The Viewpoint of Policy Analysis: Key Elements of Successful Science-Industry Relationships

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Research Project on Technology Transfer in Germany

- **Analysis of major research institutions**
  (Universities, Max Planck Society, Fraunhofer Society, Helmholtz Association)

- **Analysis of absorptive capacity of enterprises**

- **Analysis of technology transfer units (“Intermediaries”)**
Case Studies: Transfer-oriented Institutes

- Institute for New Materials (INM), Saarbrücken
- Institute for Semiconductor Physics (IHP), Frankfurt/O.
- German Research Centre for Artificial Intelligence (DFKI), Kaiserslautern
- Heinrich Hertz Institute, Berlin (Telecommunications)
Success Factors 1
Decentralisation of transfer responsibility

- No separation into central transfer department and scientific departments
- Responsibility of departments and researchers for transfer
- Establishment of incentive structures for transfer
Success Factors 2
Regular strategic audits

- Realistic assessment of existing competencies and capacities
- Adjustment of strategy to new scientific and technological trends
- Audits with participation of experts from science and industry
- Integration of scientific and industrial demands
Success Factors 3
Balance between short and long-term activities

- Sufficient long-term research for competence building
- Regularly contract projects for industrial clients ⇒ getting knowledge on industrial trends and market requirements
- Participation of researchers in applied and basic projects

Threat: Too strong orientation of successful institutes on short-term research
**Success Factors 4**

**Integrated research strategy**

- Integration of scientific and transfer demands in the strategic planning
- Further training of researchers / project leaders in the management of multi-level requirements
Success Factors 5
Joint public/private institutional set-up

- Co-funding of strategic research by public and private partners
- Institutional responsibility improves acceptance of industry for long-term demands
- Reconciliation of public and private interests
Success Factors 6
Establishment of external exploitation units

- Externalisation of activities related to direct market-oriented exploitation (development of prototypes, experimental production etc.)

Reasons:
- Special skills beyond researchers’ competencies
- Legal problems at the public/private borderline
- Close institutional linkage of external units to central institute
Summary

- Decentralisation of transfer responsibility
- Regular strategic audits
- Balance between short and long-term activities
- Integrated research strategy
- Joint public/private institutional set-up
- Establishment of external exploitation units