

**Alexander von Humboldt Foundation Symposium  
Timisoara/Romania, February 24, 2005**

**Europe Our Future:  
Opportunities resulting from Bologna**

Prof. Dr. Dr. h.c. mult. Wolfgang A. Herrmann  
President of Technische Universität München  
Chairman of Universität Bayern e. V.

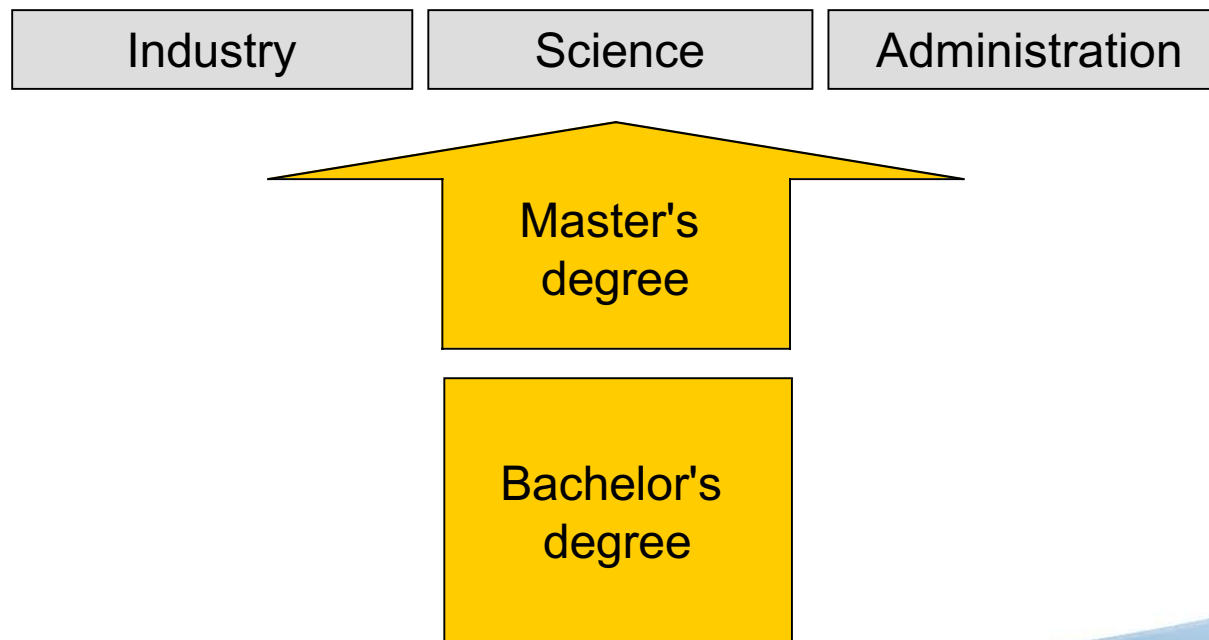
---

## Status 2005 at :

- 20% foreign students
- Average length of study for a *Diplom*/Master's degree: 11.2 semesters
- First Bachelor and Master courses in 1998
- Today over 50 B.Sc. and M.Sc. courses
- *7 international English-language Master's programs*
- Modularization and *European Credit Transfer System* in B.Sc., M.Sc. and *Diplom* courses adopted (>>Munich Modell<<)
- Complete switch from *Diplom* to B.Sc. / M.Sc. in several faculties (e. g. Civil Engineering and Surveying; Informatics) in 2005

## Thesis 1: The Master's degree is to be the standard TUM degree

- Five-year courses (as applicable for *Diploma* courses to date) are to remain the **TUM** standard
- Main **TUM** goal is to enable achievement of key R&D qualifications for a career



## **Thesis 2: The two-step model opens up new options**

### **In geographical terms:**

Increased international student mobility

### **In content terms:**

Provision of non-consecutive courses in addition to normal courses

### **In terms of time:**

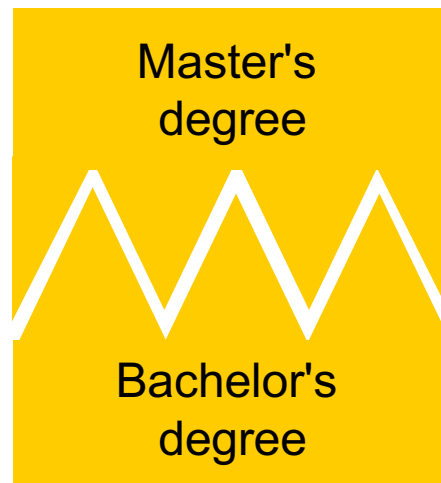
Gainful employment in suitable occupational fields, including gainful employment between a Bachelor's and Master's course

### Thesis 3: Fixed admission quotas for university-based Master's courses are contraproductive

- Quality assessment is a matter of university autonomy
- Rigid rules do not reflect dynamic labor market demands
- Quotas destroy the acceptance of Bachelor's and Master's degrees
- The **TUM** should be able to decide on further admission criteria on the sole basis of academic considerations

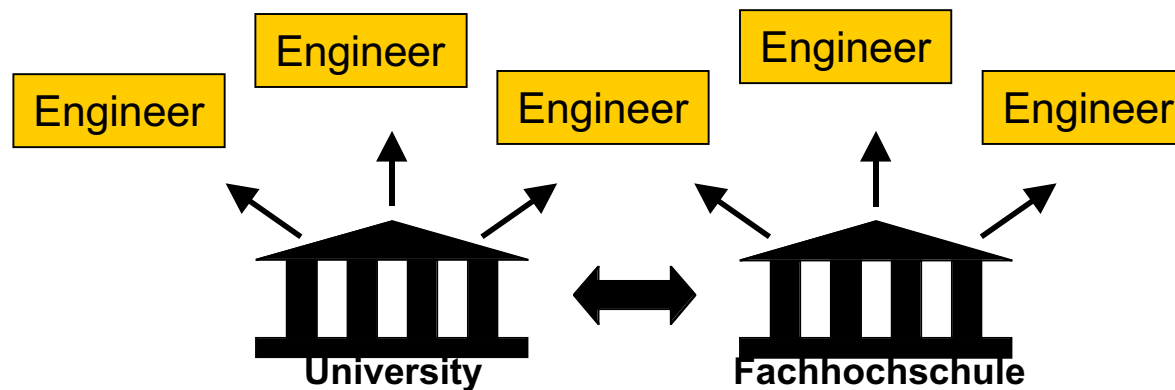
**Thesis 4:  
Restricting the length of consecutive Bachelor's and Master's  
courses must be part of the concept**

- Interlinked B.Sc. / M.Sc. programs prevent prolonged studies
- Highly motivated and capable students receive the goal faster



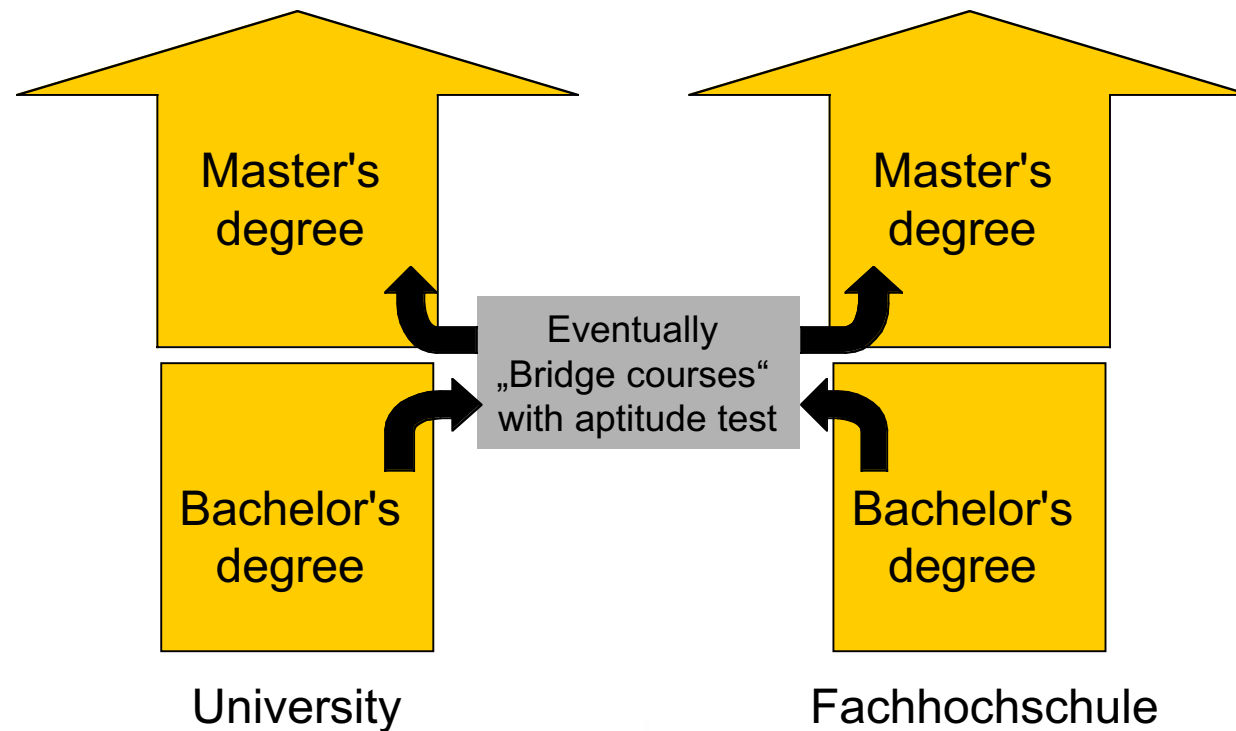
## Thesis 5: Universities and Fachhochschulen have to complement each other regarding their profiles

Modern days economy has a need for scientists, engineers and economists with differing profiles



- There is a need to retain and further develop complementary educational concepts
- Cooperational efforts have to be made

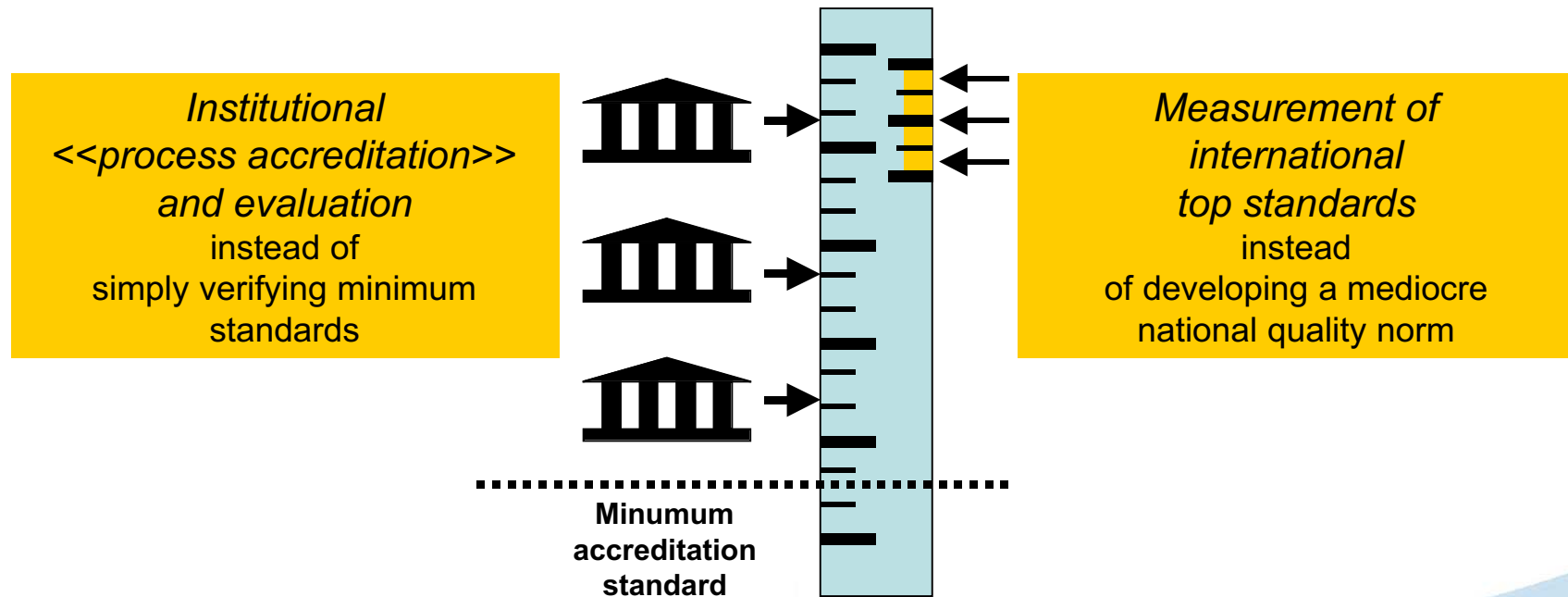
**Thesis 6:**  
**Admission of Bachelor's graduates from Fachhochschulen to a Master's course at a university is to be granted, depending on strict academic criteria.**





**Thesis 7:  
Accreditation of Bachelor's and Master's courses is, at the moment, unscientific and not ambitious enough**

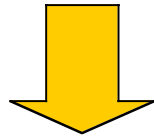
Necessary improvement of accreditation:



## Thesis 8:

- Identification of B.Sc. & M.Sc. titles with the respective institution
- The <<Dipl.-Ing.>> has to be maintained as a German trade mark academic title

- More competition is necessary between universities:



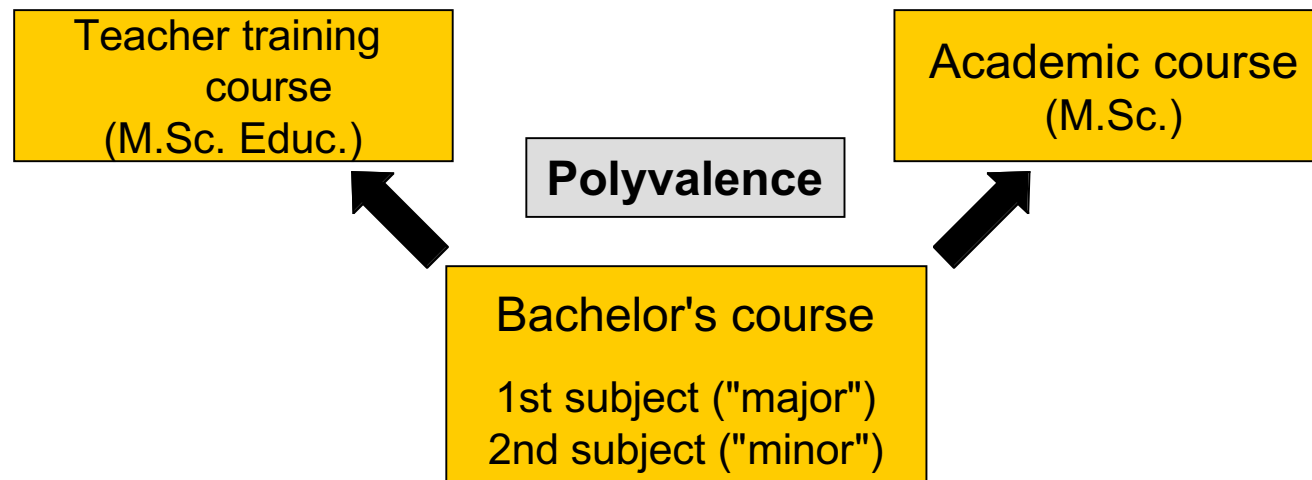
- The trademark **TUM** has to feature in our academic titles
- **TUM** degrees should become the **TUM** trademark

*B. Sc. (TUM)*

*M.Sc. (TUM) =  
Dipl.-Ing. (TUM)*

## Thesis 9: At TUM, teacher training courses have to conform to the Bologna process

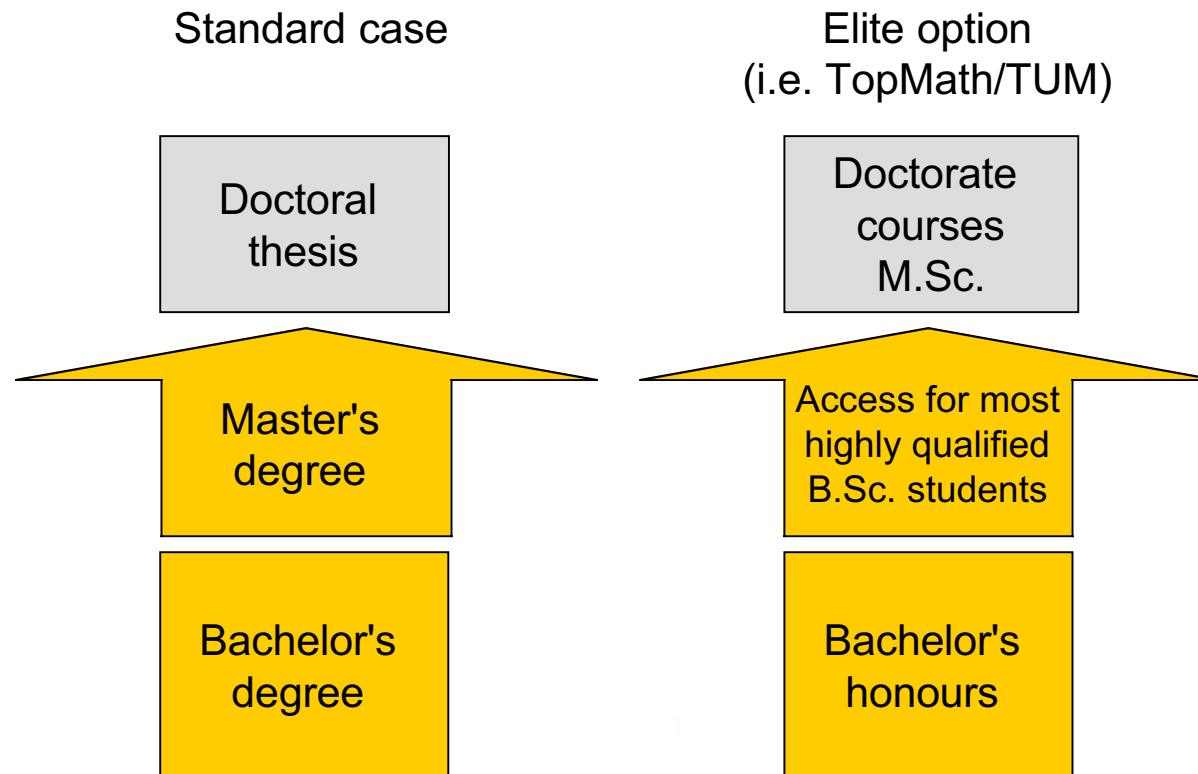
**TUM**'s polyvalency model for training academic secondary school teachers (*Gymnasium*):



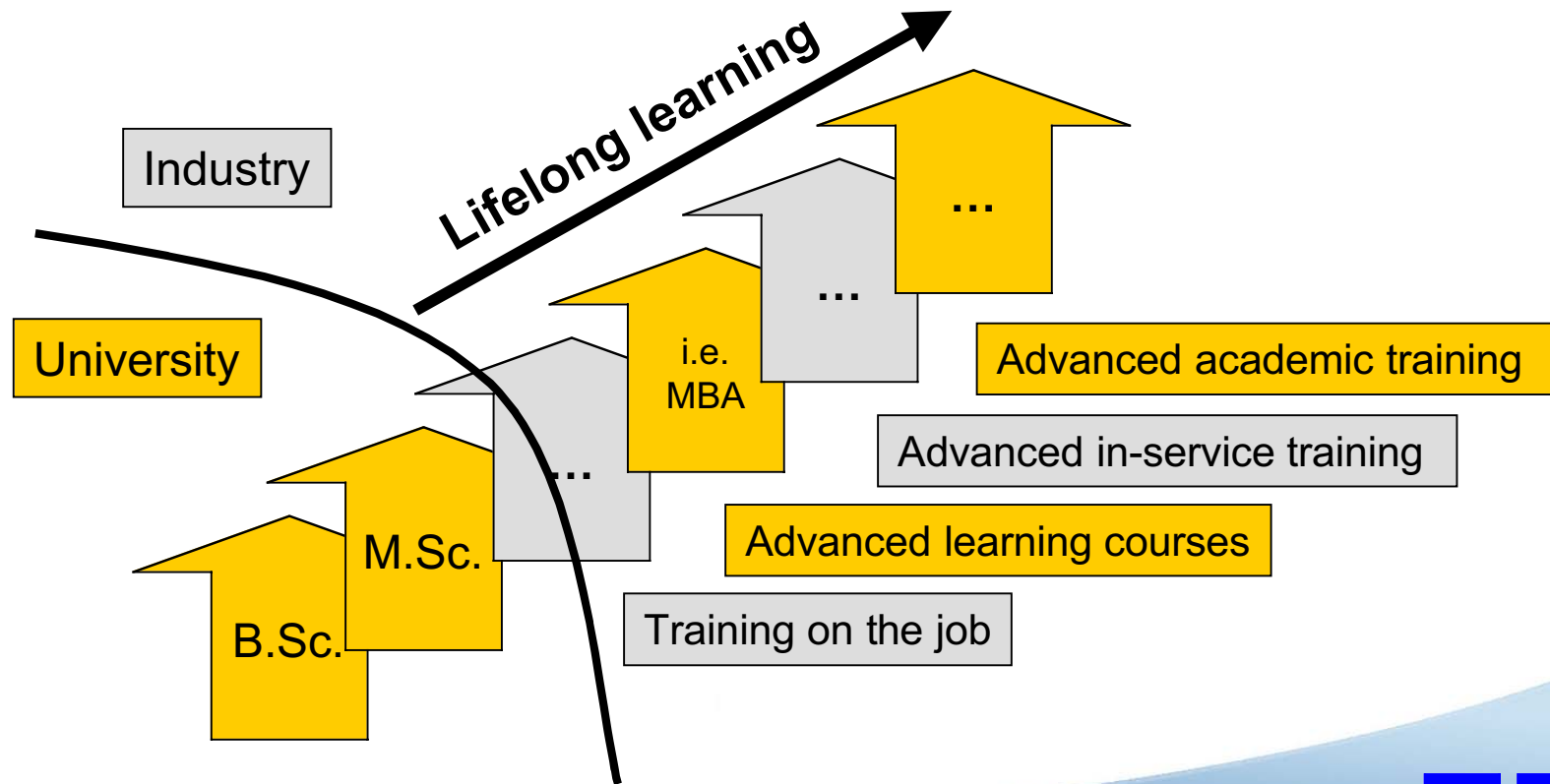
Note an important specificity:  
The job market for teachers is still an exclusive governmental matter!

## Thesis 10: Structured doctorate courses are to be established

At post-graduate institutions or as part of elite courses



**Thesis 11:  
Continued advanced academic training is to be established as the  
straight-forward extension of the Bologna process**



Joint position of the major German  
Technical Universities (TU-9):

<<The Bachelor opens doors,  
the Master's degree is the goal.>>