The German Perspective on Innovation Policy

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1 - Challenges for Europe

R&D expenditure 1996–2007

EU = European Union

NOTES: Asia includes China, India, Japan, Malaysia, Singapore, South Korea, Taiwan, and Thailand. EU includes all 27 member states.
2 - Innovation strategy goals

Goals of the High-Tech Strategy

- Solutions to meet social needs
- Mission-oriented approach
- Improved cooperation between science and industry/High-level support for SMEs
- Indirect support programs
- Improve framework conditions for innovation
- Regulations, standards, intellectual property, taxes
3 - Fields of action

Global challenges → 5 fields of action

- Climate Energy
- Health Nutrition
- Mobility
- Security
- Communication

Key technologies

Interdisciplinary issues/framework conditions

Source: BMBF
4 - Forward-looking projects of the High-Tech Strategy

For the fields of action...

- Climate/Energy
- Health/Nutrition
- Mobility
- Security
- Communication

... Forward-looking projects

- are being developed by groups of promoters,
- roadmaps drawn up for their implementation,
- drivers of and obstacles to innovation identified,
- research tasks designated and
- need for action formulated.
5 - Support of clusters in Germany

- Competence Networks Germany
- Learning Regions
- Innovative Regional Growth Centres
- Strategic partnerships and innovation alliances
- Leading-Edge Cluster Competition
- BioPharma Competition
- BioIndustrie2021
- Cutting-edge research and innovation in the new German Länder

Quelle: VDI/VDE-IT
6 - Importance of investment in R&D

R&D as a percentage of GDP (2009 – first forecast)

- 2005: 2.44%
- 2006: 2.53%
- 2007: 2.53%
- 2008: 2.67%
- 2009*: 2.80%

3% target
**7 - The current economic crisis**

R&D follows business cycles
Changes per 3 months, %, OECD

R&D expenditure of German companies (billion €)

Stable despite crisis
R&D expenditure of German companies (billion €)

- real planning
- expected planning from historical experience

* expected

Source: DB Research, Stifterverband, 2010
“Innovations Dialogue” between the Federal Government (three members), industry and science (15 members)

Observing new developments, findings and trends in the innovation cycle

Using existing competence networks

Intensifying the exchange on questions of innovation and technology policy

Strengthening Germany as an industrial centre

Chair: Prof. Dr. Henning Kagermann, President of acatech – German Academy of Science and Engineering

Office:
9 - Policy advice on science, research and innovation

- Analyse
  - Expert Commission Research and Innovation (EFI)
    - Analyses of technological performance
- Dialog
  - acatech, Leopoldina, Union Academies
    - Scientific dialogue on the global challenges
  - Federal Government Industry and Science
    - Advice on research and innovation policy
  - Public dialogues dialogue platform for citizens
- Implementation
  - Research Union
    - Implementation of the High-Tech y
10 - Expert Commission on Research and Innovation

• Independent expert body
• Scientific policy guidance
• Regular reports on Germany’s research, innovation and technological performance
• Proposals for optimizing national research and innovation policy
• Made up of leading, internationally renowned scientists.

http://www.e-fi.de
• Body advising the Federal Minister of Research on innovation policy
• Implementation and expansion of the High-Tech Strategy
• Increasingly active in the societal dialogue
• Identifies drivers of innovation, obstacles to innovation and relevant cross-sectional issues
• Formulates research tasks and identifies the need for action
• Members from industry and science
• New configuration met for the first time on 25 February 2010
12 - Examples of key reports of German academies

Example Demographic Change

Example Bio Economy

Example Energy Research
13 - New structures for cooperation with the Innovation Union

- **Member States**
  - ERAC - European Research Area Committee (ex CREST)
  - ERA-NET
  - Joint Programmes (Art. 169 - > 185)
  - High Level Group
  - Joint Programming

- **EU Commission**
  - Framework Programmes
  - Competitiveness and Innovation Framework Programme - CIP
  - European Institute of Technology and Innovation (EIT)
  - Knowledge and Innovation Communities - KIC
  - Ideas Programme of FP

- **Economy**
  - Joint Technology Initiatives
  - European Technology Platform
  - 3 Public Private Partnerships (e.g. Factories of the Future)
Thank you for your attention

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For more detailed information, see:
- BMBF: Ideas. Innovation. Prosperity. – High-Tech Strategy 2020 for Germany
- BMBF: Federal Report on Research and Innovation 2010
- Commission of Experts for Research and Innovation (EFI): Research, Innovation and Technological Performance in Germany - Report 2010