



**Country profile: Poland**

Population	38.5m (July 2006 est.)
GDP	\$514bn (2005 est.)
GDP growth	3.2% (2005 est.)
Labour force	17.1m (2005 est.)
Number of companies in the EU500 #	2
Gross domestic expenditure on R&D *	\$2.47bn (2003)
Gross domestic expenditure on R&D as %age of GDP *	0.56 (2003)
Total researchers *	58 595 (2003)
Government budget appropriations or outlays for R&D *	\$ 1.58bn (2004)

Sources: CIA World Factbook  
 # 2005 EU Industrial R&D Investment Scoreboard  
 \* OECD 2005 Main Science and Technology Indicators

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## Poland

Poland has a lot to do to catch up with innovation standards in the rest of the European Union. Its R&D intensity is among the lowest in Europe and it only has two companies in the top 500 investors in R&D. But there are signs that changes are underway that will help develop the innovation environment in Poland.

Political change has clearly influenced Poland's innovation landscape, with the country having to absorb the impact of a move away from communism in 1989 and accession to the European Union in 2004, followed by a change of government at the end of 2005. Attitudes to, and responsibility for, research, development and innovation have changed radically over this period. What hasn't changed, however, is the ability of Polish scientists in disciplines such as software engineering, computer sciences, grid technology and cardiology. Poland also has a relatively large number of researchers, who together make up a significant proportion of the EU total. It is also increasing the number of students who enter tertiary education.

Scientific research and education system is now the responsibility of the Ministry of Education and Science, which was established in November 2005. The Ministry implements the science and research policy and contributes to the financing of scientific research in Poland. Innovation policy is set in co-operation with the Ministry of Economy and the Ministry of Regional Development. The Ministry's decisions are also informed by a Council of Science, established in February 2005, which advises on scientific and technology policy, and on research directions that would benefit science and the economy.

Poland has a new system for financing research, following the introduction of the Science Finance Act in February 2005. It enables the minister of education and science to finance programs that will improve the international competitiveness of its scientists and researchers, help recruit top researchers from abroad to train scientific staff in certain fields, and develop young researchers' careers.

Poland is also working under a national development plan. The current phase of the plan is focused on updating the research infrastructure and equipment. A second phase, to cover 2007 to 2013, is planned to help Poland's knowledge and innovation have a long-term impact on the country's socio-economic development. An expected budget of €5.9bn, €2.9bn of it from the European Union, will be used to strengthen Poland's research potential and its applied research, as well as developing its information society.

Since 2005, Poland has also had a framework programme to focus its research on topics crucial to the country's socio-economic development. The programme has three elements. The first is a set of strategic research areas for the next 10 years: health; environment; agriculture and food; country and society; safety; new materials and technologies; informative technologies; energy sources; and transportation infrastructure. The second is a set of shorter-term research priorities, giving a more focused and interdisciplinary approach to the strategic research areas. The third element of the programme is a set of contracted projects, defined as a response to a ministerial call for proposals relating to the research priorities.

Poland also operates a foresight programme to help decide on longer-term directions in research, technological development and social awareness of technology.

The government is also trying to reform the way science is done in Poland. Polish research is split between the Polish Academy of Sciences, higher education institutions and the research and development institutes.

The Polish Academy of Sciences has 79 research establishments, whose research is mainly financed by the Ministry of Education and Science.

Poland's 405 higher education institutions have been given greater institutional independence and academic freedom, following a Higher Education Act signed into law in July 2005. There are also about 200 research and development institutes, doing research and development for stakeholders including the civil service.

The government is trying to restructure the research and development institutes system to match the country's current socio-economic priorities, breaking the link with inflexible attitudes left over from the communist era. It is doing this through mergers, privatisation, and the establishment of alternative structures, such as national institutes or centres of advanced technologies.

Although Poland is having some success in reorganising the way it develops new knowledge, it is having problems diffusing that knowledge in a way that helps the wider economy. Business R&D capacity is weak and the main source of innovation in Polish business comes through the technology embodied in the equipment it buys.

The government is now developing policies to encourage business to finance and perform R&D, and to promote the uptake of research findings, including from public research institutions. This is regarded as particularly important to the SME sector, which lags in its use of R&D results.

### Sources

CIA World Factbook

<http://www.cia.gov/cia/publications/factbook/geos/pl.html>

2005 EU Industrial R&D Investment Scoreboard

[http://eu-iriscorboard.jrc.es/scoreboard\\_2005.htm](http://eu-iriscorboard.jrc.es/scoreboard_2005.htm)

OECD 2005 Science and Technology Indicators

[http://www.oecd.org/document/26/0,2340,en\\_2649\\_34451\\_1901082\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/26/0,2340,en_2649_34451_1901082_1_1_1_1,00.html)

## Links

Ministry of Science and Higher Education

[http://meinen.mnii.gov.pl/meinen/index.jsp?place=Menu01&news\\_cat\\_id=-1&layout=0](http://meinen.mnii.gov.pl/meinen/index.jsp?place=Menu01&news_cat_id=-1&layout=0)

Ministry of Economy - Department of Innovation

<http://www.mgip.gov.pl/English/ECONOMY/Innovation/Department+of+Innovation.html>

Ministry of Regional Development – National Strategy for Regional Development

<http://www.nsrr.gov.pl/nsrd>

Polish Academy of Sciences

<http://www.pan.pl/index.php?newlang=english>

Polish Agency for Enterprise Development

<http://www.parp.gov.pl/en/>

Industrial Development Agency

<http://www.arp.com.pl/index.php?lang=en>

Polish Information and Foreign Investment Agency

<http://www.paiz.gov.pl/index/>

Foundation for Innovations, Restructuring and Entrepreneurship

[http://fire.ilab.pl/content.php?cat\\_id=14](http://fire.ilab.pl/content.php?cat_id=14)