of the eleven thematic panels. It was compiled and edited by the members of the Main Thematic Panel.

Main Findings of the Pilot

During the foresight process many issues were selected by experts as priorities. In order to choose the most important ones the Main Thematic Panel used the leads that emerged from the reports of the eleven panels and classified priorities into two different categories ‘high priority areas’ and ‘priority areas’.

On the sub-theme of ‘Fighting Diseases and Educating People’ the selected **HIGH PRIORITY** areas were:

- Development of effective screening test systems
- Development of perinatal care, early detection of genetic and development defects
- Development of medical rescue methods and techniques

The **PRIORITY** areas were:

- Development of the methods and technologies for the needs of the **public pro-health education**.
- Construction of programmes for continuous development of **nutritional awareness** and rationalization of society’s nutritional habits.
- Development of methods and techniques associated with prevention, diagnosis and treatment of **contagious diseases and infections** that are important from the public health’s point of view.
- Development of methods and techniques of **ergonomic shaping** of the living and working conditions, with a special focus on the elderly and handicapped people.
- Development of methods and techniques associated with prevention, diagnosis and treatment of disorders related to **advanced age**.
- Research on **stress** and development of methods to reduce it.

- Development of research and technologies concerning **genetically modified organisms** and monitoring of their impact on the human beings and the ecosystem.
- Improving **food and eating habits** within the context of their significance to the protection of human and animal health, with a special focus on natural biologically active substances.
- Development of rehabilitation methods and techniques related to somatic and mental disorders which are of great public interest.

A Healthcare System in Pain

The aim of the introduction of the social consultations to the Pilot Foresight Project was to achieve three basic objectives, namely:

- To initiate a sense of cooperation and participation among the participants;
- To maximize the effectiveness and pertinence of the decision processes;
- To obtain the social acceptance of the decisions made during the project.

The results of the **social consultation** showed that the priorities recommended by experts were on some points different to those of representatives of the general public. The representatives of the public identified the most important challenges facing Polish society in the area of ‘Health and Life-Science’ as being:

- Poor organization of the healthcare system (a sentiment reflected by 29% of respondents).
- Insufficient funds spent on healthcare.
- Insufficient availability of diagnostic techniques
- High prices for medication.
- Insufficient scope and extent of screening tests.

Public Awareness at All Levels

This Pilot Foresight Project was undertaken to determine and assess the future needs, opportunities and threats associated with social and economic development and help prepare in advance appropriate measures in the field of science and technology.

The foresight process itself, as well as its results, were used as a means of determining priorities for science, technology and

innovative policies and as a tool for fostering a culture of thinking about the future.

Only when we know what is about to happen, what may happen or what challenges we will face, can politicians, managers and people in general make a choice between various alternatives for action.

The foresight programme allowed the representatives of the public authorities, industry, non-governmental organizations,

research organizations and society to get involved in an open and guided discussion about the future. The results of the foresight informed decision-makers about new development trends and helped them to agree on development scenarios and harmonize the activities of the stakeholders. The participation of representatives from government, the scientific and industrial communities as well as actors in small and large enterprise in different sectors of the economy has been instrumental in determining criteria for the financing science and technology.

The general message resulting from the completed exercise is that there are some research areas of key importance to the country's social and economic development. Taking into account the resources needed to develop all these areas Poland should focus on fields and areas which represent a high inter-

national level using the criteria of financing science and technology areas elaborated during foresight activities.

The Health and Life Science area is the field that concerns health-related services and products. The significance of this sector becomes more and more important so there is a need to solve problems connected with healthcare such as aging, nutrition, pro-health education, prevention, diagnosis and treatment of diseases with widespread social impact, ethical and many other issues. Future oriented information is indispensable to decision making.

In this particular area many efforts to improve the health status of society should be made together by public authorities as a whole, researchers, industry and also the society itself.

Impact on the National Framework Programme

The first step in using the findings of the foresight programme carried out in Poland is that some of the domains that were selected by experts as key areas have already been placed into the National Framework Programme.

Healthy Nutrition

This field covers issues related to the development of production and rules of evaluating healthy food which are based on nutrigenomics. The development of healthy food production methods should become one of the pillars of agricultural policy and one of the main efforts fostering health in Poland and in the European Union.

Veterinary Protection and Public Health

The priority direction should include:

- The use of molecular and cellular biology to identify and analyze the risk of appearance of animal and animal-derived diseases
- To assess the quality of animal-derived fodder and food and
- To develop alternative methods of evaluating medical products used in protecting animal health.

The usefulness of the Pilot Foresight Project will depend on the policymaker's involvement in shaping the future by using new tools for developing science policy and supporting close collaboration between key stakeholders. The big emphasis for the future should be put on creating the climate for common work.

Success will depend also on the ability of commercial application of technological achievements.

Sources and References

www.mnii.gov.pl

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.