

# Research Institutes—the source of innovative knowledge

*Polish Market* talks with Prof. Leszek Rafalski, President of Main Council of Research Institutes (RGIB), about the challenges that the Polish science faces in the fast-moving world of innovative economy.



**PM** In May, the Main Council of Research Institutes celebrated its 20th anniversary. What are the main achievements of the institution. How do you see the role the council plays in the Polish scientific world?

Talking about the history of the Main Council of Research Institutes I have to speak about the role of my predecessors at the helm of the institution. Had it not been for their work and drive the Main Council of Research Institutes would not have been where it is today.



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The council came to life through an amendment to the bill on scientific research in 1991. In 1992 the First Representative Election Forum took place which selected 31 members of the council and its president, Prof. Paweł Szewczyk. It was under his tenure that scientific institutes began to have their issues represented vis-à-vis the Parliament and the government. Their role for the nation's economy was defined and efforts were made to increase the state funding for research and development.

Another president, Prof. Jerzy Wasilewski, who was at the president the council in 1995–1998 focused on internal structural alignment of research institutes and their cooperation with the Scientific Research Committee, the government agency charged with financing scientific research in Poland. An important aspect of Prof. Wasilewski's chairmanship was his leadership in creating the policy for pro-innovative, scientific and technological development.

In turn, Prof. Zbigniew Śmieszek, who was at the president of the council in 1998–2007, focused on increasing the funds for scientific research and was pivotal in the creation of a fund to support pro-innovative research programs. He also was driven to amend the bill on scientific institutes so it would reflect the needs of the Polish scientists in a rapidly changing economic environment and their growing aspirations. It was also under Prof. Śmieszek's tenure that a new concept for the structural realignment of scientific institutes was developed and gradually implemented later.

For me, a person who has been at the helm of the council since 2007, the priority is to support the reform of Polish science. There was a milestone in 2010 when a package of six new bills

reforming Polish science was enacted. They transformed the scientific and development units into scientific institutes and changed the status of the council into the current one. Members of the council were pivotal in the legislative work. They are also strongly engaged in supporting the rating system of scientific institutes. They serve as members of different committees and working groups, who represent Polish science, lobby to increase the state expenditures for scientific research and create pro-innovative mechanisms in the economy.

**PM** How do you evaluate the new legislation looking at it from the perspective of two years now?

It is a very good legislation. First and foremost, it has introduced a well-defined fashion with which scientific institutes operate by defining their scope of activity and their fields of responsibility. Another groundbreaking rule is that it sets the formula of non-for-profit activity for research institutes, which enables them to generate money with which to support their own research that has no external financing at the particular moment. This is a very good solution. Last but not the least, the new legislation has enabled the creation of the centers for science and industry, which find practical applications to research results. They also may take part in big international research programs to boost their competitive edge on the global market.

Another positive change that the new legislation brings into the scientific community is the new criteria for the managing directors of research institutes. Now a managing director has to have a PhD and the knowledge of at least one foreign language advanced to a degree so he or she can communicate freely in science related issues. What is also important is the experience in management. The managing director of a research institute in the 21 century has to combine managerial and scientific skills; has to be a professional and a creative thinker. What's more, such

a person has to be recognized in his or her scientific field in Poland and abroad. Professionals with such competencies will help boost the competitive edge of Polish research institutes on the international markets.

Having said that, I have to underline that even before the newest legislation came into being, there had been a lot of good changes going on in the scientific circles in Poland. The institutes came through structural realignment—they were consolidated. Today there are 119 institutes with huge potential. They have grown to become important scientific centers in the country and internationally.

**PM** The new legislation creates new opportunities for research institutes but it also sets challenges for them. Which, in your opinion, is the biggest challenge currently?

In the nearest future, the challenge for our research institutes will be to prove their effectiveness in the Horizon 2020 program, an innovation-boosting scheme with the budget of EUR 80 billion. To be effective in this program Polish research institutes have to cooperate with the centers for science and industry, but also the Polish Academy of Sciences and the scientific units run by higher education institutions. Such cooperation will merge the potential of all Polish scientific research hubs and give an opportunity for a strong entry into the program and the execution of interesting, good projects. On my part I will try to broker such liaisons so the performance of Polish science in Horizon 2020 is much better than it was in the 7th Framework Program of the European Union.

Horizon 2020 is the staple of the “Innovation Union” policy of the EU, which in turn is a part of the EU development strategy called “Europe 2020”. It aims at boosting the competitiveness of the European economy in the world.

One of the prerogatives of Horizon 2020 is to support international scientific cooperation aimed at increasing the efficiency of the EU in scientific research and solving global problems.

In light of the EU pro-development policies it is crucial for the businesses to expand their own agendas and priorities for business development in the years to come. Businesses should take care of their own future, which lies in

new technologies, innovative products and services. They should invest in innovation and see how they can benefit from Horizon 2020 and other pro-innovation programs undertaken jointly by our research institutes and, say, the National Center for Research and Development. Obviously, to participate in many of those project businesses have to co-finance them as well and it is important that they want to do it. The openness of the business sphere to such cooperation will help establish new centers for research and industry that, in turn, will be in the position to tap to new funds for the research programs they do. Without such schemes the business sector in Poland will not be able to attain the technological edge in the domestic market and abroad.

Another important issue for our research institutes is their participation in big, strategic programs, financed by the National Center for Research and Development, which have impact on the development of the innovative economy. Such programs should be undertaken in such areas as energy security, the security of transport and transport infrastructure, sustainable development of agriculture and medicine.

**PM** So what should be the role of the research institutes in the Polish economy and science? What do you think must be done to improve the cooperation between business and academia, without which it is hard to speak about the transfer of knowledge and the commercialization of scientific discoveries?

It is the responsibility of the scientific institutes to transfer discoveries into the economy. They should, therefore, continue to play the leading role



## MAIN COUNCIL OF THE RESEARCH INSTITUTES

in scientific research aimed at delivering economic benefits to the industry because with such an approach they translate the achievements of the Polish science into the needs of the Polish economy.

Presently there are 119 scientific institutes in Poland. Between them, they employ over 27,000 staff. They are active in scientific research, most notably in applied sciences, but also basic science, for the economy, healthcare, agriculture, national defense, environmental protection, infrastructure, security and other areas. Today, most implementation programs in Poland stem from the work of our scientific institutes. Many of them are recognized and awarded for their input to the development of the economy and society.

Scientific centers have to have good working relations with business to make the innovative economy develop. And this is being put in place. What's missing in Poland is a system of tax incentives that would encourage private entrepreneurs to invest in innovation. Often-times the private sector is disinclined to finance R&D because of the high financial risks involved.

Another important difference would be such amendments to the personal income tax and corporate income tax regulations, which would encourage both private individuals as well as companies to finance research and development projects in Poland. ::

A meeting of the with Prime Minister Donald Tusk and Barbara Kudrycka, Minister of Science and Higher Education.

