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SOME ASPECTS OF SCIENTIFIC ACTIVITIES AT UNIVERSITIES

The need for science development has become strategically important due to its more and more important role of an economic accelerator. This is the result of hard competition and fight of states with market economies for their better position in the international trade. Overlooking the political aspects, the growth of GDP and the rate of profit of the notable profile producers are certainly more stable in companies with science knowledge in managing, decision making as well as producing processes. In these companies, top-ranking teams of professional specialists are engaged in the crucial posts. The well-equipped science and research centres, richly subsidized by the production, that are active either independently or within universities, proved to be a highly efficient investment for the investors bringing quick recoverability.

Currently, there exists a certain differentiation between university research units, namely in their technology equipment, research capacity or in available financial resources. In any case, the research results are an important part of the university income and important part of the university prestige.

In our provenance, universities are not traditionally understood as vital research environments and this notion is only very slowly adopted. Schools are still treated as prevailingly educational institutions. The research and science activities are understood as important and inevitable but only for the needs of school and within a narrow range of practical users.

Those university fields that had technical laboratories with latest technology and have been available for exclusive expert opinions or assessments have a better position on current market. Such universities have been directly included in the process of production and management problem solving. Some unique solutions have arisen from such cooperation but we cannot speak about a systematic process. In other words, universities and their research basis are not systematically used.

Co-operation of universities

One of the main factors that make the US a world leader in economic as well as research aspects is the integration of the university intellectual potential into solution of production and social needs. The EU is on its best way to support science and research co-operation of member, affiliated and third state experts. By specifying special research programmes aiming at universities, it prepares

the soil for the massive start of incorporating science into the production and social processes. Mutual networking of workplaces and individuals produces knowledge and information supported by INTERNET, and personal meetings, conferences and symposia strengthen this potential.

Construction of such an international net is a dynamic process with assets like openness and flexibility. The most important support for such construction is the European Commission programme with its international project of equipment established for the partaking research centres, and the ability of partners to communicate in one of the world languages (English as the most frequently used). The opportunity to participate in the international net of research centres is a tempting occasion to promote the research capacity as well as the pressure or a so called inevitability if a university wants to withstand the competition on both the research and education fields. The opportunity to enter an international project should be understood as a successful round off for the previous period of effort to reach international research standards. In spite of some reservation, the research qualification of Slovak universities in average reaches such standards. This is proved by numerous international projects guaranteed by Slovak universities. The language preparedness can still be considered a partial problem. Currently, when SR has become an EU member state, programmes of partner co-operation have substituted the programmes of help. This new situation is accompanied by a new position of research centres in relation to project funding. The former position of a pure grant receiver has changed to the position of a project co-partner. This means that the sign of the partnership and participation contract requires the proof of funds required as an input into the mutual project funding. It can be 5 - 50% out of the whole planned costs. More to it, there is another packet of financial expenses, refunded up to 30th April 2004 by the Ministry of Finance, SR, that covered the VAT (19%) and which cannot be covered by the European Commission funds.

It was the TEMPUS /PHARE research programme that demonstrated the importance of resolution for financial flows and actual access to financial resources and their impact on quality of international co-operation. That programme activated the establishment of international contacts, methods, and know-how to such an extent that they became basis for future projects on different levels of co-operation.

The Faculty of Architecture (FASTU) in international research environment

In the previous historical period of centralised planning, the research activities were an integral part of each university teacher's working capacity of 2000 hours a year. Out of that capacity, 500 hours were allocated to research. Other 500 hours could be spent on the so-called side business activities realising results of the researcher's research results. Research work was exclusively funded by the state budget and the funds could be obtained through different resorts. The Faculty of Architecture had a core research agreement with the Slovak Academy of Science, lasting for five years. The research tasks were relevant to the fields of architecture and urban architectural planning and design and covered complex research problems. All the Faculty departments took part in solution of research tasks and in the form of partial research projects solved the pertinent aspects of the researched problem. The responsible research workers at individual departments included all the department colleagues who were responsible for selected topics. One positive aspect of that system was the research opportunity for each teacher and a non-problematic funding (though restricted in a way). The predetermined topic, isolated research solutions on individual research centres and highly restricted publication opportunities were found as disadvantages. The realisation of the research results was left unsecured.

The research results of the project were dependent on the responsible researcher's professional personality and skills. He had to integrate the less efficient and low motivated colleagues as well as the final research results. In spite of certain shortages of such research management, some notable results in the fields of architecture and urban planning were reached. They (namely in urban architectural design) enabled the present wide international co-operation and they could be considered as the basis for the present Centre of Excellence.

In the years 1981-85, within the state research task II-8-1 Basic topics of theory of architecture, urban planning and urban design, The Department of Urban Architectural Planning and Design solved the a partial task of Settlement Design and its Redesign. The individual topics solved the aspects of settlement and regional structures and the results became basis for the planning practice. In the next research planning period 1986-90, the previous research results became basis for the two following research tasks, running under the main title: II-8-3 Methods and concept principles for residential areas. One of the two topics basically addressed the problems of ecology and demography as factors of planning of the residential areas as well as the problems of architectural design in internal urban areas. One of the notable research results was the method of humanisation and social ecology for residential areas and criteria for the categorisation of poly-functional residential structures. The other topic covered the

problems of development and rational use of the existing urban structures, settlement structures and functional urban subsystems. The analysis of the selected urban and settlement structures disclosed the existing weaknesses and became the basis for the proposed improvements.

Based on that research experience, it was possible to take part in broader research co-operation, even in the international extent. In the period 1991-93, there were projects that were supported by the GAV grant. They reflected the new political and social situation and the topics of international integration of Slovakia became relevant. Thus the field of urban architectural planning and design at the Faculty of Architecture started to become an important part of European urban architectural planning and design research. The freedom of free research and publication activity based in law created a friendly atmosphere for international co-operation. An active co-operation of the FA with the ARL in Hanover, IOR in Dresden (the German speaking environment) since the beginning of the 90ties was enhanced by the further offer for co-operation with the IUG Grenoble (in 1993) within the TEMPUS/PHARE programme. FA STU became the co-ordinator of the project and the University of Economics in Bratislava, as well as the Univeristy of Matej Bel in Banská Bystrica, the University of Pierr Mendes Franc Grenoble and finally the University of Newcastle upon Tyne became the co-operating schools. Such composition of co-partners enabled an inter-disciplinary access to research solutions. The project was solved in 1994-97 and was predominantly education oriented. Its aim was to introduce a new subject to the teaching programme: namely the subject of regional planning and to help Slovak partners to appropriately equip the centre with PCs. In spite of the well-prepared theoretical basis for the project the reflection of social background appeared as important. The project: Research and Methodology of Risk Assessment and Impacts of Human Environment in the Field of Architecture and Town and Country Planning concentrated on methods of reveal and assessment of risk impacts by architecture and urban planning in human environment. The project was solved in the years 1995-97 under the VEGA grant. It was based on the home urban architectural planning practice as well as on the international experience.

Theoretical results brought by the project REGAMTER were implemented in 1977 within the project TEMPUS/CME under the title European policy in regional and local planning in three selected regions of Slovakia.

The next project under the title Factors, Methods and Tools of Permanent Sustainable Space Development on Regional Level analysed practical knowledge from three Slovak regions: The Spiš, Gemer a the Bratislava region. The next project: Factors, methods and tools of sustainable regional development was solved in the years 1998-2000 under the VEGA grant. Identification of the internal regional resources enabled to constitute quantification of developmental factors and specify their limits. Humanising and ecological criteria were taken into account. This



project also served as basis for the simultaneously realised SPECTRA (Central European Research Centre of Spatial Planning) project included in TEMPUS/PHARE programme. The project continued in the REGAMTER project and in 1998-01, through a series of courses and lectures, implementing the acquired knowledge in practice. Lecturers from the partner research centres (ARL Hannover and IOR Dresden) came to introduce their research results. The core topic of the INTERREG programme was environmental planning stressing the regional level.

Including the public into the process of environmental planning requires special managing methods and skills. This new phenomenon became the topic for the project: Participative Planning in Spatial Development - Methods and Instruments, funded by VEGA grant (2002-2004). One of its aims was the clarification of positions of regional planners. The Centre continued in its affluent international activities even after the European Commission stopped its funding. It received invitations to co-operation in the 5th frame programme ECOCITY from numerous European partner centres: Wirtschaftsuniversität Vienna, Austria, CABERNET with the University of Nottingham, UK, TRANSPLUS with ISIS Istituto di Studi per Integrazione dei Sistemi, Rom, Italy, LUDA with IOR Institut für ökologische Raumentwicklung, Dresden. All these activities motivated the FA STU research team to prepare their integration into the network of European Centres of

Excellence. The project for the years 2003-2005 has been accepted and the Centre has been accredited for the position. It has become a vital part of European research space what is a good signal for the newly accredited study programme at FA STU. The programme (Environmental Planning and management) has been constituted on the basis of newly acquired knowledge and systematic research activities.

Translated by PhDr.D.Brečková

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Act No. 172/1990 on Universities

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