



Professional Skills Development at the Slovak University of Technology for Knowledge Based Regions

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SCOPE:

ACTIVITIES OF **S**LOVAK **U**NIVERSITY OF **T**ECHNOLOGY IN BRATISLAVA – IN SLOVAK REPUBLIC REGIONS

- training of technical experts
- expertises
- framework of a life-long learning
- applied research



HISTORICAL MISSION:

Humboldt times -

- education closely interlinked with up-to-date research
- information on predetermined developmental areas
- the basis of the structure and location of its industry

SLOVAK UNIVERSITY OF TECHNOLOGY IN BRATISLAVA

- following year - **70th** anniversary
- after the World War II - the only one developed higher education institution with technically oriented study
- **1952** - also a part-time study



The presence of the professional skills development at the SUT

Bologna process and the SUT position in Slovakia

- **November 1989**
 - principles of plurality and democracy
 - formation of market mechanisms in economy
 - fall of centralistic management of education
- **1991**
 - new University Act
 - market mechanisms in economy - reflection also in the life of universities
- **1994** divided university education into a bachelor study (1st degree) and a master study (2nd degree).
- **1996** the SUT introduced credit system of a study compatible with the ECTS into all provided study courses



Contemporary needs of labour market in production and services

| selection of an employee | % |
|------------------------------------|------|
| „fresh“ graduate | 41,2 |
| a graduate with employment history | 38,7 |
| without preferences | 20,2 |

Table 1. Approach of employers to the selection of an employee. A survey was carried out with 119 biggest employer institutions from the fields of agriculture, row materials mining, industrial production, production of electricity, gas and water, civil engineering, commerce, transport, posts, telecommunications, banking, insurance, services and research.



Requirements from practice

since the academic year 2005/2006 faculties of the **SUT** realise:

- **218 newly accredited study programs**
 - 47 bachelor study programs
 - 92 master and engineering study programs
 - 79 doctoral study programs



SUT versus other universities providing higher education

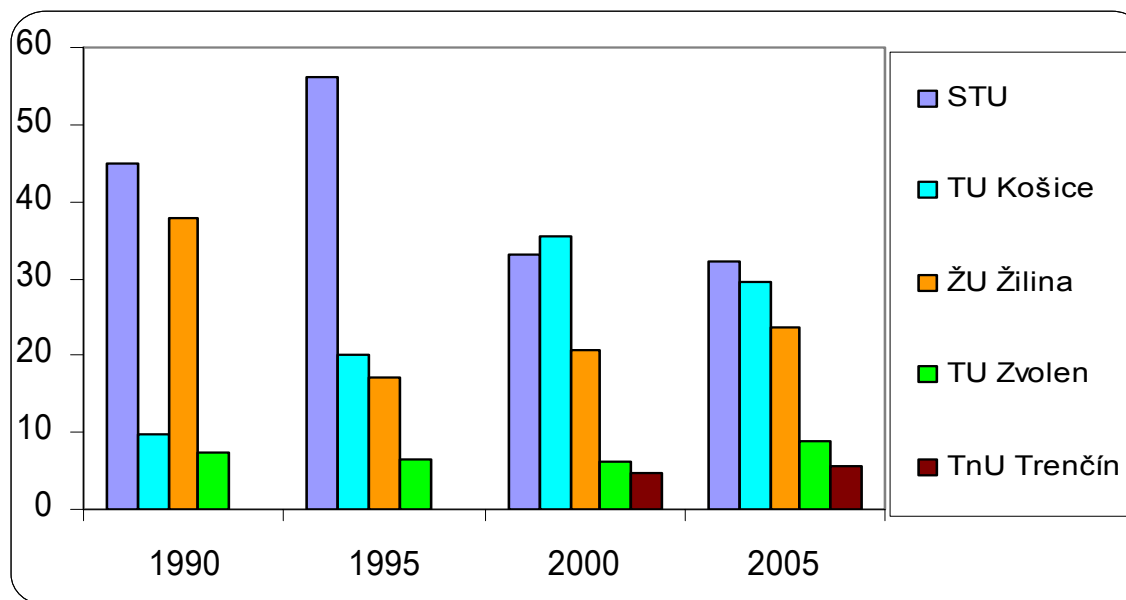
academic year 2005/2006:

- more than **65%** of students,
- from the total number of **14 500** full-time students studying in all study degrees of a university education,
- are students with permanent address in distance of more than **40 km from Bratislava**

=> SUT - university preparing experts for all regions of Slovakia



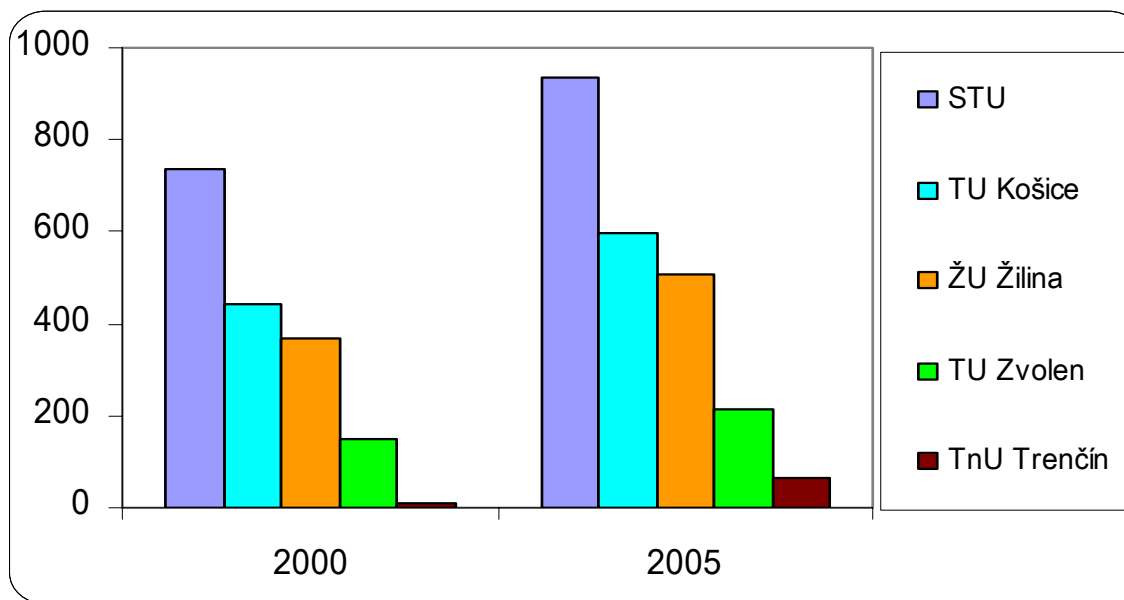
Position of the SUT among Slovak universities expressed in the number of part-time students



Picture 1a. Part-time study students studying technical courses (all degrees of the university education) at Slovak technical universities.



Position of the SUT among Slovak universities expressed in the number of part-time students



Picture 1b. PhD students in part-time study form of technical study courses at Slovak technical universities.



The presence of the professional skills development at the SUT

Knowledge Based Regions and the SUT

● Dominant actors - automobile industry companies

- Volkswagen Slovakia in Bratislava
- PSA Peugeot Citroën in Trnava
- KIA Motors in Žilina

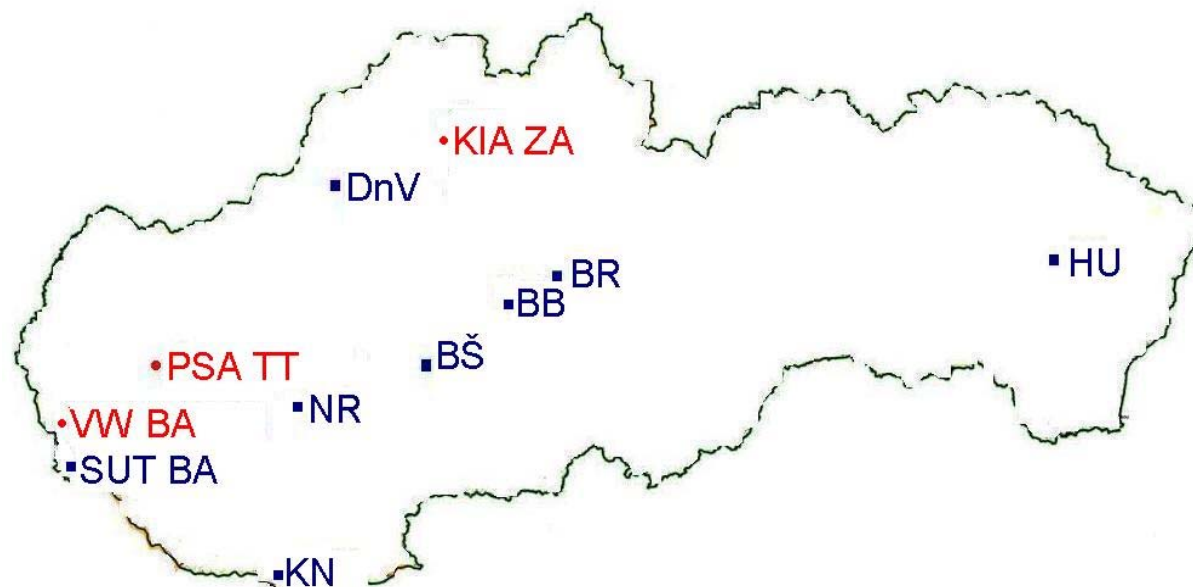
⇒ approximately 80 000 – 100 000 jobs

⇒ this number includes 8 – 12% of employees with university education

⇒ important challenge for the **SUT**



Response of the SUT faculties to the mentioned trend of the previous 5 – 7 years



Picture 2. Network of detached places of work of the SUT faculties. HU – Humenné, BR – Brezno, BB – Banská Bystrica, BŠ – Banská Štiavnica, DnV – Dubnica nad Váhom, NR – Nitra, KN - Komárno



Co-operation with industry

- The **SUT** faculties continue in co-operation with different industrial companies in different regions of Slovakia.
- In the year **2004** faculties of the **SUT** have been solving **235** tasks
- Lots of **experts from practice** are engaged in different forms of:
 - educational process like lecturers,
 - heads of laboratory exercises,
 - consultants and diploma work heads,
 - members of different expert commissions,
 - members in scientific boards,
 - members of legislative bodies



Co-operation with automobile industry

**Faculty of Mechanical
Engineering**

co-operation

**Faculty of Chemical and
Food Technology**

**“Plastics in mechanical
engineering and technology of
processing of plastics”**

**The Faculty of Electrical
Engineering and
Information Technology**

“Automobile electronics”

SUT
co-operation
PSA concern

**the equipment of the training
centre in the university
premises**

Training centre is functioning for three years now and up to now about 750 graduates were trained there for needs of the PSA.



Co-operation with different industrial companies

● Faculty of Chemical and Food Technology

- **Slovnaft a. s.** -the area of technology of fuels and petrochemistry
- **Slovalko a. s.** -the area of inorganic technologies
- **Duslo Šala a. s.** -the area of technologies of organic productions

● Faculty of Informatics and Information Technologies

● Faculty of Electrical Engineering and Information Technology

- **Siemens a. s., Samsung a. s.**
- **Hewlet Packard, Orange, T-mobile**

● Faculty of Material Sciences and Technology

- **Plastika Nitra a.s.**

● The Faculty of Architecture

- detached place of work in Poprad- space planning and landscape architecture



Life-long learning

- **SUT-** provides for applicants from institutions engaged in the areas of production and services, also life-long learning.
- These activities are realised at the **SUT** through its faculties and the **Institute for Life-long Learning**.
- The Institute for Life-long Learning of the **SUT** represents the biggest university institution providing life-long education in Slovakia.

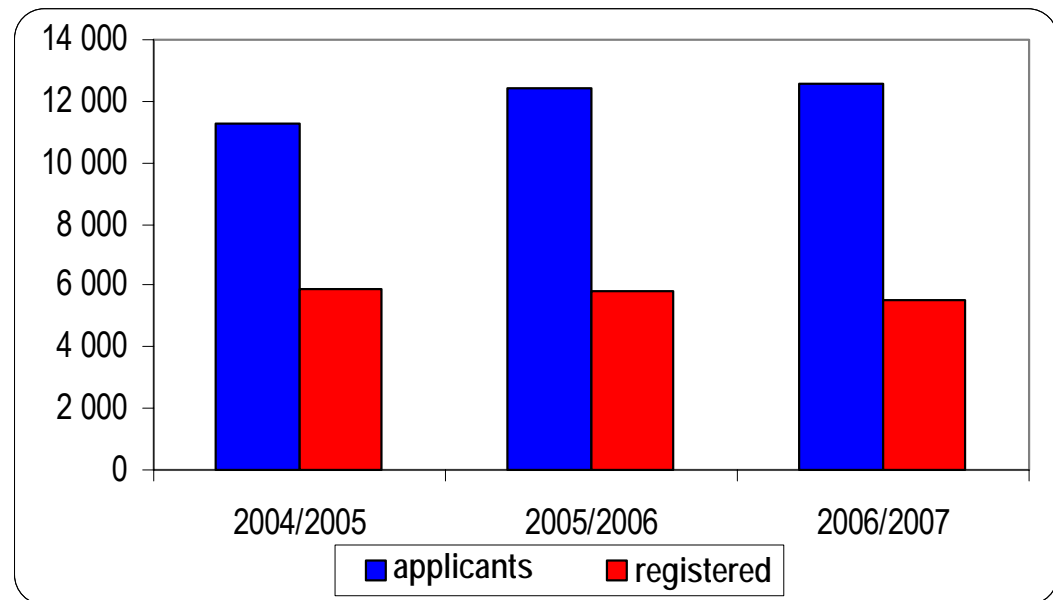


Attractiveness of study at the SUT

● actuality of provided study programs keeps attractiveness of a study at the **SUT**:

● in full-time form (*Picture 3*)

● in part-time form it has increased since the year 1995 to more than 2,3 multiple in the year 2005.



Picture 3. Number of applicants and students matriculated for a bachelor study in the previous three academic years.



CONCLUSION:

SLOVAK
UNIVERSITY OF
TECHNOLOGY
IN BRATISLAVA

- and its study programs prepare future experts for predetermined orientations of development in technology, and actually reacts to up-to-date development of regions in Slovakia
- is prepared to develop professional skills of experts in those regions according to demands.