GERMANY STRENGTHENS SCIENCE AND INNOVATION TO SECURE FUTURE WEALTH

GERMANY'S INNOVATION LANDSCAPE

Germany's gross domestic expenditure for R&D was €61.48bn in 2007, 2.54% of GDP. Over two thirds of this was funded by industry. Federal research and education funding is allocated through three main channels - base funding for Germany's research organisations such as Fraunhofer, bottom-up support for innovative SMEs, and thematic research programmes. The latter are funded under Germany's *High Tech Strategy*, launched in 2006, whose overarching objective is the creation of lead markets in commercially relevant areas. The priorities reflect German strengths in areas including nanotechnology, optical engineering, cleantech and manufacturing. Industry is actively involved in developing the research agendas under the strategy and leverages public-sector funding well above matching levels.

SCIENCE & INNOVATION POLICY PRIORITIES UNDER THE NEW COALITION

In the middle of one of its gravest economic crises, Germans were called to the ballot box in September 2009. The result was change but with some continuity. While Germany continues to be governed by a coalition led by the Christian Democratic and Social Unions, their previous coalition partner, the Social Democrats, have been replaced by the Liberal Party.

In the area of science and innovation, the new coalition will build on the achievements of the old: just before the election it agreed with the Federal Länder to jointly fund 275,000 additional places at universities, invest a further €2.7bn to boost university research excellence and increase base funding for Germany's non-university research organisations by 5% annually.

The new Federal Government is determined to implement these initiatives and build on the successful *High-Tech Strategy*. There is consensus that education, science and innovation are essential for Germany to remain competitive and to be able to meet future challenges such as climate change, energy security, demographic change, security threats and greater mobility. The individual measures outlined in the coalition agreement include

- **Increasing federal expenditure on education and research to €12bn by 2013:** The aim is to bring Germany's expenditure for education and R&D to 10% of GDP by 2015. The 2010 projected federal budget includes a €750m increase for education and research on 2009.
- **Improving the framework for innovative companies and high-tech start-ups:** Measures under consideration include the introduction of R&D tax incentives, the establishment of a public-private fund to promote start-ups, and government guarantees for investments in high-tech, high-risk companies.
- **Promoting innovative industries:** Germany's High-Tech Strategy will remain the main mechanism for boosting innovation. However, SME participation, knowledge transfer and validation of research results will play a greater role.
- **Creating lead markets for new technologies:** A transport and mobility research strategy is planned with a focus on electric cars and battery technologies. Another priority will be energy efficiency, energy storage, smart grid technology, and 2nd generation biofuels.
- **Intensifing European and international collaboration in education and research:** Emerging and developing countries will be a priority. Germany will seek to play an active role in preparing the 8th EU Framework Programme, building on Germany's High-Tech Strategy as a model for Europe.
- **Promoting the responsible use of modern biotechnology:** The Federal Government plans to launch a strategy to promote the knowledge-based bioeconomy. Relevant work has been under way since January 2009.

INTERNATIONAL PERSPECTIVE

Germany's diverse research infrastructure and strong industry base make it an important international partner. The size of its R&D budget makes it a key driver of R&D in Europe. Germany draws on long-standing bilateral research partnerships – often going back decades. It is committed to entering new partnerships with both industrialised and emerging economies. Germany and China celebrated a joint Year of Science in 2009; this year the partner country is Brazil.

The UK Science & Innovation Team in Germany seeks to ensure that the UK remains aware of the opportunities Germany offers – in terms of best practice, complementary strengths and as European partner. In January, Business Secretary Lord Mandelson announced a review of the UK's innovation landscape. This will consider the model of Germany's Fraunhofer network which actively connects industry and research to improve business competitiveness. Technology entrepreneur Hermann Hauser will undertake a full evaluation of the UK's innovation network to see how the UK can emulate the benefits of the Fraunhofer model.

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