

Aerospace Research in Poland

Prof. K. J. Kurzydłowski
Director of The National Centre for Research and Development



The National Centre for Research and Development

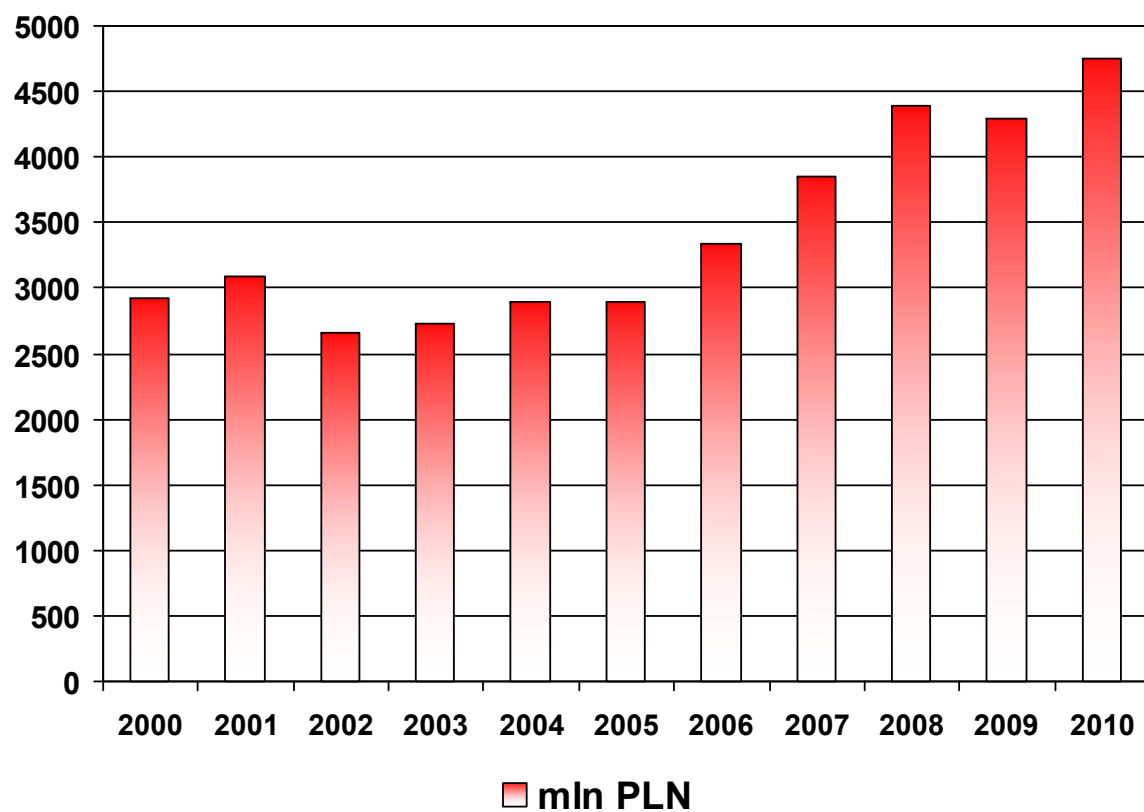
- Research funding agency
- Industry relevant research
- Structural Funds
- Commercialization
- Young scientists
- International collaboration
- Homeland Security and Defence



The National Centre for Research and Development – **annual budget**

- 2009
80 million Euro
- 2010
150 million
- 2011
350 million

Governmental spending on R&D



Structural Funds

PROGRAMMES	EU funds (Bilions of euro)	Percentage
16 Regional	15.9	24%
OP Development of Eastern Poland	2.3	3%
<u>OP Innovative Economy</u>	8.3	<u>12,3%</u>
<u>OP Human Capital</u>	9.7	14,5%
OP Infrastructure and Environment	27.8	41%
European Cooperation	0.7	1%
Technical Assistance	0.5	0,5%
Reserve	2.0	3%
TOTAL	65.3	100%

The National Centre for Research and Development – **structural funds**

Since September 2011

- Programme Innovative Economy
- Programme Human Capital
- Programme Infrastructure and Environment

All in total c.a. 4 bilion till 2015



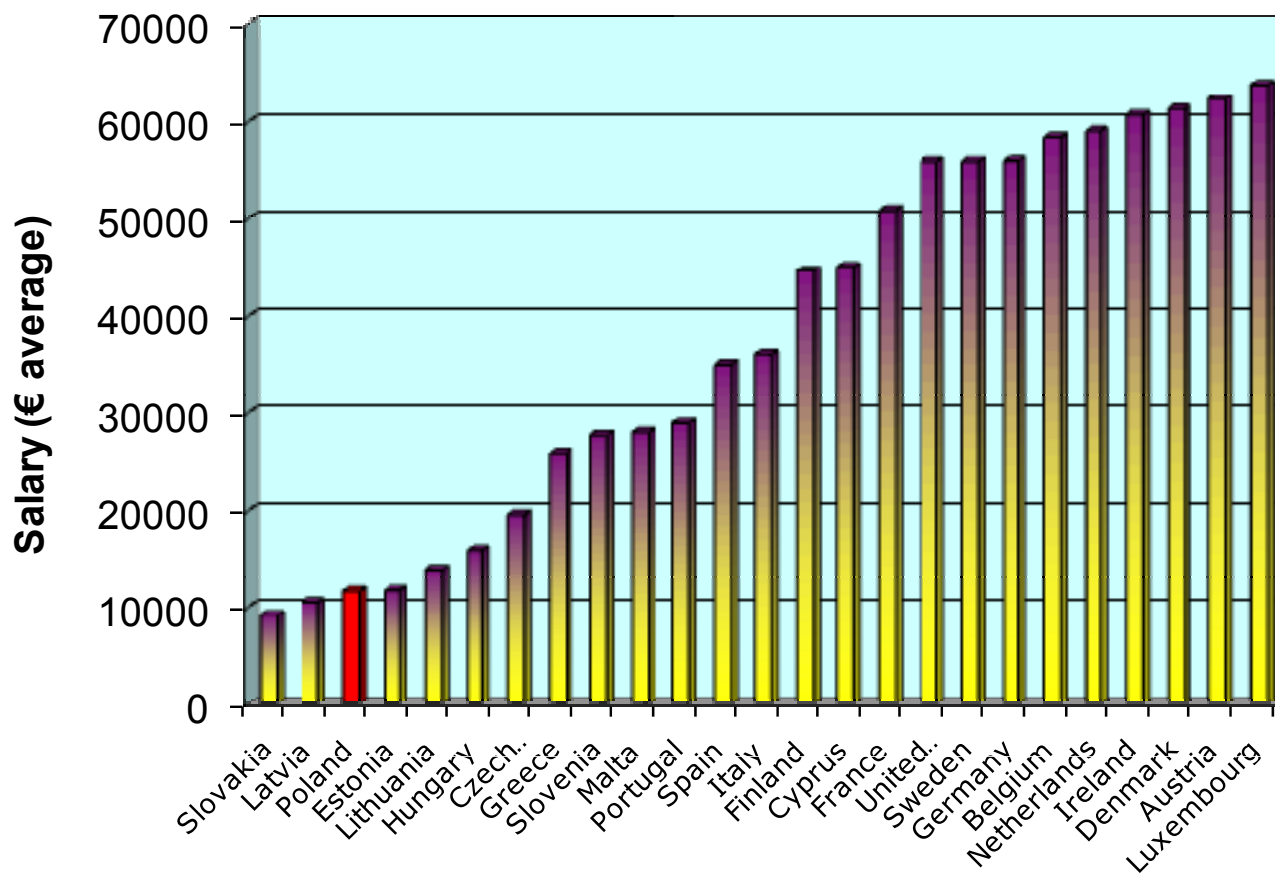
The National Centre for Research and Development – **structural funds**

Programme Innovative Economy

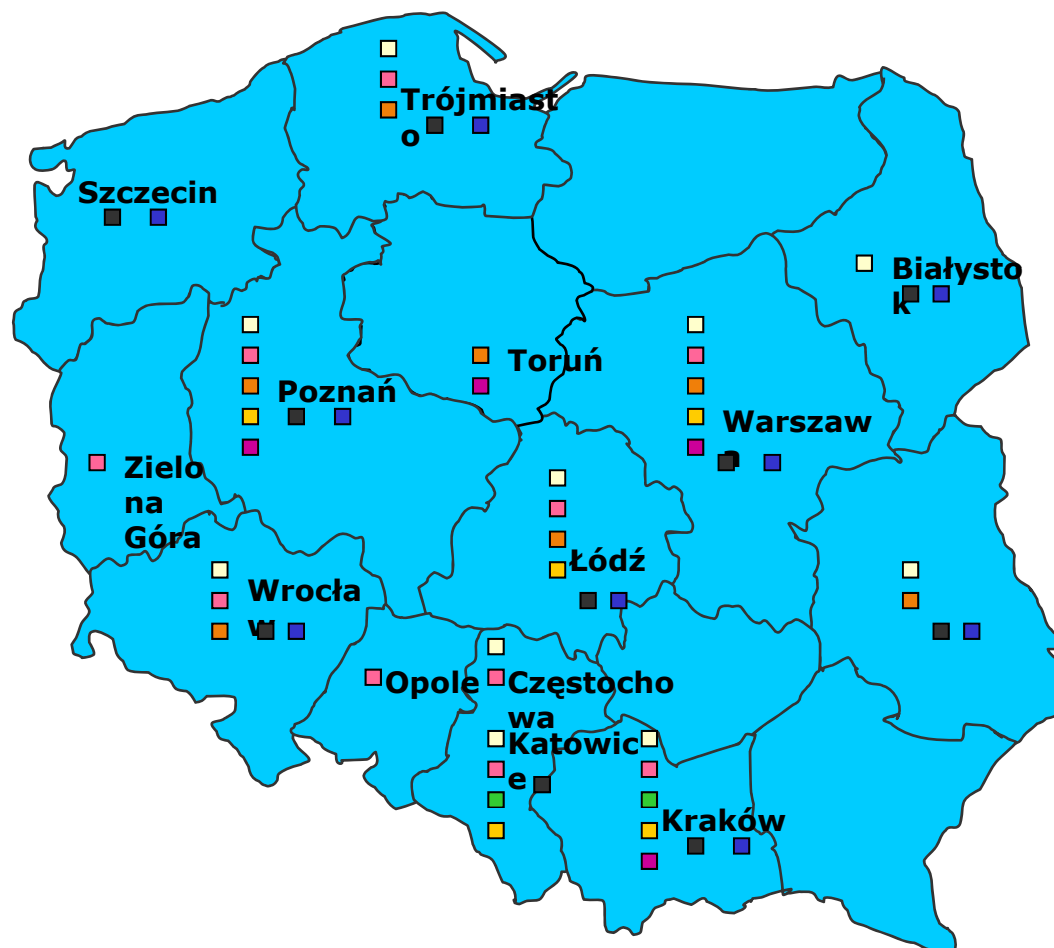
- Modern materials technologies for aviation industry PRz – 20 mln Euro
- Composites and nano-composites for aircraft and automobiles IPPT – 5 mln Euro

And much more

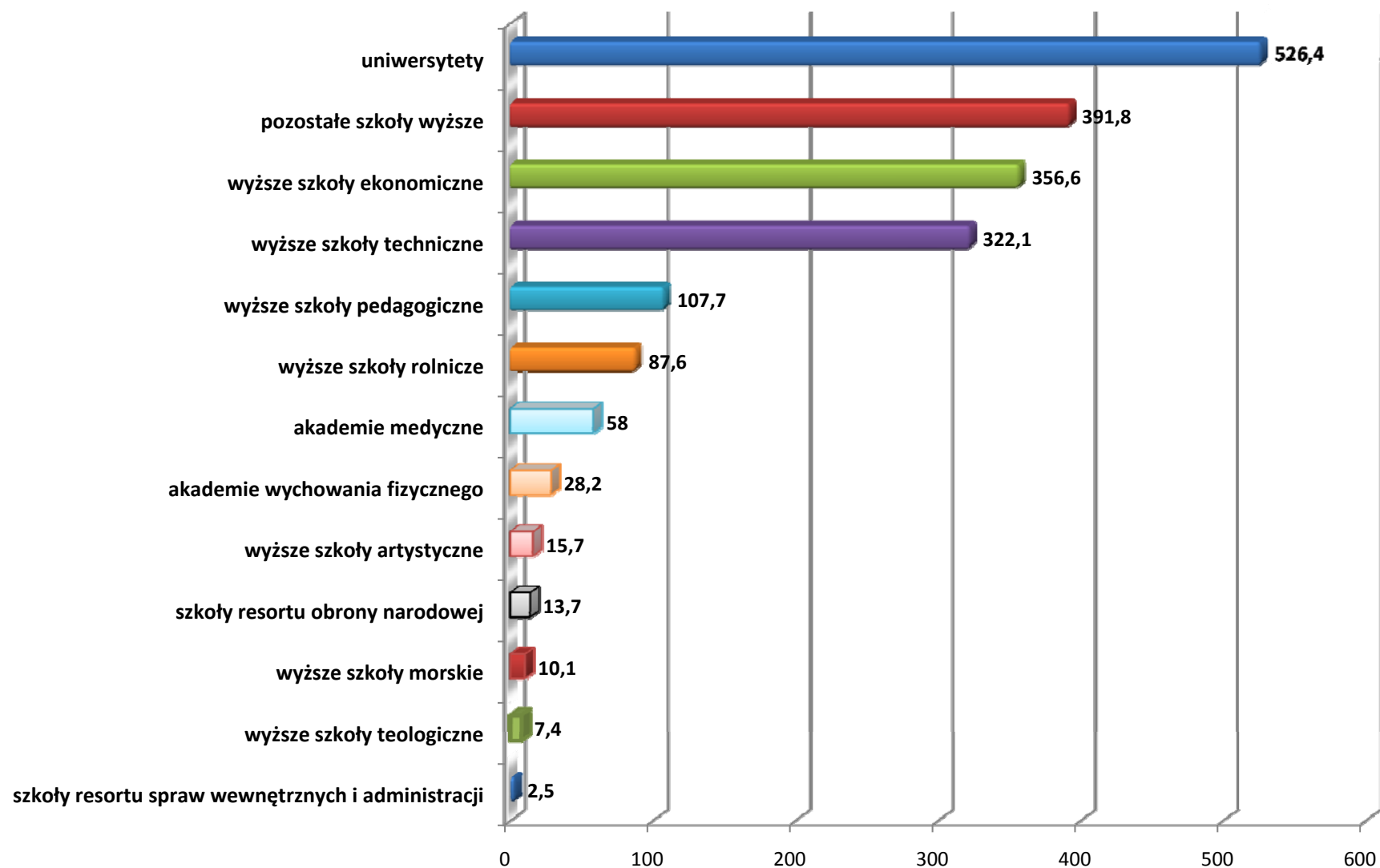
How the purchasing power of researchers varies around the world



The major academic centres



Students in Poland 2008/09



Major R&D Centers



★ Major EU/National projects and Laboratories



Testing Laboratories

Institute of Aviation – Warsaw
Rzeszow University of Technology

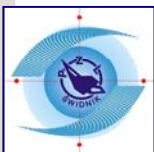


Laboratory for testing and certification of composite aircraft I-23

Static investigation shop

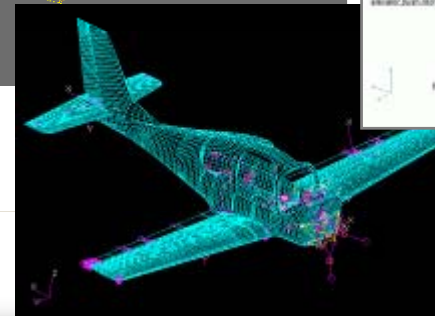
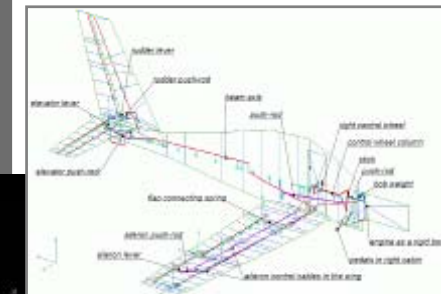
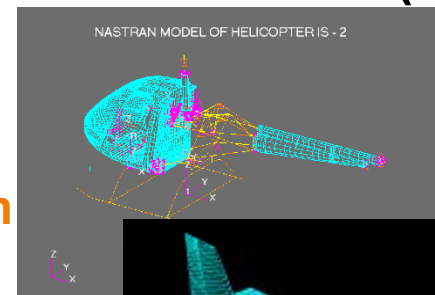


Vibration investigation shop

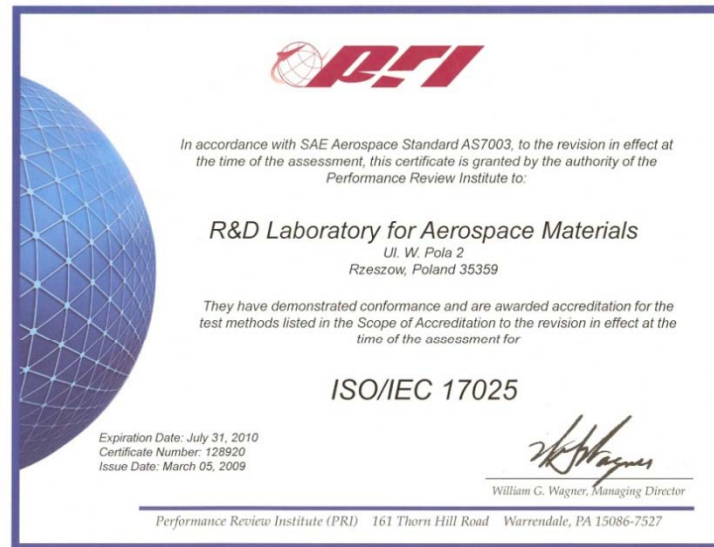
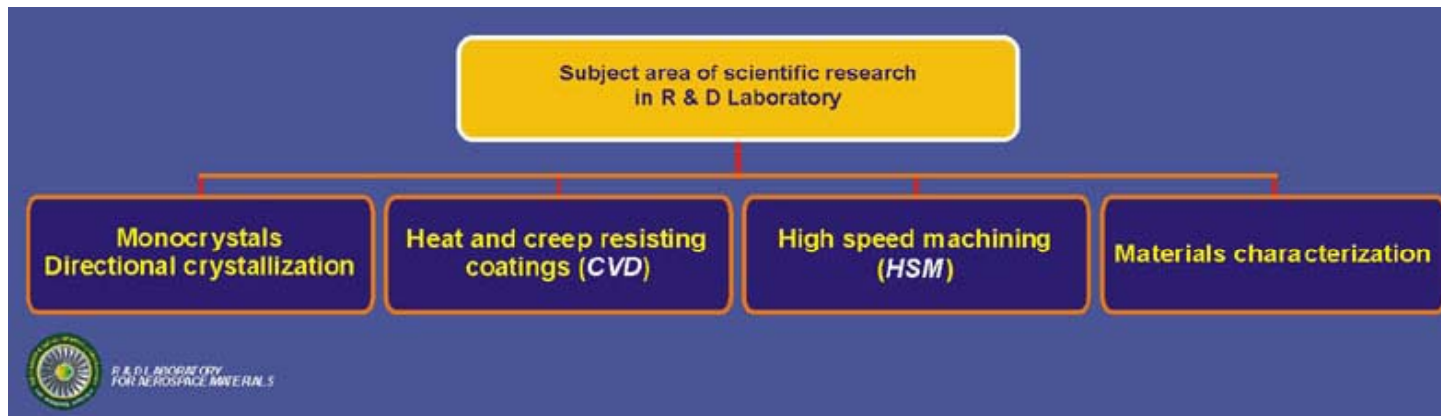


Computational Structure Mechanics (CSM)

- ✓ Designing
- ✓ Structure and construction analysis
- ✓ Aero elastic analysis
- ✓ Flutter analysis



R&D Laboratory





Modelling

Institute of Aviation

Warsaw University of Technology

Rzeszow University of Technology

Poznan University of Technology

Czestochowa University of Technology

Lublin University of Technology

Military University of Technology in Warsaw

Institute of Fluid Machinery Gdansk

Institute of Fundamental Research Warsaw



Machining and Design

Institute of Aviation

Warsaw University of Technology

Rzeszow University of Technology

Poznan University of Technology

Czestochowa University of Technology

Lublin University of Technology

Military University of Technology in Warsaw

Institute of Fluid Machinery Gdansk

Institute of Fundamental Research Warsaw



Materials

Warsaw University of Technology
Lublin University of Technology
Silesian University of Technology



Infrastructure

Warsaw University of Technology
Lublin University of Technology
Rzeszow University of Technology

PoloniAero
Laboratory

**The world leading laboratory for
testing prototype turbines**



Avio Poland



WUT



MUT



WZL Warsaw



50 mln euro

19



Conclusion

There are considerable resources available in Poland

The R&D potential is far from being fully utilised

There is a unique opportunity now to establish partnership with the R&D organizations in Poland

Thank you for your kind
attention

Dziękuję za uwagę

Prof. K. J. Kurzydłowski
Director of The National Centre of Research and Development
e-mail: www.ncbir.gov.pl