CREATING THE SYSTEM OF PROTECTION OF INTELLECTUAL PROPERTY AT UNIVERSITIES

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Abstract

The article presents possibilities of intellectual property protection by internal institutionalization of universities. Most Central European universities do not have any systemic institutes of intellectual property protection and this issue is dealt with by various branches of the institution non-systemically. The article illustrates the internal structure of university centers to ensure effective action to ensure the protection of copyright and industrial property rights and licensing of knowledge. Furthermore, interactions within the conceived system and input-output information are elaborated.

Keywords: Copyrights, industrial property rights, center of technology transfer

Introduction:

Not only technical but also humanities oriented universities have wide-ranging contacts and the cooperation in education, research and development with various institutions at home and abroad. Their activities cover a wide range of educational needs not only for the particular region of Slovakia but in many fields they are the only centers of science, research and education not only in Slovakia but also in Central-European region.

The mission stated under the Act no. 131/2002 Coll. should be conducted by universities by innovative research related to projects within the European Research Area and excellent education in all scientific fields of faculties of university. Permanent development of university and its mission are supported continuously by updated visions and strategies. Creating a vision of each organization (not only educational and research institutions) is an integral part of managerial work of top management of an organization. As an example, a vision of the Technical University of Kosice is provided, which declares the following resolutions [1]:

To be

- a leading technical university at national level,
- a recognized technical university at international level,
- with a strong element of autonomy,
- developing scientific knowledge
- on the basis of its own initial results, providing excellent education at all three levels of university studies
- quality lifelong learning,
- with sufficiently diversified financial resources,
- accessible to the widest range of candidates
- by its research fulfilling expected needs of industry, region and society
- significantly engaged in providing services to the general public.

The structure of university management is based on and respecting the Act no. 131/2002 Coll. on Higher Education. Within the legal space a structure for flexible distributed system of university management is created and organized. In management system a clear procedure for initialization, preparation, implementation and evaluation of RDI (Research, Development and Innovation) projects is defined, which supports the creation of both vertical research teams as well as horizontal research teams. The appropriate procedure for the research area takes the specifics of the contractual RDI projects for commercial practice into account (i.e. the contract cooperation with the practice of large as well as small and medium enterprises) with links to address the protection of copyright and industrial property rights (IPR - Intellectual Property Right).

Although in the current structure most universities do not have any systemic institutes of intellectual property protection this issue is addressed by various branches of the institution non-systemically. In devising long-term goals of institutions engaged in research and development activities it would be advisable to create workplace for protection of institution's intellectual property where the main focus will be given on the following activities connected to:

- copyright and licensing,
- legislative support in terms of patents for inventions and utility models,
- use of the university brand,
- topography, industrial proposals and designs,
- know-how of the institution,
- the access to the publications of European specialists in matters of knowledge society and research projects,
- information services on trainings in the field of intellectual property

Creating university centers

Process and project thinking in creative work need to be used in determining strategic objectives in the area of development and making the cooperation of university with the social and economic practice more effective. From this perspective, the strategy of the university must clearly declare the essential feature, namely to be an internationally recognized research university with an important feature of the ongoing continuous development of an active and mutually beneficial ("win-win") cooperation with experience in research and innovation.

Active cooperation with practice has two important implications:

- ✓ **research university guarantees** a high innovative potential of its research and development projects. Innovative potential of research results is then the foundation and guarantee of developing and ensuring positive cooperation of university with practice in joint applied research, innovation projects and knowledge transfer or technologies transfer projects. The cooperation conceived in this manner in the area of university functioning contributes to increasing competitiveness and sustained growth of the cooperating organizations from the industrial and social practice as well as in the field of innovative small and medium enterprises.
- ✓ **active and effective cooperation of university with practice**, on the other hand, in the form of feedback through suggestions, ideas and requirements inspirationally contributes to the rise of scientific level, quality (effectiveness) of research and development and innovation activities of the university. The indicated positive feedback of practice helps the university to maintain and develop its image of a nationally and internationally recognized scientific university. On the other side, however, current experience of universities shows that ensuring the indicated "win-win" cooperation with practice cannot

be successfully managed without a radical change in the organizational, legal and management principles and institutes across the overall university structure.

Strategic objective in the creation of the institute of intellectual property indicates and on the basis of partial verification partly confirms that the university has a real effort and managerial support to successfully manage such radical change in providing creative and innovative collaboration with practice and set out the principles and concepts of solutions respecting and promoting the fulfillment of the global objective whose outputs will contribute to the continued growth of scientific research outputs and thereby improve the conditions of the educational process at universities through the secondary transfer of knowledge of the employees actively involved in the processes of primary and secondary education.

In creating the institute of intellectual property protection can be proceeded as follows:

To create the network-conceived University Centre for Transfer of Innovation, Transfer of Technology, Knowledge and Intellectual Property Protection (UC). The key principle in the concept of the UC's mission is to provide support for the sustainable development of active, effective and mutually beneficial cooperation between the university and partner research and development institutions with expertise in open market space and mutually beneficial and mutually rewarding cooperation with social organizations and managerial units at UNIT I:, II. I of regional character which means level III. (Technical University of Kosice has already created UCITT – the University Center for Transfer of Technology and Intellectual Property Protection).

The essence of effective cooperation of research institutes with practice is the capability of research to fulfill the identified requirements and expectations with knowledge and innovations which enable the knowledge growth, strengthening and the increase of competitiveness of the university in social and economic practices. The outlined concepts of the mission of the UC are only possible through the processing of flexible and open organizational, management and competence structure that will guarantee functionality, availability and effectiveness of services supporting:

- the preparation and implementation of research, development and innovation projects (RDI) and the dissemination and exploitation of their output (dissemination, exploitation).
- the identification, preparation and securing of the projects of the contractual research and development collaboration with practice, innovative projects and activities of transfer of knowledge and technologies into practice.
- complex security of intellectual property protection.
- marketing services of UC, RDI projects and providing effective dissemination, brokerage and matching and publicity supporting the development of research and effective cooperation with practice.

Open access to services and products provided by UC under its "virtual" space of action will be supported by relevant information and communication infrastructure available through the Project Information Portal (PIP) which can be continuously developed as the portal of UC.

The outlined concepts of creating UC fulfill the following objectives:

- the support of the research oriented towards the results' real use
- creating and the support of the transfer of newly acquired knowledge and technologies into practice
- the support of management of intellectual property rights in research organizations

CREATING AN ORGANIZATIONAL AND MANAGEMENT STRUCTURE AND RELEVANT GEOGRAPHIC AND INFORMATION INFRASTRUCTURE FOR EFFECTIVE PROVISION OF UC MISSION

Creating an organizational and management structure and relevant geographic and information infrastructure for effective provision of UC mission is based on a comprehensive analysis and evaluation of the current state of knowledge, methods (procedures), benefits and experience of management with innovative cooperation with practice.

The inputs of analysis are completed by the outputs from the analysis of the current state of knowledge (State of Art) in the management of innovation and technology transfer and the protection of intellectual property of institutions (IaTT). They are used in the processing of the mission, role and responsibility of UC within the structure of university and within the external (regional, national and international) area of its operation. Based on the analysis of these conceptual materials and modern synthesis of the outcomes a network-conceived distributed organizational and management structure and the status of UC can be created and consequently approved by relevant procedures at university level under the current legislation of the institution.

The organizational and management system of UC approved in this way will enable to responsibly specify requirements and procurement of:

- supporting information and communication infrastructure,
- relevant spatial infrastructure, equipment and information requirements of UC departments.

The creation and implementation of the content and scope for the identified services and support monitoring system in accordance with the mission and identified competencies of UC are primarily designed to process the content and scope of customer services which will present UC to its internal and external environment.

Addressing comprehensive providing of services UC generates within the proposal of creating the Institute of protection of intellectual property of institutions and using the innovative value-added outputs.

Effective provision of services is not possible without the corresponding specific (to the needs of UC services) information support which can be provided by two support monitoring systems built on the basis of document and content management (Document and Content Management - DCM):

- "Input Monitoring System" aimed at monitoring RDI university projects
- "Output Monitoring System" – monitoring projects and cooperation activities with practice initiated via UC.

Both monitoring systems are designed to be integrated and accessible through the project information portal - PIP.

The concentration in the processing of integrated services aimed at complex support of the management of intellectual property rights is implemented as a service and is in the concept of integrated UC services provided under a separate organizational unit "**PODV - promote the protection of intellectual property".**

The results of research and development representing one of the most precious values created by university staff absolutely need legal protection system. By focusing on the needs while the conception of competences it is absolutely necessary to direct the attention to:

- the specification of the structure and the content orientation of the services
- the specification of the scope and responsibilities of providing and performance of the services
- relevant support to ensure the commercialization of research and development (a bond between service "Marketing" and PAVITT),
- the methodology of providing activities of services PODV.

- the identification and providing contractual relationships with relevant national and international organizations, institutions and associations from the field of legal power over the Protection of Intellectual Property (external contractual relations significantly support flexibility, scale and the impact of created service).
- specification of information and cognitive resources needed to provide services and the specification of requirements for adequate means of ICT.

Methodologically solutions should be primarily based on the agreement and cooperation of universities with UPV (Institute of Industrial Property) which is a guarantee of adequate expert external assistance and audit while processing the outputs of corresponding rights.

The mission and the status of UC in the role of an initiator and a "manager" for effective and mutually beneficial cooperation of academic research with domestic and foreign practice can be guaranteed only if the activity is supported by relevant ICT applications and its management is implemented in accordance with the recommendations of Standards Collection STN EN ISO 9000 respectively other management and in particular recognized systems (e.g. CAF, EFQM model...). In this respect, the research team which conceives such workplaces has the following advantages:

- since the defined year there has been a certified Quality Management System (QMS) according to EN ISO 9001:2008, respectively CAF, EFQM or it uses a similar system of managing the quality in their workplaces.
- it has a well-managed communication infrastructure (university intranet) with a standardized and safety interface.
- it uses a powerful knot of academic network SANET and academic network CANET that connect all academic institutions, departments of SAV and departmental research facilities.

In addressing the concept of the workplace it is appropriate to draw attention from the viewpoint of ICT to:

A. The design, deployment and operation of project information portal – PIP, which will be operated and updated as UC portal once the project is over. During the project open and flexible architecture of the portal (formulated on the basis of methodology "Service Oriented Architecture - SOA") will be promoted by:

- providing, administration and ongoing development of UC services
- the access to and administration of information systems for monitoring RDI projects and the projects of cooperation with the practice initiated through UC and activities related to innovations, transfer of knowledge and technologies into practice.
- the access to knowledge bases (e.g. methodology of services), information and educational resources under UC administration respectively available through its contractual partnerships.
- effective support of UC marketing efforts.

B. Especially in terms of ensuring the effectiveness of marketing services and administration of data and knowledge sources it is significant to introduce standards and manuals for presentations, publicity, communications, documentation and also the "dissemination", expert, mediation (brokering) and contractual actions.

C. Processing, documenting and deploying SMK UC in accordance with the established SMK. The establishment of SMK UC needs to be addressed:

- Processing of Quality Manual and supporting documentation of SMK UC.
- Harmonization of documents and management competencies with SMK of university.
- Creating a plan and the implementation of internal audit. The effectiveness of internal audit will be supported by the expertise of renowned quality auditors

in the field of "innovation and transfer of technology and intellectual property protection."

- The review of audit and ensuring corrective actions and system amendments.

The key principle of creating of SMK UC must be "customers" satisfied with the services, activities or actions provided by UC.

Conclusion

An important feature of a university (as an institution) is a close and effective cooperation with partner universities, SAV institutes and the cultural, social, managerial and industrial background of the region and overall Slovakia. In recent years, a very good cooperation with the public authorities and relevant organizations in the field of small and medium enterprises the importance culminates importantly. These activities are reflected in university initiatives aimed at creating associations, respectively clusters associating research institutes with the public sector and the business sector enabling the efficient development of innovations in the field of social and economic practice.

At universities, an intensive research activity continues; however, the results in the form of filed patents and utility models are not adequately balanced with this effort. It is possible to ask: “Why is it like that?”

Firstly, it is due to very low awareness of researchers of the institution. Secondly, it should be noted that universities and SAV are conservative institutions not quite flexible while infiltrating new procedures from the perspective of “administrative process” and the last but not least, it's not exactly the best-structured evaluation of the outcomes in different Grant Agencies (VEGA, KEGA and APVV) and especially currently commonly discussed SCI citations and CC publications. The public opinion is dominated by (after many cases) the idea that “copyright purity” in higher education is not the best.

Many institutions are no longer able to finance 5%-share of the so-called “other sources” to ensure the flow of the means from the structural funds. These funds can also be obtained through the sale of research output.

For the above mentioned reasons, it is wise to intensively build strong university centers to ensure the purity of the outputs, sale of licenses and know-how as well as increased efficiency of outputs.

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