

**Country profile: Germany**

Population	82.4m (July 2006 est.)
GDP	\$2.48bn (2005 est.)
GDP growth	0.9% (2005 est.)
Labour force	17.1m (2005 est.)
Number of companies in the EU500 #	167
Gross domestic expenditure on R&D *	\$59.1bn (2004)
Gross domestic expenditure on R&D as %age of GDP *	2.49 (2004)
Total researchers *	268 942 (2003)
Government budget appropriations or outlays for R&D *	\$ 18.7bn (2005)

Sources: CIA World Factbook  
 # 2006 EU Industrial R&D Investment Scoreboard  
 \* OECD 2006 Main Science and Technology Indicators

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**Germany**

The German federal government has announced a 'high-tech strategy' to restore Germany's position as a leading source of new technology. It plans to spend 14.6bn on new technologies and inter-disciplinary innovation by 2009, boosting Germany's R&D spending from its current 2.5% of GDP towards the 3% Lisbon target.

The strategy identifies 17 key research areas with high economic and technological potential, including health, security, energy, environment, information and communications technology, land transport and services. It also highlights widely applicable technologies such as nanotechnology, biotechnology, micro-system technologies, optical technologies and materials. A road map is being developed for each research area to analyse its strengths and weaknesses, identify challenges and define what to do next.

Germany will also take generic measures to boost its innovation environment. These include:

- strengthening research and innovation capacities in science and industry, through clustering; incentives for co-operation; application-oriented basic research and greater exchange of researchers.
- improving the framework for high-tech start-ups and innovative small and medium-sized enterprises (SMEs) through better public funding, and the mobilisation of private funds.

- speeding the uptake of new technologies through a more effective patent system, the wider use of standards, an innovation oriented public procurement policy, and the modernisation of public administration.
- strengthening international co-operation and actively participating in the European Research and Innovation Policy.
- improving vocational education and training, life-long learning, the promotion of women, scientific excellence, and immigration of foreign talent.

Most of the measures continue well-established forms of research and innovation promotion. What's new is that those efforts are now being co-ordinated with sectoral policy activities and regulatory initiatives.

Among the new measures, the government plans to offer bonuses to public research organisations that conduct contract research for SMEs, to help them access public research and to help public research organisations to better understand their needs.

### **Men from the Ministries**

A lot of the high-tech strategy's execution will be handled by two key ministries: the Federal Ministry of Education and Research (BMBF) and the Federal Ministry of Economics and Technology (BMWFi).

The BMBF will spend more than 8bn on education and research in 2006, including budget increases for life sciences, new technologies and sustainable development.

It will also spend 100m on an excellence initiative for higher education institutions, as well as increasing the budget for large science organisations under its Pact for Research and Innovation. There's also increased spending on support for the highly talented, and on vocational training.

The BMBF works with the Länder to fund research organisations including:

- the German Research Association
- the centres of the Helmholtz Association
- the Max Planck Society
- the Fraunhofer Society
- the institutions of the Leibniz Association and the academies

The BMWFi develops policy to improve the conditions for innovation, especially in SMEs. A 'partners for innovation' initiative, launched by the Chancellor in 2004, aims to identify, mobilise and publicise opportunities to promote Germany as a location for technology and innovation.

Other policy measures focusing on innovation, research co-operation and technological consulting are meant to help improve the financial basis of innovative small and medium-sized companies. The BMWFi also backs a wide range of federal science and technology institutions to provide, among other things, unified measurement standards, safe technical testing and labour-protection regulations.

The innovation policy of the BMWFi is also becoming increasingly international. The Ministry works with partners in the European Commission, the other EU member states and with some other countries.

### **Links**

Federal Ministry of Education and Research (BMBF)  
<http://www.bmbf.de/en/index.php>

Federal Ministry of Economics and Technology (BMWFi)  
<http://www.bmwi.de/English/Navigation/root.html>

Links to websites for Germany's key research institutes, and its state governments (Länder)  
<http://cordis.europa.eu/germany/links.htm>