



**Report on the Activities of
Science and Research**

**Faculty of Economics
Technical University of Liberec**

for 2015

1 Research, Development and other Creative Activities

Characteristics of Creative Activities

In 2015, one applied research project within the OMEGA program funded by the Technology Agency of the Czech Republic at the Faculty of Economics of the Technical University of Liberec. Furthermore, three innovative projects were completed from the operational program Education for Competitiveness. International cooperation was represented by one project from the Visegrad Fund. Five projects were solved for contracting entities from the application sphere, two of which were for the Czech Society for Quality.

Doctoral program students realized their research activities in 8 projects under the Students' Grant Competition.

Combination of Creative Activity and Educational Activity

The Faculty founded the Student Business Club (SBC), the aim of which is to establish cooperation with the business community and with students who are eager and ambitious to do business. *The Best Start-up Competition at TUL* was launched under this Club. Out of 26 teams, 7 teams participated in the final evaluation. A week-long Summer School of Business organized in September met with great interest from both TUL students and the Faculty of Economics TUL graduates.

The Student Scientific and Professional Activities Competition is held every year.

The Faculty of Economics of the Technical University of Liberec is an academically oriented Faculty with an important position of doctoral study programs. It develops basic research in selected social sciences with a potential overlap into technical fields, especially by participating in standard and international GACR grants. Applied research is developed mainly through individual TACR programs and contract research for specific contracting entities from the commercial sphere and public administration. Research activities of Ph.D. students are supported mainly in the form of student grant competition. When preparing research projects, the Faculty cooperates with important workplaces in the Czech Republic and abroad. In order to support research activities, the Faculty aims to reduce the administrative burden for project investigators, therefore the position of Project Manager was established in 2015.

Scientific Conferences

In September 2015, the Faculty organized the 12th international conference Liberec Economic Forum attended by about 80 academics; a third of the participants were from abroad (e.g. Great Britain, Poland, Germany, Lithuania, Russia etc.).

The conference proceedings are already indexed in Thomson Reuters database.

Institutional Research Support

The Faculty of Economics of the Technical University of Liberec supports scientific activities and mutual cooperation of academic staff within the framework of the Faculty research focus aimed at

creating a knowledge base for submitting future project applications to the Grant Agency and Technology Agency of the Czech Republic.

As far the Economics and Management program is concerned, the focus is on strategic business performance management, for the Economic Policy and Administration program on Good Governance for Functioning Governance. The System Engineering and Informatics program focuses on agile information services as an important attribute of system approaches.

Participation of the Application Sphere in the Creation and Implementation of Study Programmes

A positive element for the participation of the application sphere in the implementation of study programs still appears the increasing number of foreign work placements realized in the Erasmus program.

Cooperation with Application Sphere on Creation and Transfer of Innovations

The Faculty participates in the innovation efforts not only within projects and contract research conducted for partner companies and institutions, but also in student competitions and initiatives such as the Preciosa Crystal Challenge and Student Business Club. These activities support the business environment at TUL and creative and innovative thinking of both students and academics.

Number of Contracts Concluded with the Application Sphere Subject to Use Research, Development and Innovation Results

One contract was concluded with the company KORID LK (update of the transport plan of the Liberec Region), which is a follow-up to the results of the TACR TD010029 project "*Definition of Sub-regions for Differentiation and Solution of Social and Economic Disparities*".

In 2015, 3 contract research projects were implemented for contracting authorities from practice.

The Student Business Club initiative attracted 17 teams to the 2015 *Best Start-up Competition at TUL*. 6 finalist teams presented their start-up projects with very interesting and innovative ideas. In the end, only one project was marked as complete with the possibility of immediate business start-up and was offered investment support by one of the jury Members, so it can be considered as a supported start-up.

Strategies for Commercialization

In 2014, the Faculty established the Office for Transfer of Science and Research Results. The aim of this office is to cooperate with practice in the long term in the form of offering courses from various areas, be it marketing, statistical data processing or optimization of business processes.

Operating in the Region

In 2015, the Faculty cooperated with the Liberec Region within the expert working group focused on education within the framework of the Employment Pact of the Liberec Region.

2 Internalization

Strategies for the Development of International Relations and the International Environment

The Faculty of Economics of the Technical University of Liberec significantly contributed to the creation and implementation of the university's international strategy within the ESF Kredo project “*Quality, Relevance, Efficiency, Diversification and Openness of Higher Education in the Czech Republic. Higher Education Strategy to 2030*”, which was completed in early 2015. Two Members of the Faculty management team worked in Kredo University Internationalization Team, one of which was the team leader.

Being one of the Faculty's priorities, internationalization is reflected in quite specific Faculty activities. Traditionally, this includes increasing the number of students sent abroad for study mobility and work stays, as well as the increasing the number of incoming students. Recently, emphasis has been placed not only on quantity but also on the quality of students. The Faculty has also had good results in the number of outgoing academic staff from The Faculty of Economics of the Technical University of Liberec and incoming academic staff from partner foreign universities. On this basis, it is possible to develop further possibilities of cooperation with partner universities, e.g. joint degree or double degree programs, joint international projects and other activities. An example of this international focus of the Faculty is the long-term joint degree - the study field Information and Communication Management / University of Neisse in cooperation of Liberec, Wrocław and Görlitz universities and bilateral cooperation with the University of Huddersfield Business School, UK. In 2015, a record number of 17 students went to a study stay in Huddersfield for both bachelor's and

Master's degree programs. For 2015, doctoral students are to take part in study stays as well.

The excellent international partnership relations, especially as far as student and academic exchanges are concerned, generate opportunities for further joint teaching and research activities.

In 2015, two colleagues from Joensuu, a Finnish partner university, took part in the Student Business Club training and start-up activities. A joint project under KA2 Erasmus + with a partner university in Zwickau was also realized.

Inspiration for applied research, creation and support of start-ups and spin-off companies has been drawn from Canadian, British and Finnish partner universities. A Member of the Faculty management attended the EAIE International Education Fair in Glasgow. At The Faculty of Economics of the Technical University of Liberec, the activities of the non-profit organization AIESEC, offering foreign job opportunities to TUL students, continued successfully. In 2015, the Erasmus International Staff Week took place for the second time with active participation of the Faculty representatives.

In 2015, the Faculty of Economics of the Technical University of Liberec was involved in international educational programs, particularly within the ERASMUS program and the Ministry of Education's development programs.

In 2015, a total of 161 Faculty of Economics students travelled abroad, while 57 students came from abroad. 30 Members of the academic staff have completed mobility abroad and 14 workers came to the Faculty from abroad.

3 Quality Assurance and Evaluation of Activities

Internal and External Evaluation of the Quality of Education, especially by the Accreditation Commission of the Czech Republic

Electronic anonymous students' assessment is used for internal evaluation of the quality of education, which is carried out for each semester on the basis of a questionnaire survey within IS STAG. In addition, annual evaluation is carried out on the basis of observations by the heads of Departments and senior staff of the Faculty, especially for beginning teachers.

In 2015, the Faculty of Economics TUL underwent a standard process of re-accreditation of one field of study. On the proposal of the Accreditation Commission, the Ministry of Education extended the accreditation of the follow-up master's degree program in Management Informatics by 4 years.

Benchmarking with Similarly Oriented Universities

In the area of comparing research results with similarly oriented universities in the Czech Republic, the Faculty uses the evaluation of research and development results of research organizations (including public universities) carried out annually by the Research, Development and Innovation Council, in a rolling manner for the past five-year period based on the approved methodology.

4 National and International Excellence of the Faculty

Membership in International Associations, Organizations and Societies

doc. Ing. Klára Antlová, Ph.D. - Member of the Editorial Board of the Information and Communication Technologies magazine for the Advanced Enterprises (Portugal)

Ing. Vladimíra Hovorková Valentová - Member of ACC NISA Economic Section

prof. Ing. Jiří Kraft, CSc. - Member of the Editorial Board of Inžinerinė Ekonomika (Lithuania), Member of the Editorial Board of Kreativnaya Ekonomika (Russia)

prof. Ing. Ivan Jáč, CSc. – Member of ACC NISA – Euroregion Nisa Academic Coordination Centre

PaedDr. Helena Neumannová, Ph.D. - ACC NISA - Academic Coordination Centre of the Euroregion Neisse, Head of the Secretariat, Coordinator, Member of the Presidium

doc. Ing. Jan Skrbek - Member of IGIP - International Society for Engineering Pedagogy, Austria

prof. Ing. Miroslav Žižka, Ph.D. - Member of editorial board of Creative and Knowledge Society - International Scientific Journal (Slovakia)

Members of the Department of Economics are Members of RSAI - Regional Science Association International

Membership in Professional Associations, Organizations and Societies

doc. Ing. Klára Antlová, Ph.D. - Secretary of CSSI - Czech Society for System Integration

prof. Ing. Ivan Jáč, Ph.D. - Member of the Czech Economic Society, Member of the Board of the District Chamber of Commerce in Liberec

prof. Ing. Jiri Kraft, CSc. - Member of the Czech Economic Society

doc. Ing. Šárka Laboutková, Ph.D. - Member of the Czech Economic Society, Member of the Czech Society for Political Sciences

PaedDr. Helena Neumannová, Ph.D. - Member of the International Association of Germanists and Teachers of German (SGUN)

Mgr. Jiří Rozkovec - Member of the Czech Society of Operational Research

doc. Ing. Petra Rydvalová, Ph.D. - Member of the Regional Contact Organization within VÚTS Liberec, a.s.

doc. Ing. Jozefína Simová, Ph.D. - Chairwoman of the Regional Club of ČMS Liberec - Czech Marketing Society, Member of the Main Committee of ČMS, Czech Marketing Society

doc. Ing. Jan Skrbek - Member of CSSI - Czech Society for System Integration

Ing. Jaroslava Surovátková - Member of ARR - Regional Development Agency

PaedDr. Irena Vlčková, Ph.D. - Member of the International Association of Germanists and Teachers of German (SGUN)

prof. Ing. Miroslav Žižka, Ph.D. - Member of the Accreditation Commission for Higher Professional Education

In 2015, a Member of EF TUL's management represented the Faculty in the Council of the Liberec Tourism Association.

Faculty Members have been active in various regional initiatives, such as the Innovation Platform of the Liberec Region, the Employment Pact of the Liberec Region and initiatives to create a business incubator in the Liberec Region.

5 Departments' Annual Report

DEPARTMENT OF FOREIGN LANGUAGES

Department Profile

The Department of Foreign Languages provides teaching foreign languages for specific purposes at four faculties of the Technical University of Liberec and at the Institute of Health Studies. It provides the largest amount of teaching for students of all disciplines and years at the Faculty of Economics, offering courses in Business English, German, Russian, Spanish and French. For students of technical faculties and the Institute of Health Studies, it guarantees professionally oriented teaching of English and a small amount of German.

Department Staff

In 2015, 14 Czech teachers, 7 foreign lecturers and 2 external teachers participated in language teaching. 1 foreign lecturer terminated employment in June. In September, one foreign lecturer returned from a one-year stay at the University of South Korea. In December, after the parental leave, one lecturer returned. During the summer semester, a trainee from the University of Vienna participated in German language teaching.

Research and Creative Activity

In addition to the educational activities, the Department focuses on improving the quality of foreign language teaching through our own or partner projects and cooperation with domestic and foreign organizations.

In April, teachers of the English and German sections completed innovations in language courses and e-learning materials as part of the OPVK - IMPACT educational project in cooperation with MU in Brno.

DEPARTMENT OF ECONOMICS

Department Profile

Department of Economics is in its pedagogical and research activities focused on the fields of economic theory, economic and regional policies, European economic integration and the world and developing countries economy.

Research Activity

In 2015, the key research activity was the implementation of the TACR project "*Regional Price Index as an Indicator of Real Social and Economic Disparities*". The project output in the last year of the project is a total of 5 applied results, 1x Nmet (certified methodology), 3x R (software), 1x Nmap (map with expert commentary) + publication results including a scientific monograph.

Another form of scientific work was participation at international conferences with own contributions and professional publishing. In 2015, the conclusions of research activities were published in 3 articles. In 2015, the Department Members actively participated in international conferences in the Czech Republic and abroad. Eight papers were published in WoS and Scopus proceedings. Two standard GACR grants were submitted, one was accepted for funding. In 2015,

12 projects within the Student Scientific and Professional Activities and 2 projects of the Student Grant Competition were implemented at the Department.

Contact with Public

The Department academic staff are Members of European Regional Science Association ERSA.

DEPARTMENT OF FINANCE AND ACCOUNTING

Department Profile

In its pedagogical and research activities, the focus of the Department has long been on two fundamental lines: accounting and taxes; finance and financial management of business entities.

Research Activity

Research activities are an integral part of the Department's work. In 2015, participation in the Faculty's research and development project and in the frame of internal student grant competition was realized. Ing. Kafková - grant: *“Assumptions and Conditions of Utilization of Calculation of Full Own Costs and Calculation of Variable Costs and their Impact on Economic Result”*.

The results of the research were presented in the form of expert articles in renowned domestic and international journals and proceedings from international scientific conferences, the outputs of which were focused on evaluation in RIV.

Contact with Public and International Cooperation

Within lectures of professional subjects 2 practical seminars led by Komerční Bank representatives (partner EF) and one lecture by an expert from practice from Škoda Auto a.s. were organized.

Employees of the Department were Members of the Evaluation Committee of the Public Contract TB940MZP004 (March 2015) TACR, they elaborated review reports for contributions to scientific conferences and journals.

One employee of the Department has been cooperating with the Chamber of Auditors of the Czech Republic in the subject Accounting II. – sphere of commercial insurance companies.

The Department has been cooperating with the Finansów i Rachunkowości Department at the University of Economics in Wrocław, based in Jelenia Góra. Three Members of the Department traditionally participated in a study stay at the aforementioned university. One Member of the Department went on a study stay at Karelia University of Applied Sciences, Finland within Erasmus+. Two Members attended Vives University College in Kortrijk - Belgium.

DEPARTMENT OF INFORMATICS

Department Profile

The Department of Informatics has been focused for a long time on focuses on agile approaches to support information processes in organizations, especially in relation to new possibilities of information and communication technologies (ICT) and system analysis. The most important areas

of interest include the use of innovative approaches and ontological models to support information security in emergency situations (e.g. natural disasters, terrorism and transport security).

Research Activity

In 2015, two SGS projects were solved at the Department - “*New Possibilities of Advanced Information and Communication Technologies in Solving Selected Emergencies*” and “*Analysis of Project Management Methodologies in Small, Medium and Large Companies in the Czech Republic*”.

Employees of the Department submitted an application for a GACR project “*Ontology of the Communication Model for Decision Support of Unexpected Events*”. The system of continuous records of scientific and research activities - established at KIN - was prepared and implemented in 2015 for use at the entire University. Members of the Department are authors or co-authors of another 3 program products.

A Member of the Department was a co-researcher of the international research project “*Evaluation of Information Systems and Technologies in Hospitals in the Czech Republic*” in cooperation with The Centre for Information Technology CTI / GESITI - Brazil (2012-2015).

The Department, in cooperation with the North Bohemian Section of ČSSI, was the guarantor of the information section of the international scientific conference Liberec Economic Forum, which was held in September 2015.

Doc. Antlová became a Member of the Committee of Social Sciences and Humanities of the Czech Science Foundation and a Member of the evaluation panel P403 Business Sciences, Management, Administration, Administration, Finance and Financial Econometrics.

Contact with Public

The Members of the Department are represented in a number of professional societies. Specifically, in 2015, these were foreign companies Comenius Academic Club and International Gesellschaft für Ingenieur Pädagogik, and domestic ones, such as the Council of Universities, the Czech Society for System Integration, the Union of Czech Mathematicians and Physicists and the Czechoslovak Association of TeX Users. Two teachers are Members of a total of 3 scientific boards and 2 doctoral boards. A Member of the Department is the guarantor of Multimedia courses within the EDUTECH project (“Children's University”). On January 20, 2015, the Department of Informatics organized the traditional seminar “Informatics Practice 2015”.

DEPARTMENT OF MARKETING AND TRADE

Department Profile

In its pedagogical and research activities, the Department focuses on marketing strategy, marketing research, marketing and corporate communication including advertising, consumer behaviour, customer value, psychology of business conduct, travel industry, international trade, marketing and law.

Research Activity

Members of the Department are involved in the implementation of the Faculty research plan. The project “Quality of the Business Environment in Tourism” in the Border Regions of the Neisse-

Nisa-Nysa Euroregion (Visegrad Fund) and two SGS projects focused on the use of personnel marketing in business practice and factors influencing customer attitudes and perceived value in relation to luxury fashion brands on the Czech market.

Contact with Public

The Department develops cooperation with companies in the region and maintains contacts with Faculty graduates. It cooperates with the companies ABIX Europe s.r.o., Kitl s.r.o. and ABET HOLDING a.s. The Department organizes lectures delivered by experts from practice, consults students' final theses and helps with the organization of professional training.

Members of the Department were Members of expert teams and expert working groups within the framework of the Employment Pact of the Liberec Region, the Commission for Culture and Tourism of the City of Liberec, the Commission of Visual Identity for Liberec and the Council of the Association for Tourism of the Liberec Region. The Department is a collective Member of the Czech Marketing Society (ČMS) and the Association of Czech Travel Agencies (AČCKA).

In 2015, Members of the Department organized nine lectures of practitioners for students. Under the leadership of the Department's teachers, students achieved success in the "PR Academy" and participated in the ČMS "Young Dolphin" competition.

DEPARTMENT OF BUSINESS ADMINISTRATION AND MANAGEMENT

Department Profile

The foundations of the Department were laid in 1992 at the foundation of the Faculty of Economics of the Technical University of Liberec. Since January 1, 2014, the name of the Department has been expanded in accordance with its focus on three areas: business environment; business process management and relationships between organizations; strategic business management.

Research activity

In 2015, a research contract "*Employee Satisfaction Survey*" was carried out for Preciosa, a.s. (coordinator Ing. Kateřina Maršíková, Ph.D.). Following activities of the TACR project Omega, 2012 - 2013, reg. no. TD010029, a contract research project with KORID LK, s.r.o., "*Expert Assessment of the Updated Transport Service plan of the Liberec Region*" (coordinated by prof. Ing. Miroslav Žižka, Ph.D.) was also realized.

New research projects were successfully prepared in 2015. Financial support has been approved for the following:

- TACR Omega (investigator prof. Ing. Ivan Jáč, CSc.) - for the period 2016 - 2017 under the title "*Family Business - Solution of Social and Economic Disparities of Municipalities*", reg. no. TD03000035.
- GACR - bilateral project with DFG (investigator prof. Ing. Miroslav Žižka, Ph.D.). In December 2015, the Czech team part for the period 2016-2018 was approved under the title "*Intercultural Study of the Effects of Product Platform Strategies in Inter-organizational Partnerships*", reg. no. 16-04941J.
- Norwegian Funds (Ing. Eva Šlaichová, Ph.D.) - for 2016 at Molde University College.

In the field of research, cooperation with the University of St. Gallen started as part of the international survey of the relationship of students to business under the name GUESSS. The survey and its evaluation for the Czech Republic will be carried out in 2016.

In May 2015 the Department cooperated with VÚTS a.s. at the organization of the eighth year of the Symposium Development of Human Resources in Science and Research 2015 in the premises of the state chateau Sychrov.

In 2015, the Department participated in the Preciosa Crystal Challenge competition. Since 2015, it has been involved in the activities of the Student Business Club and the organization of the “*Best Start-up at TUL*” competition.

Contact with Public

In 2015, the Department offered courses focused on the business environment, business management, process management and legal issues.

The Department organized courses focused on logistics and development of managerial skills for corporate clients.

Teachers participated in teaching and final examinations in the framework of the 1st Jizera Mountains School of Masters - Meisterschule for selected employees of HAAS+SOHN Rukov s.r.o., CiS Systems s.r.o. and Novus Česko s.r.o.

In 2015, mainly in the area of company management and its processes, the Department continued its cooperation with companies such as Preciosa a.s., Detesk, s.r.o., Lasvit a.s., VUTS, a.s., Bilsing Automation Czech, s.r.o., ŠKODA Auto a.s. etc. This enables the elaboration of high-quality final theses, professional student competitions and thus also high-quality preparation for their entry into practice.

In the area of business environment, the Department continues to cooperate with selected Departments of the Regional Authority of the Liberec Region, the ARR - Regional Development s.r.o., Corridor LK s.r.o., District and Regional Chamber of Commerce in Liberec, Municipality of Liberec and others.

DEPARTMENT OF ECONOMIC STATISTICS

Department Profile

In the area of teaching and research, the Department is involved in a wide range of statistical sciences, including statistical, econometric, economic-mathematical and operational research methods applicable in all areas of economic life. The second line of specialization of the Department Members is insurance and social policy.

Research Activity

In 2015, the Department submitted 1 SGS project proposal (Ing. Naiman) and 2 projects entered the internal competition supporting the development of educational activities for 2016 as part of the Institutional Plan 2016.

In 2015, the Department had one project of its own and participated in one project of another Department (Department of Economics – “*Regional Price Index as an Indicator of Real Social and Economic Disparities*”). Own projects: “*Survey of PLASTON CR, s.r.o. Employee Satisfaction with*

PLASTON CR, s.r.o.”, where the task of the Department was to prepare a questionnaire focusing on aspects of work in the company that can contribute to the satisfaction or dissatisfaction of the company employees, to provide guidance on how to collect and evaluate the data from the survey.

Contact with Public

In 2015, the Department successfully continued in cooperation with PLASTON CR, s.r.o., which is also interested in assigning selected topics of final theses to The Faculty of Economics students and also offers the possibility of training in selected Departments of the company. At the same time, other lectures of prof. Sigitas Vaitkevičius from Kaunas University of Technology in Lithuania, with whom the Members of the Department cooperate since 2010, were held.

Conclusion

In the area of research and creative activities, the increasing means of institutional support enabled the continuation of the three-year research orientations, which are linked to individual study programs. The aim of this concept was to clearly specify the fields of research activities of the Faculty of Economic TUL Departments towards the development of educational fields at the Faculty. Further, to deepen the knowledge base to increase the success of the submission of project proposals, both in the basic area and applied research.

In 2015, the Faculty of Economics TUL managed to obtain one standard GACR grant, one project of applied research TACR in OMEGA program. GACR also recommended one bilateral project with DFG for funding.

An important event in the Faculty's activities was the organization of the 12th international conference LIBEREC ECONOMIC FORUM 2015, which took place on 16 and 17 September 2015 in the premises of the new building G at TUL.

In the long term, the Faculty of Economics TUL strives to link educational activities with the requirements of practice and to support voluntary creative activities of students. In 2015, the Faculty of Economics TUL established the Student Business Club (SBC) initiative, which aims to support students who are considering doing business.