



Foundation for  
Polish Science

# Specific challenges for innovation in Central and Eastern Europe.

The Foundation for Polish Science  
perspective.

*Maciej Żylicz, PhD*

President of the Board  
Foundation for Polish Science

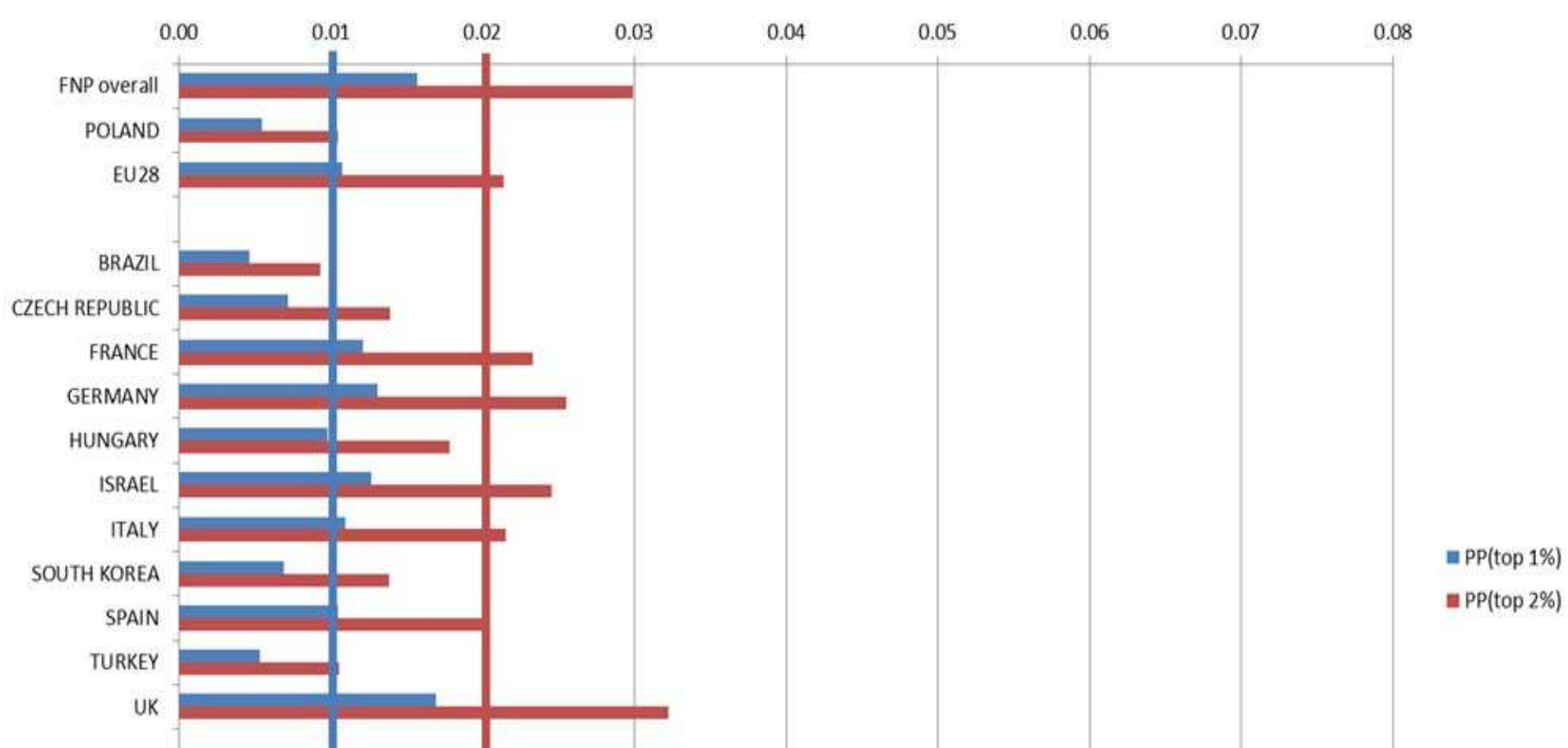


## Foundation for Polish Science

- Non-governmental, non-political, non-profit institution established 25 years ago
- The major off-budget funding source in Poland (endowment and EU funds)
  - ERDF 2007 – 2013 – over 100 million Euro
  - ERDF 2014 – 2020 – over 260 million Euro
- Supporting innovative research that demonstrates commercial potential
- Scientific excellence – the most important criterion
- Peer-review approach

## Is excellence achievable in Poland?

Share of highly cited publications (2002–2012)



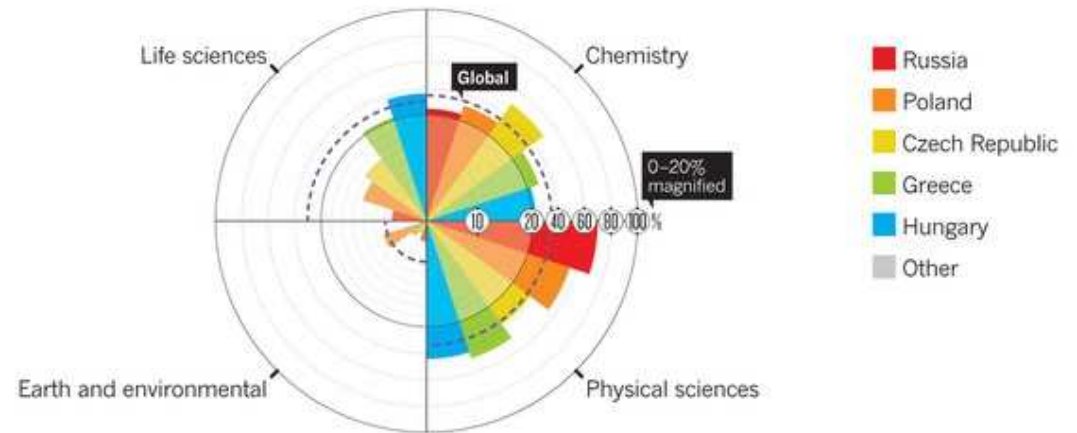
## Rising Stars

between 2012 and 2015:

- generous European Union support
- new competitive funding regime
- Poland's contribution to the index leapt 34%

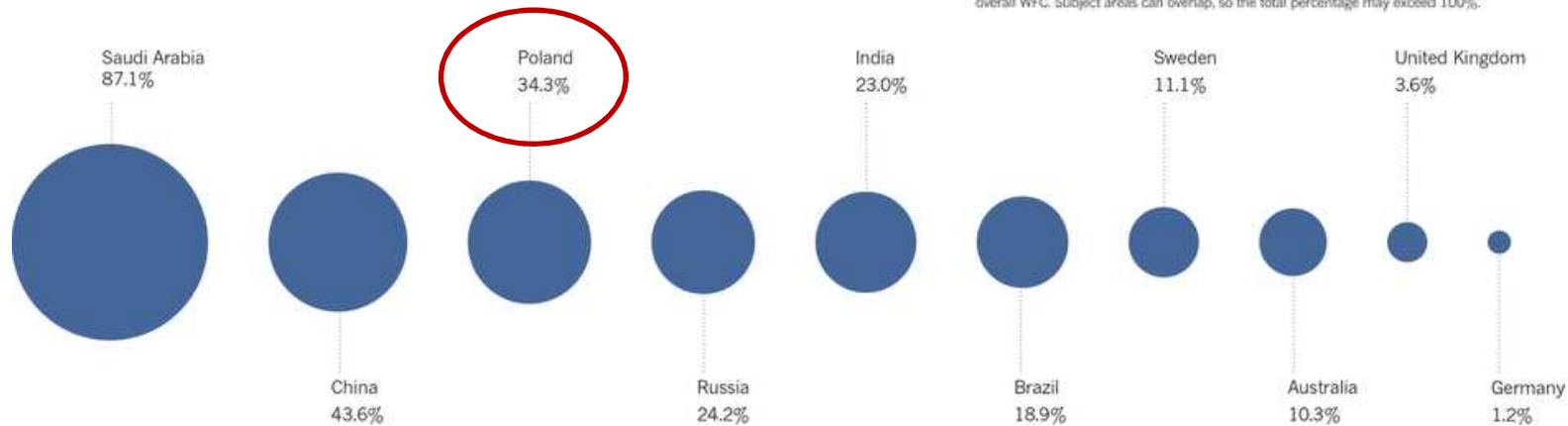
### Relative subject area distribution

Research in the physical sciences is on the forefront of this region's top countries.\*



\*Each slice represents the proportion each subject area contributes to a country's overall WFC. Subject areas can overlap, so the total percentage may exceed 100%.

Nature Index, 2015, s. 1!



Nature Index, 2016, s.

## Research in physical sciences is on the forefront of the Central & East European region

Share (%) of papers published by Polish scientists  
compared with other Central European countries (100% = PL, CZ, HU + SK)

	1996	2010	2013
Physics & astrophysics	58	54	57
Mathematics	57	53	53
Chemistry	50	54	56
Humanities	43	32	38
Social science	49	35	39
Economy	25	31	35

Kwiek M. 2015,  
*Nauka i szkolnictwo  
wyższe* 2(46)

## Expenditures on research in Poland

- Gross domestic expenditures on R&D (GERD) steadily increasing (by 12.1% and 55.2% in comparison with 2013 and 2010, respectively).
- High- and medium high- technology - 32.7% of net income from manufacturing sales
- Increase in competitive grants from 13% to 45%
- Considerable improvement since National Science Center has been created
- Generous EU support for infrastructure
- 10 billion EUR for R+D for Poland in the new EU financial perspective

## Teaming for Excellence H2020

### Composite Indicator on Research Excellence (CIRE)

- The share of highly cited publications in all publications where at least one of the authors has an affiliation in a given country
- Number of top scientific universities and public research organizations in a country per capita
- Patent applications per capita
- Total value of ERC grants received divided by public R&D funds in the higher education and government sectors

## Teaming for Excellence H2020

FNP involvement in the first ToE call:

- Facilitating the national selection of best projects, which were subsequently supported by the Ministry of Science and Higher Education in Poland and submitted for the Teaming call  
(call for interest announced by FNP – bottom-up approach)
- Cooperating with the National Center of Research and Development during the preparation phase of selected application submission
- Organizing information and working meetings in Poland with foreign partner institutions' representatives during the application preparation phase.



## Teaming for Excellence H2020

Call for interest results :

- 43 pre-applications
- 27 complete with letters of intent from foreign partner institutions and regional authorities
- 10 selected for submission to the EC

Conclusions:

- Interesting composition of research topics – Polish specialties
- Difficult cooperation on the administration level with the foreign partner institution
- Misconceptions concerning the ToE evaluation criteria
- Misconceptions concerning the goals of the programme – not a simple grant

## **International Research Agendas Programme (IRAP)**

### Synergy with Teaming for Excellence

#### **GOAL**

Creation of a number of specialized, world-leading centers in Poland, implementing best practices in:

- Identification of research programmes
- Policy of recruitment and R&D management
- Commercialization of the R&D results

## International Research Agendas Programme Centers



Strong  
leader



Strategic  
partner  
institution



The  
research  
agenda



International  
Scientific  
Committee



Local host  
institution



Industrial  
connectivity

## **International Research Agendas Programme Centers**

**Local host institutions – opportunity for Polish universities**

**IRAP center** as a joint unit of a Polish university and a foreign excellent research institution (Art. 31 Act Law on Higher Education)

- Part of the university
- Full autonomy in decisions regarding the research agenda
- Open recruitments for team leaders run by the International Scientific Committee

## **International Research Agendas Programme Centers**

### **Local host institutions – opportunity for Polish universities**

Benefits for the university:

- Funding for the first 5-7 teams for 5 years ca. 35 mln PLN
- Close collaboration with an excellent research center from abroad
- Transfer of best practice and policies in recruitment and IP management from the foreign partner institution
- International recruitment of best researchers including PhD students and post-docs
- Cooperation with entrepreneurial partners
- Joint grant applications in H2020 programmes

## International Research Agendas Programme Centers

### KEY ISSUES

Scientific:

- Excellent researcher – the applicant
- Scientific problem

Legal:

- Partnership agreement
- Statute of the University

Long term vision:

- Cooperation with industry
- Grant applications
- PhD schools

## **International Research Agendas Programme Centers**

### **FIRST CALL**

#### Summary:

- 31 applications incl. 3 Teaming for Excellence first phase beneficiaries
- 1 non-Teaming project funded
- No joint units proposed

#### Conclusions:

- Standard grant approach
- Lack of a long term vision
- Research agendas lacking the focus on a scientific problem
- Applicants not ready to run research teams on a world class level

## International Research Agendas Programme

### **SPECIFIC CHALLENGES**

1. Rigid legal system (esp. Polish Academy of Sciences case)
2. Local research institutions – little flexibility in letting a new institution set in bringing in new talented people
3. Few excellent scientists willing to take the IRAP challenge on
4. Lack of environment surrounding research institution specialized in the R+D transfer to economy





## Deadlines for applications in IRAP

**30  
October  
2016**

**30 June  
2017**

**30 June  
2018**



**Foundation for  
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**Thank you**

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