



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

ISM Vadybos ir ekonomikos universiteto
STUDIJŲ PROGRAMOS
INOVACIJŲ IR TECHNOLOGIJŲ VADYBA (621N26002)
VERTINIMO IŠVADOS

EVALUATION REPORT
OF INNOVATION AND TECHNOLOGY MANAGEMENT
(621N26002)

STUDY PROGRAMME
at ISM University of Management and Economics

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DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	<i>Inovacijų ir technologijų vadyba</i>
Valstybinis kodas	621N26002
Studijų sritis	Socialinių mokslų
Studijų kryptis	Vadyba
Studijų programos rūšis	Universitetinės studijos
Studijų pakopa	Antra
Studijų forma (trukmė metais)	Nuolatinė (1,5)
Studijų programos apimtis kreditais	90
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Inovacijų vadybos magistro laipsnis
Studijų programos įregistravimo data	2013-08-21

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	<i>Innovations and technology management</i>
State code	621N26002
Study area	Social sciences
Study field	Management
Type of the study programme	University studies
Study cycle	Second
Study mode (length in years)	Full time (1,5)
Volume of the study programme in credits	90
Degree and (or) professional qualifications awarded	Master in innovation management
Date of registration of the study programme	2013-08-21

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I. INTRODUCTION

1.1. Background of the evaluation process

The evaluation of on-going study programmes is based on the **Methodology for evaluation of Higher Education study programmes**, approved by Order No 1-01-162 of 20 December 2010 of the Director of the Centre for Quality Assessment in Higher Education (hereafter – SKVC).

The evaluation is intended to help higher education institutions to constantly improve their study programmes and to inform the public about the quality of studies.

The evaluation process consists of the main following stages: 1) *self-evaluation and self-evaluation report prepared by Higher Education Institution (hereafter – HEI)*; 2) *visit of the review team at the higher education institution*; 3) *production of the evaluation report by the review team and its publication*; 4) *follow-up activities*.

On the basis of external evaluation report of the study programme SKVC takes a decision to accredit study programme either for 6 years or for 3 years. If the programme evaluation is negative such a programme is not accredited.

The programme is **accredited for 6 years** if all evaluation areas are evaluated as “very good” (4 points) or “good” (3 points).

The programme is **accredited for 3 years** if none of the areas was evaluated as “unsatisfactory” (1 point) and at least one evaluation area was evaluated as “satisfactory” (2 points).

The programme is **not accredited** if at least one of evaluation areas was evaluated as "unsatisfactory" (1 point).

1.2. General

The Application documentation submitted by the HEI follows the outline recommended by the SKVC. Along with the self-evaluation report and annexes, the following additional documents have been provided by the HEI before, during and/or after the site-visit:

No.	Name of the document

1.3. Background of the HEI/Faculty/Study field/ Additional information

ISM University of Management and Economics (hereinafter ISM) is an institution of undergraduate, graduate and post-graduate education in business, management and economics. The University runs its operations from the Vilnius campus located in the centre of the city and serves as an advanced centre of market analysis, executive training and leading academic thought.

The Undergraduate School of ISM offers three undergraduate programmes taught in English, namely, Economics and Politics, International Business and Communication, and Industrial Technology Management, and another three programmes taught in Lithuanian, in the areas of Economics, Business Management and Analytics, and Finance.

The Graduate School of ISM offers Master level programmes in International Marketing and Management, Financial Economics, Innovation and Technology Management, while the Executive School offers Master level programmes geared to professionals with at least 4 years of managerial experience, as well as non-degree programmes for corporate clients (executive training).

ISM also provides doctoral studies in Management and Economics with other Lithuanian and International Universities.

The ambition of ISM is to become a European boutique business university: highly specialized in its learning and research areas, and outstanding in quality of its services. Recently ISM runs on its campus the “Entrepreneurships Centre” which is a platform of activities, people and resources fostering interdisciplinary competencies like Entrepreneurship, Creativity and Innovation through action based learning.

The programme under review was developed as a result of an initiative by the Lithuania Science, Innovation, and Technology Agency (hereinafter MITA) to address the forthcoming needs in highly skilled individuals, as they are identified in the “Europe 2020” strategy that is oriented to knowledge and innovation-based economic development. The development of the Innovation and Technology Management (hereinafter ITM) programme was supported by European Structural funds as one of five such postgraduate programmes at Lithuanian universities. EU funding subsidized student tuitions for the first cohort of students (2013), while thereafter the programme attracts enough students to be self-sustainable.

The programme fits the ISM strategy for utilizing their resources (know-how, facilities, quality of teachers, brand name) to become more interdisciplinary by offering distinct thematic management degrees (e.g. in Energy management, Health Care Management, etc.)

The self-assessment team of the ITM was formed under Order of the Rector, 01-07-27, - and composed of Faculty teachers, administrative staff and students. Different data sources were used for self-assessment as reports of the University and its divisions, social surveys, studies and analyses, the Statutes and Regulations of the University.

SER gives a clear schedule of Time table indicting the assignment of activities to responsible members of the of the assessment group. This is the first external evaluation of ITM under the rules of the Centre for Quality Assessment in Higher Education.

1.4. The Review Team

The review team was completed according *Description of experts' recruitment*, approved by order No. 1-01-151 of Acting Director of the Centre for Quality Assessment in Higher Education. The Review Visit to HEI was conducted by the team on 13/12/2016.

- 1. Prof. Dr. Csaba Forgacs (team leader)** Professor in Corvinus University Budapest (Hungary);
- 2. Prof. Dr. Pandelis Ipsilandis**, Professor in Technological Education Institute of Thessaly (Greece);
- 3. Prof. Dr. Georgi Apostolov**, Vice-Rector in South-West University “Neofit Rilski” (Bulgaria);
- 4. Ms. Ugnė Bartašiūnaitė**, Executive Assistant to the CEO in *Lietuvos Energija*, UAB (Lithuania);
- 5. Mr. Eimantas Kisielius**, PhD student in Economics at Kaunas University of Technology (Lithuania).
- 6. Evaluation coordinator – Ms Kornelija Bukantaitė**

II. PROGRAMME ANALYSIS

2.1. Programme aims and learning outcomes

The programme under review was developed as a result of an initiative by the Lithuania Science, Innovation, and Technology Agency (hereinafter MITA) to address the forthcoming needs in highly skilled individuals, as they are identified in the “Europe 2020” strategy that is oriented to knowledge and innovation-based economic development. The creation of the Innovation and Technology Management (hereinafter ITM) programme was supported by European Structural funds and it is one of five such postgraduate programmes offered by Lithuanian universities.

The programme certainly has some unique features that make it stand out from similar programmes in Lithuania. It follows an interdisciplinary approach, it fosters a rich learning environment by accepting students with work experience and diverse academic background, it maintains strong ties with the business world, and high level of internationalization (taught in English, substantial participation of international visiting professors in teaching, dual degree opportunities with universities in Denmark and USA, international students, etc.). Those distinctive characteristics are viewed by students and graduates as the programme’s great assets.

Within this framework, the programme tries to balance its objectives between providing students a strong academic background – according to national and EU requirements for 2nd level postgraduate programmes and also practical competencies needed in the local and international labour market. The aim of the programme is stated clearly as: *“to develop qualified specialists equipped with theoretical and practical competencies of developing and leveraging innovative solutions to strategic, tactical and operational issues through the creative use of technology, best practices, and organizational knowledge at all levels within an organization”*.

The programme’s aims respond to the needs in the Lithuanian market for qualified specialists of this kind as shown in relevant rankings (e.g. Innovation Union Scorecard), and are compatible with the National strategy of the Ministry of Education. The development of the programme aims was based on input received by MITA, international companies in Lithuania and studies of similar programmes offered by partner Universities such as MSc in Technology Management at Illinois University, USA, MSc in Innovation and Entrepreneurship at Imperial College Business School, UK and MSc in Strategic Management at Tilburg University, Denmark.

The large number of applicants and the high enrolment scores is a definite indication that the programme is well accepted by prospective students. Social partners also strongly testify about the programme’s response to market needs.

The Expert Team appreciates the strong commitment of the management team to continue development of the programme which resulted in certain adjustments / improvements to the programme. The involvement of students in programme development activities is also acclaimed. A research study to identify Innovation Management Maturity levels at Lithuanian companies was implemented (as a research project) by the first cohort of students showed that the business community stated that the programme is relevant to the market needs.

Since, the programme has run for 4 years, and completed three full 1,5 year cycles a formal benchmarking against similar programmes offered by top universities in Europe or

abroad, according to specific criteria and rationale should be considered as part of the scheduled review plan for 2017-18.

Programme aims are compiled into Learning Outcomes (LOs) structured in terms of Knowledge acquisition, Research skills, Competencies and Social and Personal skills. The LOs were initially defined to reflect projects' expectations in consultation with the partners stated previously, and have not significantly changed since programme's conception. The learning outcomes are detailed, well-structured and generally well defined, but they need to reflect more on the unique characteristics of the programme, instead of being expressed in a rather generic form (e.g. S4, S5, S10, G1, etc.). The distinct aspects of the programme could be emphasized by focusing more on the multifaceted nature of innovation in today's business world (i.e. technology driven, design driven, process driven, people driven, etc.) and the emerging technologies. The later was also pointed out by Social partners and Alumni. At the same time details that are more proper at course level (e.g. "*structure business financial information*", "*making financial forecasts*", etc.) could be sorted out and overlaps avoided (e.g. G3 and G5).

The programme's aims and LOs are publicly available to students and any interested person at ISM's website (<https://www.ism.lt/en/node/323>) and meet the requirements laid down in Lithuanian law and regulations as well as the developments in the wake of the European Bologna Process requirements of a second level academic programme in management.

The title of the programme, its aims and objective and the associated LOs are generally compatible with the offered qualification.

Strengths

- ✓ A programme with many strong distinct features that is well received by students, alumni and social partners as addressing the needs of Lithuanian market in highly skilled individuals.
- ✓ Strong partnerships with international universities, including double degree options for with great potential for further development as it addresses contemporary areas in management.
- ✓ Programme well perceived as a top one in the country in the field of management by Students, Alumni and Social partners.

Weaknesses

- ✓ Some vagueness in the programme learning outcomes that lack overall coherence and imbalances between the areas of innovation and technology.
- ✓ Benchmarking of the programme has been taking place in a rather restricted way against the programmes of the two partner universities.

2.2. Curriculum design .

The curriculum structure conforms to the ECTS system, meets legal requirements and the programme complies with the General Requirements of Lithuanian regulations for Higher Education. The curriculum is offered as a full time programme, where contact hours account for over one third (34,1%) of the total study workload for the first six semester that include course work.

The total programme workload of 90 credits is allocated equally among 3 semesters. The study subjects follow a smooth progression in terms of building knowledge and competencies. First semester courses address mostly core management areas, so that students develop sufficient foundation knowledge. During the second semester students take two specialized courses on Innovation and Emerging Technologies, and they can select 3 elective courses (out of 10), offered by ISM or the partner Illinois University of Technology. Although all 10 electives are listed in the SER, discussions with staff, students and graduates indicated that from the list of 10 elective subjects only 4 (Operations Management, Portfolio, Programme and Project Management, and New Product Development) are active (being offered or selected by students).

Overall, it seems that the curriculum fits the overall aim of the programme and the achievement of programme LOs. Certain improvements will enhance the curriculum and better serve the diverse student needs, as some of the students are more keen on management of innovation, while others in management of technologies. During discussions with Social partners and Alumni different views were expressed regarding the need to emphasize more either on Technology or on Innovation. Social partners suggested that ISM could exploit its association with Kaunas Technology University to strengthen the Technology area.

In any case, the need to review and restructure of the electives in a way to accommodate diverse student needs is evident. For example, the Expert Team sees no rationale for offering electives which are not strongly related to the themes of innovation and technology (e.g. “*Inventory Control*” – a conventional operations management function – that is part of another elective, “*Supply Chain Management*” – an area which is strongly shaped by innovation and technology; “*Intermediate Software Development*” – a technical subject in Computing that could be replaced by managerial oriented subjects related to innovation in ICT like *Cyber-economy, e-business*, etc.). On the other hand, the University could consider the development of a localized version of the “*Innovation and Technology Seminar*”, based on the expertise of the Japanese partner University and with contribution of alumni who have taken it in Japan as part of the core of the curriculum.. Consideration also should be given to enhance the curriculum in the areas of *Entrepreneurship, Business analytics & decision making* (both stated in the objectives and LOs of the programme), *Commercialization of new technology*, and also to introduce students to *European Policies and Economics* as Lithuanian is in the core of EU and a significant part of business is taking within the EU. It seems that programme management is aware of these issues and took an initiative to provide incentives to members of teaching staff who wish to develop new subjects in the curriculum (see section 2.3).

The curriculum provides a solid process for the development of research skills progressively, over the duration of the programme. In the first semester students are studying Research Methodologies, and follow by selecting their preliminary topic and an academic adviser is assigned to them. The study process is completed by the Master’s final thesis, which confirms the knowledge and skills acquired by student and his professional qualification. Students are required to present their theses proposals to study commission with participation of social partners. Social partners also participate in the defense of the theses. Overall, the curriculum ensures sufficient research skills for students who wish to continue into doctoral studies.

The Expert team commends the SER group and the academic staff for their excellence in developing well laid-out detailed descriptors for the subjects in the curriculum. Subject learning

outcomes are linked to programme's LOs, although in some cases a confusion between learning outcomes and teaching objectives is noted. The Expert team realizes that the transition from "teaching objectives" orientation to "learning outcomes" takes time and appreciates the efforts undertaken by ISM to prepare staff for writing LOs, and would like to underline that this should be taken as a paradigm shift in teaching and not just as a bureaucratic / administrative task for staff.

A plurality of teaching and learning activities targeted to support course LOs are properly chosen and linked to appropriate assessment methods in each case. In the cases of final exams, the programme committee should advise staff to consider alternative methods of assessment to replace exams with multiple choice questions (e.g. Business Strategy, New Product development – pg. 40, 42 and 54 of SER-Annex 2), for in most cases they test limited low-level knowledge.

The study descriptors include recent articles from business and scientific journals as well as additional teaching materials, following the developments regarding aspects of innovation and technology in contemporary businesses.

Strengths

- ✓ Well-structured study subject descriptors that assure consistency in delivery of the content regardless of the specific lecturer will provide a good starting point for curriculum update.
- ✓ Very strong emphasis in developing student's research skills through a well-structured approach in the development of Master Thesis.

Weaknesses

- ✓ A restructure of core and elective courses could help in accommodating diverse needs of students.
- ✓ Avoid overuse of exams as assessment method.

2.3. Teaching staff

The composition of the teaching staff on the study programme Innovation and Technology Management fully complies with the requirements set by Lithuanian regulations for second cycle study programmes.

The Programme is supported by highly qualified staff including 14 academics, of which 5 are professors, 9 assoc. professors, and 2 lecturers- consultants. Furthermore 75% of teaching staff are full-time ISM staff, 92% of which hold assoc. prof. or professor degrees.

ISM is strongly committed and places great importance on the selection of teaching staff. The roster of teaching staff includes several visiting professors from prominent international Universities who teach whole subjects of the curriculum. The Expert Team had a chance to converse with two of them via Skype and was impressed by their strong feeling about the programme and their satisfaction from teaching in it. Teaching of certain subjects is provided by industry professionals and social partners are invited to deliver specific topics.

Overall, this mixture of staff presents a strong advantage for the programme, as it provides a rich blend of academic, contextual and cultural / ethnical backgrounds that brings to the programme fresh ideas, supports the link of theory with the realities of the business world,

strengthens the networking potential and helps to foster the internationalization process. All teachers seem enthusiastic and committed to the program. The programme management team realizes that the model of having part of the programme delivered by visiting professors introduces certain risk in the continuity of the curricular delivery, research agendas, orientation of the faculty into the university community, but they regard, and rightfully so, that the added value to the programme outweighs the risks. Evidence from students and graduates confirms this conclusion.

Professional development of the staff is achieved through their participation in research conferences, study trips, teaching exchange visits and projects. The University supports the development of teaching staff in a number of ways like: Incentives to develop new subjects in emerging areas like social media, web business etc. (initially to be used as electives), Running of two Teachers academies (Winter and Summer) each year geared towards teaching skills thematic (e.g. use of e-learning platforms, defining learning outcomes, linking LOs to assessment etc.)

International Mobility among teaching staff is high and takes place in partner Universities located in countries and areas with diverse socioeconomics conditions, thus enriching the experiences that staff brings into the programme. The Expert Team understands that not all of the staff are keen to mobility but nevertheless would like to see mobility actions more evenly distributed among all staff.

The research activity over the last years shows that individual members of staff have their own research interest and pursue research activities accordingly. To achieve the ISM vision of *“becoming a European boutique university: highly specialized in its learning and research areas”* significant effort is required to increase research output published in high impact international academic journals in the field. It is commendable that the University has started moving in that direction. ISM has recently adopted a new strategy that focuses in enhancing the research profile of the University. Actions like increased investments in research, creation of individual research competence development plans including specific research targets, organization of research seminars and brown-bag sessions are action that confirm the intentions to strengthen the research profile of the staff and the programme. Consideration of introducing a practice of setting individual research budgets for academic will also provide additional incentive.

The Expert team realizes the difficulties of embedding individual research priorities in formulating a departmental research agenda. Nonetheless, it strongly believes that development in that direction will increase team coherence, enhances the identity of the programme, enables staff to join research consortiums and exploit research funding that is available at European level, and will create opportunities for the students. Observed efforts to streamline student research to faculty level, initiation of a pilot research project with the participation of a graduate, provide good practices that can be further expanded.

Strengths

- ✓ A stable group of highly qualified academic staff with rich academic and professional experience, caring about their continuous improvements in their teaching, which provides a solid basis for further programme development.

- ✓ Excellent organization of staff management and staff development policies who are well accepted by the staff and seem to work effectively and efficiently thus creating a very constructive work environment.
- ✓ Plans to support the enhancement of the staff's research output.

Weaknesses

- ✓ Quality of staff research output can be enhanced by aiming in increasing research publications in high impact factor academic journals.
- ✓ Development of a departmental research agenda will strengthen the programme internationally and create more research synergies for staff and students

2.4. Facilities and learning resources

The University is located at a city centre campus with a variety of buildings and spaces in various configurations which can accommodate a range of approaches to teaching. The auditoriums, lecture rooms and teaching rooms accommodations are suitable for the delivery of a programme of this kind. There are three computer classrooms with 30 workstations in each, though these would also seem to be key resources for other programs. An excellent feature of the building is the provision of workspaces for students, which can accommodate the individual/group work and case work aspects of the programme. About 34 of these spaces are located within the library, and another 54 are located at various common places in the building and provide for group and syndicate work to support the curriculum and the learning approach. 18 of these individual workplaces are computerised. This approach to creating learning 'pods' represents very good practice and an ambitious agenda for learning.

All auditoriums have state of the art technical provision and the campus has a 100% WiFi coverage. The ISM has adopted a 'follow me' principle which facilitates students to print and collect their printed work from any allotted printer on campus. There are excellent provisions for students' e-mail, cloud storage, and a specialised help desk information system supports inquiries and replies between students and staff.

Moodle provides a virtual learning environment which is the main platform for both administration task, reposition of teaching materials, and communication between students and lecturers. Discussions with staff and students confirmed the intensive use of Moodle in the study process. The IT department trains lecturers to video their lectures, but the exploitation of potential uploading videoed lectures on Moodle is still low. The University is evidently totally compliant with international standards in relation to software licensing.

Overall, the physical premises are spacious, comfortable and provide a very pleasant and at the same time effective learning environment to students and staff. ICT services are fully compatible with international standards.

The academic community is supported by excellent well organized library facilities. Its current stock in printed books contains about 5000 titles (most in English) and 18000 copies. Regarding textbooks, a stock of 10% of each cohort for each subject is kept on the Library and can be loaned to students for a semester. The programme budget finances the supply of textbooks. The library also, commendably, sees itself as being a source of science promotion. The Electronic databases of undergraduate, graduate and postgraduate final papers, Electronic

Theses and Dissertations (ETD), and the electronic database of science publications (PBD), are fed with the best academic works and latest research.

In common with all Academic library provision in Lithuania, there is an excellent e-Library resource spanning full-text journals and books, and representing all of the major databases that would be expected in a quality university internationally (about 210118 titles). A special budget of 7000 euros annually is dedicated for expertise books that are ordered by the academic staff. The English language holdings in the physical library and the e-Library are sufficient to support the English language delivery of the Innovation and Technology Management MSc programme.

In addition, the library is instrumental in the provision of information literacy training – which is an initiative under ISM Strategic Direction Programme – and the training of 650 users each year testifies to a real commitment to the resourcing of learning and research.

The existence of a newly added resource, the Entrepreneurship Centre, which incorporates special facilities for promoting innovation initiatives among students, while hosting local innovative business start-ups could add value to the programme by facilitating synergies between businesses and students, diffuse and promote innovation culture among students who may be interested in becoming entrepreneurs.

Staff shares office space but special space exists for private meetings with students.

Strengths

- ✓ Excellent premises for the delivery of the programme, that create a pleasant mood for teachers and students.
- ✓ Fully functional and supportive learning environment. Availability of the electronic services to the academic community of the programme, including access to Library e-books, e-journals, databases from any place.
- ✓ Faculty supported library that directly responds to academic staff and students' needs that can be instrumental in enhancing teaching materials with more international books, journals.

Weaknesses

- ✓ Not enough integration of the role that the Entrepreneurship Centre in the particular programme, due mainly to the fact that the vast majority of students follow an already established career path.

2.5. Study process and students' performance assessment

The admission of students follows the conventions set by the Admission Regulations of the ISM University which are publicly available at the website of ISM. Potential students can also find detailed information on the Programme aims, learning outcomes, career opportunities and detailed course descriptions. The admission process is rather rigorous. Candidates are required to write an essay which is assessed by the admissions commission, take an English language test at B2 level, and undergo an interview. Special attention is given to English language skills since the programme is taught entirely in English. Applicants must hold a university bachelor degree. ISM has introduced specific incentives to attract the “best” students by offering tuition fees scholarships to top 100 entrants each year.

The programme admits students from different fields. Candidates of non-business fields are advised to take additional courses before entering the MSc programme or do self-study work. Interviewed students confirmed that they were advised to do some self-study before the beginning of studies and had no problem to catch up with the content.

The admission process is effective and the criteria are aligned with the overall strategy of the programme to attract high calibre candidates with diverse academic background, and work experience and very good knowledge of English. The management of the programme takes all measures to ensure that selected students are aware of the study requirements and are well prepared for their studies. Academic staff praised the quality of admitted students and consider them as eager to learn.

So far the programme had only 4 student intakes (2013 to 2016) and therefore safe conclusions regarding trends in demand for the programme cannot be drawn. It is evident though, that the programme attracts a sufficient number of applicants every year, with an admission rate close to 90% of the applicants.

The delivery of the courses is scheduled on Friday evenings and Saturdays to facilitate working students. The Expert team received evidence of an outstanding induction process at the beginning of each taught subject. Teachers not only present the structure, content and LOs of the subject but ask students to contextualize LOs to their specific expectations and backgrounds.

Students enjoy a rich learning experience that is based on project work, group or individual assignments, simulation games, role – playing exercises, self-assessment, etc. In addition, the presence of professors from international partner universities and also international students creates an environment that fosters the sharing of a wide breadth of experiences among students. The small size of classes allows plenty of interaction among students and teachers. Certain aspects of the programme like: interaction with colleagues with diverse academic and industry backgrounds and workplace experiences, international teachers, plenty of team work, caring professors were praised by students and alumni. Specific remarks “*does not feel like studying at a Lithuanian University*”, “*the very good teaching and learning environment will certainly be attractive to more international students*”, “*Business representatives’ visits were inspiring & educational*” show their appreciation.

Student progression is very smooth and the number of drop-outs is rather moderate (10-15%). The Programme Management attributes the drop-outs to either academic failure or socioeconomic reasons but no specific analysis of the causes is done, perhaps because it is not significantly high. Nonetheless, the programme and the institution ought to explore the causes and devise remedial policies and actions (e.g. financial support, academic support, admission criteria) when possible.

Students are prepared well for conducting research. An elaborate system of methodological guidelines is in place and presented to students at their first semester of studies, while supplementary support in the form of workshops in addition to personal consultation by their supervisors is also provided. Students must present and defence their thesis topics to the Study commission. Stakeholders are invited to the presentation of thesis topics and also during the defence of theses. The list of master theses of the students who have successfully completed the programme include very interesting topics relevant to the area of their studies. Because of their diverse background, student needs for being prepared for research work vary. The Expert

Team advises the Programme Committee to consider the students' suggestions for extending the timespan of the Research Methodology course (fast pace does allow some students to reflect) and enhance the theoretical side in some courses.

Several initiatives that encourage students to engage in the research activities (e.g. research reported in 2.1) and cases of students continuing their research work beyond the Master's level are acknowledged and it is expected that ISM will continue to encourage student involvement in research, in alignment with their current strategy to become stronger in research.

The students of the programme are benefited from the inward mobility as 32 foreign students under the Erasmus scheme took relevant courses. Student outward mobility is very limited, basically because the majority of students are already holding jobs. Only two students have participated so far in mobility programmes doing a period of study at a partner university under bilateral agreements and one student is enrolled in a double degree programme. The programme management team is concerned as emphatically stated "*Mobility will become a must. Maybe like one weekend visit to Denmark*" and seemed determined to take some action. Development of short-term Intensive Erasmus Programmes (could be in the form of Summer Schools) and participation in existing ones are also alternative ways worthwhile to be considered.

Student academic and administrative support throughout their studies is fully functional and includes proper induction at the beginning of their studies, regular guidance by the Programme manager on administrative issues, and advise and direction by the Programme director on academic matters. International students receive additional counselling and support from the International Relations department.

As evidenced by students and alumni, study regulations and rules are clear and transparent to them. Communication channels with the administration and the lecturers include visits during office hours, as well as communication through e-mails or Moodle. The latter is the main learning and communications platform that contains teaching and learning materials, schedules, regulations, guidelines, and announcements relevant to the programme or other activities that may be interesting to students.

In accordance with the study process, a large part of the student assessment is based on project work and group or individual assignments, as it should be at a master's level, although exams are still in place. The Expert Team would like to point out that the employment of multiple choice question exams, as seen in some cases (e.g. Business Strategy, New Product development – pg. 40, 42 and 54 of SER-Annex 2), should be reconsidered by the academic staff and the programme committee as they typically used to test limited and low-level knowledge. Student assessment for each subject is well defined in each subject descriptor.

The programme employs tools to ensure that the assessment process verifies the achievement of LOs and should be commended for this excellent practice. For example, subject learning objectives are shown to be linked to suitable assessment methods, exams are double monitored by the teaching lecturer and one additional supervisor and all exams and student written work is checked for plagiarism by special software.

Failing students have a right for one re-take. If that one is failed, the student is considered as having an academic debt in a subject and has to repeat the course next year. Students drop-out of studies if they collect 2 debts.

The Expert Team noticed that the level of formal feedback in students' work varies among teacher. A very good practice that is followed by teachers in certain courses is to set a guide with clear and distinct criteria regarding the requirements of student achievement for attaining different level of grades (i.e. pass, merit, distinction). Practices like this should be considered to be adopted as a standard through the programme. That is linked to student feedback regarding assignments and exams that currently varies among teachers.

Special support is provided to students who are facing personal or academic problems in an orderly manner, without harming of the academic integrity of the programme. Individual study plans (e.g. postponing MSc thesis, clearing academic debts before proceeding with other courses, postponing taught courses to next semester, etc.) can be prepared on student requests, according to the provisions of the Individual Study Plan Development Procedure.

Overall the study process very well organized, of high quality and supports the programme aims and objectives. All of the interviewed programme graduates and most of the students are employed in positions relevant to their studies. Both groups stated that the education the programme offers is excellent, and find it extremely relevant to their jobs as it provided necessary knowledge, skills and competencies for advancing in their careers. They praise their studies as: "...fosters innovative thinking, innovative approaches in learning...", "...in addition to studying it functioned as a platform to share experiences...", "...fast conversion to management thinking...", "...proper academic background to continue for Ph.D. studies...". Social partners see students as highly motivated and able to work independently, perfectly fitting middle management level positions.

ISM should be commented for its attention to developing the social / cultural profile of its students. In addition to academic activities, students are offered a wide range of extra curricula events like: Open lectures, seminars, conferences with prominent economists, business people, researchers, etc. Examples include the Nobel Prize winner, honorary professor of ISM Robert Schiller, Clark S. Judge, founder and managing director of the White House Writers Group, Inc., an opinion journalist, who was a speechwriter in the Reagan White House, etc.

All students at ISM University of Management and Economics may become members of the ISM Students' Association. Other opportunities offered by the University to students that enrich their student life include ISM Choir, ISM Politics Club, ISM Young Researchers' Club, ISM Investors' Club, and ISM Debates Club. Students of the particular programme seem well informed about events, extra curricula activities and other happenings, but because of work obligations, their participation is limited.

Although ISM does not have a dormitory of its own, it has an agreement with a nearby local hotel equipped with very modern apartments, study rooms, canteen and wireless internet in the whole building, at favourable prices for ISM students. International students who do not want to stay at the dormitory also receive support from ISM administrative staff on renting premises in Vilnius.

Strengths

- ✓ A rigorous admission process that results in selecting high calibre students for the programme.

- ✓ Well-controlled processes assure the smooth delivery of the programme and the achievement of mutual trust and respect between students and lecturers to the benefit of the programme.
- ✓ High level of interaction among students and professors, diversity within the student community, participation of international professors, visits from industry experts, and a lot of teamwork, create a learning environment that promotes innovative thinking and practices.
- ✓ Strong academic and social support for students

Weaknesses

- ✓ Feedback to students varies among teaching staff.

2.6. Programme management

As the SER states and subsequently established during the visit, programme management arrangements are streamlined and detailed description of policies and operations in relation to quality assurance and quality enhancement exist. The roles of the Rector, the Senate, the Rectorate, the Board and the Programme Committee are all defined and described. The role of the Quality Centre and the support it provides to the programme is also presented. The Head of Corporate Relations is responsible for the strategy of partnerships, while the International Department administrates all matters relating to inward and outward mobility of students and staff.

The Vice-Rector of Studies has the overall responsibility for quality assurance on all programmes of the University and she is also responsible for staff teaching competences and necessary staff development in teaching, while the Heads of Departments are responsible for staff research competences and necessary staff development in research.

At programme level the responsibility for the quality and academic standard of the programme lies primarily with the Programme director. The role of the programme committee, which comprised two academics, a student representative, and at least on industrial partner is mainly advisory.

It was clear during the visit, that the programme has strong leadership. The director of the programme is very energetic and devoted to the programme; real and inspirational leader with strong concerns about its further development; involved and strictly in control of every aspect of its operation. The Programme Committee meets at least once a semester for a periodic review of the programme. A minimum of 2 student representative participate (4 are currently invited). The Programme Committee has the responsibility of reviewing the programme based on feedback from students, teachers, and industrial partners and propose changes to the programme director.

It is commendable that the University has clear predefined criteria for selection of partners and a specific Corporate Relations office that manages the University's partner network. However, the interaction between this office and the Study Programme is not clear. For example, while Teaching staff, Students and Social partners placed strong emphasis on more internationalization and strongly believe that it is achievable, very little has been done in further expanding the partner's network. The Expert Team strongly supports their view as it will

strengthen the position of the programme internationally, without harming the overall quality of the partnerships.

The leadership should also be commended for creating an open, creative and comfortable environment exists within which members of the academic community feel free to express and exchange views and opinions. Formal processes are complemented by open dialogue between students and teaching staff, and between students and management, and again between teaching staff and management, but this tends to occur through informal and ad-hoc channels.

Social partners also feel comfortable to cooperate, consider the university very open to the business world and adopting emerging technologies. Institutional stakeholders like LINPRA are involved in discussing with ISM issues related to science and education. Generally, there was enough evidence of strong ties between Social partners and the University. Social partners trust the quality of students and are keen to employ graduates of the programme, participate in lecturing, provide cases for students, involved in the thesis work both in topic selection and approval as well as in theses defence.

The Expert Team emphasizes the need of a fuller active involvement of the teaching delivery team, students and social partners in major reviews of the programme content and study process along with a formal benchmarking against what the management considers top programmes in this area, internationally.

The management of the programme cares a lot about its continuous development and international recognition. The programme has already received a CEEMAN accreditation, and is currently preparing for AACSB accreditation. It is expected that preparations for these external accreditations will give the opportunity for programme review and benchmarking as mentioned before.

QA processes are currently being revised to conform with AACSB accreditation requirements and also with ESG standards. QA Includes formal processes such as: Teaching competencies / Requirements for teachers / Preparation for semester / Handling student complains / Ethical Committee / Evaluation of teaching and learning, and administrative services by Students and Teachers, / Programme reviews, / Annual enhancement plans, etc.

Because of the small size of the university, QA is also practiced through informal ways such as: Midterm meeting of the programme director with students, Meetings of the director with faculty, direct contact of students with lecturers, Peer reviews, etc. The Expert team received evidence by students and staff and is convinced that both formal and informal practices work towards the improvement of the programme quality. The administration of the programme has a genuine interest in maintaining the high quality of teaching. For example, there is a monitoring process for all international professors during their first teaching semester to ensure cultural and teaching style conformance with Lithuanian culture and programme requirements. The ISM QC, which is responsible for administrating the formal QA processes, is allocated a small budget mainly to support awareness activities within the University.

Strengths

- ✓ Strong programme leadership and involvement in achieving quality results.
- ✓ Programme management is committed to excel at international level
- ✓ A Quality Assurance system is in place, including processes related to quality of the study process, driven by a well-organized and staffed Quality Centre.

- ✓ Alumni and Social partners are very keen to support the programme and contribute to its future development

Weaknesses

- ✓ Lack of a benchmarking process and criteria
- ✓ Unjustified limitation of partners' network.
- ✓ More active engagement of teachers in programme development

2.7. Examples of excellence *

* if there are any to be shared as a good practice

infusion

- A very rich learning environment in terms of teaching and learning activities (e.g. project work, group or individual assignments, simulation games, role – playing exercises, self-assessment, etc.), strong internationalization (e.g. substantial presence of international professors and international students), high level of interaction and sharing experiences with classmates with diverse backgrounds, industry involvement, and workplace experiences.
- An innovative approach is followed to further develop the programme curriculum. Incentives in term of work time are given to professors who undertake the development of new courses, which are initially offered as electives and evaluated later during programme reviews.

III. RECOMMENDATIONS

- 1.** Review programme Learning Outcomes to make them more coherent and reflect more on the distinct characteristics of the programme. Benchmarking of the programme against similar programmes at international level with the active participation of teachers, social partners and alumni should be part of this process.
- 2.** Review and restructure the curriculum electives to align them to the programme aims so that diverse needs of students are better accommodated.
- 3.** Continue on providing incentives for increasing research output (in both quantity and quality). Setting personal research budgets for staff along with predefined criteria, promoting departmental research agenda actions, could help in that direction.
- 4.** Exploit the potential of the programme to further enhance the international dimension of the programme (expand partner's network, attract more international students, seek participation in international research programmes, etc.)

IV. SUMMARY

The programme certainly has some unique features that make it stand out from other similar programmes in Lithuania. It follows an interdisciplinary approach, it fosters a rich learning environment by accepting students of diverse academic backgrounds with work experience, it maintains strong ties with the business world, and high level of internationalization (taught in English, substantial participation of international visiting professors in teaching, dual degree opportunities with universities in Denmark and USA, international students, etc.). The programme's aims respond to the needs in the Lithuanian market for qualified specialists of this kind as shown in relevant rankings where Lithuania is currently ranked very low. This need is also confirmed by the Lithuanian Confederation of Industrialists, Association of Lithuanian Engineering Industry (LINPRA), and other Social partners and employers who stated strongly that the programme is relevant to the market needs and its graduates are competitive in the labour market.

The Expert Team appreciates the strong links of the ITM programme with other programmes of well-known international Universities and the offering of dual degree programmes as part of its internationalization strategy. ISM cares a lot about international recognition of the programme. The programme has already received a CEEMAN accreditation, and is currently preparing for AACSB accreditation. Preparations for these external accreditations will give the opportunity for programme review and benchmarking as mentioned previously. Since, the programme has run for 4 years, and completed three full 1,5 year cycles a formal benchmarking against similar programmes offered by top universities in Europe or abroad, according to specific criteria and rationale should be considered as part of the scheduled review plan for 2017-18.

Programme LOs should reflect more on the distinct characteristics of the programme and be restated more coherently, so that they emphasize in addressing the multifaceted nature of innovation in today's business world (i.e. technology driven, design driven, process driven, people driven, etc.) and the emerging technologies.

The curriculum fits the overall aim of the programme and the achievement of programme LOs. The study subjects follow a smooth progression in terms of building knowledge and competencies: Starting with subjects that introduce the students to core management subjects, students progress to study more specialized aspects of innovation and technology management issues. A plurality of teaching and learning activities targeted to support course LOs are properly chosen in most cases and linked to appropriate assessment methods in each case.

Certain amendments, especially regarding the offering of elective courses will enhance the curriculum and better accommodate the diverse student needs as some of them are more keen on management of innovation, while others in management of technologies.

The University places great importance in selecting faculty. Besides the ISM academics, the roster includes visiting professors from prominent international Universities the presence of whom is highly praised by students and graduates. Teaching of certain subjects is provided by industry professionals while many social partners are invited to deliver specific topics connecting the theoretical part with the realities of the business world.

Overall, this mixture of staff presents a strong advantage for the programme, as it provides a rich blend of academic, business, contextual and cultural / ethnical backgrounds that brings to the programme fresh ideas, strengthens the networking potential and helps to foster the internationalization process. Staff are enthusiastic, devoted, caring about their subjects and responding to student needs.

The research activity over the last years shows that individual members of staff have their own research interest and pursue research activities accordingly. ISM has adopted a new strategy that focuses in enhancing the research profile of the Staff and the University which is compatible. With its vision of “becoming a European boutique university: highly specialized in its learning and research areas”. Several actions that were taken in that direction are evident of the commitment towards this goal that will bring multiple benefits to the programme: increased team coherence, enhanced programme identity, join research consortiums and exploit research funding, opportunities for the students.

The programme is delivered at the site of the ISM located in the centre of Vilnius where excellent premises create a pleasant environment for teachers and students. Overall the learning environment is fully functional and supportive. Electronic services are readily available to the academic community of the programme, including access to Library e-books, e-journals, databases from any place. In addition, a faculty supported library directly responds to academic staff and students’ needs and is instrumental in enhancing teaching materials with more international books, journals, databases, etc.

The admission process and criteria are aligned with the overall strategy of the programme to attract high calibre candidates with diverse academic background, and work experience. Students enjoy a rich learning experience that is based on project work, group or individual assignments, simulation games, role – playing exercises, self-assessment, etc. The presence of professors from international partner universities and also international students creates an environment that fosters the sharing of a wide breadth of experiences among students. The small size of classes allows plenty of interaction and sharing of experiences among students and teachers.

The programme has strong leadership. The director of the programme is very energetic and devoted to the programme; real and inspirational leader with strong concerns about its further development; involved and strictly in control of every aspect of its operation.

Formal quality assurance processes are complemented by informal meetings and open dialogue between students and teaching staff, and between students and management, and again between teaching staff and management, but this tends to occur through informal and ad-hoc channels. Any proposed improvements are approved by the University Study Committee.

Social partners feel comfortable to cooperate, consider the university very open to the business world and adopting emerging technologies. Institutional stakeholders are involved in discussing with ISM issues related to science and education.

Finally, as persuasively stated by students, alumni and social partners, the programme has not yet fully exploited its potential to further strengthen its international character and more are expected in that direction.

V. GENERAL ASSESSMENT

The study programme *Innovation and technology management* (state code – 621N26002) at ISM university of Management and Economics is given **positive** evaluation.

Study programme assessment in points by evaluation areas.

No.	Evaluation Area	Evaluation of an area in points*
1.	Programme aims and learning outcomes	3
2.	Curriculum design	3
3.	Teaching staff	3
4.	Facilities and learning resources	4
5.	Study process and students' performance assessment	4
6.	Programme management	3
	Total:	20

*1 (unsatisfactory) - there are essential shortcomings that must be eliminated;

2 (satisfactory) - meets the established minimum requirements, needs improvement;

3 (good) - the field develops systematically, has distinctive features;

4 (very good) - the field is exceptionally good.

Grupės vadovas:
Team leader:

Prof. Dr. Csaba Forgacs (team leader)

Grupės nariai:
Team members:

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