Forecasting the Future



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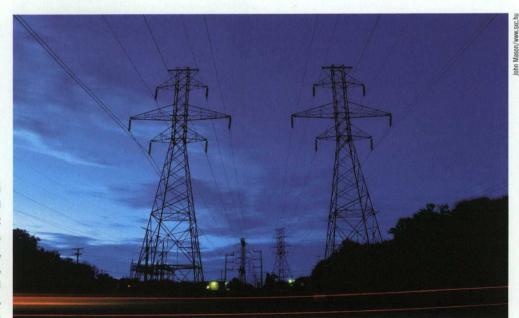
Assoc. Prof. Tadeusz Baczko studies innovativeness among Polish companies. He is coauthor of the ranking The 500 Most Innovative Polish Firms, editor of the Report on the Innovativeness of the Polish Economy, and cofounder of the Center for Social and Economic Research (CASE) The "Poland 2020" National Foresight Program is a large-scale research project in which scientists, politicians, and economic practitioners analyze global trends and Poland's situation, striving to identify achievable goals and avenues for national development and to help foster a modern society

In 2007-2008 Poland embarked upon a great research project, seeking to better identify its national development prospects. The impressive output of this unprecedented "futures studies" research includes expert intelligence collected through Delphi surveys, the identification of causative factors shaping the future, and the positing of longterm scenarios of development. Another important consequence of this work lies in the emergence of complex expert bodies drawing together representatives of the research community, public administration, business and financial institutions.

The completion of the project came at a time of mounting symptoms of economic crisis, a situation that poses special challenges to all institutions responsible for Poland's socioeconomic development.

Structure of the project

The successes achieved in the 20 years of Poland's post-communist transformation have been accompanied by the marginalization of parts of society, harboring a sense of injustice and a sense of their dreams coming up against harsh political and economic realities. It is particularly important, therefore, to reach out to those social groups that think in future-oriented terms and are able to express their preferences about the directions of future socioeconomic development. One of the main objectives of the "Poland 2020" National Foresight Program has been to cultivate the kind of attitudes that characterize modern societies, developing ways of achieving consensus about the priorities of development.



The scope of research embraced by the "Poland 2020" National Foresight Program included Poland's sustainable development, energy resources, ecology, environmental protection technologies, and natural resources

Work was carried out by three research panels, in cooperation with thematic teams. Many research methods were employed, including Delphi analysis. In this method, hundreds of experts are asked to provide their evaluation of various future scenarios, stating which of them stand chances of coming true and under what conditions. The work also utilized the SWOT technique (Strengths, Weaknesses, Opportunities, Threats) and PEST analysis (evaluating the Political, Economic, Socio-cultural, and Technological environment). Problems were analyzed at the intersection of various impact factors; sector-based and integrated scenarios as well as lists of domains and measures were drawn up. The scope of the research encompassed Poland's overall sustainable development: quality of life, energy resources, ecology, environmental protection technologies, natural resources, new materials, transport, ecological policy, manufacturing policy, regional development, IT, and access to information; the relationships between modern technologies, society, and education; e-business and new media; economic, intellectual, social, and technological security; as well as fostering civil society.

Expert intelligence

The first round of Delphi research involved the participation of 2587 experts from various fields, representing 48% of the 5413 individuals the organizers approached. In the second round, 92% of them responded to the survey, thus yielding a total of 2385 respondents. This survey has helped identify the preferences of research communities, consumers, public administration, and commercial companies with respect to the future priorities of Poland's development, and collected significant intelligence about such preferences, current research work, and desirable changes in the functioning of the economy and institutions responsible for implementing state policy.

Alongside the cumulative resource of intelligence, the framework of links established among experts and relations between them represents a lasting achievement of the project. The established interconnections may subsequently serve as the basis for many strategically oriented local, sectoral, or nationwide initiatives. These ex-



perts may act as important participants in shaping policies geared towards effectively harnessing public funds and drawing upon the output of existing strategic studies in a purposefully targeted way – so as to better harness Poland's existing potential and help it catch up to the most developed countries, to find its rightful place in this world full of demographic, energy and climate challenges and transformations, and to identify fields where particular developmental opportunities may lie.

Factors of development

There is an important role to be played here by integrated scenarios of Poland's development, as posited and formulated under the framework of the "Poland 2020" National Foresight Program. Such scenarios enable us to answer questions about what Poland may expect from now through the year 2020. Will this be a time of leaping forward, of tough adaptations, of waning development, or even of socioeconomic collapse? What needs to be done and what must not be overlooked in order to make the positive scenarios more likely?

The scenarios posited for Poland's development through 2020 depict different variants of national development as hinging upon key factors with a combined impact on the country's capacity for stable development. The studies performed and expert consultations have identified four main factors: globalization / European integraCountries like Poland will require active state policies over the coming decade to support processes of economic transformation

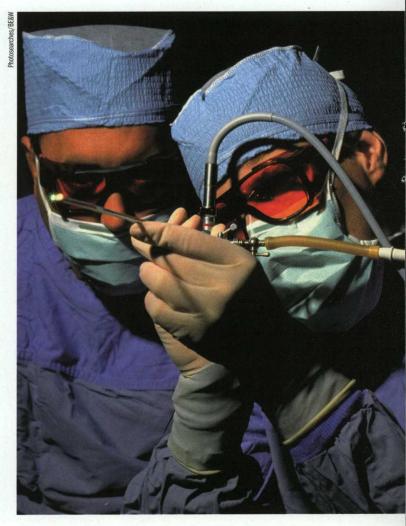
The "Poland 2020" National Foresight Program

tion, internal reforms, a knowledge-based economy (KBE), and public acceptance. In terms of the first factor, the fundamental question is whether the world will manage to cope with the current crisis and return to a path of peaceful integration, creating new institutions to facilitate the resolution of global problems and boost stable world economic development. For the second factor, the key question is whether the Polish political elite will manage to devise and carry out the much-needed program of profound reforms at public institutions, in order to release the country's developmental potential. For the third factor, the crucial issue is Poland's capacity to cultivate what is nowadays the most important kind of resource: knowledge, intellectual capital, and the effective channeling of such knowledge into the economy. For the fourth and final factor, the most important question is to what extent Polish society will commit itself to change, throw its support behind difficult reforms, and also harness resources of innovation.

Leap or collapse?

Analysis of how these individual factors may develop gave rise to three scenarios depicting different variants of the successful implementation of sustainable development policy, i.e. the "leap forward," "tough adaptations," and "difficult modernization," scenarios, plus two scenarios reflecting the negative development of the situation, the "waning development" and "collapse" scenarios. All these scenarios are summed up in a table on the next page, where a plus or minus sign signals the positive or negative impact of each key factor.

The most optimistic and hard-to-achieve scenario is the "leap forward," whereby Poland becomes a beneficiary of regional and global integration. Here the political elite prove capable of drafting and implementing a long-term vision for the country's modernization. This is achieved by gaining public support and releasing Poland's huge hidden social capital, which translates into heightened economic and social activity. The right institutional conditions emerge to promote the demand for intellectual capital, the advancement of research/educational institutions, and modern forms of generating



and transferring knowledge. That paves the way for greater innovativeness and social creativity in various domains of life: commercial companies, social organizations, and public institutions.

Overall, the "leap forward" scenario consists of three stages. The first is 2008–2013, when Poland takes advantage of the crisis impulse of 2008 to accelerate its public institution reforms, which thus come into effect as the world socioeconomic system begins to stabilize. This scenario envisions that the world returns to a path of economic development within the stabile growth paradigm, which rests upon the foundation of peaceful cooperation and international integration. It also envisions a consensus among the Polish political elite, who together with an active society formulate a vision for the country's development, with a modern science and technology sector as a cornerstone. The culmination of this stage comes

In the "Poland 2020" National Foresight Program experts evaluated the developmental chances of various sectors of the economy, deeming fields that harness stateof-the-art technologies (like lasers in medicine) to be the most promising with Poland's accession to the European Currency Union and adoption of the euro.

The second stage, 2014–2019, is a period of real transformation into a knowledgebased society. Systematic efforts made to stimulate strategic technologies then exceed a critical mass. Poland skillfully combines internal growth factors with foreign investments and EU assistance, which after 2013 becomes focused on boosting innovation.

The third stage, after 2019, bears fruit in terms of lasting changes to the Polish economy and society, the development of original industries and services using advanced technologies. This is accompanied by investments in state-of-the-art transport and IT infrastructure and lasting improvement to environmental quality. Poland becomes a target destination for qualified workers as well, and word spreads in the world about Poland's leap forward.

Realism or utopia?

Might this scenario come true? It is certainly hard to predict today how deep the recession phenomena will run, but they are affecting both Poland and other countries. Great opportunities lie in promoting active policies and the capacity to draw out the potentials of the Polish economy. The upcoming decade will be a time of an increasing state role in the economy. As a result, a huge effort needs be invested in innovations in the public domain, by allocating public money in line with the principles of greatest effectiveness, by seizing opportunities to stimulate economic and social processes through the development of the public service sector as underpinned by IT and advanced organizational solutions, public administration (e-governance), health care (e-health), and education (e-education), and by broadly drawing upon public-private partnership.

This scenario would be utopian if it did not take account of the real condition Poland's society and economy are currently in. Here negative phenomena are accompanied by positive phenomena, such as the global activities of innovative companies, the rise of "knowledge regions" in the form of clusters that participate in the transfer of knowledge and technology on the worldwide scale, and activities in the social domain setting a model for the international community - it suffices to mention such companies as Optopol Technology, LfC, Psiloc, Read-Gene, Solaris, ADB, and the Aviation Valley cluster, or such initiatives as the "Great Orchestra" major charity drive and the Academic Enterprise Incubators.

These companies and initiatives would not have achieved success if they did not have long-term strategies for globally harnessing the outcome of domestic and international research. The strategy of identifying such manifestations of developmental micro-scenarios and supporting them with strategic measures on the part of public administration offers a vast opportunity for developing human capital, fostering an innovative economy and infrastructure, and closing regional developmental gaps.

In closing, we can say that the optimistic "leap forward" scenario is indeed possible, but demands consistent public action and further progress in futures research – foresight work that provides support for politicians, research communities, innovative companies, knowledge regions, and social initiatives.

Further reading:

- Kleiber M. (2009). National Programme Foresight Polska 2020. A paper presented on the conference. Warsaw, 16 February 2009.
- Project website: http://www.foresight.polska2020.pl/ mis/en

Integrated scenarios for Poland 2020

| Factors | Internal reforms | External environment | KBE | Public acceptance |
|-------------------------|------------------|----------------------|-----------|-------------------|
| Leap forward | + | + | + | + |
| Tough adaptations | +/- | + | + | - |
| Difficult modernization | + | | + | + |
| Waning development | +/- | + | - | - |
| Collapse | a Star Second | | Ro. 27 84 | |