
6 Research Projects

The Faculty of Economics, in cooperation with other universities, companies, financial institutions, public administration, regional and local governments, non-governmental organisations and organisations supporting regional development, participates in national and international research projects.

The research projects are funded from the following sources:

- EU R&D programmes, especially the Horizon Programme;
- Grant agencies in the Slovak Republic: the Scientific Grant Agency (VEGA), Slovak Research and Development Agency (APVV) etc.

6.1 International R&D Projects

<i>Project title:</i>	A Personalised Integrated Care Approach for Service Organisations and Care Models for Patients with Multi-Morbidity and Chronic Conditions
<i>Acronym:</i>	PICASO
<i>Contract Number:</i>	689209, H2020
<i>Supported by:</i>	European Commission, H2020 Programme
<i>Project type:</i>	Research and Innovation Action (RIA)
<i>Local coordinator:</i>	Tomáš Sabol
<i>Associated Faculty:</i>	Peter Kostelník, Ján Hreňo, Marek Skokan, Marián Mach
<i>Duration:</i>	2016 – 2019
<i>Website:</i>	http://www.picaso-project.eu/impressum

Project description:

The PICASO project has finished in 2019. The tools developed for the PICASO platform were fully integrated. Thanks to these tools, the care professionals can use interactive visualisation to explore the patient's data, care management capabilities to explore and adjust patient's care plans as well as conflicts and risk alerting capabilities to do necessary treatment actions. By using these tools, the care professionals can harmonise patient treatment especially when a comorbidity is present. As the main results of the PICASO project, the SW platform, the SW tools and the evaluation of pilot applications were successfully justified during the final project review that took place in Luxembourg in August 2019.

<i>Project title:</i>	Pluggable Social Platform for Heritage Awareness and Participation
<i>Acronym:</i>	PLUGGY
<i>Contract Number:</i>	726765, H2020
<i>Supported by:</i>	European Commission, H2020
<i>Project type:</i>	Research and Innovation Action (RIA)
<i>Local coordinator:</i>	Tomáš Sabol
<i>Associated Faculty:</i>	Ján Hreňo, Peter Bednár, Peter Smatana
<i>Duration:</i>	2016 – 2019
<i>Website:</i>	http://www.pluggy-project.eu

Project description:

According to the PLUGGY Final review meeting, which took place in November 2019 the main achievement of the project is the deployment and operation of the Social Platform and Curatorial Tools, which reflect the principles of the reviewed Faro convention. The created platform is open to anyone who wish to become member and primarily appears to assist for an increased citizens' participation in heritage matters, with the introduction of innovative tools and functionalities. Although the platform is still early in its development, it is a good foundation for future development.

<i>Project title:</i>	MOdel based coNtrol framework for Site-wide OptmizatiON of data-intensive processes
<i>Acronym:</i>	MONSOON
<i>Contract Number:</i>	723650, H2020
<i>Supported by:</i>	European Commission, H2020
<i>Project type:</i>	Research and Innovation Action (RIA)
<i>Local coordinator:</i>	Tomáš Sabol
<i>Associated Faculty:</i>	Peter Bednár, Marián Mach, Marek Skokan, Miroslav Smatana, Martin Sarnovský
<i>Duration:</i>	2016 – 2019
<i>Website:</i>	https://www.spire2030.eu/monsoon

Project description:

The MONSOON vision was to provide Process Industries with dependable tools to help achieving improvements in the efficient use and re-use of raw resources and energy. MONSOON aimed at establishing a data-driven methodology supporting the exploitation of optimization potentials by applying multi-scale model based predictive controls in production processes. The developed Data Lab enables multidisciplinary collaboration of experts allowing teams to jointly model, develop and evaluate distributed controls in rapid and cost-effective way. Hybrid simulation and seamless integration techniques are adopted for rapid prototyping and deployment in real conditions. MONSOON was evaluated in two sites from the aluminium and plastics domains. The aluminium scenario was focused on predictive monitoring of potlines, targeting early detection of anomalies and identification of potential optimization gains sustainability.

<i>Project title:</i>	Opportunity ReCognition and Exploitation in a Circular Economy for RIS (ORCERIS)
<i>Supported by:</i>	H2020, EIRT, Raw materials
<i>Contract Number:</i>	17123
<i>Coordinator:</i>	Nataša Urbančíková
<i>Associated faculty:</i>	Oto Hudec
<i>Duration:</i>	2018 – 2020

Project description:

The ORCERIS project (funded by EIT RawMaterials) aims at increasing the success rate of new business ideas for the circular economy and raw materials. It does so by bringing together existing insights and tools for supporting entrepreneurs and firms in adopting circular ideas from 3 previous EIT RawMaterials KAVA projects, and by developing a training programme that those involved in innovation support services can integrate into their activities. Radboud University, VITO and Wuppertal Institute together develop a customized TTT workshop to share their best practices on entrepreneurial activities in the circular economy. Each of the two focal regions, Kosice and Budapest, will then conduct workshops for their target group ranging from start-up firms with a focus on circular business models to established SMEs who would like to explore which possibilities the idea of a circular economy might hold for them.

<i>Project title:</i>	CROWDfunding to mainSTREAM innovation
<i>Acronym:</i>	CrowdStream
<i>Contract Number:</i>	<i>DTP1-1-006-1.1</i>
<i>Supported by:</i>	Interreg Danube Transnational Programme
<i>Local coordinator:</i>	Beáta Gavurová
<i>Associated Faculty:</i>	Mojmír Prídavok, František Janke, Miroslava Packová, Martin Dujčák, Libuša Révészová
<i>Duration:</i>	2017 – 2019
<i>Website:</i>	http://www.interreg-danube.eu/approved-projects/crowdstream

Project description:

A major challenge for the sustainable economic & social development in the Danube region is the difficulty in accessing finance for small & micro enterprises.

Availability of bank loans for SMEs & spin-offs & social enterprises has since the beginning of the fin. crises declined by more than 25%, while collateral requirements have increased by 34%. SMEs still contribute more than half of total value added in non-financial economy & provided 80% of all new jobs. Lack of finance for small enterprises continues to have a negative impact on the innovative economy & the job market. Banks or public guarantee funds cannot solve this challenge. Current regulations such as Basel IV make it impossible for banks to finance risky innovative businesses. Even the EC identified this as a European Challenge and answers with strategies on alternative financing.

Thus, EUSDR Priority Axis coordinators nominated in April 2016 CrowdStream as a strategic project to address the challenges highlighted under PA 8 COMPETITIVENESS OF ENTERPRISES & PA 10 STEP UP INSTITUTIONAL CAPACITY.

CrowdStream`s main objective is to improve the effectiveness of public/private business-support for innovative spin-offs & social enterprises to access qualitative alternative financing (crowdfunding). The CrowdStream project will initiate a change in the financing market. Due to quality labelling and capacity building activities there will be a major shift from donation based to equity based crowdfunding.

<i>Project title:</i>	High-performance Computing for Effective Innovation in the Danube Region
<i>Acronym:</i>	InnoHPC
<i>Contract Number:</i>	<i>DTP1-1-260-1.1</i>
<i>Supported by:</i>	Interreg Danube Transnational Programme
<i>Local coordinator:</i>	Beáta Gavurová
<i>Associated Faculty:</i>	Mojmír Prídavok, František Janke, Miroslava Packová, Martin Dujčák, Jozef Bucko
<i>Duration:</i>	2017 – 2019
<i>Website:</i>	http://www.interreg-danube.eu/approved-projects/innohpc

Project description:

High performance computing (HPC) is an emerging general-purpose technology. It can improve framework conditions for innovations by drastically increasing effectiveness of innovations and reducing product development time. However, while most advanced HPC infrastructure and knowledge are located in well-off western parts of the Danube region, enterprises – especially SMEs – from its eastern parts have limited access and competencies. Transnational cooperation in the region is limited, which is further hindering innovation. The main objective of InnoHPC is to create transnational HPC laboratory for co-designing knowledge-intensive innovative products with high value-added in transnational value-chains. Key outputs are transnational InnoHPC Lab pooling regional HPC infrastructure and competencies, web platform providing HPC access, integrated services and capacity building tools, and sustainability toolkit, to support durability of InnoHPC Lab beyond the project. To achieve them, InnoHPC will, first, conduct a focused regional HPC

benchmark, second, design and create a transnational InnoHPC Lab, third, develop HPC web platform providing HPC access and capacity-building tools and finally, pilot-test InnoHPC Lab and the platform with two pilots with SMEs in electronic and automotive sectors. InnoHPC targets SMEs and clusters, providing the opportunity to increase efficiency of innovations and join transnational value-chains in the Danube region. Higher education and research institutions with HPC will get access to exciting real-life cases and opportunities to exploit their entrepreneurial potential. Policy-makers and business support organizations will receive a valuable institutional support for their policies and initiatives. InnoHPC project is a pioneering effort to improve framework conditions for innovation by providing unique institutional and technological infrastructure, designed specifically to pool and exploit HPC infrastructure on a transnational level.

Project title: **Improving Capacities for Enhancing Territorial Attractiveness of the Danube Region**

Acronym: **ATTRACTIVE DANUBE**
Contract Number: DTP1-1-270-4.1
Supported by: Interreg Danube Transnational Programme
Local coordinator: Beáta Gavurová
Associated Faculty: Mojmír Prídavok, František Janke, Miroslava Packová, Martin Dujčák, Kristína Kočíšová
Duration: 2017 – 2019
Website: <http://www.interreg-danube.eu/approved-projects/attractive-danube>

Project description:

Territorial attractiveness (TA) is reflected in the set of specific economic, environmental and social potentials of a territory which make it competitive in comparison to other territories. Through good governance, policies can maximise these potentials to increase attractiveness of the regions for residents, visitors and investors. The main challenge in the Danube Region is lack of capacities of target groups involved in development planning for more efficient and cooperative multilevel governance considering the needs of all stakeholders.

The main project objective is to strengthen multilevel and transnational governance and institutional capacities of policy planners involved in territorial development of the Danube Region, which will result in more harmonised governance system of the area. This will be achieved by firstly establishing a permanent common transnational platform for monitoring territorial attractiveness (CO-TAMP), 11 national platforms (TAMP), and Territorial attractiveness atlas. Secondly, we will implement an intensive capacity building programme for empowering multilevel public authorities and civil society in 11 countries related to development planning resulting in enhanced skills and knowledge. Finally, the policy integration process, including transnational workshops, policy recommendations and memorandum of understanding, will capitalise the results and assure the long-term impact and leverage effect in the society. By such innovative approach, combining the capacity building with user friendly web platforms on TA, the target groups will learn to identify and utilise territorial potentials of the Danube Region. Policy planners at all levels representing economic, environmental and social aspects, as well as civil society, business and academia, will be able to better respond to development trends and societal challenges in the region, shaping the territorial policies in order to create a more attractive Danube Region.

<i>Project title:</i>	Fostering Innovation in the Danube Region through Knowledge Engineering and IPR Management
<i>Acronym:</i>	KNOWING IPR
<i>Contract Number:</i>	DTP2-076-1.1
<i>Supported by:</i>	Interreg Danube Transnational Programme
<i>Local coordinator:</i>	Beáta Gavurová
<i>Associated Faculty:</i>	Mojmír Prídavok, František Janke, Miroslava Packová, Martin Dujčák
<i>Duration:</i>	2018 – 2021
<i>Website:</i>	http://www.interreg-danube.eu/approved-projects/knowing-ipr

Project description:

KNOWING IPR will improve framework conditions for innovation in the Danube region by developing a transnational KnowING IPR platform, which will provide an open access tool for advanced intellectual property rights (IPR) analysis, and guidelines for improved and harmonized IPR policy framework across the Danube region. It will ensure broader and needs-based access to existing innovation and research results, to patents and to IPR knowledge and will encompass services and training for the management of IPR and for support to commercialization of research results and technology transfer.

<i>Project title:</i>	Strengthening Social Innovation and Entrepreneurial Spirit of Secondary Schools' Students by Using Highly Innovative Learning System
<i>Acronym:</i>	InnoSchool
<i>Contract Number:</i>	DTP2-021-1.2
<i>Supported by:</i>	Interreg Danube Transnational Programme
<i>Local coordinator:</i>	Beáta Gavurová
<i>Associated Faculty:</i>	Mojmír Prídavok, František Janke, Miroslava Packová, Martin Dujčák
<i>Duration:</i>	2018 – 2021
<i>Website:</i>	http://www.interreg-danube.eu/approved-projects/innoschool

Project description:

InnoSchool tackles the need for system change to support weak entrepreneurial culture and low engagement to social innovation and entrepreneurship. Its general objective is to strengthen social innovation and entrepreneurial spirit of secondary schools' students by development and introduction of highly innovative Learning System. InnoSchool Learning System (ILS) will be developed by using intensive learning interaction among project partners and using inclusive design process involving policy bodies, secondary schools, territorial business supporting actors and organizations working in social services. Its main uniqueness lies in two main innovations introduced for adolescents of age 17-18 years – (1) introduction of serious game for online simulations joined with teacher lecturing/guiding sessions to maximize educational impact through experiential learning and (2) social media and interschool competition inclusion to boost attractiveness for students.

<i>Project title:</i>	Bringing Circular Economy to Peripheral Urban Centres
<i>Acronym:</i>	CITYCIRCLE
<i>Contract Number:</i>	CE1515
<i>Supported by:</i>	INTERREG Central Europe
<i>Local coordinator:</i>	Mojmír Prídavok
<i>Associated Faculty:</i>	František Janke, Miroslava Packová, Martin Dujčák, Kristína Kočišová, Jozef Bucko, Róbert Hanzen, Peter Ťapák
<i>Duration:</i>	2019 – 2022
<i>Website:</i>	https://www.interreg-central.eu/Content.Node/CITYCIRCLE.html

Project description:

CITYCIRCLE is improving innovation capacities of peripheral urban centers of Central Europe by introducing the circular economy system to partner cities. Peripheral cities of Central Europe are marked by lack of innovation cooperation and lack of access to global innovation processes. Circular economy (CE) has been acknowledged as a development concept that should provide sustainable, resource efficient development and a great pool for innovation of new technologies, services, solutions and business models (EU Action Plan “Closing the loop”) to make our cities and regions better places to live and work. The main CITYCIRCLE objective is to utilize innovation potential of circular economy in cities through 1) setting-up quadruple-helix circular economy hubs in partner cities and to 2) equip them with the knowledge and tools so they will be able to design circular economy value-chains in their cities. Hubs will implement 3) pilot projects in the framework of respective S3 strategies to test developed tools, while 4) transnational value chains (supported by transnational marketplace for materials) will be defined in transnational CE strategy (transnational S3 implementation) to link local circular economy value chains and reach critical mass.

<i>Project title:</i>	Innovation Ecosystem for Smart Elderly Care
<i>Acronym:</i>	I-CARE-SMART
<i>Contract Number:</i>	CE1516
<i>Supported by:</i>	INTERREG Central Europe
<i>Local coordinator:</i>	Mojmír Prídavok
<i>Associated Faculty:</i>	František Janke, Miroslava Packová, Martin Dujčák, Peter Ťapák
<i>Duration:</i>	2019 – 2022
<i>Website:</i>	<u>www.interreg-central.eu/I-CARE-SMART</u>

Project description:

Central Europe may catch up with European innovation leaders by working jointly on common priorities. Health & well-being of the elderly is a shared concern of I-CARE-SMART partners. They look at it not only as a societal challenge but also as an opportunity to promote growth. This calls for the development of innovative products & services meeting the special needs of the elderly, a notion often referred to as the silver economy. However, CE is still lagging behind to develop such products & services with active user involvement. I-CARE-SMART partners aim to bring innovation closer to senior citizens and create a structured collaboration framework centred around the users. Local/regional public authorities having strong links with seniors are well positioned to help this process. They can act as facilitators of innovation by mobilising seniors and creating platforms where potential users can interact with innovators, voice their needs and provide feedback. Small businesses also have to gain enhanced capacities to access such platforms, which help them to develop highly marketable products & services. I-CARE-SMART delivers a comprehensive toolset with practical guidance on how to engage seniors and businesses in user-focused co-creation and open innovation. Based on the tools developed, a step-by-step process is launched to build new cooperation channels gradually. It starts with a co-creation based needs assessment, then innovators are invited to present solutions to the revealed needs through the SilverStar Challenge. Development of solutions with user involvement is piloted via interactive co-creation sessions and living-lab-type real-life tests. Finally, the SilverStar Platform, a transnational open innovation platform opens the room for co-creation across borders. Through these steps, participants are “learning by doing” and get enabled to create lasting, structured collaboration within and among regional innovation ecosystems for smart elderly care.

<i>Project title:</i>	Utilizing Innovation Potential of Urban Ecosystems
<i>Acronym:</i>	URBAN INNO
<i>Supported by:</i>	INTERREG Central Europe
<i>Contract Number:</i>	C677
<i>Local coordinator:</i>	Beáta Gavurová
<i>Associated Faculty:</i>	Mojmír Prídavok, František Janke, Miroslava Packová, Martin Dujčák, Jozef Bucko, Dana Pařová.
<i>Duration:</i>	2016 – 2019

Project description:

URBAN INNO is addressing the challenge to make CE more innovative and competitive by maximising the innovation potential of smaller and medium sized urban ecosystems by two approaches – firstly, better linkage of actors in innovation systems by establishing and interlinking quadruple helix clusters/networks in the partner regions, and secondly by the development and implementation of new participatory methods and tools to engage end-users in innovation processes with the objective to have educated and motivated users – SMART USERS.

<i>Project title:</i>	Enhancing climate innovation mindset in the education system of CEE
<i>Acronym:</i>	Edu- Research CEE
<i>Supported by:</i>	H2020 , EIT Climate KIC
<i>Contract Number:</i>	190725
<i>Local coordinator:</i>	Miriám Šebová
<i>Associated Faculty:</i>	Dana Pařová, Erika Liptáková
<i>Duration:</i>	2019– 2020

Project description:

The project is focused on education in CEE. It combines two perspectives – the perspective of environmental education and the perspective of fostering creativity and innovation mindset during learning process. The countries of V4 were identified as particularly susceptible to the future based on their low innovation performance and insufficient entrepreneurship.

In 2019 an overarching desktop research was conducted by 4 universities from V4 countries on the creativity and sustainability in education systems. The findings were summarized in the final report. The next stage of the project will focus on primary research based on survey and focus groups with teachers. The objective of the project is to identify the crucial factor which limit the creativity and holistic understanding of sustainability concept in education.

<i>Project title:</i>	Decreasing the Negative Outcome of Brain Drain in the Raw Material Sector
<i>Acronym:</i>	LIMBRA
<i>Contract Number:</i>	18197
<i>Supported by:</i>	H2020 ,EIT Raw Materials
<i>Local coordinator:</i>	Miriám Šebová
<i>Associated Faculty:</i>	Tomáš Malatinec, Lenka Maličká, Viliam Kováč
<i>Duration:</i>	2019

Project description:

The overall objective of LIMBRA is to limit the brain drain in the raw materials sector and to enhance the entrepreneurial activity in the Visegrád Four countries. The target group of the project are young people with education in the field of raw materials sector. Reaching out to the representatives of the young generation early during their studies could reorient their learning pathways and create early interests into RMs sector bases. The students have to be aware of opportunities to start their career during their studies in the university region. These opportunities

may represent reasons for them to stay in the region and don't migrate to a more attractive region, e.g. in western economies. The objective of the LIMBRA project is to elaborate the market report in the sector based on market research in V4 countries.

Project title: **Review of EU Cohesion Policy in Slovakia – Lessons from the past and priorities for the future**
Supported by: *DG Regio*
Contract Number: 2018CE16BAT145
Local coordinator: Miriam Šebová
Associated Faculty: Tomáš Želinský, Matúš Kubák
Duration: 2019 – 2020

Project description:

The proposed project is based on an innovative mix of communication actions in cooperation of publishing houses (EURACTIV.sk and SME.sk) and academia. The project focuses on sectoral topics relevant for regional policy in Slovakia (Environment, Research and Innovation, Education and Employment, Transport). Involved members of project team at TUKE are responsible for writing policy papers focused on critical issues on regional development. The next activity in the project is supporting the competition of Eurofondue.

6.2 National R&D Projects

<i>Project title:</i>	Determinants of Digital Single Market development and implementation in the field of global supply chains and in relation to changes of behavior of participants on the market
<i>Supported by:</i>	Slovak Research and Development Agency
<i>Contract Number:</i>	APVV-16-0368
<i>Coordinator:</i>	Radoslav Delina
<i>Associated Faculty:</i>	Marek Gróf, Radovan Dráb, Rajmund Mirdala, Lenka Senderáková, Renáta Olejárová, Marek Macík
<i>Duration:</i>	2017 – 2019

Project description:

The main objective of the project is the identification and understanding the determinants of Digital Single Market development as new EC strategy for the area of actors cooperation on the market and its impact on digital business ecosystem evolution, stability and efficiency. The objective of this new strategy is the support of innovative e-services and business models development for the market and to identify real opportunities and strategies digital single market development support. Within the project, potential and determinants of standardisation, interoperability, trust, data economy and digital business platform implementation into global supply chains will be analyzed. It is necessary to identify strategies for effective implementation of real innovation and understand the impact and changes of behavior on the market (e.g. by higher transparency). Together, the concept of sharing (semi)sensitive business data will be analyzed and new sharing motivation model for sharing of business data on single digital infrastructure will be proposed. For the purpose of identification and analysis of the impact and behavioral changes, combination of empirical and experimental research will be performed. Empirical research will be based on large datawarehouse with data from real environment of e-supply chains. As an output, new strategies for real innovation of digital single market implementation and for policy support will be defined.

<i>Project title:</i>	Multidimensional analysis of significant determinants of public procurement efficiency with emphasis on the application of Health Technology Assessment in the procurement preparation phase
<i>Supported by:</i>	Slovak Research and Development Agency
<i>Contract Number:</i>	APVV-17-0360
<i>Coordinator:</i>	Beáta Gavurová
<i>Associated Faculty:</i>	František Janke, Mojmír Prídavok, Miroslava Packová, Martin Dujčák, Ivana Perželová.
<i>Duration:</i>	2018 – 2021

Project description:

Effective public procurement as an important part of the economy is a challenge for every state, every public entity in transferring the finances from public to private sector. There are currently several studies aimed at efficiency of the procurement processes of different goods and services at the level of the economy, industry or contracting authorities. One of the key sectors (in and out of the SR), which has been the subject of analyses of procurement efficiency in recent years, is healthcare, which has long been faced with criticism of inefficient public procurement. In spite of that many non-governmental organizations (in particular Transparency International Slovakia) point to the ineffectiveness of public procurement in Slovakia, there is no available and functional methodology for optimisation of settings and evaluation of the efficiency of public procurement. Following this, the submitted project will focus on the analysis of public procurement in the health sector in the Slovak Republic and the subsequent development of a set of measures to increase efficiency in public procurement, focusing on the stage of public procurement preparation that has

significant impact on the public procurement outcomes. The excellence and originality of our research lies in a comprehensive understanding of public procurement issues, within which we deal with the application of innovative approaches to quantify the impact of the subject specification on significant aspects of healthcare (eg treatment efficiency, costeffectiveness and security aspects). This process includes optimisation of the procurement settings and the subsequent evaluation of the effectiveness of public procurement in order to achieve the best value for money.

Project title: **Research of the issue of Online Reputation Management (ORM) of subjects from automotive industry**
Supported by: Slovak Research and Development Agency
Contract Number: APVV-15-0511
Coordinator: Radoslav Delina
Associated Faculty: Radovan Dráb
Duration: 2016 – 2019

Project description:

The aim of the project is to carry out a comprehensive research on new and up-to-date phenomenon of proactive online reputation management of entities operating in the automotive sector in this turbulent hyperinformative and hyper-competitive age. The proposed project will be carried out as a basic research whose main objective is to extend the theoretical knowledge on the subject. The research will make use of relevant qualitative and quantitative processing methods and these will subsequently serve as a basis for developing a methodology for comprehensive and effective measures and also for improving the platforms of active online reputation management of selected entities on the Slovak market and also on the EU reference markets.

Project title: **The economic model of the electronic spectrum markets Theoretical Economic Model for Future Real Time Spectrum Markets**
Supported by: Slovak Research and Development Agency
Contract Number: APVV 15-0358
Coordinator: Vladimír Gazda
Associated Faculty: Tomáš Sabol, Peter Tóth, Martin Zoričák, Juraj Gazda, Peter Drotár, Gabriel Bugár, Dušan Kocur, Július Horváth, Marcel Vološin, Jana Zausinová
Duration: 2016 – 2019

Project description:

The instantaneous communication in the human society is currently realized mostly over the wireless communication channels. Frequency spectrum is the medium for the information transfer and thus, is extremely utilized. Based on that, it is fundamental to come up with the new technological and economical strategies that would improve the spectrum effectivity utilization and distribution. Spectrum trading and distribution among the network participants will have in the future highly dynamic character and therefore the economical/technological implementation would need to be able to cover the system dynamics. When dealing with the spectrum trading (e.g. market mechanism) we will be able to formulate several economical views, directly impacting the spectrum trading effectivity. The detailed study of the monopoly, oligopoly and the perfect/imperfect competition among the trading participants will be the core part of our research. Interaction among the spectrum trading participants will be handled by the spectrum auctions realized in the real-time. In order to be able to capture the high dynamics of the real-time spectrum market, we will use the agent-based modelling of the system, previously successfully applied in other scientific areas (e.g. physics, sociology, etc.). The effectivity of the agent-based economy models will be verified using the scenarios reflecting the conditions, in which the real-time spectrum trading markets will be operating in the future.

<i>Project title:</i>	Economy model of the telecommunication network as an instantaneous part of the Internet of things
<i>Supported by:</i>	Slovak Research and Development Agency
<i>Contract Number:</i>	APVV 18-0368
<i>Coordinator:</i>	Vladimír Gazda
<i>Associated Faculty:</i>	Gabriel Bugár, Marek Gróf, Lenka Maličká, Marcel Vološin, Jana Zausinová, Martin Zoričák
<i>Duration:</i>	2019 – 2022

Project description:

Internet of things becomes a crucial technological paradigm to permeate every facet of mankind. There are expected significant changes not only in the utilization of the smart technological types of equipment but also in the functioning of the whole areas within the society. The mankind is approaching the state of the technological singularity, i.e., increasing interconnectedness of the smart machines will evoke boom of the economic growth that is expected to be highly unstable and would be followed by a sudden phase transition between various multi-equilibria states. It is evident that the scientific methodology based on the neoclassical approach interpreting just only stable equilibria state will not be capable of explaining new phenomena. The presented research will be focused on the instantaneous part of the IoT - the wireless communication network. Within the network, the scarce commodity called frequency spectrum is to be traded among various heterogeneous network participants. However, the seminal research of the Nyiato, Hossain, and others, published a few years ago, use standard methodological concepts like utility functions, demand and supply, profit, price, and various forms of the trade interactions like bargaining and auctions. So far, the authors mainly neglect the complex property of the communication networks functioning within the IoT. The ambition of the project is to propose and analyze the agent-based models of the IoT communication network capable of taking into account the new phenomena like phase transitions, multi-equilibria states, path dependence, self-organization, and the others, i.e., all the aspects that became the core of the complexity theory research.

<i>Project title:</i>	Economic and social indicators of quality of life in cities
<i>Supported by:</i>	Scientific Grant Agency (VEGA)
<i>Contract Number:</i>	VEGA - 1/0453/19
<i>Coordinator:</i>	Oto Hudec
<i>Associated Faculty:</i>	Nataša Urbančíková, Iveta Korobaničová, Slávka Klasová, Tomáš Želinský, Žofia Sinčáková, Jozef Bľanda
<i>Duration:</i>	2019 – 2021

Project description:

Multi-dimensional concepts such as quality of life or social well-being cannot be defined in the usual direct way. The justification of their key aspects (domains) is required and composite indexes composed of domains containing indicators corresponding to the theoretical concept are the most widely used for analyzing spatial differences in the quality of life of the population. The quality of life takes into account economic and social factors as well as the external environment (city) for the life of the individual. The project shall propose new economic and social indicators of measuring the quality of life. Statistical and econometric methods (factor analysis, regression models and clustering methods) are to be used to explore the spatial context of quality of life in European space. An in-depth analysis of the socio-economic and systemic structure of European and Slovak cities makes it possible to understand the mechanisms of urban prosperity in relation to the quality of life. The results create an analytical basis for the development of Slovak cities by revealing the problematic aspects of quality of life and development.

<i>Project title:</i>	Development of methodological platform for evaluation of efficiency in the financial and non-financial sector
<i>Supported by:</i>	Scientific Grant Agency (VEGA)
<i>Contract Number:</i>	VEGA - 1/0794/18
<i>Coordinator:</i>	Kristína Kočíšová
<i>Associated Faculty:</i>	Radovan Dráb, Alena Mojsejová, Peter Šugerek, Jakub Sopko, Adriana Novotná, Michaela Kavčáková
<i>Duration:</i>	2018 – 2020

Project description:

The proposed project fills the gap in current empirical literature focused on the evaluation of the efficiency in the financial and non-financial sector, based on the application of „new“ DEA models. The research will be carried out in several areas. Firstly, the existing theoretical concepts of efficiency assessment in the financial and non-financial sector and ways of defining input and output variables will be studied, focusing on examining the shortcomings of the original DEA models. Secondly, the „new“ DEA models will be theoretically defined to address the shortcomings found in the original DEA models. Thirdly, the efficiency will be evaluated on the selected sample, which will serve to apply the above models in practice. Last but not least, a methodological platform for evaluating efficiency based on the use of the R software will be developed. A manual of scripts will be developed with a detail description of the used methods, which will serve to solve the research tasks for researchers and students.

<i>Project title:</i>	Perzistencia v inflácii, cenová stabilita a výkonnosť eurozóny
<i>Supported by:</i>	Scientific Grant Agency (VEGA)
<i>Contract Number:</i>	VEGA 1/0793/19
<i>Coordinator:</i>	Rajmund Mirdala
<i>Associated Faculty:</i>	Marianna Siničáková, Julia Ďurčová, Veronika Šulíková, Ľubica Štiblarová, Leoš Šafár, Zuzana Čarnogurská.
<i>Duration:</i>	2019 – 2021

Project description:

Change in the perception of price stability is one of the key implications affecting monetary policy conduction since the recent economic crisis. Deflationary or disinflationary pressures that slow already modest inflation that is crucial for economic growth together with low effectiveness of the monetary policy measures to stimulate higher inflation brought the attention of economists to the problem of inflation persistence. Its presence undermines the success of monetary authorities in achieving stable inflation, especially in periods when inflation deviates from its target. The main aim of the project is to quantify the degree of inflation persistence and its structural characteristics in Euro Area member and non-member countries. Understanding the persistence in inflation in large number of countries while taking monetary and economic fundamentals into account will allow us to revise current monetary policy framework of the Euro Area and propose different alternatives of its adjustments.

<i>Project title:</i>	Evaluation of the efficiency of public procurement of selected commodities in healthcare facilities in the Slovak Republic
<i>Supported by:</i>	Scientific Grant Agency (VEGA)
<i>Contract Number:</i>	VEGA 1/0846/18
<i>Coordinator:</i>	Beáta Gavurová
<i>Associated Faculty:</i>	František Janke; Mojmír Prídavok; Miroslava Packová; Martin Dujčák; Andrea Tkáčová; Viliam Kováč; Libuša Révészová
<i>Duration:</i>	2018 – 2019

Project description:

The project is aimed at analyzing the effectiveness of public procurement (PP) in health care in the SR and the subsequent creation of a rule metric for effective PP of various commodities in the field of providing healthcare. Many healthcare facilities are inefficient, which is due to the lack of information on comparative offers or the lack of a PP methodology or an assessment of its effectiveness. Healthcare is one of the key sectors of the state – as we can see in the SR also a long-term inefficient sector. The aim of the project is therefore to define benchmarks and "efficiency" ranges for procured commodities that can be used to decide on the convenience of commodity purchase prices. The second objective of the project, based on the analysis of PP conditions, is to set optimal rules for the setting up of leaked PP for individual commodities in a non-discriminatory and transparent manner, resulting in increased interest in the contract and, ultimately, increased competition and reduced purchasing prices.

<i>Project title:</i>	Decision Support Systems and Business Intelligence within Network Economy.
<i>Supported by:</i>	Scientific Grant Agency (VEGA)
<i>Contract Number:</i>	VEGA - 1/0201/19
<i>Coordinator:</i>	Martin Vejačka
<i>Associated Faculty:</i>	Jozef Bucko, Dana Pařová, Július Czap, Peter Šugerek, Libuša Révészová, Radovan Dráb, Lukáš Kakalejčik
<i>Duration:</i>	2019 – 2021

Project description:

The project focuses on the research of Decision Support Systems as part of Business Intelligence within the network economy between economic entities linked within the structure of the economic network. The aim of the project is to investigate the factors and mechanisms that influence the behavior of subjects when deciding to undertake a certain economic activity and its economic impact. The basic influence factor of relations between network economy is trust in the given environment. Through the modeling of processes and relationships between entities in a given structure, we will analyze the extent of their impact on these systems and its determinant parameters. Research will use methods of data mining, digital metadata analysis, graph theory and statistical-econometric methods.

<i>Project title:</i>	System Implications of the Fourth Industrial Revolution and Adaptation Processes of the Information Society (Economic, Technological and Cultural Aspects)
<i>Supported by:</i>	Scientific Grant Agency (VEGA)
<i>Contract Number:</i>	VEGA - 2/0002/19
<i>Coordinator:</i>	Alena Mojsejová
<i>Associated Faculty:</i>	Tomáš Želinský, Erika Liptáková
<i>Duration:</i>	2019 – 2021

Project description:

The present time is characterized by a combination of many fundamental changes in the economy and society. The first is the Fourth Industrial Revolution, the next is the use of artificial intelligence technology and smart technology. The technical revolution shows the need for the necessary changes in society and economy (digitization, sharing, shrinking the economy), otherwise new technologies will not produce the expected effects for the economy and society. The basic direction of the research is a combination of processes of change in the technical aspects of production, the size and quality of consumption, the field of objectives and the functioning of the society. It will also include the identification of the polarization tendencies, income and wage inequalities in relation to changes in consumption and employment including at the regional level of the SR. The aim is to find out what the level of the society's plasticity is, which is a basic prerequisite for defining flexibility and adaptive processes.

<i>Project title:</i>	Investment decision-making of investors in the context of effective corporate taxation
<i>Supported by:</i>	Scientific Grant Agency (VEGA)
<i>Contract Number:</i>	VEGA - 1/0430/19
<i>Coordinator:</i>	Alena Andrejovská
<i>Associated Faculty:</i>	Jozef Glova, Anna Bánociová, Lucia Mihóková, Slavomíra Martinková, Darya Dancáková, Veronika Konečná, Martina Regásková, Michala Inkabová.
<i>Duration:</i>	2019 – 2020

Project description:

The project deals with issues to provide a conceptual view of the field of effective corporate taxation and its impact on investment decision making. It defines logical rules based on accrual and tax principles that are crucial to the effective allocation and scale of investments. The aim is to develop a methodology that will allow to define effective taxation as a key attribute determining the required return on investment. The methodology and results of the application in the conditions of the Slovak Republic will enable, on the one hand, to better understand the impact of real taxation in determining the desired profitability and hence the value of the investment and, on the other hand, to eliminate the frequent value deficiency in applying the statutory tax rate instead of the effective tax. An important aspect is the subsequently created tax shield and tax savings for the selected type of investment.

<i>Project title:</i>	Perspectives of “GPP” (Green Public Procurement) in Public Procurement at Regional and Local Level
<i>Supported by:</i>	Scientific Grant Agency (VEGA)
<i>Contract Number:</i>	VEGA - 1/0750/17
<i>Coordinator:</i>	Tomáš Malatinec
<i>Associated Faculty:</i>	Slávka Klasová, Miriam Šebová
<i>Duration:</i>	2017 – 2019

Project description:

Green public procurement (GPP) is a process in public procurement whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured. Environmental criteria are involved in “green” purchasing. GPP has direct environmental benefits, it is supporting innovation and contributing to specific municipal and regional policy goals. The concept of GPP is promoted by the European Commission. Scientific aim of the project consists of evaluation of the GPP perspectives in local and regional practice with regards to the Europeanization of public procurement legislative framework. Based on the results, current state of the GPP in practice at local and regional level can be evaluated both in the phase of voluntariness and in the case of GPP vision de lege ferenda.

<i>Project title:</i>	Analysis of models of public services delivery in the field of construction order performance from the aspect of technical, size, and spatial allocation efficiency of local governments
<i>Supported by:</i>	Scientific Grant Agency (VEGA)
<i>Contract Number:</i>	VEGA - 1/0190/17
<i>Coordinator:</i>	Peter Fandel (SUA Nitra)
<i>Associated Faculty:</i>	Tomáš Malatinec
<i>Duration:</i>	2017 – 2019

Project description:

Currently, the performance of the competencies in the field of construction order is performed by two models: (1) competent municipal office, for the cases when competence is performed for the citizens of one municipality, (2) joint construction office, for the cases when the performance of the competence is realized for more than one associated municipality. The cooperation aiming to establishment of the joint municipal office, in accordance with the § 20a of the Act No 369/1990 Coll. on municipal establishment, as amended, is motivated by the effort to increase the efficiency and decrease the costs for services' delivery. The results of the partial research realized by the applicants of this project as well as economic literature in this field are not unambiguous. The aim of the project is to analyze the impact of the establishment of the joint municipal offices on the efficiency of the services' delivery, by the indicator: technical efficiency. This indicator serves as indicator of total efficiency, scale efficiency, as indicator of optimal scope office for achieving maximal productivity, size efficiency as indicator of potential for associating the offices and optimal spatial allocation of joint offices as a potential for improving the efficiency from the point of view of serviced population.

<i>Project title:</i>	The socioeconomic valuation and measurement of economic efficiency of cultural institutions focused on museums and galleries in Slovakia
<i>Supported by:</i>	Scientific Grant Agency (VEGA)
<i>Contract Number:</i>	VEGA - 1/0806/18
<i>Coordinator:</i>	Miriám Šebová
<i>Associated Faculty:</i>	Iveta Korobaničová, Peter Džupka, Slávka Klasová, Erika Liptáková, Zuzana Réveszová, Tatiana Soroková, Barbora Tóthová
<i>Duration:</i>	2018 – 2020

Project description:

The main objective of the project is to analyse the socio-economic contributions of culture, to evaluate the economic efficiency of museums and art galleries and to formulate the methodology for their assessment. The project will be organised at various stages. The first stage will focus on case studies concerning the evaluation of socio-economic contributions of selected museums and art galleries by employing the methods of valuating nonmarketable goods (e.g. WTP). The economic efficiency of museums and art galleries located in the Slovak republic will be analysed by DEA analysis during the second stage. The third stage will be based on the questionnaire outputs gathered by museums and galleries visitors. Combining the above-mentioned approaches the input data will be obtained in order to create the methodology related to the assessment of socio-economic efficiency of museums and art galleries in Slovakia.

6.3 International Educational and other Projects

<i>Project title:</i>	EU Public Procurement
<i>Acronym:</i>	EUPP
<i>Supported by:</i>	European Commission – Erasmus+
<i>Contract Number:</i>	600477-EPP-1-2018-1-SK-EPPJMO-MODULE
<i>Coordinator:</i>	Tomáš Malatinec
<i>Duration:</i>	2018 – 2021

Project description:

The Module **EU Public Procurement** contains teaching and research activities focused on EU public procurement. Academic added value stems from introduction of special content focusing on legal, administrative, economic and environmental aspects of EU public procurement policy

into economic study programs. The module is designed for students who are not directly connected to the EU integration studies. The module strives to prepare professionals skilled in EU public procurement by providing professional education and research. Outputs will be available for anyone who might be interested. The module also promotes first teaching and research activities in the field of EU integration studies for young teacher/researcher. The module delivers tailor-made course on specific EU topic relevant for students and practitioners in their professional life.

<i>Project title:</i>	Return on Investment of Work Based learning and Apprenticeships
<i>Acronym:</i>	ROI
<i>Supported by:</i>	European Commission – Erasmus+
<i>Contract Number:</i>	2017-1-SK01-KA202-035375
<i>Coordinator:</i>	Nataša Urbančíková
<i>Associated Faculty:</i>	Oto Hudec, Jozef Bľanda
<i>Duration:</i>	2017 – 2019

Project description:

“RoI of WBL and apprenticeships” project suggests the development of a return on investment (RoI) model and digital tool that will allow European SMEs to calculate and visualise how investment on WBL and apprenticeships can manifest to multiple benefits.

The innovative force of the project is the focus of its model to SMEs needs as well as the integration in the model and the digital tool of both SMEs-related benefits as well as society-related ones in order to clearly demonstrate the multilevel outcomes derived from work-based learning & apprenticeship practices.

The general objectives of the project are:

- make apparent the benefits of WBL and apprenticeships at the level of individual SMEs and the society.
- promote WBL and apprenticeships by motivating the engagement of SMEs.

The direct target groups are SME’s entrepreneurs, managers and staff as well as VET providers (vocational training centres, professional schools, employment centres) that cooperate with SMEs for the provision of WBL and apprenticeships.

At second level, it targets VET stakeholders and policy makers, national representatives of European networks as well as VET practitioners and experts.

The main results of the project are:

- A model for the calculation of RoI of WBL and apprenticeships by SMEs
 - A digital online tool that will demonstrate in visual way the RoI model
 - A Good Practices Guide addressed to SMEs, giving guidance on how to design, implement and monitor profitable apprenticeship practices which can benefit the enterprise, the apprentice and the entire society.
 - Creation and promotion of an apprenticeship-friendly SMEs badge to increase the engagement of companies in the provision of WBL.
 - Promotion of VET – SMEs cooperation, through experimentation and validation of the RoI model.
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<i>Project title:</i>	Educationfor Local Development of Rural Areas
<i>Acronym:</i>	ELDORA
<i>Supported by:</i>	European Commission – Erasmus+
<i>Contract Number:</i>	2017-1-SK01-KA202-035388
<i>Local Coordinator:</i>	Nataša Urbančíková
<i>Associated Faculty:</i>	Oto Hudec, Jozef Bľanda
<i>Duration:</i>	2017 – 2019

Project description

The aim of the project is to strengthen the key competences and skills of young people at their final year at schools (VET institutions and universities), unemployed young people and leaders in rural areas to help them start a social enterprise in order to better utilize local natural and human resources, to increase economic development of rural areas and to prevent brain drain. In “European employment strategy” strong support to entrepreneurship and self-employment is given with special focus on **social entrepreneurs**. Intellectual outputs cover Handbook *How to Establish and Manage Social Enterprises* and best practices collection, Teaching plan and teaching material for training series and e-learning videos and Gamification.

<i>Project title:</i>	Tracking Learning and Career Paths of VET graduates, to improve quality of VET provision
<i>Acronym:</i>	ON TRACK
<i>Supported by:</i>	European Commission – Erasmus+
<i>Contract Number:</i>	2018-1-SK01-KA202-046331
<i>Coordinator:</i>	Oto Hudec
<i>Associated Faculty:</i>	Nataša Urbančíková
<i>Duration:</i>	2018 – 2020

Project description

The project “On Track” aims to develop a tracking system for VET graduates of initial vocational education and training schools and institutes. The tracking system will gather qualitative and quantitative data from VET graduates, related to further education, employment, career paths, skills and competences required in the labour market, etc, with the aim to provide feedback to the quality assurance system of the VET provider and inputs to the design of VET qualifications and programmes, planning and implementation of learning processes, additional services, such as vocational guidance, support to VET students, networking with labour market, provision of work-based learning.

<i>Project title:</i>	Reforming Master Programmes in Finance in Armenia and Moldova
<i>Acronym:</i>	REFINE
<i>Supported by:</i>	European Commission – Erasmus+
<i>Contract Number:</i>	585784-EPP-1-2017-1-AT-EPPKA2-CBHE-JP
<i>Local Coordinator:</i>	Nataša Urbančíková
<i>Associated Faculty:</i>	Oto Hudec, Vladimír Gazda, Jozef Glova, Radoslav Tušan, Peter Džupka
<i>Duration:</i>	2017 – 2020

Project description

REFINE addresses the need for reform of study programmes in Finance with regard to contents and teaching methodologies / pedagogical approaches. Moreover, it addresses the demand for alignment of study programmes with labour market demands to provide the Armenian and Moldovan economies with highly skilled graduates in Finance.

Against this background the wider objective of REFINE is to enhance the quality and relevance of six existing Master (MA) programmes in Finance in Armenia and Moldova through targeted reforms.

The specific objectives are:

1. To reform six existing MA curricula in Finance taking into account the latest international developments in the subject area
2. To promote the quality and relevance of the MA programmes through the development of updated and new course materials
3. To further develop the competences and skills of teaching staff through training courses in innovative teaching methodologies and current topics in Finance
4. To increase the alignment of the MA programmes with labour market requirements

<i>Project title:</i>	Establishment of Capacity Building Centers as a Sustainable Solution to Raise the Standards of Teaching Staff in Indian HEI's
<i>Acronym:</i>	CABCIN
<i>Supported by:</i>	European Commission – Erasmus+
<i>Contract Number:</i>	573616-EPP-1-2016-1-PL-EPPKA2-CBHE-JP
<i>Local Coordinator:</i>	Michal Šoltés
<i>Associated Faculty:</i>	Marianna Siničáková, Ján Buleca
<i>Duration:</i>	2016 – 2019

Project description:

The overall objective, to which the project will contribute is to strengthen the capacity and quality of teaching at partner HEI's in India by the establishment of their own educational centers. The target goal of establishing the Capacity Building Centers is to offer an initial and continuous training for current and future university teachers with focus on pedagogical skills with ICT use. This will be done through preparing selected staff to conduct high-quality and innovative face-to-face, as well as elearning courses, deliver feedback and resources to make excellent teaching possible.

Specific Project Objectives are:

- To create campuswide teaching culture by establishment the Capacity Building Centers with open and flexible access to its e-learning resources
 - To build own capacity by preparing selected staff towards delivering trainings for academics
 - To develop map of key teaching competencies in order to design tailor-made courses for current and future university teaching staff
 - To develop key self-regulation and self-managing competencies for teaching staff in order to overcome the obstacles that they face during the teaching process by preparing teaching programs with focus on pedagogical skill
 - To enlarge number of trained staff by implementing innovative blended courses with ICT use
 - To create possibility of applying gained skills and building international teaching and research networks by developing European Visiting Program
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<i>Project title:</i>	Recovery the Crisis through Entrepreneurial Attitude
<i>Acronym:</i>	RECREATE
<i>Supported by:</i>	European Commission – Erasmus+
<i>Contract Number:</i>	2017-1-PL01-KA203-038438
<i>Local Coordinator:</i>	Peter Džupka
<i>Associated Faculty:</i>	Radovan Dráb, Iveta Korobaničová, Slávka Klasová, Tomáš Malatinec, Miriam Šebová, Nataša Urbančíková, Oto Hudec, Dana Pařová, Martin Vejačka, Tomáš Štofa
<i>Duration:</i>	2017 – 2019

Project description

REcovery the CRisis through Entrepreneurial ATtitude - RECREATE - aims to address:

- the creation of links between higher education, research and business especially at regional level
- the acquisition of transversal and entrepreneurial attitude among young researchers and students, in order to contribute to recovery of the current economic crisis.

Furthermore, RECREATE aims to stimulate the acquisition of key competences, such as creativity and digital skills through innovative learning environments such as open educational resources, and flexible learning approaches.

Specific objectives of the project are:

- To develop an innovative e-learning package adapted to the needs and requirements listed by the European Commission and other important studies to face the challenges of Europe

2020 Strategy, in particular for what concern innovation and the development of T shaped skills.

- To develop educational games, simulation and interactive tools: the goal is to develop an experimental product, also in terms of educational methods, tools and practice
- To test and evaluate (and amend if necessary) the e-learning package according to the results of the pilot conducted in 5 EU countries
- To disseminate the the e-learning package in the project partner countries and to prepare for its further exploitation especially within Universities, Research centres, Incubators, Innovation Centres, etc.

The training programme will allow researchers, students and young graduates in the partner countries to become more entrepreneurial and acquire new skills and qualifications. After attending the training they will know how to start their own knowledge based business and/ or commercialise research results.

<i>Project title:</i>	Reinforce entrepreneurial and digital skills of students and teachers to enhance the modernization of higher education in MOLDOVA
<i>Acronym:</i>	RESTART
<i>Supported by:</i>	European Commission – Erasmus+
<i>Contract Number:</i>	585353-EPP- 1-2017- 1-RO- EPPKA2-CBHE- JP
<i>Local Coordinator:</i>	Peter Džupka
<i>Associated Faculty:</i>	Radovan Dráb, Iveta Korobaničová, Slávka Klasová, Tomáš Malatinec, Miriam Šebová, Nataša Urbančíková, Oto Hudec, Dana Pařlová, Martin Vejačka, Tomáš Štofa
<i>Duration:</i>	2017 – 2020

Project description

Wider objective of the Restart project is to ensure modernization of curricula of 5 Higher education Institutions from Moldavia trough developing. testing, and adaptation of improved and upgraded Entrepreneurial Curriculum (master level) that stimulate innovation skills of students and teachers toward a stronger local business capacity.

<i>Project title:</i>	SMART COMMUNITIES - Virtual Education and Research and Development and Innovation Network in Slovakian- Hungarian border region
<i>Acronym:</i>	SMART COMMUNITIES
<i>Supported by:</i>	INTERREG SK-HU
<i>Contract Number:</i>	SKHU/1601/41/210
<i>Local Coordinator:</i>	Nataša Urbančíková
<i>Associated Faculty:</i>	Oto Hudec
<i>Duration:</i>	2017 – 2019

Project description

The target area could be characterised as 'the periphery of the periphery' with continuously worsening economic and social county and micro-regional level indicators (eg.: GDP, (un)employment, migration, shrinking communities, inefficient use of natural resources, education level, value-added,...) despite former, traditional rural development interventions.

The overall objective of the project is significant contribution to enhanced intellectual property in the disadvantaged cross-border area of Southern Slovakia and Northern Hungary with the establishment and dissemination of innovative cooperation structures as a practical implementation of soci(et)al innovation.

In the framework of the project we aim to build a network of civil partners, educational and research institutions and organize and implement joint professional programs, trainings and

mentoring schemes with the participation of the target group, as local population from early childhood to pensioners including a high number of socially marginalised people.

The main outputs are the establishment of sustainable cooperation structures as (1) Virtual Education and RDI Network (VERDI-NET) and (2) a Smart ICT Competence Centre. As a result, the project could provide real, practical alternatives for the target group that is the socially marginalised inhabitants of the border region.

Our concept is that the area can break out from its lock-in situation through activities based on endogenous development and smart communities instead of intensive industry settlement. Priority sectors of the project are education and R&D&I with thematic focus on (1) sustainability and (2) info-communication technologies. Cross-border approach is needed because acting on national/regional/local level could only further increase regional disparities and inequalities that is clearly not an objective neither at policy, nor at project level.

<i>Project title:</i>	Regions in Europe Coordinate and Optimize innovation and competitiveness policy instruments towards improving the sustainability of transport - study case of SMEs in the railway sector
<i>Acronym:</i>	RECORD
<i>Contract Number:</i>	PGI05377
<i>Supported by:</i>	European Commission
<i>Local Coordinator:</i>	Beáta Gavurová
<i>Associated Faculty:</i>	Mojmír Prídavok, Miroslava Packová
<i>Duration:</i>	2018 – 2020

Project description:

Europe has always been a step ahead regarding sustainable transport mode in comparison with the rest of the world and Europe has developed valuable expertise and innovation in the railway sector. That is why, railway is identified in many RIS3. However due to a fierce competition in particular from emerging industries, the whole sector and especially SME are facing big challenges regarding their competitiveness (price based vs. innovation based competitiveness). To tackle this challenge, regions with the help of the EC, put efforts to encourage R&I joint activities (triple helix concept) by offering innovation delivery support in the ERDF OP (direct fundings, cluster policy...). Other initiatives have been launched towards the railway sector but it has been pointed out that SME have specific issues due to the way public transport works, the specificities of its value chain and its market structure (few big companies with thousands of SMEs, few profit margin, low innovation culture, etc.). Taking this into consideration, the RECORD project aims at helping SME to invest more and better in innovation activities by redesigning the regional policy instruments. To do so, we plan individual work to be compared with partnering regions and analyzed. Benchmark and brainstorming sessions with local stakeholders will help draw proven oriented conclusions and develop new approaches together. To have comparability and to be able to share experiences and learn from each other, it is key to admit regional policy structure, industrial environment and clusters differences. Stakeholders engagement in this project is very important as it will be the first time managing authorities, clusters, businesses, universities, other funding organizations, regions etc. are working together early in the political process in the railway sector. This lends credibility and builds solid foundation to develop a framework that will be accepted for implementation.

6.4 National educational projects and Developmental activities

Project Title: **Management System for Quality, Efficiency and Economic Effectiveness at the Faculty of Economics (QMS-EkF)**
Project manager: Radoslav Bajus

Aims:

1. Quality management system in line with STN EN ISO 9001:2016.
2. Management of quality, efficiency and effectiveness according to the EFQM excellence model for universities.

Expected outcomes:

1. Implementation of the Quality Management System in accordance with STN EN ISO 9001:2016.
2. Self-evaluation and performance management based on the European Foundation for Quality Management – EFQM Excellence Model.
3. To achieve Performance Competitiveness based on the Six Sigma model as used in the European Union.

Activities carried out in 2016

1. Internal re-certification audit provided by TUV NORD Slovakia, s.r.o.
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Project Title: **Preparation and Delivery of the Mathematics Course**
Project manager: Libuša Révészová
Project implementation period: February 2019 – March 2019

The aim of the project: Preparation and delivery of Course on Mathematics for applicants for the study at the Faculty of Economics. Expected outcomes: Providing a good preparation for entry exams for applicants for the study at the Faculty of Economics and promotion of the Faculty of Economics.

Project Title: **Preparation and Realisation of the Distance Learning Bachelor and Master Courses in the area of Finance, Banking and Investment and Public Administration and Regional Development**
Project manager: Dana Pařová

- The aim of the project: Implementation and delivery of distance on-line bachelor and master courses at the Faculty of Economics.
 - Project milestones:
 - Retraining of teaching staff interested in the project,
 - Preparation of on-line courses content for bachelor and master study programmes, Finance, Banking and Investment,
 - Implementation and realization of blended learning (a combination of the face-to-face study supplemented with a distance education component) using LMS Moodle.
 - The outcome of the project is improvement of the quality of part-time study at the Faculty.
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6.5 Project proposals submitted for funding

During the year 2019 the Faculty staff members have been working on new project proposals which have been submitted within the calls for proposals published either by the European Commission or national research agencies. The following project proposals are still under consideration of respective authorities:

<i>Project title:</i>	Innovation of software product for health insurance using machine learning methods
<i>Supported by:</i>	Ministry of Economy of the Slovak Republic
<i>Contract Number:</i>	313012S703
<i>(Local) Coordinator:</i>	Jozef Bucko
<i>Duration:</i>	2020 – 2022
<i>Project title:</i>	Structural consequences of changes in production activities in the global value chain for the Slovak economy
<i>Supported by:</i>	Scientific Grant Agency (VEGA)
<i>Contract Number:</i>	VEGA–1/0666/20
<i>Coordinator:</i>	Júlia Ďurčová
<i>Duration:</i>	2020 – 2022
<i>Project title:</i>	Economic and social aspects of accessibility in rural areas using demand-oriented transport and flexible transport systems
<i>Supported by:</i>	Scientific Grant Agency (VEGA)
<i>Contract Number:</i>	VEGA–1/0455/20
<i>Coordinator:</i>	Peter Ďupka
<i>Duration:</i>	2020 – 2022
<i>Project title:</i>	Possibilities of smart governance methods application on local and regional level
<i>Supported by:</i>	Slovak Research and Development Agency (APVV)
<i>Contract Number:</i>	APVV–19–0263
<i>Coordinator:</i>	Peter Ďupka
<i>Duration:</i>	2020 – 2023
<i>Project title:</i>	Intelligent systems for safe digital world
<i>Supported by:</i>	Research Agency (VA)
<i>Contract Number:</i>	OPVal–VA/DP/2018/1.2.1-07
<i>Coordinator:</i>	Peter Ďupka
<i>Duration:</i>	2020 - 2024
<i>Project title:</i>	Facilitating young entrepreneurship and improving capacity of support network in rural areas
<i>Supported by:</i>	Interreg Danube Transnational Programme
<i>Contract Number:</i>	DTP670
<i>Coordinator:</i>	Mojmír Prídavok
<i>Duration:</i>	2020 – 2022
<i>Project title:</i>	Improving conditions to support creative service hubs in midsize and small Danube cities
<i>Supported by:</i>	Interreg Danube Transnational Programme
<i>Contract Number:</i>	DTP553
<i>Coordinator:</i>	Mojmír Prídavok
<i>Duration:</i>	2020 – 2022

<i>Project title:</i>	Distance E-learning course for Welding Engineers to support implementation of the innovative technologies and boost business of SMEs in Danube Region
<i>Supported by:</i>	Interreg Danube Transnational Programme
<i>Contract Number:</i>	DTP456
<i>Coordinator:</i>	Mojmír Prídavok
<i>Duration:</i>	2020 – 2022
<i>Project title:</i>	Virtual archaeological landscapes of the Danube region
<i>Supported by:</i>	Interreg Danube Transnational Programme
<i>Contract Number:</i>	DTP641
<i>Coordinator:</i>	Mojmír Prídavok
<i>Duration:</i>	2020 – 2022
<i>Project title:</i>	Develop practical solutions to increase the use of RES in Danube region
<i>Supported by:</i>	Interreg Danube Transnational Programme
<i>Contract Number:</i>	DTP403
<i>Coordinator:</i>	Mojmír Prídavok
<i>Duration:</i>	2020 – 2022
<i>Project title:</i>	Development of strategic investment and development packages concepts for regions of Slovakia with a causal link to the creation of methodology for quantifying their efficiency and effectiveness
<i>Supported by:</i>	Slovak Research and Development Agency (APVV)
<i>Contract Number:</i>	APVV–19–0389
<i>Coordinator:</i>	Mojmír Prídavok
<i>Duration:</i>	2020 - 2023
<i>Project title:</i>	Effective management of innovative spatial clusters
<i>Supported by:</i>	Slovak Research and Development Agency (APVV)
<i>Contract Number:</i>	APVV–19–0261
<i>Coordinator:</i>	Mojmír Prídavok
<i>Duration:</i>	2020 – 2023
<i>Project title:</i>	Assessing the Impact of Intangible Assets on the Performance and Value of Enterprises in V4 Countries
<i>Supported by:</i>	Scientific Grant Agency (VEGA)
<i>Contract Number:</i>	VEGA–1/0679/20
<i>Coordinator:</i>	Jozef Glova
<i>Duration:</i>	2020 – 2022
<i>Project title:</i>	Monetary Policy Framework for Unconventional Implementation of Monetary Tools Focusing on Quantitative Easing in the Context of Potential Crisis
<i>Supported by:</i>	Scientific Grant Agency (VEGA)
<i>Contract Number:</i>	VEGA–1/0732/20
<i>(Local) Coordinator:</i>	Marianna Siničáková
<i>Duration:</i>	2020 – 2022