Successful Knowledge Transfer from Universities of Applied Sciences in Germany

Analysis of Best Practice Examples based on empirical analysis and expert interviews

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Successful Knowledge Transfer from Universities of Applied Sciences in Germany

Structure

1. Introduction – Knowledge and Technology Transfer (KTT)

2. Conducted Research Project

3. Considerations concerning the university regions

4. Conclusion
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1. Introduction

Innovation and new knowledge are key drivers for regional economic growth!

- Especially important in knowledge-based economies
- Universities provide a high level of innovation and new knowledge
- The interface between academic research and the application of knowledge offers high potential!

→ Governance and organization of KTT is an important issue
1. Introduction – Knowledge and Technology Transfer

**Knowledge and Technology Transfer (KTT) from Universities of Applied Sciences**

*Figure 1: Adapted from Fritsch 2007, p. 12*
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2. Conducted Research Project

Research Project:

Knowledge and Technology Transfer from Universities of Applied Sciences – Best Practice Analysis

1. Literature review, meta analysis
2. Empirical Research
   - Indicator analysis
   - Identification of Best Practice Examples
3. Best Practice Analysis
4. Deduction of strategic recommendations
5. Follow-up project funded by Federal Government
2. Conducted Research Project

**Methodology:**

**Quantitative Approach – Indicator Analysis**
- Sample: 104 universities of applied sciences, 2001-2008
- Rankings considering indicators for transfer channels “Cooperation in R&D with the industry” and “Transfer via heads”

**Identification of Best Practice Examples on the basis of...**
- Exclusion of universities with sole focus on single areas
- Rankings of indicators “Third Party Funding 2008” and “Third Party Funding of Commercial Industry per professor, ø 2001-2008”
- Dispersion concerning size, geographic allocation, economic background of the region
- Only cooperating universities could be analyzed

**Qualitative Approach – Best Practice Examples**
- Expert interviews, online research, site and region inspection
2. Conducted Research Project

Overall third party funding
2. Conducted Research Project

Third party funding from commercial industry per professor

Third party funding commercial industry per professor (in 1,000€)

Source: public data basis of Federal Statistical Office, own processing and illustration of data
The Best-Practice-Examples at a Glance
Data Basis: 2008

**Bremen UAS**
Alumni: 1,354
Professors: 128
Overall 3rd-party-funding: 8,063.880€
3rd P.F. Com. Ind.: 7,117.340€
3rd P.F. Com. Ind. per Prof: 55.820€

**Muenster UAS**
Alumni: 1,700
Professors: 214
Overall 3rd-party-funding: 9,216.560€
3rd P.F. Com. Ind.: 4,648.560€
3rd P.F. Com. Ind. per Prof: 21.770€

**Cologne UAS**
Alumni: 2,522
Professors: 348
Overall 3rd-party-funding: 10,578.830€
3rd P.F. Com. Ind.: 5,106.400€
3rd P.F. Com. Ind. per Prof: 14.690€

**Bonn-Rhine-Sieg UAS**
Alumni: 729
Professors: 104
Overall 3rd-party-funding: 5,034.880 €
3rd P.F. Com. Ind.: 1,562.930 €
3rd P.F. Com. Ind. per Prof: 15.100€

**Lausitz UAS**
Alumni: 498
Professors: 99
Overall 3rd-party-funding: 4,172.950€
3rd P.F. Com. Ind.: 1,696.220€
3rd P.F. Com. Ind. per Prof: 17.220€

**Zittau-Goerlitz UAS**
Alumni: 703
Professors: 112
Overall 3rd-party-funding: 5,155.230€
3rd P.F. Com. Ind.: 2,737.000€
3rd P.F. Com. Ind. per Prof: 24.430€

**Deggendorf UAS**
Alumni: 527
Professors: 67
Overall 3rd-party-funding: 5,034.880 €
3rd P.F. Com. Ind.: 1,679.820€
3rd P.F. Com. Ind. per Prof: 11.360€

Overall 3rd Party Funding ➔ Overall Third Party Funding, the university receives
3rd P.F. Com. Ind ➔ Overall Third Party Funding, the university receives from commercial industry
3rd P.F. Com. Ind. per Prof ➔ Third Party Funding, the university receives from commercial industry per professor

Source: own figure, public data basis of Federal Statistical Office 2010
## 2. Conducted Research Project

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3. Considerations concerning the university regions

**Regional factors have strong influence on the success of KTT:**

- Attractiveness, infrastructure & accessibility of the region
- Economic factors
- Regional demographic situation
- Community support and financial funding
- Networking in the region
- Existence of intermediating entities and other research institutes in the region
- Affinity of university research and regional industry fields

→ **Regional absorption capacity matters!**
3. Considerations concerning the university regions

Observation: Two kinds of regions seem to offer high potential for KTT:

- **The “Science Location”**
  - Economic stability
  - Modern, urban regions with good infrastructure and accessibility
  - Balanced demographic situation
  - Other research institutes nearby, regional cooperations to support KTT
  - Knowledge-intensive services
  - Problems of public awareness due to city size or regional competition

- **The “Eligible Region”**
  - Eligible due to economic, demographic or structural aspects
  - University is intensively supported by region, community and country
  - No or few research institutions in the region
  - High regional awareness
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4. Conclusion

There is no ‘silver bullet’ or ‘royal road’ to successful research and KTT!

Nevertheless...

→ Success is not reserved only to well-financed universities with a long research history
→ Decisive strategic outline, a clear research profile and focus, high strategic importance of research and KTT (support of board of directors)
→ High importance of networking
→ External factors play an important role
→ Know, adapt to and continuously reassess the regional absorption capacity
4. Conclusion

**Further research potential!**

→ What are determinants of regional absorption capacity?
→ Degree of regional / supraregional focus of transfer channels?
→ How do results differ when looking at different types of universities?
→ Identified regions with high potential for successful KTT: further analysis, e.g. multivariate and econometric analysis
Thank you for your attention!