

Partnership as Important Part of Engineering Education

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Abstract: In the second half of 90's Faculty of Metallurgy and Materials Engineering found their own identity. Cooperation between universities abroad as well as good partnership with industrial companies will have priority in the beginning of the new millenium. Universities as higher education institutions should guarantee a high level of education according to actual level. This will have a strong impact not only on engineering education, but also on the whole society.

Keywords: partnership, universities, cooperation, education.

1. Introduction

The Faculty of Metallurgy and Materials Engineering as a historical part of VSB-Technical University of Ostrava has a long tradition. In the 90's in conditions of restructuring Czech metallurgy must have modify education programmes by the accordings of science, research and development and metallurgical industry. Significant role in this educational system has the partnership of universities and mobility of students, teachers and scientists.

2. Aim of partnership

Through partnership activities of the faculty have the students the possibility to study on the universities in Europe and the USA. Students use European Union mobility programmes SOCRATES – ERASMUS (Austria, Germany, United Kingdom, Italy, France), LEONARDO (Germany), central european programme CEEPUS (Poland, Hungary, Slovak Republik) and bilateral programmes ACTION (Austria) or BARRANDE (France).

International students activities are also very important for industrial enterprises. They cooperated and sponsored students work placements, excursions, dissertations and study mobilities. The excellent result of this cooperation is a new common laboratory of thermal engineering (with BUDERUS comp.) or sponzoring one year study four students at The University of Michigan (Detroit) by HAYES LEMMERZ comp.

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3. Programmes for supporting of mobilities

Leading part in the students mobilities directed at european universities get throught European Union (EU) mobility programmes. Excellent experiences have our Faculty of Metalurgy and Materials Engineering in the European Union programme SOCRATES/ERASMUS.

The Socrates programme is one of the EU Programmes which were accessed by the European Union to the Czech Republic and other associated countries in 1997. The point of these programmes is to deepen cooperation among the young generation of Europe in the field of education, professional training of students, reinforce the quality of the level of foreign language teaching and last but not least, encourage students to reach mutual understanding and knowledge.

The Socrates programme is particularly aimed at cooperation in the field of general education from elementary schools, secondary schools and higher education institutions right up to university level. However the programme is also directed towards adult education and includes the field of lifelong education.

The official entry of the Czech Republic into the Socrates programme dates from October 1997 and it is from this period that our Faculty of Metallurgy and Materials Engineering VSB Technical University Ostrava can



participate in projects according to the same (as well as financial) rules as technical universities and other institutions in EU countries. In view of the fact that our faculty did not enter the programme until 1997.

The Socrates programme includes cooperation activity in various fields and also in various directions is divided into a number of partial programmes as follows : Erasmus - a programme for higher education institutions and universities, Comenius - a programme for elementary and secondary schools, Lingua – a programme for development of foreign language study, Arion – a programme for management workers in education, Open and Distance Learning programme, Adult Education – a programme of lifelong education, Complementary Activities – a support programme of the above programmes , Naric – a programme for recognition of attained education and Eurydice – a programme for information in education. The last two programmes Naric and Eurydice are not the classical form of programmes in which participation comes in the form of a grant application. They are more in the nature of an exchange of information between member countries to realise the educational process in the individual countries participating in the Socrates programme.

The SOCRATES/ERASMUS programme was opened special for higher education institutions in the preparatory year 1997/98 when universities in Czech Republic and our faculty too had to submit applications for programme participation to Brussels by 15 November 1997.

The Socrates/Erasmus programme contains two types of actions : the centralised actions which are administered by the EU Commission and the EU Commission concludes contracts directly with universities and the decentralised actions administered by NA Socrates in Prague.

Among the centralised actions, which are supported financially by the programme and through which universities apply for a financial contribution in the form of institutional contracts, are the following : support for organising the mobility of students (OMS), study stays of university teachers combined with their teaching at EU universities – European Teaching Fellowships (TS, ETF), preparatory visits (PV), European Credit Transfer System (ECTS) and joint development projects.

4. The present condition of mobilities

After the preparatory academic year 1997/98 started our faculty Socrates/Erasmus programmes in academic year 1998/99 by part OMS – support for organising the mobility of students and TS – study stays of university teachers – teaching assignment of short duration.

Through this programmes realize students of our Faculty of Metallurgy and Materials Engineering VSB– Technical University Ostrava in starting academic year 1998/99 study in the european universities:

BA– Technical University Freiberg / Germany: 6 students study 3-6 month at the department of thermal engineering.

Technical University Clausthal – Zellerfeld / Germany: 2 students study 3- 6 month at the department of materials engineering.

MU- Technical University Leoben / Austria: 6 students study 3-6 month at the department of materials engineering.

University of Derby / United Kingdom: 1 student study 5 month at the department of Environment protection.

In the same academic year 1998/99 realize 5 teachers study stays of short duration (1 week) combined with their teaching at european universities in Germany and United Kingdom.

In the academic year 1999/2000, the seconds year of Socrates/Erasmus programme, realize students our faculty further study at european universities:

BA- Technical University Freiberg / Germany: 6 students study 3-6 month at the department of metallurgy and at the department of foundry.

Technical University Clausthal-Zellerfeld / Germany: 3 students study 3-6 month at the department of metallurgy and economy.

In the same year 1999/2000 realize too 5 teachers study stays of short duration at universities in Germany and United Kingdom.



For academic year 2000/2001 we prepare through Socrates/Erasmus programme students mobility with Universita di Casino / Italy and teachers activity we will extend in programmes European Credit Transfer Systém (ECTS).

LEONARDO, one of EU programmes aimed particularly at the field of specialised education and practical training. Faculty of Metallurgy and Materials Engineering use this programme for teachers specialised education at the department of Quality mangement and in this year 1999/2000 started special programme with Germany universities: Leonardo – part Sachsen directed for students practical training .

A long time and excellent experience in the, students, PGS students and teachers mobilities we have with technical university Ecole Centrale Paris/France.For this activity we use bilateral France – Czech programme BARRANDE.

To Austria, direct to Technical university MU Leoben we use for scientist, PGS students ans teachers bilateral Austria-Czech programme ACTION.

Special programme for the central european countries CEEPUS we use for students, PGS students and teachers mobility at universities in the Poland (Silesian Technical University Katowice) in the Slovak republic (Technical Univesity Košice, and in the Ungarn (Technical University Miskolc).Many students and teachers use this mobility programme special for short duration stays.

5. Conclusions

Finally is possibility state, that partnership of universities open mobilities of students, teachers and scientists. Support of mobilities through EU and further programmes make possible study at universities in Europe and World. This fact is very important part for contemporaneous engineerig education.

