



# Polish R&D Potential

**“Stairway to Excellence”**



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# I. Introduction

The Centres of Excellence are the prestigious centres of expertise where leading researchers perform highest quality research in the fields defined as national priorities. Therefore, the support system developing and maintaining these structures is of a significant importance and has been introduced in many countries starting with Canada as a pioneer. In Europe, the multidimensional support for the best research centres (in terms of the infrastructure, networking and cooperation with industry) has been successfully applied in countries such as Sweden, Finland, Germany, Great Britain and France.

In Poland, the first project on the Centres of Excellence was developed as a response to the OECD recommendations formulated in the '*National Research and Technology Policies: Poland*' (Przegląd narodowej polityki naukowej i technicznej: Polska) published in 1996. In the document, the OECD indicated the need to establish expert research groups called the Centres of Excellence through integrating leading research teams working at universities, in the institutes of the Polish Academy of Sciences as well as other research and development units. As the first attempts appeared to be very promising, in 1999 the pilot system of Centres of Excellence in Poland was introduced by the Phare SCI-TECH II Programme. It has been afterwards developed and upgraded by the FP5 NAS2 call in 2002 as well as by the Transfer of Knowledge Programme in FP6 and the Research Potential in FP7.

Today, enriched with so many years of successful experience on the Centres of Excellence, we are facing the challenge of the new financial perspective 2014–2020. Therefore, we should take necessary steps to design efficient measures and instruments supporting future Centres of Excellence as well as fostering a synergy between the FP8 Horizon 2020 and structural funds in this field.

## II. Centre of Excellence at a glance

A Centre of Excellence (CoE) is a research unit or a leading research team undertaking research of highest quality and interacting with other major stakeholders at the national and international level in the fields being priorities for the economy and the innovation policy, including the activities within the Framework Programmes of the EU. The objectives of Centres of Excellence involve:

- Conducting highly innovative fundamental and applied research as well as technology development;
- Providing high-quality postgraduate and postdoctoral trainings supporting new generation of researchers;
- Developing relationships and networking with major national and European research centres to enhance research and initiate new projects;
- Developing modern research infrastructure;
- Building the human capacity by supporting the mobility of researchers;
- Implementing research programmes and projects;
- Interacting with industry, government and private sector in order to response to the newest socio-economic challenges.

The main goal of a Centre of Excellence is to perform high quality research activities facilitating the development of modern technologies that could be next successfully applied in the economy. Therefore, the Centre of Excellence should involve interaction between elite researchers working together in a common research field and cooperating closely with industry as well as providing expertise and training services in order to build the human capacity.

# III. The beginnings of the Polish Centres of Excellence

## Centres of Excellence in the Pre-Accession Funds

The first CoE call was launched in 1999 as a part of the PHARE SCI-TECH II – one of the Pre-Accession Funds. After the evaluation process, only the best 5 out of 59 submitted Polish proposals received funding for 3-year projects. However, the same year the European Commission announced within the 5<sup>th</sup> Framework Programme another call for the establishment of Centres of Excellence, this time dedicated to the Candidate Countries (INCO call). In the response to the call 185 proposals (34 from Poland) had been submitted. The EC accepted 34 proposals, 9 of them were Polish. As a result, created in 1999 a pilot system consisted of 14 Centres of Excellence.

## Centres of Excellence in the 5<sup>th</sup> Framework Programme

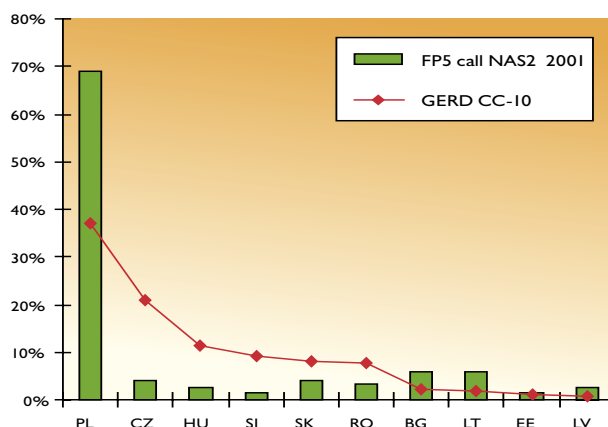
The year 2001 was a crucial point in the further development of the CoE system. Due to the lobbying campaign performed by the Polish NCP, the European Commission decided to continue the support for the CoEs in the Candidate Countries by implementing a special FP5 call. The newest programme was based on the experiences from the previous INCO call and included two financing schemes:

- NAS-1 targeted at entities willing to join ongoing projects,
- NAS-2 for entities willing to start their own CoEs.

In recognition to the Polish NCP expertise and involvement the EC appointed it to launch an information campaign on the CoE for the Candidate Countries. The main point of the campaign was a training conference organized on the 29–30<sup>th</sup> of November 2001 in Warsaw. On this occasion, the Polish NCP developed a special guide entitled *'How to prepare the Centre of Excellence and Centre of Competence proposals'* and afterwards run an intensive promotion campaign in all regions of Poland. Additionally, in order to encourage Polish research institutions to participate in the

call, the Minister of Science – Prof. Michał Kleiber launched an initiative offering financial support covering the costs of proposals preparation.

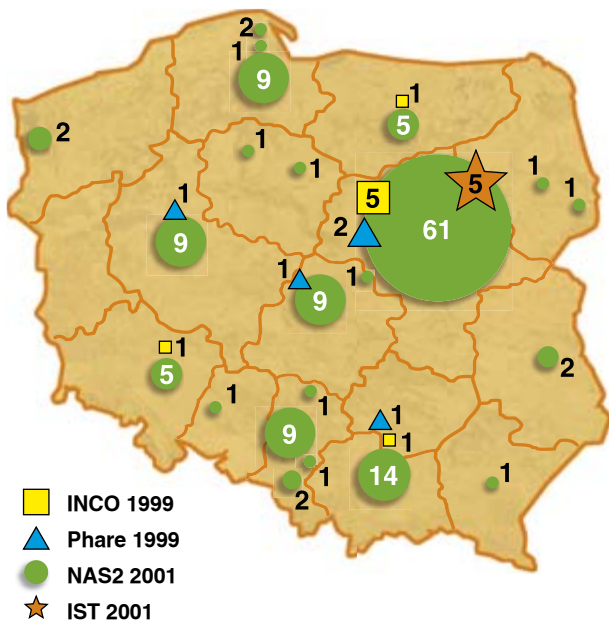
Owing to these multidimensional initiatives, the results of the NAS-2 call appeared to be highly successful for Polish beneficiaries. Polish institutions submitted 246 proposals in total and 85 of them obtained financing (66% of all funded projects). The Polish units received a total sum of € 26 mln and as a result, Poland became a natural leader among the Candidate Countries, see Fig. 1.



**Fig. 1** The participation of the Candidate Countries in the NAS-2 call in 2001 compared to their GERD

Moreover, after the evaluation of the NAS-2 call, 50 other Polish proposals had been placed on the reserve list and had scored high in the evaluation process. Therefore, the Minister of Science Prof. Michał Kleiber decided to recognise also these institutions as Centres of Excellence and to support all of them, including as well centres participating in previous calls from 1999. Fig. 2 shows the location of all 157 CoEs.

The Polish Centres of Excellence started their activities at the European level initiating European projects, joining the strongest consortia and building new networks with international research centres. Therefore, a vast majority of Polish success stories in FP5 and FP6 resulted from the previously obtained CoE seal of excellence.



**Fig. 2 Centres of Excellence in 2002**

### Centres of Excellence in the 6<sup>th</sup> Framework Programme

New type of the call *Transfer of Knowledge* introduced in the 6<sup>th</sup> Framework Programme was designed to support leading research centres in Less Favoured Regions (LFR). This scheme, being in



**Fig. 3 Transfer of Knowledge Centres in the FP6 calls**

fact a continuation of the CoE calls within FP5, was then a part of the Marie Curie Actions. As before, the results of FP6 calls had been a great success for the Polish institutions as 52 projects (49 coordinated by Poland) obtained financing. The distribution of Polish *Transfer of Knowledge* Centres is shown in Fig.3.

# IV. Polish Centres of Excellence in the 7<sup>th</sup> Framework Programme

When preparing the FP7, the European Commission decided to implement a new measure *Research Potential in the Convergence Regions (REGPOT)* included to the CAPACITIES Programme and being a counterpart of the instrument in the previous FPs. It was Prof. Jerzy Buzek – the then rapporteur to FP7 in the European Parliament who had contributed to a significant extent to its final shape.

The rules of the REGPOT calls in the 7<sup>th</sup> Framework Programme have been modified. While in FP5 awarded projects could receive in average between € 300.000 – € 500.000, the FP7 offered the support of € 2 mln reaching in 2011 even up to € 4 mln per proposal. Therefore, the number of projects that obtained funding has significantly decreased. After the 5 calls in 2007–2011, Poland has become the second biggest beneficiary of the REGPOT scheme (after Greece), 13 Polish Centres of Excellence have been so far awarded, see Fig.4.



Fig. 4 REGPOT Centres awarded during the FP7

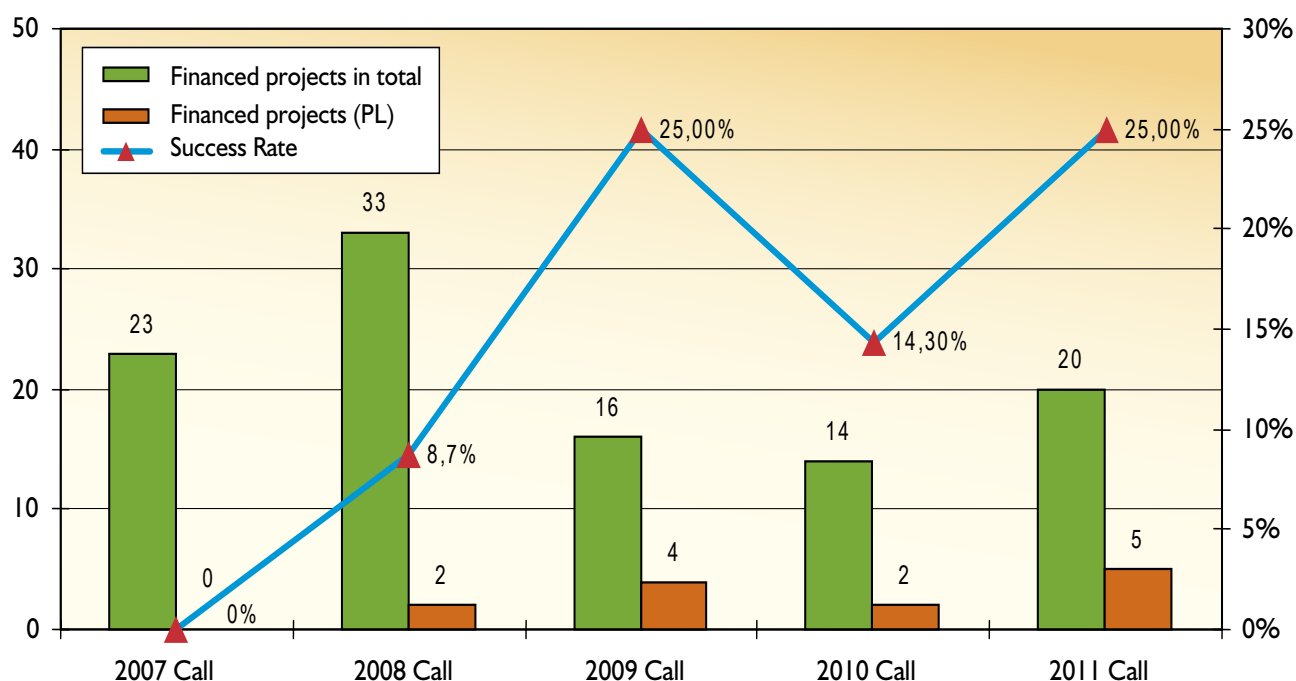


Fig. 5 Centres of Excellence financed in different years in the FP7 REGPOT Programme





















































