



Research  
Council of  
Lithuania




**Assessment Report of  
Comparative Expert  
Assessment of Research  
and Development Activities  
Carried out by Universities  
and Research Institutes for  
the Group of Units of  
Assessment VV\_GR\_S\_2**

Vilnius 2023



2014-2020 Operational  
Programme for the  
European Union Funds  
Investments in Lithuania

Financed by European Social Fund and Lithuanian State Budget



**Assessment Report of  
the Group of Units of Assessment  
VV\_GR\_S\_2**

Approved by Order of the Chair of the Research Council of Lithuania No V-551 of 13 October 2023.

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## Terms & Abbreviations

**CEA** – Comparative Expert Assessment of research and development activities carried out by Lithuanian universities and research institutes

**FTE** – Full-Time Equivalent

**Institutions** – Lithuanian universities and research institutes

**RCL** – Research Council of Lithuania

**R&D** – Research and Development

**UoA; Unit(s)** – Unit(s) of Assessment

**FTE<sup>1</sup>** – the number of working hours worked during the year by a certain group of employees divided by a number of working hours in the 12 months of that year, as set by the Minister of Social Security and Labour (with a 5-working-day week). <.> The FTE unit – a person per year.

**FTE(SD)<sup>1</sup>** – the sum of the FTE of teaching staff members with a science degree divided by 3, and the FTE of research workers and other researchers with a scientific degree.

### Research area:

**S** – Social Sciences

### Universities:

**ISM** – University of Management and Economics

**KSU** – Kazimieras Simonavičius University

**KU** – Klaipėda University

**KTU** – Kaunas University of Technology

**MRU** – Mykolas Romeris University

**Vilnius Tech** – Vilnius Gediminas Technical University

**VDU** – Vytautas Magnus University

**VU** – Vilnius University

### Research Institutes:

**LEI** – Lithuanian Energy Institute

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<sup>1</sup> Description of the Comparative Expert Assessment of Research and Development Activities by Universities and Research Institutes approved by Order No V-1593 of the Minister of Education, Science and Sport of 2 September 2021

# 1. INTRODUCTION

## 1.1. Purpose, Scope, Goals of the Comparative Expert Assessment

The Comparative Expert Assessment of research and development activities carried out by universities and research institutes of Lithuania (hereinafter – CEA) was carried out in 2023 by Research Council of Lithuania (hereinafter – RCL) in accordance with the *Description of the Comparative Expert Assessment of Research and Development Activities by Universities and Research Institutes* approved by Order No V-1593 of the Minister of Education, Science and Sport of 2 September 2021 (hereinafter – the Description), the *Regulation on Procedures for the Comparative Expert Evaluation of Research and Development Activities Carried out by Universities and Research Institutes* approved by Order No V-486 of the Chair of the RCL of 8 August 2022 (hereinafter – the Regulation), and other related legislation.

The purpose of CEA is to provide a picture of research and development (hereinafter – R&D) performance, socio-economic impact, and the development potential of Lithuanian universities and research institutes (hereinafter – Institutions) based on their R&D activities during the period of 2018–2022.

The scope of CEA encompasses both state and non-state Institutions operating in Lithuania. All state universities (in total eleven) and all state research institutes (in total eleven as well), four non-state universities and two non-state research institutes were participating in the CEA in 2023. The Institutions or parts thereof were assessed as the units of assessment (hereinafter – UoA or Units). The CEA facilitates the comparison of R&D performance of the UoA against international standards and within the national context. It provides valuable evidence to R&D policymakers at different levels, as well as offers the Institutions involved in the assessment a significant incentive to enhance their performance.

Since 2018, the CEA has been an integral part of assessment of R&D activities of Lithuanian institutions. The annual assessment of R&D activities carried out by the Institutions together with CEA conducted every five years constitutes the Lithuanian assessment system of R&D activities. The results of the two-step assessment are used to allocate state funding for R&D activities for Institutions. The results of the CEA implemented in 2023 will determine 70% of state budget funding for R&D activities of Institutions for the subsequent five years.

The assessment results will also determine the continuity of doctoral studies as well as the new rights to carry out doctoral studies at Institutions in accordance with the *Regulations on Doctoral Studies* approved by Decision No. V-739 of the Minister of Education, Science and Sport of 18 May 2020. Moreover, the findings from the CEA might serve as a trusted source of evidence on R&D performance of the Institutions for assessments concerning other funding instruments or higher education studies.

## 1.2. Comparative Expert Assessment Organization and Assessment Criteria

The CEA relies on international peer review panels to evaluate Lithuanian Institutions' R&D activities. Using panels rather than individual peers creates a possibility for discussion and debate within the peer group and enabling comparison within the group.

The assessment is carried out on the UoA level, which is the organisationally defined structure – ranging from a whole Institution to a division of an Institution corresponding to the faculty or other formal structures of the Institution. In accordance with the Description the rules for the formation of the UoA are as follows:

- the UoA should be interrelated by common R&D activities and might operate in one or two research areas;
- the minimum size of the UoA should be no less than 5 full-time researchers with scientific degree (FTE(SD)) and the maximum size of UoA should not exceed 75 FTE(SD).

The exceptions could be made for better reflection of R&D activities in the Institution. If an Institution had a UoA with a higher number of FTE(SD) or/and UoA operated in three research areas, it should have submitted arguments and obtained RCL approval for participating with not typical composition.

Following the instructions, Institutions have formed eighty-five UoA. All these UoA were split into thirteen groups resulting from four to nine UoA per Panel. The interval of the UoA size ranged from slightly above 5 FTE(SD) to UoA of more than 150 FTE(SD). The number of research areas and research fields one UoA was operating in also varied, i. e., while most UoA operated in one or two research fields, there were outliers where Units were involved in up to five research fields. The variations in size, composition, and research areas among the UoA within each group posed challenges for comparison and required careful consideration by the Expert Panel.

The assessment of the Units is based on three criteria:

- The quality of R&D activities (weight 0.65) of UoA in the research field(s) (group of research fields);
- The economic and social impact of R&D activities (weight 0.2) of UoA;
- The development potential of R&D activities (weight 0.15) of UoA.

The quality of R&D activities is assessed either in each research field or the group of research fields within the research area while economic and social impact as well as development potential are assessed on the UoA level. Each assessment criterion is scored on a five-point scale, namely, ranging from excellent [5] to poor [1] or no R&D [0]. The description of the values of the scores for each criterion are provided in the Description. Half point scores were allowed, and that provided a possibility for more nuanced assessment when necessary.

The quality of R&D activities of the Unit is assessed following these rules: if UoA has at least 10 FTE(SD) in the research field or has between 2 and 10 FTE(SD) and has the right to provide doctoral studies (or intends to seek such right in the next 5 years) in the research field, then the research quality is assessed in the research field; if UoA does not meet these criteria, then the research quality is assessed in the group of research fields within the research area. In the latter case, the assessment considers the collective quality across the research fields within the group.

The assessment was based on the material provided by the UoA to the RCL information system “Vieversys” and covered the period 2018–2022, as well as summarized results of the annual assessment of R&D activities of Institutions (for 2018–2021) provided by RCL, alongside the information obtained during the visits of the Panels to the Institutions and meetings with the representatives of the UoA. Following the Description and the *Procedure for the Submission of Data on Results of Research and Development Activities Carried out by Universities and Research Institutes for the Comparative Expert Assessment* approved by Order No V-1593 of the Minister of Education, Science and Sport of 2 September 2021 (hereinafter – the Procedure for Submission of Data) relevant data was examined when assessing the UoA against each of the CEA criteria. In most cases the number of provided outputs for the assessment depended on the size of the UoA varying from a minimum of five to maximum of eighty-two outputs.

It should be noted that since the previous round of CEA in 2018, several organisational improvements of assessment have been made, therefore caution should be exercised when comparing the results of these two assessments. Some of them are worth mentioning:

- 85 UoA were formed and grouped into 13 Expert Panels in 2023, while the first CEA resulted in 117 UoA formed and grouped into 6 Expert Panels. The cause is mainly due to the change of rules for setting up a UoA. During the 2018 CEA, forming a UoA was allowed in only one respective research area, i. e., if the UoA operated in two research areas, it had to be split into two Units for the assessment purposes. In 2023 this restriction was eliminated, and Unit could easily operate in two (and in some cases in three) research areas. As well UoA formation was influenced by changing landscape of Institutions during the assessment period as mergers of several institutions took place: Aleksandras Stulginskis University and the Lithuanian University of Educational Sciences merged with Vytautas Magnus University since 1<sup>st</sup> January 2019; Šiauliai University was merged with Vilnius University, as well as the Institute of Law, the Lithuanian Institute of Agrarian Economics and the Lithuanian Social Research Center were merged into Lithuanian Centre for Social Sciences since 1<sup>st</sup> January 2021.
- The CEA scoring system has also undergone some changes. While five-point scales were used in both assessments, in 2023 half points were allowed, while in 2018 only whole numbers were used.
- There were some changes in the requirements for documentary input. In 2023 one list of Unit's R&D outputs for a five-year period was required while in 2018 a list of R&D outputs for each assessment year (from 2013 to 2017) and an additional list for the entire assessment period were required, resulting in a large volume of data.

### 1.3. Expert Panel for the VV\_GR\_S\_2 Group of Units of Assessment

Expert Panel for the VV\_GR\_S\_2 group had to assess eight UoA of eight Institutions:

- **Mykolas Romeris University** – 1 UoA:  
*Faculty of Public Governance and Business (abbr. MRU\_VVVF);*
- **Lithuanian Energy Institute** – 1 UoA:  
*Energy Economy (abbr. LEI\_EE);*
- **ISM University of Management and Economics** – 1 UoA:  
*ISM University of Management and Economics (abbr. ISM\_ISM);*
- **Kaunas University of Technology** – 1 UoA:  
*Economics and Management (abbr. KTU\_Ekon-vadyb);*
- **Vilnius Gediminas Technical University** – 1 UoA:  
*Management, economics and communication (abbr. VilniusTech\_MEC);*
- **Kazimieras Simonavičius University** – 1 UoA:  
*Kazimieras Simonavičius University (abbr. KSU);*
- **Vilnius University** – 1 UoA:  
*Economics and Business management (abbr. VU\_EV);*
- **Vytautas Magnus University** – 1 UoA:  
*VMU Economics and Management (abbr. VDU\_EV).*

The Units were operating in the Management, Economics, Law, Communication and Information research fields, and considering these research fields RCL has appointed the Expert Panel members with the main responsibility to assess UoA against three criteria and provide recommendations for UoA future development. The Panel consisted of thirteen members affiliated with institutions abroad:

- Soumodip Sarkar (*Panel Chair*), University of Évora, Portugal
- Jakub Fischer, Prague University of Economics and Business, Czech Republic

- Erik de Gier, Radbound University, Netherlands
- Thomas Hartman, Stockholm University, Sweden
- Leif Kalev, Tallinn University, Estonia
- Łukasz Konopielko, Łazarzski University, Poland
- Tamás Lattmann, University of New York in Prague, Czech Republic
- Maria Paz Espinosa, University of the Basque Country, Spain
- Raluca Petre, Ovidius University of Constanta, Romania
- José Ignacio Antón Pérez, University of Salamanca, Spain
- Joaquín Sarrión Esteve, National University of Distance Education, Spain
- Anna Tatarczak, Maria Curie Skłodowska University, Poland
- Alesia Ann Zuccala, University of Copenhagen, Denmark.

#### 1.4. Assessment Organization for the VV\_GR\_S\_2 Group of Units of Assessment

Timeline of the assessment organization for the VV\_GR\_S\_2 Group of UoA:

**Submission of data.** Institutions participating in the VV\_GR\_S\_2 Group submitted data on R&D activities of their UoA to the information system “Vieversys” by the 21<sup>st</sup> of February 2023 following the Procedure for Submission of Data.

**Individual assessment.** Prior to the visit to Lithuania, the data of each UoA submitted for the assessment was individually evaluated by at least three experts from the Panel. The number of experts assigned to assess each UoA would increase based on the number of research fields within the UoA. The individual assessment of the Units within the VV\_GR\_S\_2 Group was conducted till the 20th of March 2023.

**Visit to Lithuania.** The Panel members for the VV\_GR\_S\_2 Group visited Lithuania from the 25th to the 30th of March 2023. The main objectives of the visit included discussing the results of the individual assessment within the Expert Panel, ensuring a uniform and consistent application of the assessment criteria among the Panel members; visiting and familiarizing with the academic and administrative staff, PhD students, and research infrastructure of the UoA (at least three experts from the Panel had to visit one UoA); and collectively agreeing on all scores for the Units within the group in the joint session.

**Final report.** After the visit to Lithuania, the preparation of the Panel report took place. The coordination of the preparation was done by the Panel chair. Before the submission of the Panel’s report, the institutions were given an opportunity to provide comments on the factual errors if any observed in the written justification of the scores for UoA. Taking into consideration the comments, the Panel's report has been adjusted where necessary. In addition, the Panel prepared a reply to the commenting authorities. The report was submitted to the RCL with the agreement of all Panel members.

**Appeals.** Upon receiving the final results on each Unit, the Institutions had the right to submit a substantiated appeal to the RCL if they believed there were factual errors in the justification of the UoA assessment and/or if they suspected a breach of the assessment procedures that may have affected the assessment outcome.

RCL has established an external Board of Appeal, comprised of seven members selected from the candidates nominated by the Lithuanian Research Academy, the Conference of Rectors of Lithuanian Universities, the Conference of Directors of the Lithuanian National Research Institutes, and the Ministry of Education, Science, and Sports. The Board of Appeal was responsible for determining whether the appeals adhered to the specified provisions and in case of favourable decision to examine the appeal thoroughly.



The Panel VV\_GR\_S\_2 has received three appeals. The Board of Appeal dismissed the appeals due to non-compliance with the established appeal provisions.

**Approval of the report.** The final report of the VV\_GR\_S\_2 group is approved by the Order of the Chair of the RCL in accordance with the Regulation.

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## 2. ASSESSMENT REPORTS

### 2.1. MRU\_VVVF Unit of Assessment

Name of the institution	<b>Mykolas Romeris University</b>
Official abbreviation of the name of the institution	<b>MRU</b>
Name of the Institution's unit of assessment (hereinafter – UoA)	<b>Faculty of Public Governance and Business</b>
Abbreviation of the UoA name	<b>MRU_VVVF</b>
The scope of the UoA (FTE(SD))	<b>33,74</b>
Research area(s)	<b>S 000 - Social sciences</b>

### Quality of the R&D activities by research fields (groups of research fields) of the UoA

#### Social sciences

Research field	Scope (FTE(SD))	Score (points)
<b>S 003 – Management</b>	<b>17,30</b>	<b>3</b>

#### Reasoned justification of the score

Overall, the research performance of the Management section, the largest one of the three sections in the UoA, is good with limited international recognition. The research staff consists of 18 researchers (5,81 FTE) and 45 members of teaching staff (34,47 FTE).

In general, the research themes meet the strategic objectives of the ambitious strategic mission of MRU (being the largest specialised Social Science university in Lithuania) with respect to sustainability, social innovation, and life quality. As was argued during the site visit, the UoA as a whole entity aims on qualitative growth instead of quantitative growth. This implies principally growth of high-ranked publications in WoS and Scopus, preferably in the 1st and 2nd quartiles (as indicators of research quality). In the past period there has been according to the UoA an increase of about 30% of these publications if compared to the former assessment period.

The number of PhD-dissertations defended (full-time and part-time) between 2018-2022 was 23. The PhD-candidates were for the majority Lithuanian nationals and 2 from abroad. With a few exceptions dissertations were written in Lithuanian, albeit with substantive English summaries.

On average, the Management section had about 30 PhD- students annually. The number of international PhD- students was low. The Management research division participates in a joint PhD-students program with three other universities (VDU with KU, MRU, VU).

The most important research output of the Management section in the period 2018-2022 concerned themes as: the Lithuanian sports system, home working, decision making in waste management, transnational environmental standards, and flexible work. Though it fits generally well in the MRU's research strategy,

overall, the choice of themes remains somewhat eclectic. The majority of the given research output has been published in English and was co-authored with colleagues from other universities. Three out of nine of these publications were published in ranked scientific journals with citations in WoS and/or Scopus, but none in the more prestigious AJG Outlets, such as: Problems and Perspectives in Management; Energies; International Journal of Sustainable Development and World Ecology; Entrepreneurship and Sustainability; European Journal of Sustainable Development; Journal of Teacher Education. Two of the nine publications mentioned were book-chapters. Publications in international top journals in the field of management are missing.

The research of the management division was presented at conferences abroad in Indonesia, UK, Portugal, Serbia, Spain and Jordan. Top-field conferences were not attended.

The Management section received four awards in the assessment period. Three came from national institutions. The fourth concerned a recognition of one of the professors by Clarivate Analytics (WoS) as a scientist cited among top 1% of its peers in the cross-field year 2020.

Management scientific staff participated successfully in a number of competition-based (EU) R&D projects: Cost, Interreg, Erasmus, acquiring on the whole more than EUR 1 mil. However, this has to be put into perspective. Given the relatively large size of the Management section, this figure appears less impressive.

The group of researchers of the UoA is positive about the working conditions and the supportive structure of MRU with respect to, for example, the provision of relevant information and language and translation correction. The atmosphere is experienced by the academic staff as open and not bureaucratic. Successful performance of research output is honoured occasionally by MRU with extra research facilities.

Research field	Scope (FTE(SD))	Score (points)
<b>S 004 - Economics</b>	<b>12,67</b>	<b>3</b>

Reasoned justification of the score

The Economics group's R&D activities is strong with limited international recognition from 2018 to 2022. It is formed by 13 researchers (7 FTE) and 25 teaching staff (17.28 FTE). In general, the research themes meet the strategic objectives of the ambitious mission of MRU with respect to sustainability, social innovation and life quality and is empirically focused on the Lithuanian environment. Most publications are co-authored and in English.

The quality of the publication outlets is relatively modest and does not include international top journals. Instead, the targeted outlets, such as Sustainability, are medium-ranked journals, not in the centre of Economics. Only a handful of the published articles are in AJG (Academic Journal Guide, Chartered Association of Business Schools) ranked journals, typically AJG 1 or 2.

Keeping in mind the size of the group, a relatively high number of PhD theses have been defended during the period. The Unit enrolled a sufficient number of PhD candidates but the number of admitted PhD candidates is declining and include very few international students. Few defended theses were written in English and all of them were monographs. This is at odds with the common practice in the best European departments (a compilation of three potentially publishable papers in English).

The group contributes to international conferences, however mainly in less recognized conference events in the field. The group demonstrated a good ability to attract international EU funds through its participation in

a relevant number of research programmes, but without assuming a leading role. Recognition in form of awards is limited.

The Economics group is on a good trajectory and in order to secure a positive development it is advised to re-calibrate and focus its publication strategy to include more AJG ranked journal publications. Participation in conferences is a positive feature and should explicitly serve to support the publication strategy. Regarding the PhD programme the group should increase its support for compilation theses in English.

Group of research fields within the research area	Scope (FTE(SD))	Score (points)
<b>S 002 - Political Science</b>	<b>3,77</b>	<b>3</b>

#### Reasoned justification of the score

The MRU Political Science section of the Unit numbers 14 persons with 3,77 calculated FTE (SD) that makes it a relatively small unit among Lithuanian political science institutions and also as compared to the larger units that were assessed. It is supported by 4 other employees and PhD candidates (3,28 FTE).

There are several international monographs and articles, e.g., published with Springer, Palgrave and Bloomsbury. The research output is rather heterogeneous in terms of topics. The conference presentations are in diverse venues and at least the highlighted ones include no presentations in European Consortium for Political Science, International Political Science Association, International Public Policy Association or other disciplinary fora (see also below). There is also international project funding, societal impact-oriented activity and networking, also in a rather diverse range of topics. Given the smallness of the Unit this is broadly understandable and these are relatively good results.

Based on the research outputs the unit seems to be well embedded in the wider interdisciplinary co-operation within the faculty and university. At the same time this creates a need to pay attention to the integrity of and strategy for the research field of political science. An additional aspect is that there is no PhD program in Political Science that limits academic development opportunities but at least based on the site visit discussion there is an idea to develop PhD program in Political Science. In case the PhD networking between several Lithuanian universities allows MRU to develop PhD studies in Political Science this would be a good way forward for further development.

Based on the site visit there seems to be a positive atmosphere that expectedly contributes to academic development. There seems to be space to improve international networking in Political Science, especially participation in the larger disciplinary associations' conferences (for example ECPR, IPSA, IPPA, EGPA, IIAS, ISA, EISA and other associations) should be considered. There also seems to be some further space to develop societal impact-oriented activities in Political Science.

There is an overall institutional development strategy and the framework for recruitment, supporting young researchers and other personnel issues. It would be useful to also develop a strategy for the development of Political Science as a field. While interlinkages with the other, larger research fields are no doubt useful, it would also be good to have a better understandable political science profile and understanding of its specific contribution(s) to the interdisciplinary co-operation.

Overall, the political science research unit is strong with limited international recognition, and the R&D carried out is of high level and nationally recognised.

## Economic and social impact of R&D activities of the UoA

Score (points)

3,5

Reasoned justification of the score

Overall, the economic and social impact of the R&D activities of the UoA is good/strong outside the academic community at the national, regional and the EU-level. Staff-members from the assessed fields participate(d) in several international networks, such as Spark Legal Network, European Observatory of Sport and Employment, Observatory of Local Autonomy, International Association on Public and Non-profit Marketing, European Institute for Gender Quality, European Accounting Association, UNITWI, Ludwig von Mises Institute Europe and the Eurasia Business and Economics Society. This is in line with the strategic goals of MRU.

The members of the UoA participated also in a high number of R&D-projects, working groups, commissions and consultancy with respect to various state and non-state entities. This is supported by the presence of various research labs at the research division level.

Some examples of the research output concern youth policy, gender pay and the pension gap (development of a practical guide for employers), the income gap between men and women in Lithuania (monography), the development of a patient inclusion instrument to improve the quality of health services, the Vilnius teacher survey, intelligent furniture solutions, planning measures for the national cyber security strategy, factors influencing consumer choices.

Examples of consultancy-activities of the UoA are: analysis of use policy implementation in behalf of the Ministry of Social Security and Labour, Jonava district municipality charter, preparation of national program of auditor's qualification, Swedbank process management training, a training program for managers of social institutions, etc.

Members of the UoA are involved in a number of editorial boards of scientific journals, partly in journals in which their academic output was published, such as: MRU's own scientific journal Public Policy and Administration, Journal of Teacher Education for Sustainability, Torun Social Science Review, Economics and Sociology, CROMA, EJIS, Journal of the Knowledge Economy and Intellectual Economics.

There is international R&D-funding of the UoA.

In the assessment period members of the UoA organized a number of conferences and seminars both to the interests of the academic and non-academic world. Some of these were on international level. Examples are: Geography Sustainability workshop 2020 in collaboration with a Chinese University; ethical, societal and legal questions in cyber security research; WOE'20 international conference; social innovations; national investment in sport conference, roundtable on the relationships between politics and religion; Poland and Lithuania: history, politics and culture; annual conference on public governance change, in collaboration with the Lithuanian parliament.

The performance with respect to science popularization activities is positive and relevant. In this respect also online portals are included regularly.

The R&D-infrastructure of the UoA is good and embedded in the strategic R&D-goals and policies of RMU. The R&D- infrastructure is extensively described in the data provided for the assessment and concerns among other things computer facilities, software, library, collaboration agreements with national and European entities.

Overall, the UoA carries out important research which has impact, and is an important partner in R&D outside the academic community.

## The development potential of R&D activities of the UoA

Score (points)

3

Reasoned justification of the score

MRU, a state University, has two campuses in Vilnius and Kaunas respectively. Overall, the R&D potential of the UoA is good. The faculty is embedded firmly in the strategic goals of MRU, formulated in the two successive last strategic plans 2016-2021 and 2021-2023. The strategic MRU goals are coupled, moreover, to the UN Global Sustainable Agenda Strategy until 2030. The university had some 6000 candidates in 2022. Based on this MRU strategic goal, the UoA's ambition is to be a leader in social sciences as well as to be an international university.

The IT- and computer facilities, including advanced software programs, are up to date.

The gender equality of the UoA is almost in balance: 90 male and 86 female. The age distribution of the scientific staff is on average sound, although there is some overrepresentation of elder staff and at the same time some underrepresentation of staff-members under the age of 30-35.

The Unit is well integrated into the international scientific community and offers a crucial service to the national and international academic community. In 2020, MRU and its academic units entered into 36 new cooperation agreements with national and international social partners in various fields of study, 29 agreements in 2021 and 50 agreements in 2022. European Horizon projects (including the ongoing Horizon2020 program) have been successfully implemented.

Therefore, the development potential is demonstrated by the increasing number of international projects that the Unit received in the last 5 years and the corresponding increase in funds. The University cooperates with various organizations, centres and embassies to enrich the library with donated books. There are some mechanisms of rewards and flexibility devices (e.g., research bonuses, possibility of reduced teaching load to apply for projects), which are good signals.

The conditions for PhD candidates seem quite decent and the University seems very supportive to them, with relevant good practices (seminars, possibility of spending some time abroad, increasing emphasis on adopting a more modern approach to PhD theses based on research articles, etc.).

Some of the weaknesses mentioned in the SWOT cannot or only partly be influenced directly by the UoA. Overall, the UoA shows promise for achieving good ratings, with its human resources, strategy, and organization poised to maintain favourable conditions over the next 5 years.

## Recommendations for continuity and/or improvement of the activities of the UoA

1. It would be useful to also develop a strategy for the development of Political Science as a field. Currently, the aim of establishing a PhD program is marked, that would be clearly useful for the academic development of the field. The co-operative PhD network seems to be of use.
2. The members of the Unit have demonstrated a remarkable ability to attract research funds due to mainly research contracts with both European and national authorities. This should remain an important path for the next five years. Also, with respect to a possible further increase of funding.
3. It should be mentioned that the issues (cyber-)security and sustainability, which currently rank high in the political agenda in the Europe Union, could well offer some new opportunities for the expansion of the UoA, also into the direction of further cooperation with business and industry. It is possible that the financial and non-financial incentives already in place can help to reach these aims.
4. The recognition-awards-strategy as regards researchers needs some reconsideration and further elaboration. Up to now researchers are mainly given individual bonuses after successfully publishing their research findings in high- impact scientific journals and/or refereed books. Usually this happens in the form of a limited amount of money for the researcher in question, extra time for research and in exceptional cases in the form of creating a new lab or elaborating existing labs. In principle this is a good strategy. However, a more comprehensive and encompassing remuneration strategy should include also some differentiation in the bonuses depending on, for example, the ranking of the journals in question, collaboration with foreign researchers as well as additional attention for team- remuneration. Also, the possibility of sabbatical leaves, preferably abroad, needs serious attention.
5. Participation in international conferences needs to be more explicitly coupled with the publication strategy.
6. PhD- candidates should be stimulated to publish their theses in English, all or not based on published or not-yet published papers. This facilitates in a number of cases desirable co-supervision from abroad. Also, the number of full-time PhD- candidates as well as the number of foreign PhD-students should increase.
7. The perceived weaknesses and threats of the UoA's SWOT-analysis need serious attention and need to be solved, if possible, in the near future.



## 2.2. LEI\_EE Unit of Assessment

Name of the institution	<b>Lithuanian Energy Institute</b>
Official abbreviation of the name of the institution	<b>LEI</b>
Name of the Institution's unit of assessment (hereinafter – UoA)	<b>Energy Economy</b>
Abbreviation of the UoA name	<b>LEI_EE</b>
The scope of the UoA (FTE(SD))	<b>12,37</b>
Research area(s)	<b>S 000 - Social sciences</b>

### Quality of the R&D activities by research fields (groups of research fields) of the UoA

#### Social sciences

Research field	Scope (FTE(SD))	Score (points)
<b>S 004 - Economics</b>	<b>12,37</b>	<b>3,5</b>

#### Reasoned justification of the score

This UoA consists of a single division (the Economics field) of a small size. Based on the information provided by the Unit, it includes 11 researchers, which amount to 12.37 FTE researchers with a scientific degree. Because of its mandate and its historical trajectory, the LEI is very specialised in energy issues.

The UoA's publication record reflects the institution's commitment to research. Five publications indicated in the report, were in journals belonging to the Q1 of the CA WoS (four in journals placed at the top 10% within their categories) and the remaining one, to the Q2. Those journal articles were mostly in top field journals related to energy or sustainability (e.g., Applied Energy, Energy or Sustainable Development), but not in top general interest Economics journals (such as the American Economic Review, or the Journal of European Economic Association) or top field Economics journals (Energy Economics, Journal of Environmental Economics and Management, Resource and Energy Economics or Review of Environmental Economics and Policy). The system of financial rewards heavily based on the impact factors used by the LEI and the regulations of H2020 projects concerning open access seem to partially explain this strategy.

The performance of the LEI in terms of active participation in conferences was very good. The events attended by the researchers at LEI consisted mostly in top events in Energy Economics (e.g., several international conferences organised by the International Association of Energy Economics), but not conferences of general interest (e.g., annual meetings of European or the American Economic Association).

The Unit excelled concerning the participation of its members in high-quality international projects (the six contributions were six large European projects, such as several ones funded by the H2020 programme — one of which the LEI coordinated, and the Unit participated in even more projects, which could not be included in the submission).

Members of the UoA received six national prizes or awards for their research or consultancy work.



According to the summary of the annual assessment of R&D activities in universities and research institutes for 2018-2021 the UoA was able to attract more than EUR 340 thous. through international R&D programmes. This is a remarkable achievement considering the size of the Unit (as it amounts to EUR 22,4 thous. by full-time researcher with a scientific degree).

The UoA ran a PhD programme that seems to provide a healthy research environment for young scholars. The PhD programme grew in size over time, with a number of candidates (which increased from five to nine) and defended dissertations (three, suggesting that the LEI rightly prioritised quality over quantity) in line with the modest dimension of the institute. The programme did not include any foreign doctoral students, all dissertations consisted in monographs and only one dissertation was written in English language. The national regulations on the format of PhD dissertations, requesting that a thesis consisting of a compendium of papers is based on four articles already published, or accepted for publication (with a digital object identifier (DOI) or other justification for acceptance for publication), had a clear influence in this respect.

Overall, the performance of the UoA during the assessment period was between good and very good.

## Economic and social impact of R&D activities of the UoA

Score (points)

4

Reasoned justification of the score

The performance of the UoA in terms of its economic and social impact of the R&D activities was very good. The LEI performed very well in most of issues assessed in this dimension.

The interaction of different members of the Unit with both national and international policy makers and even the private sector was intense, including both R&D projects and contracts. Such activity often resulted in the development of applied tools and empirical knowledge that could arguably improve energy policies. Remarkably, the Unit participated in a number of research actions which resulted in a valuable transfer of knowledge to the Lithuanian society. For instance, the institution developed in-house models currently used by authorities in the organisation of the electricity sector, played an essential role in a study considering the expansion of a power plant or addressed topics related to energy poverty. As a consequence of this work, the LEI enjoyed a high recognition by national authorities and even international governments (e.g., consultations to the governments of Rwanda, China or Taiwan).

Although they were not top field events, the LEI hosted several national and international conferences. It is possible that the size of the LEI could limit their ability to organise larger events (e.g., an international conference of one of most relevant associations in the field).

The institution had no presence in international boards of scientific journals, but it is noteworthy that a member of the institution was one of the vice-presidents of the International Association for Energy Economics and some researchers of the Unit played a relevant role in the design of energy policy, mainly, but not exclusively, at the national level.

The engagement in different scientific popularisation activities was not so intense, although that aspect was probably quite conditioned by the COVID-19 pandemic. The reported activities included several appearances in the media (radio programmes, interviews, popular articles and a seminar) addressing topics which were relevant for the society (district heating or energy poverty indicators).

Coherently with the relevance and recognition of the Unit in the field, the LEI was able to sign several cooperation agreements and memorandums of understanding with several parties that comprised the largest Lithuanian industry entity, other universities in the country and international institutions in Canada, Poland, Latvia or Romania. According to the summary of the annual assessment of R&D activities in universities and research institutes for 2018-2021 the amount from R&D orders from economic entities is roughly EUR 100 thous. (EUR 7 thous. by full-time researcher with a scientific degree), which is relatively low and is partly due to the modest size of the Unit.

Overall, the economic and social impact of R&D activities of the LEI was very good. The R&D activities of the institution made the LEI a very important actor beyond the academic community, with close ties with business, decision-makers and society.

## The development potential of R&D activities of the UoA

Score (points)

4

Reasoned justification of the score

Based on the indicators of this dimension, the prospects of the Unit for the coming years are very promising, indicating that the UoA ensures conditions for very good ratings in the next five years.

The physical infrastructure represents right now the main weak point of the LEI, even if it is not so essential in Social Sciences as it is in other areas. It is not very modern, but critical reforms are ongoing (as shown during the visit). The UoA has developed a set of in-house modelling tools that are increasingly relevant in the current energy crisis, which reinforces the importance of the LEI in the national and international context. Its work on district heating is also pioneering, resulting in consultations to foreign authorities.

Regarding the human resources of the UoA, most of the members of the LEI are between 35 and 54 years old and the proportion of women is about 50%. The internal system of quality assessment and the process of selection of researchers is based on research merits. Promotion depends on research output (not seniority) and its rules are known ex-ante and widely recognised as appropriate by the staff. Yet, its incentive system heavily relies on the impact factors of journals, which is not the best indicator, particularly when the LEI researchers can publish in different fields. The PhD candidates enjoy large intellectual and financial support, and the system seems to have enough flexibility to accommodate eventual needs (e.g., purchasing software if needed). The staff at the LEI showed a high level of commitment to the institution and were highly satisfied with their working conditions and research environment. To mention something where improvement is possible, they believed that the institution could improve its communication strategy so that the Lithuanian society (beyond the research community) better perceives the relevant role of the institution. The institution does not expect to attract foreign researchers. Even if competition appears to be open to international scholars, the UoA clearly relies on the highly specialised expertise of their PhD candidates and even actively try to retain them to avoid a brain drain, which can raise some reservations.

Additionally, the analysis of strengths, weaknesses, opportunities, and threats included in the self-assessment report is ambitious but realistic. For example, the UoA outlines plausible scenarios for improving its R&D activity and output, taking into account intrinsic limitations (the ability to attract foreign researchers is logically limited compared to the opportunities of institutions in other countries). The prospects for the near future, based on both the 2018-2022 trajectory and the Unit's pipeline, are very promising. In particular, given that the so-called ecological transition is one of the main priorities of both the European and national

authorities, and given the remarkable and proven expertise of the LEI researchers, recognised internationally by institutions such as the Joint Research Centre, the UoA's activity in this field could attract even more funding in the next five years. The importance of these topics in the current context positions the LEI in a place of privilege to expand its influence on society and its relevance in the scientific community.

Overall, taking into account to current performance, human resources, strategy, organisation of activities and infrastructure of the UoA, the LEI offers the conditions to achieve very good ratings in the next five years.

## **Recommendations for continuity and/or improvement of the activities of the UoA**

The UoA has shown a good or very good performance during the period of assessment depending on the dimension. This particularly applies to its ability to participate in large-scale international projects and its ability to carry out applied research and transfer knowledge to the society.

There are several pathways to improve the quality and the impact of the R&D activities carried out by the LEI:

1. Target high-quality journals in Economics. The UoA could increase its international recognition among the research community in Economics by targeting top field journals in Economics (Energy Economics, Energy Policy, Journal of Environmental Economics and Management, Resource and Energy Economics or Review of Environmental Economics and Policy) and, particularly, general interest journals (such as the Journal of European Economic Association or even higher-quality outlets). This is a challenging task. The current incentive system puts an excessive weight on the impact factor. Such an indicator is a quite imperfect indicator of research excellence in Economics (see, e.g., the San Francisco Declaration on Research Assessment). The Academic Journal Guide could be a better framework for assessing quality than the impact factor. Specifically, publishing with companies like MDPI (there are a number of articles in the full publication list of the LEI in journals run by this publisher) should be strongly discouraged, as a significant proportion of the research community has concerns about the quality and rigour of the peer-review process of many of its journals. Green open access (i.e., preprints) could be a way of dealing with the requirements of the European Union authorities for publishing results.
2. Target general interest conferences in Economics. The UoA could also try to participate in general interest conferences in Economics, such as the annual meetings organised by the European Economic Association or the Allied Social Sciences Associations (which include the American Economic Association).
3. Efforts to increase the impact of the LEI. Other issues where certain progress is feasible include the amount of funding raised from R&D orders and the presence of members of the LEI in international boards of renowned scientific journals. Given the size of the UoA, the organisation of a top field international conference jointly with a Lithuanian university with whom there can be synergies and complementariness with respect to research interests (could be another way of progressing in the next few years).
4. Encourage PhD dissertations in a format more consistent with the international practice. It would be desirable that the LEI encourages writing dissertations in Economics following the international practice, i.e., theses consisting in compilations of three potentially publishable papers in English (instead of four articles that have been already published, or accepted for publication (with a digital object identifier (DOI) or other justification for acceptance for publication). Even if that issue seems to depend on national regulations, there may be room for changes or discussion with the relevant agents.

5. Improvements of the physical infrastructure. The infrastructure hosting the research activities of the LEI could improve, even although the staff do not complain about. The building hosting the LEI is currently being refurbished and probably its shape will be better soon.

6. Make efforts to further internationalise the research staff of the institution.

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### 2.3. ISM\_ISM Unit of Assessment

Name of the institution	<b>ISM University of Management and Economics</b>
Official abbreviation of the name of the institution	<b>ISM</b>
Name of the Institution's unit of assessment (hereinafter – UoA)	<b>ISM University of Management and Economics</b>
Abbreviation of the UoA name	<b>ISM_ISM</b>
The scope of the UoA (FTE(SD))	<b>20,22</b>
Research area(s)	<b>S 000 - Social sciences</b>

## Quality of the R&D activities by research fields (groups of research fields) of the UoA

### Social sciences

Research field	Scope (FTE(SD))	Score (points)
<b>S 003 - Management</b>	<b>13,92</b>	<b>4,5</b>

#### Reasoned justification of the score

The Management as a field of assessment at ISM is well developed and stands very strong at an international level, with R&D activities carried out that are aspiring to be recognized among top international players. This observation is supported by a careful analysis of all aspects that are expected to be considered for the evaluation.

This medium-sized Unit with modest faculty size of FTE(SD) calculated slightly less than 14 and limited number of PhD students has excellent internationally recognized research outputs. Four publications in the sample provided are in the AJG (Academic Journal Guide, Chartered Association of Business Schools) or formerly ABS 4\*, while two of them at most prestigious Financial Times list (FT 50). Publications appeared in the Academy of Management Journal (FT 50), Research Policy (FT 50), Human Resource Management Journal, Personnel Psychology and Psychological Science. Both top two have significant share of institution in publication – 75% and 50% respectively, while its merits are in line with the topic of Sustainable Human resources management that has been described and justified as a one of leading research topic of the UoA. Publications span various topics including human resources management, organizational behaviour, and marketing, generally well embedded in clearly set research areas including (for Management) Sustainability Management and Sustainable Growth, Emerging Technologies and Data-Driven Decision Making as well as Leadership and Value Co-Creation. This diversity indicates a breadth of research interests and expertise among the faculty members of the Management division of the UoA. The publications enjoy generally good citation record as well. With respect to conference participation, a good mix of countries and topics was presented, as well as of high international standing (e.g., AOM, EURAM, EGOS, BAM), while 3 out of 7 presentations in the sample provided were fully attributed to ISM authors. Conferences attended are fully relevant to the research field.

List of awards for faculty and PhD students contains interesting and well-balanced mix of best papers, PhD scholarships and institution-based awards. The awards highlight their achievements in various research areas and their impact on the academic community, as well as their ability to secure competitive scholarships and grants.

The faculty's participation in competition-based R&D projects demonstrates a strong commitment and ability to get funding for R&D projects across various fields. The list of research projects associated with Management field is impressive, taking into account relatively limited faculty size, although the participation in flagship Pop-Machina Horizon 2020 project is limited to just 3% of total project budget, while ISM is one of 23 participants from 7 countries. Within the sample provided the Unit is involved in one H2020 project, two European Social Fund based RCL world-class (SMART) projects, while other are national Research Council of Lithuania projects, most of them with amounts exceeding EUR 100 thous. and two projects above EUR 500 thous.

The doctoral program over the 5 years of the evaluation period, has seen a healthy and regular intake of students (mostly part-time), albeit with a small number (12) doctoral candidates regularly graduating during this period. All the theses are in English, while both content of dissertations as well as the awards won by some of these doctoral candidates reflect good doctoral training program and particularly use of state of art research methodology.

Based on these observations and analysis, the Management research group of the UoA is very strong at the international level. In order to reach the level of top international players an own cyclical conference, which could become its flagship research platform and international hallmark could be established.

Research field	Scope (FTE(SD))	Score (points)
<b>S 004 - Economics</b>	<b>6,30</b>	<b>3,5</b>

#### Reasoned justification of the score

This research field is relatively less developed within the UoA, with an FTE(SD) calculated at slightly above 6. This relatively small faculty/research body is reflected also in the rather modest levels of R&D performance along different dimensions. However, even taking into account the limited number of faculty members its output can be still regarded as satisfactory at the national level and good international recognition.

Four out of five top publications are present in Q1 WoS (ABS ranks respectively: 2 and 3), but two of these have below 50% contribution of UoA authors. Papers in the sample submitted, covered a range of topics in the field of Economics, published in journals such as Economic Modelling, The Quarterly Review of Economics and Finance or Urban Studies (paper on spatial reach of financial centres). However, some papers are not fully in line with declared research area for Economics i.e., Technologies and Sustainable Growth in Economics and Finance, although generally thematic area of research seems to build on key competencies within the field of Economics. Nevertheless, generally published output is of modest to good quality, and recognizable within the international academic community, using advanced and up to date quantitative methodology with large samples of data. Also importantly, papers present comparative results that are not limited solely to local or national context, thus contributing to international discourse within the selected topics. Based on the papers published, the research performance demonstrates the faculty's ability to contribute to relatively good-quality research and engage in interdisciplinary and collaborative projects.

The conference mix does represent a decent combination of places, topics relevant to Economics (mostly finances) and participation weight. The awards and recognition are also good, particularly with doctoral candidate dissertation awards and scholarships as a sign of a solid PhD training program as well as research



aspirations. Faculty participation in competitive R&D projects is diverse, with both EU (Horizon 2020) and national funding, involving cooperation with diverse group of academia and non-academia institutions. The project sample suggests engagement in addressing various societal challenges like long-term care, COVID-19, Industry 4.0, and EU perception. Overall faculty participation demonstrates the ability to secure funding and contribute to diverse research areas. Funding received via these projects however is modest with less than EUR 100 thous. per project over the assessment period.

During the period of 2018-2022 the Economics section has a total of 4 doctoral theses defended. The average number of full-time doctoral candidates was 3, while part-time 2,4. The number of new candidates each year ranges from 1 to 2, but the foreign students were not recruited. All the theses are in English, while both content of dissertations as well as the awards won by some of these doctoral dissertations reflect good doctoral training program and particularly use of state of art research methodology.

## Economic and social impact of R&D activities of the UoA

Score (points)

4

Reasoned justification of the score

The research conducted within the ISM, which itself forms whole UoA, is comprehensive and addresses numerous important issues for society with projects spanning focused topics such as circular economy, disability and corporate reputation, long-term care, emerging technologies especially in finances or effectiveness of nudges in promoting positive health behaviours as well Industry 4.0 challenges. The list of research outputs, R&D orders of economic entities projects contains a good mix of high-impact publications and projects. Moreover, during the pandemic period topics encompassing responses and implications of COVID-19 were on top of the research agenda. Key findings include approaches and beneficial effects of employing people with disabilities, developing analytical methods for social investment in long-term care, and recommendations to improve stakeholder cooperation. Research was not limited only to local context, with numerous projects and publications involving and using international perspective as an outset. The results highlighted the importance of physical health and work engagement for older workers, raised awareness of human hubris in climate change, and explored the governance of horizontal leadership in projects. Other practical research implications include emphasizing on the need for sustainable human resource management skills to adapt to Industry 4.0 challenges. Overall, the body of R&D Projects presented suggest a strong socio-economic impact. Considering the relatively limited number of both individuals employed and even lower number of FTE, the economic and social impact of ISM should be assessed positively, while the results widely recognized by both the academic and business and decision-makers.

Researchers represent the ISM in several working groups, commissions, and committees, and advise the state and municipal institutions and other economic entities. While there is a bias towards collaboration with administrative institutions, some were purely commercial R&D needs, have to be mentioned. The socioeconomic impact of numerous projects and publications concludes with recommendations and "message" send to institutions (mostly state administration), that are useful and hopefully can be practically implemented. Numerous cases of UoA researchers' participation in working groups and various advisory bodies remains focused around public administration and state-managed institutions such as Lithuanian National Radio and Television, underlying ability to successfully cooperate in research and thus strengthening acquisition of necessary skills through practical exposition and "hands-on" experience. Also, with respect to

consulting activities a well-balanced list of these was provided, generally in line with the four strategic interdisciplinary thematic areas pursued by ISM.

Conferences and events organized by ISM are well-diversified with respect to topics, few traces projects conducted by the UoA, while the majority seems to be independent of projects. However, they seem to be of limited breadth in terms of attracting scholars worldwide, and also limited in terms of the conferences' reputation among top in the fields of Management or Economics. On the other hand, participation of UoA members in editorial boards of scientific journals seems to be a strong point, especially taking into account the limited number of faculty. A similar good mix of commercial and academic links is established through cooperation agreements as well as cases of membership of researchers representing the ISM in international working groups, associations. Finally, popularization efforts are well set around research topics developed, with long list of media coverage, reaching a large audience. Concluding, over assessment period UoA carried out very important research that has had a significant social and economic impact at a national and international level, well beyond the academic community. In summary, the members of the evaluation group exhibit considerable influence in both economic and social aspects through their R&D efforts, transcending the boundaries of academia. Their research endeavours carry considerable weight in terms of societal relevance. Furthermore, the evaluation group cultivates robust relationships not only among fellow academics, but also with the business sector, policymakers, and the broader community.

## The development potential of R&D activities of the UoA

Score (points)

4,5

Reasoned justification of the score

The UoA makes several efforts to maintain high standards and develop a wide range of R&D activities, so that current performance and expected output give a promise for very good ratings in the next 5 years, with potential to reaching excellent rating. UoA focus in relatively well-defined areas such as sustainable management, emerging technologies that provide ample area for practical applications as well as allow to attract external financing. With this respect out of two research fields Management seems to be more promising and better positioned to take a lead in ISM R&D activities.

Based on the data at the end of assessment period, the UoA appears to have a relatively diverse human resource pool, with a concentration of employees in the 25-44 age range, indicating a relatively young workforce. This suggests that the institution has a strong potential for growth, innovation, and long-term stability as these employees may continue to contribute and develop within their roles for years to come. Moreover, a comprehensive system was established dealing with selection and conditions of academic staff promotion and to attract and retain talent. The recruitment procedure emphasizes identifying staffing needs, and once recruited providing onboarding support to ensure a successful integration of new faculty members into the institution. The assessment of faculty performance at ISM is a continuous process that begins with setting performance goals. The Appraisal and Promotion Commission is responsible for implementing faculty assessment and promotion, with final assessments occurring every five years. Promotion is based on achievements in research, teaching, and participating activities.

The institution also supports faculty scholarship through financial and structural incentives, including financial backing for high-level publications and conference participation, access to research tools and resources, and research grant application procedures. The university also rewards generously high-level



publications based on clear criteria as well as it recognizes intellectual contributions with number of their own awards including and the ISM Research Award.

R&D infrastructure seems to be appropriate, with main stress on relevant software, databases, especially full text bibliographical databases such as Scopus, recognizing that research never operates in vacuum and that access to academic literature seems to be indispensable, as well as precondition for any research. Moreover, new ISM premises in a prestigious location create breathing space for both research and education activities.

The number of PhD candidates is appropriate and in line with overall number of staff and well balanced between full and part-time candidates. An adequate provision of PhD supervision is provided, as evidenced by a number of awards received by dissertations as well as publications in good journals. An information on the policy for training of new generations of researchers also focuses on the conduct and effects of PhD students.

The strategy of the UoA (which is also actually the strategy of the whole university) is clearly formulated and well developed. Out of five strategic goals formulated in ISM Strategy 2020-2025, two ("3. Strategic direction - Promoting opinion leadership and partnership with business and society" and "4. Strategic direction - Fostering academic excellence and educational innovation") incorporate issues related to the research area. Similarly, out of 9 strategic initiatives outlined in above mentioned document no. 8 (Strive for excellence in research, focusing on social and economic relevance, innovativeness and international dimension) and partially no. 3 (Achieve international accreditation as a recognition of high-quality education and research) address research issues.

Taking all the above mentioned factors into account, the development potential of the UoA is assessed as in between very good and excellent, giving an advantageous position for another five years of successful continuation of current research record.

## **Recommendations for continuity and/or improvement of the activities of the UoA**

While appreciating the ISM's efforts in the field of research so far, several areas should be pointed out that may lead to even better use of existing potential. In addition, some practical proposals for new activities to be considered at the next stage of institution development are also indicated below.

1. Focusing more efforts on research areas related to the field of Economics, so that the achievements of this field in the next evaluation period can catch up with the field of Management. This applies to both macro and microeconomic issues, both with the use of advanced and up-to-date methodology. A favourable factor may be the strengthening of cooperation with external economic institutions such as the national bank, relevant ministries, and international organizations but also local enterprises and multinational companies investing in Lithuania, especially around strategic research direction such as fintech area. Additional synergies may result here from multidisciplinary cooperation with other research centres with potential in the field of computer sciences or mathematics.
2. ISM has the potential to build its own cyclical conference, which could become its flagship research platform and international hallmark. Such a conference could, on one hand be an event presenting ISM achievements so far and, on the other hand, an opportunity for joint research project development. The conference should be of an elite nature, if possible affiliated with one of the already existing well established conference brands, with a meticulous selection of participants, combined with the possibility of publications in academic journals related to ISM.

3. ISM should consider establishing an objective system recording the effects of conducted research activities in long run. Such a system may include significance of individual works measured by the number of citations as well as trace real implementations and practical applications of merits resulted from research work. In contrast, outreach popularization and dissemination activities can be measured and evidenced by estimating Advertising Value Equivalent (AVE). A properly constructed system would allow rewarding long-lasting effect of research wider than the mere fact of being published in a top journals. It may also create a convincing argument attracting companies and institutions interested in practical applications of research findings.
4. PhD candidates represent a significant potential of ISM. In order to take full advantage of it, it is necessary to direct more of them towards doctorate through papers (i.e., publishing a series of articles on a common topic in journals) as well as broaden involvement in ongoing consulting activities and projects. PhD candidates should also have a clearly defined scope of duties for the university. On the other hand it is recommended to introduce a competitive PhD fund to finance the merits of research work, such a data collection, surveys etc.
5. Taking into account the potential and achievements of the University, grant and project application policy should become more diversified and not be limited to well-recognized sources such as Research Council of Lithuania or EU H2020 and to the position of junior participant. Opportunities should be actively acquired by seeking an applying (if possibly as a leader) for funds from alternative sources such as from international institutions, funds dedicated to Baltic Sea Region or the European Institute of Innovation and Technology Programme and most notably through direct cooperation with local and international enterprises under the new EU Financial Perspective 2021-2027. It should be noted that the first steps towards greater diversification have already been made by obtaining a grant from NordForsk Research Programme as well as from Digital Europe Programme 2021-2027.

## 2.4. KTU\_Ekon-vadyb Unit of Assessment

Name of the institution	<b>Kaunas University of Technology</b>
Official abbreviation of the name of the institution	<b>KTU</b>
Name of the Institution's unit of assessment (hereinafter – UoA)	<b>Economics and Management</b>
Abbreviation of the UoA name	<b>KTU_Ekon-vadyb</b>
The scope of the UoA (FTE(SD))	<b>45,91</b>
Research area(s)	<b>S 000 - Social sciences</b>

### Quality of the R&D activities by research fields (groups of research fields) of the UoA

#### Social sciences

Research field	Scope (FTE(SD))	Score (points)
<b>S 003 - Management</b>	<b>27,83</b>	<b>3,5</b>

#### Reasoned justification of the score

The Management field of the UoA is large and, based on the data provided by the UoA in their submitted report for the evaluation, there is a total of 75 staff (research and teaching staff with scientific degrees), and with a full-time equivalent (standardized or FTE(SD)) of close to 28. This large faculty size clearly suggests a numerical capacity that can conduct research of high quality at an international level, publishing in top journals with regular frequency, and conducting other R&D activities. However, while the faculty size boasts impressive numerical potential, there is still room for growth when it comes to publishing in top-tier journals. This presents an opportunity for the faculty to build on their existing strengths and elevate their research impact even further. Among the top research list, while these were published in well recognized journals in regarded management journal rankings (e.g., in AJG (Academic Journal Guide, Chartered Association of Business Schools) or formerly ABS); given the faculty size and potential one would expect publications in high ranked journals 4 or 4\* in the Management field, which was not the case. One of the most productive researchers (Max von Zedtwitz) does not have a full-time affiliation with the UoA. Thus, given the large size of the Unit, it is to be expected that there would be more papers published at the highest level (during the period of evaluation). While frequently the UoA's participation in the author team is small, on the other hand, it reflects to some extent some of the faculty being plugged to a global international research network.

There has been numerically sufficient attendance at international conferences, they have been, and were truly international in scope (and not just regional). These include conferences such as: AOM, EURAM, EGOS and BAM. The doctoral training programme appears to be healthy and seems to attract a steady flow of incoming doctoral students. It is interesting to note that there is healthy annual intake of PhD candidates, with many international. Over the last five years of the reporting period, a total of 16 PhD candidates have successfully graduated (eight theses were written in English). However, it seems that the completion rate in 4 years (comparing total intake in 2018 with graduation rate in 2022 as a rough indicator) can be improved. One thesis received two national awards (Best Dissertation 2018 award and the acknowledgment by the

President of Lithuania), and two other theses received one award each (Baltic University Programme PhD Award 2020 and Best Dissertation 2020 award). Both the national authorities and the institutions (at various levels, including project grants) provide financial support for doctoral students. Some theses are in English, while others in Lithuanian.

The Management research group has participated in various competitive R&D projects, funded by different programs such as Horizon 2020, European Institute of Innovation and Technology Programme (EIT), Research Council of Lithuania, and European Regional Development Fund. These projects focus on various areas such as Industry 4.0, entrepreneurship, healthcare, education, circular economy, energy saving, and COVID-19 management. The projects in which the faculty have participated have varied aims, for instance to create a Centre of Excellence, strengthen research excellence, develop new tools for business model innovation, and create value-based and personalized telehealth services, among others. This diverse and comprehensive involvement in R&D projects demonstrates the faculty's commitment to addressing contemporary challenges and fostering innovation across multiple sectors. Their participation not only contributes to the advancement of knowledge and the development of practical solutions, but also positions the faculty as a driving force for positive change and progress in both academia and society.

Overall, the evaluation of this Unit with respect to R&D activities, is assessed as being good at the national level, and strong potential at the international level. It is hoped that the numerical strength of the size in terms of number of faculty members, and existing international networks, more faculty members would actively engage in research of consistently high international quality.

Research field	Scope (FTE(SD))	Score (points)
<b>S 004 - Economics</b>	<b>18,08</b>	<b>3,5</b>

Reasoned justification of the score

The Economics field of the UoA is large and, based on the data provided by the UoA in their submitted report for the evaluation, there is a total of 47 staff (research and teaching staff with scientific degrees), and with a full-time equivalent (standardized or FTE(SD)) of slightly over 18. This numeric strength holds the promise of research deliverance at a high international level.

Despite this relatively good numerical strength in terms of faculty size, top publications by this division of the UoA cannot be considered to be at a very high international level, with only one very highly ranked publication in the field of Economics (Quantitative economics), undertaken by a researcher with a partial affiliation in the UoA. It was therefore to be expected, given the large faculty size, that there would be more papers published at the highest level, which was not found to be the case. Using for instance AGJ ranking, 5 of the top publications were in level 2, and with one in level 3 and another in level 4.

The list of conferences includes presentations at events organized by prestigious associations such as the European Economic Association, the International Association of Applied Econometrics or the European Accounting Association. However, it would have been very welcome to augment networks, and exposure to research at the highest level, had there been participation also in top Economics conferences (example American Economic Association).

The doctoral training programme appears to be healthy and seems to attract a steady flow of incoming doctoral students. Their activity resulted in 14 doctoral theses. Over the last five years of the reporting period, a total of 14 PhD candidates have graduated. However, the completion rate in 4 years (comparing total intake in 2018 with graduation rate in 2022 as a rough indicator), can be improved.

Several members of the research group have received relevant, mainly national, awards.

Faculty in the economics field has participated in various competitive projects, funded by different programs such as Horizon 2020, ECIU SMART-ER, Research Council of Lithuania, and European Regional Development Fund. These projects cover a wide range of objectives, including energy saving, circular economy, real-time economic activity bigdata use, COVID-19 pandemic management, and risk management in trade processes. The projects collectively received substantial funding. The diverse project objectives highlight the interdisciplinary approach taken by UoA to address complex challenges, aiming to contribute to innovation in various sectors.

Overall, the evaluation of this division is assessed as being strong at the national level with international recognition with respect to R&D activities.

### Economic and social impact of R&D activities of the UoA

Score (points)

4

Reasoned justification of the score

The R&D activities of the UoA is promissory for the impact they can have in economic and social spheres. The UoA's involvement in diverse research projects has or promise to general significant social and economic impact across multiple sectors, including resolving business disputes, promoting circular economy, supporting entrepreneurship, and fostering cooperation and knowledge exchange. These projects seek to address societal challenges such as youth migration, public administration, tax collection, and labour market inclusion. Innovations have been developed in areas like risk management, digital advertising, and sustainable food consumption. The unit's engagement in these projects is promissory in its potential to contribute to better HR practices, worker safety, and effective response to the economic impact of COVID-19, ultimately fostering sustainable growth and improving societal well-being.

There have additionally been other contributions as well, including a researcher's involvement in the EU Observatory's expert group, multiple panels and boards, and advisory boards and committees. Other researchers also contributed to the Technical Standardization Committee for Circular business models, and Ministry of Economy and Innovation Digital Economy Evaluation group. The role of UoA members as consultants is noteworthy. It includes contracts with private enterprises to improve productivity and profitability, actions to promote innovative enterprises, and advice to public authorities on education, training, tax evasion or economic policy making.

Many conferences were hosted by the UoA during the five-year evaluation period, although many were regional, and also some international (albeit not of high-level conferences in either of the subject areas). Often, these consisted of internal meetings of the UoA, for instance student scientific encounters, and an Internal Seminar.

Faculty members of the UoA are also members of editorial boards of scientific journals, and have also edited special issues of journals in their field. Many of the journals are however regional, with limited research impact at an international level.

The involvement of UoA members in science popularisation activities consisted mainly of articles in public media and appearances on radio or television, reviews summarising EU priorities and strategies and, to a

lesser extent, some interaction with national industry through events related to the research activities described in this document.

Overall, the economic and social impact of R&D activities conducted by the members of the UoA demonstrates their significant contributions beyond the academic sphere. The research they undertake holds substantial societal importance. The UoA fosters strong connections not only within the academic community but also with businesses, decision-makers, and the wider society.

## The development potential of R&D activities of the UoA

Score (points)

4

Reasoned justification of the score

The UoA has a relatively strong development potential of R&D activities, and this more positive assessment is particularly based on the following.

First, the infrastructure and facilities of KTU are quite similar to those of any reputable higher education institution in Europe. The institution seems to have become an important reference for data analysis and some of the facilities are even open to external researchers. The Unit is in charge of some specific infrastructure (e.g., data from large European surveys or a Bloomberg Lab). All these elements put the KTU in a position to carry out high quality research in Management and Economics in the coming years.

Second, with respect to its human resources (HR), the numerical strength makes the UoA relatively of a large size. The majority of employees in all categories are between 35-54 years old. In terms of gender, there are more women than men in all categories, except for researchers where there are more men than women. The human resources policy of the KTU seems to be adequate, although there are some reservations regarding the expectation of retention of its graduates. The system of monetary and non-monetary incentives (e.g., reduced teaching load to compensate for more intensive research activity) and the targeted internationalisation of the institution (especially in terms of cooperation and recruitment) are very valuable instruments to ensure the quality of R&D activities in the future. Based on documentary evidence, the University invests in the development of staff competencies through training and academic mobility to strengthen cooperation between partner institutions. The Human Resource Management strategy according to the documents available, seems to be well-planned, comprehensive, and prioritizes the well-being of its HR.

The training policy for new researchers is ambitious and appropriate. In addition to a seemingly close supervision, the UoA tries to provide moderate financial support to PhD candidates and to introduce newcomers to high quality research, inspired by the strategic principles of the Unit. The external recognition of the Unit's doctoral candidates is not negligible, as evidenced by the external funding and awards received.

Third, the UoA's strategic plan appears to be coherent and robust. It clearly seeks to deepen the strategy adopted a few years ago: to achieve a dramatic shift from quantity to quality in terms of publications, conferences or R&D projects, and to increase its internationalisation (including cooperation with foreign researchers and attracting young and senior researchers).

Overall, the Unit's analysis of strengths, weaknesses, opportunities and threats is consistent with the R&D output assessed here. Given some unavoidable constraints, the UoA is ambitious and aims to further improve the quality of its publications and its ability to attract international talent. The UoA possesses the potential



to attain even better evaluations. Considering their current performance in human resources, strategy, activity organization, and infrastructure, the Unit of assessment is well-positioned to achieve very good ratings within the next 5 years.

### **Recommendations for continuity and/or improvement of the activities of the UoA**

1. It is strongly recommended that the UoA prioritize the enhancement of its research output quality by encouraging faculty members to focus on publishing in top-tier international journals to increase the institution's research impact. To achieve this, the University should consider providing additional resources such as research support, mentoring, and workshops to assist researchers in achieving high-quality outputs.
2. It is recommended to further intensify efforts to deepen and broaden international networks by inviting international scholars for seminars, workshops, and research collaborations. This exposure will benefit both faculty and PhD candidates and help build stronger connections in the global research community. While there are some evidence of this, particularly in the Management field, certainly there could be greater consistency, and more widespread networks.
3. Another recommendation is to motivate all PhD candidates to write their theses in English to improve international visibility and prepare their work for publication in international journals. The UoA should offer further incentives and resources to help candidates transition to English-language research output. Furthermore, we suggest that the UoA monitor and analyse PhD completion rates to identify areas for improvement. Additional support, such as academic mentoring, time management workshops, and resources, should be provided to help candidates complete their degrees within the designated time frame.
4. To expand their networks and exposure to cutting-edge research, we recommend that faculty members and candidates be encouraged to participate in top-level international conferences, particularly in the Economics field. The University should provide financial support for conference attendance and promote a culture of presenting at high-impact conferences within the institution.

In conclusion, we highly recommend that the UoA continue to prioritize its efforts to enhance its R&D activities, invest in the development of its human resources, and further implement its strategic plan. The UoA's commitment to quality, internationalization, and innovation will undoubtedly contribute to its continued success and recognition as a leading higher education institution in the field of Management and Economics.

## 2.5. VilniusTech\_MEC Unit of Assessment

Name of the institution	<b>Vilnius Gediminas technical university</b>
Official abbreviation of the name of the institution	<b>VILNIUS TECH</b>
Name of the Institution's unit of assessment (hereinafter – UoA)	<b>Management, economics and communication</b>
Abbreviation of the UoA name	<b>VilniusTech_MEC</b>
The scope of the UoA (FTE(SD))	<b>59,74</b>
Research area(s)	<b>S 000 - Social sciences</b>

### Quality of the R&D activities by research fields (groups of research fields) of the UoA

#### Social sciences

Research field	Scope (FTE(SD))	Score (points)
<b>S 003 - Management</b>	<b>22,28</b>	<b>3</b>

#### Reasoned justification of the score

The Management research field has 21 researchers and 45 teaching staff with a scientific degree (FTE (SD) slightly above 22). This relatively large number of faculty, including researchers, indicates the research staff's numerical strength, which enables regular publication in top journals.

Despite this potential, the list of top journal publications is limited. Several journals could not be found in any internationally recognized indexed ranking; if they were, they were generally low-ranked. Journals are ranked in the lowest categories in regarded management journal rankings (e.g., in AJG (Academic Journal Guide, Chartered Association of Business Schools) or formerly ABS, in AJG 1 and 2, and WoS (most of the outputs are in Q3 and Q4, according to Article Influence Score (AIS)). Outputs are thematically diverse, focusing on areas the Unit wants to develop further.

Participation in international conferences has been sufficient, especially European conferences (11 conferences in total were reported) and international conferences. However, there was no participation in top management conferences such as AOM, EURAM, EGOS, and BAM. Some conferences (e.g., IBIMA) are generally not considered to be of great quality, and reportedly with almost zero rejection rates of submitted papers.

The Unit reports 15 awards received, mainly for best publications (books, articles). It is unclear for the vast majority of awards, who rewarded them. A number of these awards are also internal, provided by the University. National and international recognition is meant to recognize the researcher's contribution to all other researchers in the field, not just within the narrow circle of their institutional background.

The Faculty of Business Management is also involved in several national and European competitive projects (e.g., Interreg; H2020; Erasmus). Researchers are also involved in several European projects aimed at shaping transnational institutional collaboration, new industrial policy, strengthening business links between higher education institutions and businesses, and improving equity and increasing diversity in higher education. One



of the Horizon2020 projects was implemented in 2015-2019 and concerned innovation in green technologies. Another H2020 project (2020-2023) focused on green solutions to problems in the transport industry. The themes of the projects are closely related to the overall sectoral focus of the evaluated Unit. For some other projects, on the other hand, it is not clear to what extent they are purely research projects and to what extent they are development or infrastructure projects.

The PhD programme attracts a steady flow of incoming PhD students. There are no international candidates among the full-time students. A total of 11 PhD candidates graduated in the last five years of the period of the assessment. However, the 4-year completion rate (if we compare, for example, the total number of enrolments in 2018 with the completion rate in 2022) can be improved. Overall, the R&D evaluation of this UoA (research field Management) is assessed as being strong at the national level, with limited international recognition.

Research field	Scope (FTE(SD))	Score (points)
<b>S 008 - Communication and Information</b>	<b>22,94</b>	<b>3</b>

#### Reasoned justification of the score

The field of Communication and Information is relatively large, with 14 researchers and 54 teaching faculty (22.94 FTE(SD)). This relatively large faculty holds apparent promise for delivering research with global reach in top journals and with regular frequency. Overall, this larger-sized research field has some internationally recognized research outputs from the WoS Q2 (as one possible indicator of quality) in different journals; the researchers have also published books with prestigious publishers: Springer, John Benjamins Publishing, University of Michigan Press etc. The faculty that serves the Communication field is rooted in Humanities – Philosophy, Philology, rather than in the Social Sciences, and this is one of the reasons the output rather takes the shape of monographs than international journal articles. Nevertheless, there are publications in Journal of Innovation and Knowledge, Discourse and Society, Comunicar, Social Media and Society, Journalism Studies, Informatics reported. At the same time, some of the best scientific output is generated by people on a short-contract with the Unit or that are active in more than one University; and this is not a very promising feature for the general sustainability of research in this Unit (the self assessment, corroborated with other supporting data). Moreover, for the net size of the Unit, the output could be more consistent.

The research focus is on the cultural/creative field and the individual within. The recent focus on creative industries creates the premises for quite a solid relation with the business and industry sector. They have facilities, a technology park where spin-offs for the creative industries get started. They are less active in media research per se, though. The Communication & Information division functions in Vilnius Tech, along with Economics programs, and that explains their solid relation with the business sector and the industry. The Unit runs an undergraduate program in English on Creative Industries, and this is an opening of this institution to international candidates and scholars. Creative Industries is the youngest but the second in terms of candidates (900) + 10 international researchers (information was obtained during the site visit and corroborates with information from the institutional site. It is relevant for the R&D report because this solid cohort is an English speaking resource for the PhD programs, with organic chances for internationalization).

During the time period under evaluation (2018-2022), various members of the division are on the basis of partners in large projects, rather than as leaders. They are active in submitting proposals though, but sometimes mediated by a business run platform. It is not clear sometimes who has the ‘upper hand’ in the

Communication & Information division, the research or the business drive; at some quarters, they seem to be defined by business. The researchers have secured international funding, local/regional funds and Erasmus program funds. The Unit is involved in one H2020 project and several international projects like INTERREG or COST. Partnerships with other universities/institutions in Europe have been well-established. Nevertheless, most of the grants are infrastructure - related, not directly focusing on research as such. Moreover, the Horizon2020 grant overlaps with other fields.

The researchers do present their results at prestigious conferences abroad. The sample submitted suggest that there have been sufficient - with a total of 11 top conferences reported in number, and in the field. Vilnius tech Communication and Information scholars have participated in many international conferences, and three times in particular at the International Communication Association conference.

Several researchers have received awards, in particular, as best papers. Only articles published in Q1 Q2 journals can be awarded in the Vilnius Tech competition (as revealed during the site visit); it is a way to incentivise quality research output. Established scholars and young researchers get a significant bonus for publishing in Q1, Q2 journals. The awards are a system to preselect the researchers that continue with a position. The division runs six Scopus – WoS journals but the scholars within the Unit, but reportedly are not incentivised to publish in-house.

PhD studies have started in recent years. The PhD program in Communication and Information is young, and operated together with Vytautas Magnus University. The PhD candidates have common courses. The doctoral training programme appears to have had their first cohort only in 2021, with limited funded positions, 2 in 2021 and 3 overall in 2022. The site visit showed that there is as well a joint PhD program with Beirut University, thus enhancing the relative importance of the PhD level within the Communication & Information division. The division runs a journal publication dedicated to young scholars – Science Future of Lithuania where candidates work along their supervisors. They seem to be quite structured when it comes to the student – supervisor joint academic work. Nevertheless, there are no reported graduates from the program within the 5 years of the reporting period.

Overall, the R&D evaluation of this UoA (research field Communication and Information) is assessed as being strong at the national level, with limited international recognition.

Research field	Scope (FTE(SD))	Score (points)
<b>S 004 - Economics</b>	<b>14,52</b>	<b>3</b>

Reasoned justification of the score

The general scope of this department is embedded in the broader research framework of knowledge management, efficiency, digitalisation, sustainability, circular economy, logistics, and transport. These are all fruitful directions of development but somewhat diffuse. Sustainability, transport, and the shift to the digital economy are recurring themes that run through to PhD theses.

The field of Economics includes 6 researchers and 39 teaching staff, calculated FTE(SD) – 14.52). It is, therefore, a larger unit.

Despite a reasonably solid academic faculty in terms of numbers, overall, the quality of the publication is not impressive. There are few top publications (in the field of Economics), and the outputs are not well evaluated internationally; some are not part of any indexed list of journals with an international reputation. Regarding

publications in WoS-listed journals, these are almost exclusively in Q4 journals according to Article Influence Score (AIS). Thus, given the size of the faculty, there is quite a lot of room for improvement in the research.

There is also limited participation in top international conferences (e.g., without presentations at the American Economic Association or top industry conferences). Some conferences (e.g., IBIMA) are generally not considered to be of great quality and reportedly with an almost zero rejection rate for submitted papers.

The Unit lists five awards received, four of which are for best publications (books, articles). For these awards, it is not clear who gave the awards. Some of the awards are likely internal, given by the University. The national and international recognition is intended to recognise the researcher's contribution to all other researchers in the field, not just within the narrow circle of their institutional background. The latter is an honorary award given in Ukraine for developing international scientific cooperation, and it is unclear to what extent it is purely research related.

Researchers have received international funding (H2020, COST actions), local/regional, and Erasmus funding. One Horizon project from 2015-2019 involved academics from the Management and Economics fields within Vilnius Tech, signalling interdisciplinary collaboration. Researchers in Economics have also been involved in two Erasmus+, KA2 projects, one of which is dedicated to improving governance, management and mentoring in PhD programmes. The second Erasmus+, KA2 project was extended to 14 countries, 16 labour market and education actors, and focused on water and waste management small and medium-sized enterprises (SMEs). There is also a large-scale project for the Nordic and Baltic regions involving businesses and companies as stakeholders in social innovation and technology transfer. However, for some projects, it is unclear to what extent they are pure research projects and to what extent they are development or infrastructure projects.

The doctoral training programme attracts a steady stream of incoming students. However, there are no part-time or international candidates among the PhD students.

Overall, the R&D evaluation of this UoA (in the research field of Economics) is assessed as being strong at the national level, with limited international recognition.

## Economic and social impact of R&D activities of the UoA

Score (points)

3,5

Reasoned justification of the score

The UoA seems to have a substantial economic and social influence resulting from its R&D activities, which amplifies its impact beyond the average level observed concerning its core research activities. The impact manifests through direct engagement with Lithuania's citizens, businesses, and regulatory bodies. Some of these also transcend national barriers, for instance, the assessment of global and regional integration. The Unit observes the larger definitions the United Nations provided regarding sustainability and translates them into research and solutions. It is salutary that this Unit is convergent with the general scope in the field.

The list provided by the UoA promises R&D advancements in various fields, including cross-sectoral cluster analysis, citizen science, transport management, and sustainable development. These projects have the potential to foster innovative training programs, financial literacy assessments, international collaboration, and female empowerment in academia. The research has also contributed to market evaluation, strategic

recommendations, personalized learning experiences, addiction reduction, data-driven educational recommendations, combating disinformation, and enhancing cybersecurity.

The researchers from the UoA have participated in various working groups, commissions, or committees with state authorities, municipal institutions, enterprises, and organizations. They have held positions such as members, experts, advisers, or chairpersons, contributing to fields like circular economy, human resources, knowledge management, higher education, artificial intelligence, language, culture, and transport. Some commercial activities were presented concerning consulting activities, reflecting the various issues and well-encompassing all areas covered by UoA. Researchers participate in working groups and other bodies at the local and international level.

Participation of UoA members in editorial boards of scientific journals seems to be somewhat limited to the level of Board Member or Issue Editor, while Editor-in-Chief for local (own) journals. Membership/representation in different bodies/forums is decent, while limited to working groups or being a representative of the University. No significant industry/commercial involvement was traced.

UoA's faculty has also hosted several conferences over the evaluation period, and members participating in representing the UoA on editorial boards of scientific journals. The conferences and events list contains several items, some lacking programs or being a small local workshop. Neither the conferences nor the journal was among the more prestigious study fields.

Funds raised from private commercial projects are low. Projects are relatively small, while topics do not provide any coherent pattern of specialisation. Some items in the list are provided without appropriate contract values.

However, at the same time, the Unit also purchases services from the private sector, including preparation for Horizon2020. It should be the reverse if the University aspires to become the central hub of knowledge production.

The popularisation of science and the outreach in the community at the school and high school level is another important feature of this Unit and an important one. Popularisation efforts include science festivals, book presentations, interviews, podcasts, etc. They are well-diversified and create value added.

Overall, the UoA carries out important research, and is a significant partner in R&D outside the academic community; the impact is rather local than international.

Overall, the economic and social impact of research activities carries out important research and is an quite important partner in R&D outside the academic community.

## The development potential of R&D activities of the UoA

Score (points)

4

Reasoned justification of the score

Despite the rather average evaluations of the research output, there is a solid growth potential for this UoA.

With many faculty members (272), there can be many opportunities to develop new projects, conferences, and publications and to integrate the sections towards more interdisciplinary cooperation. However, UoA focuses on a broad number of topics. Still, the justification is instead throughout existing funding opportunities and already obtained funding (Citizen Science, etc.) than appropriate analysis of available

Human resources and demand from cooperation network (esp. business). Furthermore, the current Human resources structure is heavily biased towards teaching, while only a few part-time slots are dedicated to research and a limited number of younger (25-34) group representatives.

Regarding the physical infrastructure, the available facilities seem to be state-of-the-art, including specialized labs. Appropriate software and access to networking initiatives are available and amply funded within national and EU sources.

The UoA has clear guidelines, assessed according to research activities, study organization, and teaching indicators, as specified in the Description of the Remuneration Procedure for Lecturers, Research Fellows, and Other Researchers. There are incentives based on activity outcomes, and a variable salary component is allocated.

Moreover, to boost non-academic staff motivation, a reward system was created in 2021 and implemented in 2022. The overall performance of a particular Unit determines incentives. The UoA has an equal opportunity plan for career development and a good balance between men and women in teaching and research. There are significant efforts to promote the involvement of young researchers in scientific work. A focus on a new generation of researchers begins at school, with a view towards multidisciplinary and collaborative research, innovative and evidence-based solutions, and national and regional competitiveness on a global scale. However, Human resource policy was not provided, only abbreviated for evaluation. It mainly deals with organisational issues rather than setting an appropriate platform for streamlining academic excellence and incentivising research activities.

A seemingly forward-looking strategic plan, Vilnius TECH's 2021-2030 Strategy frames the research and innovation initiatives along four defined moonshots. Two moonshots are closely connected to research enhancement: "Becoming an international hub for talent, business, and society" and "Delivering knowledge-based smart solutions to every partner." The primary objective of the University's Research Strategy is to perform research and experimental development (R&D) activities in prioritized interdisciplinary focus areas. So far identified, all of these above factors are promissory of the development capacity of the UoA. The Unit is committed to Open Science and attracting highly-skilled researchers and academic staff focused on tackling societal challenges. A Strategy Plan is in place, re-assessed/re-visited annually if needed but designed to implement across three years.

Nevertheless, the strategy of the UoA has been provided dealing with Vilnius TECH as a whole and on a relatively general level. It provides a common ground for R&D activities and underlines the significance of research activities for the University. However, a more focused approach to social science specificity can be expected.

The SWOT analysis is brief and avoids describing weaknesses. The only weakness identified is "the PhD students are not interested in teaching at the University at full workload due to not competitive salaries compared with the business sector," which is somewhat irrelevant to research tasks.

## **Recommendations for continuity and/or improvement of the activities of the UoA**

The Panel recommends to continue recently introduced support for researchers to produce top-quality publications in prestigious journals (Q1, Q2 of WoS; AJG Guide 3-5) outside the University's journals (in-house), and to encourage researchers to participate in top conferences in their respective fields or to join editorial boards of top journals. The financial incentive reported by the evaluated unit in the form of an

individual salary bonus may contribute to achieving publications in top journals (Q1, Q2 of WoS, AJG Guide 3-5); on the other hand, we recommend not to limit oneself to this type of support.

1. The UoA should achieve more top-level publications, presentations at top-class conferences, receive funds from European research projects, and membership on the editorial boards of top journals. We recommend analysing the topics addressed by researchers in the evaluated unit and focus on fundamental research areas. To develop human resources and achieve top results in science and research, we recommend allowing employees to go on sabbatical leave to a greater extent and motivating them to use this tool.

2. Given the broad professional potential of the evaluated unit, we recommend considering ways to strengthen commercial research. We recommend continuing valuable popularization activities.

3. Specifically for Communication, we recommend increasing the number of PhD positions in Communication because the unit has the resources and the focus that allows it to grow in this direction. The UoA has the most undergraduate students, the most successful undergraduate program in English, and a clear focus on cultural and creative industries. Currently, the number of PhD positions is limited, owing also to the funding limitations, so the UoA has the people but not always available positions. The current Lithuanian evaluation system does not encourage interdisciplinarity at a structural level, but the recommendation is to go in this direction for fruitful synergies.

4. A critical vulnerability that the unit points to as a weak point is the concurrence of the private sector for the best minds. Currently, the unit attempts to motivate young scholars through awards, which is an honourable thing to do. However, we recommend putting the consecrated scholars and PhD candidates on an equal footing for additional research funding, which is an even more stimulating system.

5. An honest and sufficiently self-critical SWOT analysis is necessary to achieve better results in science and research. The evaluated unit should openly name its weaknesses and incorporate their gradual elimination in its strategic documents.

6. For future evaluations, we recommend that even more care is taken with the documents submitted for evaluation. For example, some dissertations that are written in English appear to be written in Lithuanian, where in reality, that may not have been the case, according to the documentation submitted.

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## 2.6. KSU Unit of Assessment

Name of the institution	<b>Kazimieras Simonavičius university</b>
Official abbreviation of the name of the institution	<b>KSU</b>
Name of the Institution's unit of assessment (hereinafter – UoA)	<b>Kazimieras Simonavičius University</b>
Abbreviation of the UoA name	<b>KSU</b>
The scope of the UoA (FTE(SD))	<b>8,37</b>
Research area(s)	<b>S 000 - Social sciences</b>

### Quality of the R&D activities by research fields (groups of research fields) of the UoA

#### Social sciences

Research field	Scope (FTE(SD))	Score (points)
<b>S 003 - Management</b>	<b>3,83</b>	<b>2</b>

#### Reasoned justification of the score

The Management division of the UoA is small and, based on the data provided in the self-assessment report by the UoA, the staff (research and teaching staff with scientific degrees) with a full-time equivalent (standardized or FTE(SD)) is slightly less than 4.

The Management division of the UoA has undertaken research in various areas, including small to medium-sized businesses, big data, the Lithuanian foreign trade economy, the impacts of COVID-19 on the aviation industry, entrepreneurship, and entrepreneurial education. The publication list based on the “best research outputs” submitted to the review team, is weak in terms of the quality of the journal outlet. Either does not form part of internationally recognized rankings, or low when it does (for instance in the AJG (Academic Journal Guide, Chartered Association of Business Schools) or formerly ABS in rank 2 (with 4\* being the highest). One of the publications in the sample is a book, that too with a not prestigious publisher (IGI).

While there have been some instances of researchers presenting their work at international conferences, they are few in number and cannot be regarded as top tier in the field, with one being in the aerospace industry. Only two presentations were considered to be top-tier, and they were both at the European Academy of Management (EURAM). Additionally, Management scholars from the UoA have participated in international conferences in Europe as well as Australia and Canada. It is important to note that none of the researchers or faculty members in this field have reported receiving any academic awards in the past five years.

The UoA has received some funding for EU projects aimed at leveraging technology and innovation to improve efficiency, collaboration, and customer experience across different industries. These initiatives could potentially contribute to the development and internationalization of research and development (R&D) results, making them valuable investments in the pursuit of research, experimental development, and innovation. Based on the points mentioned above, the research carried out by the Management group at the

UoA is considered to be assessed satisfactorily in the scientific field of management, at the national level, with limited international recognition. To strengthen the research capacity of this group, it may be beneficial to collaborate with top-tier researchers in the field. These efforts could help the Management group to achieve higher levels of recognition and success in their research endeavours.

Overall, the quality of R&D activities in the research field of Management at the UoA can be considered to be more or less satisfactory at a national level. However, to compete with other universities on a global level, the Management group at UoA may need to further enhance its research capacity and establish a strong international reputation through collaborations with top-tier researchers and institutions.

Research field	Scope (FTE(SD))	Score (points)
<b>S 001 - Law</b>	2,42	2

#### Reasoned justification of the score

The Law division of the UoA is quite small and with a full-time equivalent (standardized or FTE(SD)) of less than 3. The Unit in the field of Law seems to be at an early stage of development. The UoA does not carry out doctoral studies although there is a plan to carry out a PhD in Law in the future.

The list of research outputs in publications is limited, mostly with a domestic focus, and does not have the capacity to reach a large scientific audience at international level. The list of best research output reveals a scientific publication output that is limited to monographs, or university publications, and even what appears to be a project report. There were no publications in any journals of repute in the field of law, which are internationally recognized. The lists of participation in conferences abroad shows also that the participation of researchers is limited to national level or neighbouring countries. Moreover, the members of the institution do not participate in the most relevant conferences in Law at international level, with very few exceptions. In addition, the research group working in Law has received only one award for R&D activity.

Nevertheless, the Unit shows a good participation as a partner in European competition-based R&D projects. In the end, the Unit is assessed satisfactorily at the national level in the research field of law but with the exceptions of the conferences in Europe and the participation in European research, the international level activity is very limited.

Group of research fields within the research area	Scope (FTE(SD))	Score (points)
<b>S 008 - Communication and Information</b>	2,12	2

#### Reasoned justification of the score

The Communication and Information group is formed by 4 researchers with a scientific degree (a total of 1.7 FTE) and 9 teaching staff with scientific degree (a total of 1.25 FTE). This part of the overall Unit seems to be at an early stage of development and does not include a doctoral studies programme.

Researchers from the Communication and Information group have been focused on the following topics and themes: the digital transformation of social theory, cognitive semantics and communication, social systems and systems theory in light of communication technologies (i.e., social media). The publication list includes two monographs produced in the national language, two research articles published in English for



*Technological Forecasting and Social Change* (Indexed in Web of Science, Scopus) and one article published in *Kybernetes* (Indexed in Scopus). While it is always desirable to have faculty with another affiliation outside of the institution, it so happens in this case, the most productive faculty member has a part time (albeit important affiliation).

Whilst most of the research is of national significance, some conference presentations have been made at European conferences (e.g., in Wroclaw, Poland), including one conference in the USA (at Stanford University), and one in Malaysia.

This section has also been involved in a large-scale research project supported by the *European Union Structural Funds*, another project supported by the *European Union funds investment action program*, and three projects funded by the *Erasmus+ SPHE*.

Each project varies in focus, and includes collaborative activities concerning education, the economic sustainability of real-estate, and psychological well-being in society and mental health. The projects may be seen as evidence of expanding research networks, but there is little relation to aforementioned research produced in the form of publications.

Upon assessment, the field is deemed to be of satisfactorily at the national level.

## Economic and social impact of R&D activities of the UoA

Score (points)

2,5

Reasoned justification of the score

Unit of Assessment carries out important scientific research, but seems to have little interaction with the private sector, decision-makers, society. These initiatives have included the protection of vulnerable children, advances in academic research, development of innovative data analysis methods, and creation of state-of-the-art products for commercialization. The UoA's efforts have the potential to improve individual well-being, business performance, and promote knowledge creation and innovation.

The UoA's faculty members have contributed their expertise by participating in several working groups across multiple government and non-government organizations. However, their participation has primarily been limited to serving as experts. The faculty members have utilized their expertise to contribute to the formulation and enhancement of policies, standards, and practices pertaining to crime prevention, human resources, knowledge management, social security, labour, and anti- corruption efforts. Although they have served on editorial boards of scientific journals, their reach has mainly been domestic or within neighbouring countries.

The Unit has also participated in several science popularization activities, including featuring on a TV show and hosting a popular radio program. However, the Unit's interaction with the wider community is limited, and there is a need to improve it.

Although the UoA has hosted conferences in all three subject fields over the past five years, most of these conferences were held online or hybrid, and were primarily regional, indicating little international reach and impact in any of these scientific fields.

Overall, the Unit's scientific research exhibits a limited international perspective and is not a significant partner in R&D outside of the academic community. However, the Unit has an acceptable relationship with business, decision-makers, and society, as is fitting for an established institution undertaking academic activities.

The research and development (R&D) initiatives undertaken by the UoA have shown positive effects on both economic and social development. The faculty members have effectively utilized their expertise to contribute to the formulation and improvement of policies. However, it is important to note that the Unit's scientific research lacks a global perspective, and its impact remains confined primarily within the academic community.

While the UoA maintains an acceptable level of engagement with the wider community, there is room for improvement in terms of interaction and influence. In order to address these concerns, it is recommended that the UoA explores opportunities to strengthen its international collaborations. By actively engaging in partnerships with renowned international institutions, the UoA can broaden its horizons and gain exposure to diverse perspectives and methodologies.

Participation in international conferences can also prove valuable in fostering knowledge exchange and expanding the institution's network of researchers and practitioners. These platforms provide an opportunity to showcase the UoA's research outputs and foster collaborations with global stakeholders.

Furthermore, promoting science popularization activities can significantly enhance the UoA's reach and impact beyond academia. By effectively communicating scientific knowledge and research findings to the general public, the UoA can actively contribute to raising awareness and understanding of critical scientific issues among society at large.

In summary, while the UoA's R&D initiatives have yielded positive outcomes in terms of economic and social development, there is still room for improvement. By strengthening its international collaborations, actively participating in international conferences, and prioritizing science popularization activities, the UoA can augment its impact and effectively address global challenges. This will result in a greater overall contribution to economic and social development.

## The development potential of R&D activities of the UoA

Score (points)

2,5

### Reasoned justification of the score

The UoA under evaluation is considered small in size, consisting of 45 employees, including 12 research workers, 27 teaching staff with scientific degrees, and 6 other employees involved in R&D and studies, including PhD students. The majority of employees are men, and the age distribution indicates limited development potential due to a clear peak in the 45-54 years old category. However, the University has been successful in attracting internationally recognized scientists to some of its research units, such as the Next Society Institute and the Big Data Excellence Centre. However, the lack of an interdisciplinary team of researchers may hinder the Unit's competitiveness in securing research funding.

According to the panel, the library collection at the University is very limited, which could affect the quality of research output.

Despite the aforementioned weaknesses, the UoA has implemented Human resources management principles that emphasize academic leadership, mutual trust, and community spirit. The University is in early stages of developing a qualified faculty and research team for in some years to have high-quality studies and significant R&D activities. The recruitment process is strategic and competitive, based on various criteria, and staff promotions are financially incentivized, with additional incentives for scientific staff. The work organization adheres to legal procedures, provides flexibility, encourages remote work, and offers professional development programs for innovation and skill enhancement. Additionally, an incentive system has been created to promote the R&D activities of the University.

Despite its weaknesses in scale and age distribution, the UoA recognizes its strengths and opportunities and aims to achieve at least satisfactory ratings, with the potential to achieve good ratings in some aspects in the next five years based on its Human resources, strategy and organization activities, and R&D infrastructure. The University is aware of the challenges it faces and has put measures in place to address them. These include attracting more international researchers and interdisciplinary research teams to improve its competitiveness in securing research funding. Additionally, the University plans to expand its library collection to enhance the quality of research output. In conclusion, the UoA's small scale and age distribution may pose challenges, but the University has taken measures to address these challenges. The UoA has an experienced faculty and research team, and the recruitment and promotion processes are incentivized, encouraging high-quality research and development activities. With its human resources, strategy and organization activities, and R&D infrastructure, the UoA aims to achieve at least satisfactory ratings, with the potential to achieve good ratings in some aspects in the next five years.

## Recommendations for continuity and/or improvement of the activities of the UoA

The expert panel has provided several recommendations to the UoA in order to improve its scientific research, community outreach, policy formulation, and international collaborations. The panel suggests that UoA should prioritize building and maintaining partnerships with international collaborators to increase the scope of its research and influence. This can be achieved by increasing UoA's presence at international conferences and fostering relationships with foreign research institutions.

1. To enhance its connection with the broader community, the Panel recommends that UoA participate more actively in science popularization events and outreach activities. Such efforts can increase public awareness of UoA's work and garner greater support for academic research. Additionally, UoA faculty members should take a more active role in policy formulation and enhancement beyond their current duties as experts. This can enable UoA to have a greater impact on shaping important policies and standards in areas like crime prevention, human resources, and social security.
2. The Panel also recommends that UoA encourage its faculty members to participate more actively in international working groups and associations to raise their visibility and enhance UoA's reputation. This can generate more opportunities for international collaborations and partnerships. Furthermore, UoA should consider hosting more international conferences to expand its global reach and impact in its scientific fields. This can attract international researchers and enhance UoA's standing in the global academic community.
3. In order to increase its competitiveness in securing research funding and producing more impactful research outcomes, the Panel suggests that UoA expand its research team by recruiting international researchers of repute. This will help UoA to produce more impactful research outcomes and increase its visibility and impact. Additionally, UoA should increase the size of its library collection to provide more resources to its faculty and researchers, contributing to the quality of their work and supporting their research efforts.
4. The Panel also highlights the problem of multiple affiliation and not enough full-time researchers at UoA. Therefore, to support the professional growth of its faculty and researchers and enhance their competitiveness in their respective fields, UoA should continue to offer professional development programs for innovation and skill enhancement.
5. Finally, the Panel recommends that UoA should aim to achieve good ratings in all aspects over the next five years by capitalizing on its strengths and opportunities, with a continued focus on human resources, strategy and organization activities, and R&D infrastructure. This can be achieved by building and maintaining partnerships with international collaborators, participating more actively in science popularization events and outreach activities, increasing its research team, and expanding its library collection.

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## 2.7. VU\_EV Unit of Assessment

Name of the institution	<b>Vilnius University</b>
Official abbreviation of the name of the institution	<b>VU</b>
Name of the Institution's unit of assessment (hereinafter – UoA)	<b>Economics and Business management</b>
Abbreviation of the UoA name	<b>VU_EV</b>
The scope of the UoA (FTE(SD))	<b>66,36</b>
Research area(s)	<b>S 000 - Social sciences</b>

### Quality of the R&D activities by research fields (groups of research fields) of the UoA

#### Social sciences

Research field	Scope (FTE(SD))	Score (points)
<b>S 004 - Economics</b>	<b>39,98</b>	<b>4,5</b>

#### Reasoned justification of the score

The UoA's research group in Economics consists of 66 researchers with scientific degree (25.89 FTE) and 91 teaching staff with scientific degree (42.28 FTE). Hence the Economics group is similarly sized to its Management counterpart but with a stronger emphasis on research duties.

The research areas include financial economics, socioeconomic welfare and energy economics. The publications of the Economics group (20 submitted) demonstrate a clear commitment to research excellence, which makes the division relevant at the European level. Articles are typically co-authored, often with international colleagues, with an average share of 36% (for the institution). From a quantitative point of view, all of the 20 submitted articles are ranked 3 (17), 4 (1) or 4\* (2) in the AJG Guide. From a more qualitative point of view, the balance is even better, since the list includes several publications in general-interest journals, such as Journal of Finance, Journal of Financial Economics, AEJ: Economic Policy and European Economic Review and very renowned journals in their fields (e.g., in Environmental or Labour Economics).

The quality of the attended conferences included in Unit's self-assessment report is similarly high, with events like the annual conferences of the Econometric Society, the European Economic Association, the Regional Studies Association, the European Society of Labour Economists, European Society for Population Economics or European Association of Environmental and Resource Economists.

The doctoral training programme shows a declining number of candidates to around four admitted per annum in the last two years. This appears a reasonable adjustment given that 17 PhD theses were defended within the group over the analysed period, or approximately three per year. More than half of the theses were written in Lithuanian and all of them consisted in monographies. With the exception of the last year, the percentage of international students was between 5% and 10% of total PhD candidates.

The list of awards received by members of the group is short but relevant, with some interesting international reach.

In terms of R&D projects, the list submitted to the assessment includes 20 projects lead by the research group generating a total funding of EUR 3.7 mill. or EUR 146 thous. per FTE researcher on an average. Most of them were clearly fundamental research, which is coherent with the commitment to research articles produced by the group. Four of them were competitive at an international level, even if restricted to a limited number of countries (Baltic states or Lithuania and Poland). The rest of the R&D projects is national. The absence of EU-funded projects is noteworthy and probably the only weakness of the group. This issue is probably due to the orientation of the group towards fundamental research, the quite specific priorities of the EU authorities and the nature of the research usually contracted by EU institutions (more interest in reports than academic articles).

In sum, the UoA's research group in Economics is assessed as being strong at the international level with a potential to become a top international player with respect to R&D activities. Given the size of the group it should attempt to achieve a higher proportion of publications in top-tier outlets and ensure that a high proportion of its faculty regularly is engaged in research at high international level.

Research field	Scope (FTE(SD))	Score (points)
<b>S 003 - Management</b>	26,38	4

Reasoned justification of the score

The UoA's research group in the Management field consists of 39 researchers with scientific degree (9.59 FTE) and 104 teaching staff with scientific degree (50.36 FTE). Hence the group is similarly sized to its Economics counterpart but with a stronger emphasis on teaching duties.

The research is dominated by marketing and decision sciences, which, to be a management research Unit appears limited. A brief and non-comprehensive review of the academic staff's publication records indicates an eclectic collection of research topics. The delimitation between Management research and Economics is not entirely clear. Although less extensive the publication list of the Management group indicates a commitment to high-quality research. All of the 13 listed publications are articles ranked 3, 4 or 4\* in the AJG Guide. Particularly the marketing research stands out with publications in Journal of the Academy of Marketing Science, International Journal of Research in Marketing, Psychology and Marketing and Industrial Marketing Management, but also decision sciences with publications in European Journal of Operational Research and IEEE Transactions on Engineering Management. However, the average share of research output attributable to the Institution is below 25%. Four of the publications includes an internationally recruited professor whose inclusion potentially could serve as a role model within the group and serve as a good example of how to enhance the UoA's international standing in Management.

The list of conference participation reflects a similar, but not quite, quality level as the publications. It includes presentations at regular meetings organised by the Academy of Management or the World Marketing Congress, with also many relevant European events. Participation at more conferences of the former type would serve to strengthen the position of the group at the international level.

Several members of the group received some distinctions due to their publishing or reviewing activity.

The doctoral training programme is ambitious – potentially too ambitious at the expense of research conducted by the regular academic staff – and, which is noteworthy, there were 26 PhD theses defended within the group over the analysed period group, approximately five PhD's per year. Approximately 15% of the PhD theses were in English. The number of admitted PhD candidates were approximately 33, more than



one third was part-time students. Around 5% were international students, largely because of their low presence among part-time students. The group reported 13 R&D projects, generating a total of EUR 1.4 mil. or EUR 140 thous. per FTE researcher. In terms of funding 30-40% -were international EU-funded projects (always as a partner) and 60-70% national ones (always with the group in a leading role).

Overall, the UoA's research group in Management is assessed as being strong at the international level with respect to R&D activities. Given the size of the group it should attempt to achieve a higher proportion of publications in top-tier outlets, seek to expand its coverage of the Management field, increase its faculty's participation at high quality international conferences and ensure that a higher proportion of its faculty regularly is engaged in research at high international level.

## Economic and social impact of R&D activities of the UoA

Score (points)

4

Reasoned justification of the score

The UoA is very active in participation and interacting with society. It is closely related not only to the academic community, but also to business, decision-makers, and the society.

The impact of the research activity of the UoA is influenced by the type of research carried out, mainly fundamental research. The list of research outputs and projects intended to have an economic and social impact is dominated by the argued implications of fundamental research and also policy advise.

A few examples of projects include non-equivalence of labour market taxes, methodology for the national progress strategy in Lithuania, energy efficiency strategies based on behavioural economics, and the creation of online learning platform.

Although some advice seems to have shaped economic policy (e.g., taxes and energy), in other cases, the impact is more potential than real or observed (e.g., the implications of some macroeconomic reports or theoretical insights).

The UoA has an institutionalized collaboration with the Lithuanian National Bank. An extensive number of faculty members occupy significant roles and are represented in working groups in national state bodies such as the Government of the Republic of Lithuania, the Lithuanian National Bank, Transparency International Lithuanian Office, the National Energy Regulatory Council, the Ministry of Health and the Research Council of Lithuania. Members of the groups also demonstrate a considerable number of consultations.

The UoA organised several relevant international conferences and workshops in various fields reflecting the UoA's research strengths. Although none of the conferences were annual meetings of the large economics or business associations, they included international keynote speakers and provided international exposure.

Researchers of the UoA are represented in editorial boards of scientific journals, mainly in the Management field, including the participation in editorial tasks in some very good outlets. The popularisation of science activities carried out by the members of the UoA included a good number of media interventions (mainly articles), participation in podcasts and some activities at the university such as the Economics and Entrepreneurship Olympiad or the EdTech Hackaton. The amount of international funds raised through R&D orders is very low (and even more on a per capita basis).

In sum, the UoA carries out very important research and its members are important partners in R&D beyond the academic community.

## The development potential of R&D activities of the UoA

Score (points)

4,5

Reasoned justification of the score

The UoA enjoys a very strong position in Economics and Management research in Lithuania and in an international perspective its performance is strong. The challenges for the medium-term future are to maintain and to develop its strengths and to further reduce its weaknesses.

The main strengths of the UoA are the research and publication strategy, the management of the UoA, and the UoA's infrastructure.

The UoA has adopted an international publication strategy anchored in the Chartered Association of Business Schools Academic Journal Guide (AJG). This serves as a leading star to faculty members and will ensure that the focus on top-tier publications is maintained over time.

The management of the UoA is guided by a strategy which is well-aligned with the University's and appears successful in fostering a collegial spirit and support from the faculty. This is an essential enabler in sustainably converting strategy into action. The UoA has clear faculty recruitment and retention processes in place which include international exposure to new positions and the identification of career paths.

The infrastructure of the VU is comparable to the ones of renowned higher education centres in Europe. Furthermore, the UoA actively collaborates with several EU institutions and even possesses some specific infrastructure (e.g., the Bloomberg Lab).

The UoA's weaknesses are mainly found in the Management division, also recognized in the UoA's self-assessment. report It faces competition from the private sector and a shortage of lecturers forces the faculty to take on extra teaching load, which in turn has an adverse effect on the research output. And whereas the Economics division boasts a relatively stronger profile and anchoring in the Lithuanian R&D society, including e.g., the cooperation with the Bank of Lithuania, the Management division might review its profile and need to sharpen its identity.

Among the opportunities the UoA identifies are its international networking with associations like AACSB, EFMD and CEEMAN. A closer collaboration with AACSB would potentially be helpful in further developing and anchoring a coherent research and teaching strategy among its faculty, particularly in the Management area.

The UoA points out as opportunities the change in the country's general attitude towards science, the government's increasing financial support for research and Vilnius University's national and international standing. In sum, the UoA has demonstrated a significant research development and improvement in latter years. Overall, the potential for a continued positive trajectory is strong.

## Recommendations for continuity and/or improvement of the activities of the UoA

1. The UoA has a strong publication strategy and international focus. On a tactical level the UoA is recommended to consider developing an international visiting professor programme with the aim to assist

faculty members in their efforts to publish their research in top-tier outlets and to further enhance the exposure to international business schools and universities of good standing.

2. The UoA should consider establishing an advisory board consisting with the aim to institutionalize and strengthen the ties with domestic external partners. Such an advisory board can be made international by including 2-3 international professors from reputable European universities, particularly universities with which the UoA has or wishes to have a collaboration.

3. The organization of the UoA consists of four units (faculties, schools). This should potentially be reviewed with regards to mission, coherence, profile and management structure.

4. The Management division should consider developing a clearer profile of teaching and research areas, and delimitation vis-à-vis the Economics division. It is recommended that PhD candidates are encouraged to write their theses in English, and particularly, the PhD candidates in Economics, to write compilation theses (as opposed to monographs).

In conclusion, the UoA is a strong and successful contributor to research in Economics and Business Management nationally and internationally. We recommend that it continues to foster high quality research by furthering its international institutional and individual collaborations.

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## 2.8. VDU\_EV Unit of Assessment

Name of the institution	<b>Vytautas Magnus University</b>
Official abbreviation of the name of the institution	<b>VDU</b>
Name of the Institution's unit of assessment (hereinafter – UoA)	<b>VMU Economics and Management</b>
Abbreviation of the UoA name	<b>VDU_EV</b>
The scope of the UoA (FTE(SD))	<b>40,98</b>
Research area(s)	<b>S 000 - Social sciences</b>

### Quality of the R&D activities by research fields (groups of research fields) of the UoA

#### Social sciences

Research field	Scope (FTE(SD))	Score (points)
<b>S 003 - Management</b>	<b>23,15</b>	<b>3</b>

#### Reasoned justification of the score

In the self-assessment report of VDU Economics and Management unit, it was reported that the Management section consisted of 33 researchers (11.15 FTE) and 43 teaching staff (slightly above 36.00 FTE) with scientific degrees.

The Unit appears to be at a moderate stage of development, with a sufficient number of PhD candidates enrolled each year (ranging from 12 to 26). In the assessment period, between 2018 and 2022, a total of 12 doctoral theses in Management were successfully defended, which is reasonable considering that 2-3 candidates enter the program each year. The average number of Management candidates is close to 17, with both full-time and part-time candidates completing research on various topics related to sustainable consumption, social innovation, and local government functions. Most of the research (dissertations) was written in Lithuanian.

The research output during the assessment period is robust, with 20 projects extensively reported on various topics, including management culture and social responsibility, entrepreneurship in agricultural businesses, strategic advertising, postmodern business ethics, and green logistics. The findings of these projects were published in scientific journals, monographs, and books, and the publications had national significance. Some of the research received citations in WoS and Scopus indexed journals. The Management section has been successful in attracting external funding for competitive national R&D projects, and there have been several projects financed by the Lithuanian government and the EU. The Unit also participates in a H2020 project, including the Centre of Excellence for Cultural and Creative Innovations in Lithuania and Twinning for Promoting Excellence, Ability, and Knowledge to Develop Advanced Waste Gasification Solutions.

Research staff have received national awards from the national and local governments, including the Minister of Agriculture of the Republic of Lithuania. The staff has also delivered reports at international conferences in various countries, including the UK, Morocco, Portugal, Italy, Poland, Finland, and Spain. In addition, staff

members have participated in inter-(national) editorial boards, (inter-)national working groups, and EU-working groups.

Notwithstanding the credible research performance, the quality of the publications is not of the highest standard, since there were no publications at the highest tiers. Overall, the research carried out by the Management section is of medium-level and has been recognized at the national level with limited international recognition.

Research field	Scope (FTE(SD))	Score (points)
<b>S 004 - Economics</b>	<b>17,83</b>	<b>3,5</b>

#### Reasoned justification of the score

The Economics field has 41 members (almost 18 FTE(SD)). It has a good record with respect to completing doctoral studies in the period 2018-2022. A total of 13 doctoral theses have been defended, which is reasonable, given that from 1 to 3 candidates enter the program each year. The average number of candidates is 11 (weighting part time students by 0.5). The completed doctoral studies were carried out by full-time and part-time candidates. The topics of doctoral research were consumers engagement concerning agricultural vocational training, modelling outpatient care services, consumer confidence in EU-countries, among others. During the assessment period, all doctoral theses were written in Lithuanian. Doctoral candidates may choose between a thesis in the form of a monograph or a thesis as a compendium of four articles, and a majority chooses a thesis the monograph format. Additionally, the university requires 2 papers be accepted for publication before the thesis defence, requirement that is met. Doctoral candidates receive appropriate research training.

In the evaluation period, there was good participation in international conferences (Portugal, Italy, Turkey, Ireland, Czech Republic, Poland, Slovakia, Slovenia).

The researchers have secured funding from H2020 (Advancing sustainable circular bioeconomy in Central and Easter European countries), Horizon Europe (it started September 2022), and other local/regional sources (Ministry of Agriculture, among others).

Researchers have participated in a number of national and international editorial boards, national working groups and EU working groups.

The research activity of the Economics section deals with a variety of subjects (on evaluating E-farms, financial risks stakeholders, impact of bio-fuels production, sustainable bio-economy in the Baltics, corporate social responsibility, among others). This work has been published in medium impact journals: Agricultural Economics, Land Use Policy, Oeconomia Copernicana, Journal of Cleaner Production, Sustainability, and book chapters in Springer and Emerald. Overall, the research carried out by the Economics section has a medium quality level. The Economics section has strong recognition at the national level, with limited international recognition and visibility.

Although the University has formed a single UoA with two research fields (Economics and Management) for evaluation, in fact there are two separate Units for these research fields. In the "Description and justification of the R&D themes to be developed by the UoA" the University presents two separate sections:

- Priority Research Areas of FEM (Faculty of Economics and Management) and
- Priority Research Areas of FBD (Faculty of Bioeconomy Development)

The UoA also submits a separate strategic plan for FEM and FBD. Even though the merger of the two institutions is recent, and understandably it is a process that takes time, the research outcome could benefit from an integrated perspective of the UoA in each of the disciplines involved.

## Economic and social impact of R&D activities of the UoA

Score (points)

4

Reasoned justification of the score

Some of the research topics addressed by the UoA have a strong potential economic and social impact. For example, the work on advanced waste gasification and the creation of the Centre of Excellence for Cultural and Creative Innovations in Lithuania. The research on bioeconomy may have a relevant impact on rural areas (e.g., the contribution to a pan-European Rural Bioeconomy Network to promote small-scale bio-based solutions). The Unit provides a large amount of consultancy work, which shows the relevance of its work to the Lithuanian society (e.g., The Ministry of Finance, Lithuanian Association of Investment and Pension Funds, Ministry of Social Security and Labour). The UoA has carried out an intense activity of knowledge transfer to the society.

The researchers have participated in committees and workgroups to inform public policy (e.g., laws on pension funds, strategic plan of Kaunas City Municipality) and private business and institutions.

Academic events are organized on a regular basis. The Unit has organized several academic conferences in Kaunas and some abroad.

The researchers have participated in editorial boards of several journals: Management of Organizations: Systematic Research, The International Journal of Human Resource Management, Current Analysis on Economics & Finance, Journal of Social Media Marketing, International Journal of Food and Agricultural Economics, European Journal of International Management, The Central European Business Review, International Journal of Applied Research in Management and Economics, Agronomy Research, International Journal of Economics, Finance and Management Sciences, Baltic Journal of Management, International Journal of Economic Sciences and Applied Research, Rural Sustainability Research, Frontiers in Psychology, Visegrad Journal on Bioeconomy and Sustainable Development.

Very good level of dissemination of research results through public presentations and public talks, articles, media outlets, the e-platform Innofood hub, etc.

Individual staff members received a substantial number of scientific and policy-oriented awards.

Overall, the economic and social impact of the UoA is high. The UoA plays a prominent role with respect to applied contract-research, consultancy and promotional activities at the local and national level. At the international level, the UoA is also actively present. The UoA participates in international academic consortia (Transfom4Europe) as well as in international consortia with academics and enterprises. The combination of management studies and bio-ethic studies in the UoA seems attractive for external parties. The Unit carries out relevant R&D activities. It is closely related not only to the academic community, but it is an important partner to other stakeholders as well, especially to policy makers and civil society actors at the national level.



## The development potential of R&D activities of the UoA

Score (points)

4

Reasoned justification of the score

The research infrastructure and material resources of the UoA are appropriate to carry out the research activities and overall, they are of a very high quality.

An important threat to the development potential of the UoA is the fragmentation of research. Newly established institutes for transdisciplinary research have the intention to solve this problem, although presumably it will be a long process. This fragmentation should be corrected so that it does not constitute a barrier to the development potential of the UoA.

Scientific research conducted at VMU is funded from various external as well as internal sources. VMU has developed its own internal funding policy measures for the University Research Fund. Human Resource Management principles include a number of financial incentives which are available for a range of research and teaching activities and are regulated by internal legal documents approved by the University Council and the Senate. The UoA follows the main principles of Human Resource Management in the University. Lecturers, researchers and doctoral candidates are rewarded annually for their most significant research achievements from the Research Fund of the University.

The relative incentives given to the different activities may have an important impact on the research performance of the UoA. To publish in well-reputed journals has its own incentives, but the fact that other outlets (monographs, book chapters, lower quality journals, etc.) are also incentivized with important economic bonuses, may lead researchers to deviate from the hard work that is usually required to publish in top journals, and favour other outlets where results are faster.

The age structure of the research and teaching staff is well-balanced, and it is not considered a barrier to the development of the full potential of the Unit.

Research goals are reasonable. The SWOT analysis is detailed and thoughtful. The EQUIS accreditation pulls development potential.

Overall, given the main barriers mentioned above, which limit the achievement of international excellence, the UoA has potential to achieve very good ratings. Taking into account the current performance the human resources, strategy, organisation of activities and infrastructure of the UoA, will ensure conditions for very good ratings in the next 5 year.

## Recommendations for continuity and/or improvement of the activities of the UoA

The research output during the assessment period is extensive, but the Unit has not reached a substantial international recognition yet. Therefore, the UoA should focus on increasing international visibility by publishing in the top international journals, attending the best international conferences in their field of expertise, and collaborating with international researchers.

Recommendations:

1. Review the incentive system for researchers so as to increase the relative incentives given to top journals. To publish in well-reputed journals has its own incentives, but the fact that other outlets (monographs, lower quality journals, etc.) are also incentivized with important economic bonuses, may lead researchers to deviate from the hard work that is usually required to publish in top journals and favour other outlets where results are faster. A change in the relative incentives should correct that.
  2. Continue to strengthen the international co-authorship network.
  3. Try to attract full-time and part-time foreign scholars and fellows from prestigious institutions. This may contribute to a further strengthening of the UoA's international position.
  4. Doctoral candidates may choose between a thesis in the form of a monograph or a thesis as a compendium of four articles. Additionally, there is a requirement that 2 papers should be accepted for publication before the thesis defence. It would be in the best interest of the candidates if the theses were written in English and in a format closer to a publishable article.
  5. In order to increase visibility in the scientific community and attract international collaborations, it is recommended to encourage researchers, as well as PhD candidates, to continue their efforts to conduct research and publish in English with the target placed in academic journals of international scope.
  6. Although the merger of FEM (Faculty of Economics and Management) and FBD (Faculty of Bioeconomy Development) is relatively recent, and understandably it is a process that takes time, the research outcome could benefit from an integrated perspective of the UoA both in Economics and Management.
  7. The research output of the UoA covers various topics. It is recommended to continue and even widen the diversity in research topics to cover emerging and interdisciplinary areas. This will help the UoA to stay at the forefront of research and attract more external funding opportunities.
  8. Continue and foster collaboration with industry partners. This will also help to attract external funding and support the translation of research findings into practical applications.
  9. Continue to strengthen participation in international projects and conferences. This will help to establish a global network of research partners and increase opportunities for joint research projects and funding.
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### 3. FINDINGS

This overview provides an overview analysis of the state of the Social Sciences (2) field in Lithuania, offering a general overview and a set of recommendations for future development. The overview is based on a thorough evaluation of eight Units of Assessment (UoAs), which represent a broad spectrum of research areas within the field. The assessment aims to identify strengths and areas for improvement, offering a roadmap for enhancing the quality, impact, and international recognition of research and development activities in Lithuania's social sciences field.

The overview acknowledges the commendable research quality across the UoAs, with a clear commitment to advancing knowledge and research methodology in their respective fields. However, it also highlights significant variations in research outputs, internationalization efforts, and the support provided to PhD students. The overview underscores the importance of a balanced approach that caters to both national and international audiences, the need for consistent strategies to attract more international PhD students, and the benefits of a more focused research strategy that aligns with strategic objectives and stakeholder needs.

This overview is organized into five main sections, each focusing on a different aspect of the Social Sciences (2) Field in Lithuania. The first section, "Overall Research Assessment", provides a detailed evaluation of the research quality across the UoAs, highlighting the role of PhD students, the level of internationalization, and the alignment of research themes with strategic objectives. This section also includes a summary of the research performance in specific fields such as Management, Economics, Communication and Information, Law, and Political Science.

The second section, "Knowledge Transfer: Socio-economic Impact of Research Activities", assesses the economic and social impact of the UoAs' research and development activities. It discusses the engagement with national and international stakeholders, the contribution to policy-making and industry practices, and the potential for enhancing international visibility and impact.

The third section, "Infrastructure, Funding, Management, Human Resources", evaluates the development potential of R&D activities across the UoAs. It examines the management aspects, the quality of infrastructure, the role of third-party funding, and the management of human resources and career development.

The fourth section, "Recommendations", provides a comprehensive set of recommendations for fostering the quality, impact, and international recognition of the UoAs' research and development activities. These recommendations are categorized into five dimensions: research quality and output, internationalization, human resources and career development, infrastructure, and management.

The overview concludes with a summary of the key findings and recommendations, emphasizing the potential for the UoAs to enhance their research capacity, contribute more effectively to global academic discourse, and enhance their international reputation.

#### **Overall Research Assessment**

The research quality across the eight Units of Assessment (UoAs) is overall commendable (albeit with significant variation), with a clear commitment to advancing knowledge in their respective fields. However, the quality of research outputs varies significantly. Some UoAs have made concerted efforts to publish in high-impact journals and present their findings at prestigious international conferences. This not only enhances the visibility of their research but also contributes to the global discourse in their fields. On the other hand, other UoAs have focused more on national-level publications and conferences. While this

approach serves the local academic community and addresses national issues, it may limit the international reach and impact of their research. Therefore, a balanced approach that caters to both national and international audiences could be beneficial.

The role of PhD students in these units is significant. They contribute to the research output and bring fresh perspectives to the research themes. Most UoAs (those that have a PhD programme that is) have a healthy number of PhD candidates, and a good number of doctoral theses have been defended during the assessment period. However, the support provided to these students could be improved. The number of international PhD students is generally low across the units, which may limit the diversity of perspectives in their research. Additionally, most theses are written in the national language, which could restrict their international impact and hurt their job prospects abroad. Therefore, UoAs could consider consistent strategies to attract more international PhD students and encourage the production of theses in English or other widely spoken languages. The proportion of dissertations consisting of a collection of papers, which is the most common practice in some fields worldwide, is certainly below the international trend. It seems evident that the national regulations requesting published journal articles (instead of publishable papers) has much more responsibility here than UoAs' strategies.

In terms of internationalization, some UoAs have demonstrated success in attracting external funding for competitive national and EU R&D projects. This is a positive indicator of the quality and relevance of their research. However, it is essential to acknowledge that the international visibility of these units remains somewhat constrained. Few publications appear in top-tier international journals, and participation in top-tier international conferences is limited. These indicators suggest that there is room for improvement in terms of enhancing the international reputation of these units. To enhance their international reputation, units could focus on publishing in internationally recognized journals and actively participating in well-established quality conferences and research networks. Furthermore, active participation in globally recognized conferences and engagement with prominent research networks can significantly contribute to enhancing the international reputation of these units. By actively involving themselves in these esteemed events and networks, UoAs can showcase their research, foster meaningful collaborations, and establish connections with leading scholars and institutions across the globe. This not only enhances their international standing but also provides opportunities for knowledge exchange and the cross-pollination of ideas, thus enriching the overall research environment.

It is noteworthy that certain units clearly set standards with are more in line with internationally and widely accepted quality criteria (e.g., targeting journals on the AJG list, formerly ABS list, or the FT50 list). Nevertheless, others have largely prioritised publishing in Web of Science journals with high impact factors. The latter strategy sometimes frequently come at the expense of publishing in journals that do not enjoy much recognition in the disciplines the UoAs belong (or, sometimes, are even outside the disciplines). Along this line, in a low number of cases, the units disseminated their works through journals edited by academic publishers whose practises raise concerns among the international research community. That focus on impact factors is at odds with some international guidelines (e.g., the San Francisco Declaration on Research Assessment, adopted by some national research agencies). It is fair to point out that this strategy probably responds to the incentives set by other research assessments in Lithuania, which gives impact factors a very relevant role.

The research themes pursued by the units generally align with their strategic objectives (as long as these are clearly formulated), which is a positive sign of their strategic focus. However, there is some evidence of a lack of coherence in the choice of research topics. This lack of focus may dilute the impact of their research and make it harder for them to establish a strong reputation in specific areas of expertise. Therefore, units could benefit from a more focused research strategy encompassing specific areas of given UoA specialization, that

aligns with their strategic objectives and the needs of their stakeholders. Furthermore, it is advisable for the units to adopt a more focused research strategy that closely aligns with their strategic objectives and the needs of their stakeholders. By prioritizing research topics that directly contribute to their overarching goals, these units can enhance the relevance and significance of their research outputs. A more focused approach allows for a deeper exploration of specific areas, fostering specialization and expertise that can be recognized and valued by the academic community.

While there is some variation in research capacity and performance across the UoAs, given the diversity of the research areas within the Social Sciences (2) Field, below are summarized the research performance in these fields.

*Management:* The research quality in the Management field varies across the UoAs, with some showing a high level of research quality with a strong focus on international business, finance, and economics, while others have a more modest research output with a focus on local issues. The UoAs have demonstrated a remarkable ability to attract research funds, but there is a need for more robust participation in international conferences and publication in internationally recognized journals. The UoAs should also focus on increasing international visibility, reviewing the incentive system for researchers, attracting foreign scholars, and encouraging research and publications in English (including of doctoral theses, with some UoAs consistently having that, which others are largely in Lithuanian, slowing the integration in a global research landscape).

*Economics:* The research quality in the Economics field is high in some UoAs, with a strong focus on international economics, finance, and business. However, in other universities, the research output is more modest and primarily focused on local or national issues. The universities have demonstrated a good ability to attract research funds and publishing in international journals, but there is a need for more robust participation in the top and publication in the most prestigious journals (looking beyond impact factors). The UoAs should focus on publishing in top journals, research methodology development as well as strengthen the international co-authorship network, attract foreign scholars, and encourage research and publications in English.

*Communication and Information:* The research quality in the Communication and Information field is satisfactory at a national level, but there is a lack of international recognition. The UoAs should aim to increase their international collaborations and participation in top-tier conferences. The universities should focus on fostering the next generation of researchers, while also aiming to increase its international collaborations and participation in top-tier conferences.

*Law:* The research quality in the Law field is limited partly due to the small size of the law division, with a domestic focus. There is a need for more robust participation in international conferences and publication in internationally recognized journals. The university should focus on improving the research quality, increasing the international collaboration, and enhancing the community engagement.

*Political Science:* The research quality in the Political Science field is good, with a focus on themes such as cyber-security and sustainability. However, the choice of themes remains somewhat eclectic. The universities should develop a strategy for the development of Political Science as a field, attract more research funds, improve international networking in Political Science, and stimulate PhD candidates to publish their theses in English.

Overall, while the UoAs have demonstrated strengths in their research activities, there is room for improvement. Enhancing research quality, providing better support for PhD students, and improving internationalization are key areas for development. To achieve this, the UoAs need to develop clear and coherent research strategies, foster a supportive and collaborative research culture, and ensure they have the necessary resources and facilities to support high-quality research. By doing so, they can enhance their

research capacity, contribute more effectively to global academic discourse, and enhance their international reputation.

### **Knowledge transfer: socio-economic impact of research activities**

Notwithstanding the variations among the UoAs, overall, they have collectively demonstrated a significant contribution to both the economic and social landscape, with their R&D activities having a tangible impact on policy-making, industry practices, and societal well-being. For instance, Lithuanian Energy Institute's work on energy policies has resulted in the development of in-house models currently used by authorities in the organisation of the electricity sector. This has not only improved the efficiency of the sector but also contributed to the economic growth of the region. Similarly, ISM's research on circular economy and disability inclusion has informed corporate practices and public policies, leading to more sustainable and inclusive business environments. Their work on long-term care and emerging technologies in finance has also had a significant impact on the health and financial sectors, respectively.

The UoAs' engagement with national and international stakeholders, including policy makers, businesses, and the wider society, has been intense and productive. For instance, KTU has been strongly engaged in work involving business dispute resolution and entrepreneurship has fostered cooperation and knowledge exchange among various stakeholders, leading to more effective business practices and a more vibrant entrepreneurial ecosystem. Through these productive engagements, KTU has demonstrated their commitment to the practical application of research and the translation of knowledge into tangible outcomes.

The UoAs' faculty members have also contributed their expertise to various working groups, commissions, and committees, advising state and municipal institutions and other economic entities. For instance, Vilnius Tech's work on cross-sectoral cluster analysis and citizen science has informed public policies and industry standards, leading to more efficient and effective practices in these sectors.

Despite their overall commendable efforts in knowledge transfer and making a social and economic impact of their R&D, the UoAs' international visibility and impact could be enhanced. While the UoAs have hosted several conferences and events, many of these have been primarily regional, indicating a need for greater international reach and collaboration. This indicates a need for greater emphasis on expanding international reach and fostering collaborations on a global scale. A specific example that highlights this potential for broader influence is the work conducted by KSU in the area of vulnerable children protection and academic research advancement. The research and expertise developed by KSU in this field possess the capacity to shape international policies and practices. However, their impact has primarily been confined to the domestic sphere.

In terms of science popularization activities, the UoAs have made commendable efforts to communicate their research findings to the wider public. Vilnius University's efforts in communicating their research findings on taxes and energy policies exemplify the impact that science popularization activities can have. By leveraging various media outlets, such as traditional print media, online platforms, and broadcast channels, they have effectively reached and engaged with a diverse range of individuals outside the academic sphere. To further enhance science popularization efforts, UoAs can explore additional channels and formats that resonate with different segments of the public. This could include the utilization of social media platforms, interactive workshops, public lectures, and collaborations with science communicators and journalists. By employing a variety of communication approaches, UoAs can extend their reach and ensure that their research findings have a meaningful impact on society.

The UoAs' economic and social impact is also reflected in their ability to secure international funds for R&D contracts, although the amount raised is relatively low in many cases. This suggests a need for the UoAs to



explore additional funding opportunities and strengthen their international collaborations. Having dedicated project departments (including proposal making) within the UoAs, strongly dedicated towards this task, and creating KPIs towards this end could be a step in the right direction (although some UoAs seem to have such units).

Overall, the UoAs have made significant contributions to the economic and social landscape through their R&D activities. However, there is room for improvement in terms of enhancing their international visibility and impact, strengthening their popularization science activities, and securing additional funding for R&D contracts. By addressing these areas, the UoAs can further enlarge their economic and social impact and continue to play a pivotal role in shaping the economic and social landscape.

### **Infrastructure, funding, management, human resources (including career development and human resource management)**

The development potential of R&D activities across the Units of Assessment (UoAs) exhibits a promising trajectory, with most units demonstrating a robust strategic vision, a commitment to quality research output, and a strong focus on human resources management. The UoAs have shown a clear understanding of their strengths and weaknesses, with many already implementing strategies to leverage opportunities and mitigate potential threats. The overall trend suggests a positive outlook for the next five years, with many units poised to achieve very good to excellent ratings.

However, the development potential is not uniform across all UoAs, and there are areas of concern that need to be addressed to ensure sustained growth and improvement. These areas include infrastructure, management aspects, human resources, and career development and human resource management.

#### ***Management Aspects***

The most successful UoAs have developed comprehensive SWOT analyses and strategies that clearly outline how they plan to build on their strengths and address their weaknesses. These units have tailored their strategies to their unique circumstances, considering factors such as their history, location, size, and institutional environment. However, some units' SWOT analyses and strategies lack depth, which was also evidenced during the on-site visits.

Many UoAs have adopted Gender Equality Plans, demonstrating a commitment to addressing potential gender imbalances within their units. It is worth mentioning that there are systems of incentives in force in most of UoAs, which reward research activity either setting monetary rewards or reducing teaching load. The most successful units have transparent bonus systems that reward staff for their performance, contributing to a sense of fairness and staff buy-in. However, in units where such systems are not in place, there are concerns about the lack of clearly articulated career opportunities. This discrepancy raises issues surrounding the potential for gender imbalances and limited advancement prospects within those units. Ensuring equal and transparent career pathways is vital to fostering a diverse and inclusive academic community. To address these concerns, UoAs should strive to establish clear and transparent career development opportunities for all staff members. This includes articulating promotion criteria, providing mentoring and professional development programs, and fostering a culture of inclusivity and equal opportunity. By doing so, UoAs can create an environment that promotes the advancement of all individuals, irrespective of gender, and mitigates potential gender imbalances within their units.

#### ***Infrastructure***

The quality of infrastructure varies across the UoAs. Some units boast state-of-the-art facilities and access to advanced software programs, while others acknowledge the need for infrastructure improvement. The emergence of new e-infrastructure, such as the shared European Common Language and Resources and

Technology Infrastructure, is a positive development. However, in some units, researchers lack appropriate workspaces, indicating that the quality of research infrastructure is not uniformly good across all units. To address this issue, UoAs should prioritize the improvement of research infrastructure, ensuring that all researchers have access to the necessary resources and facilities to conduct their work effectively. This may involve investments in laboratory equipment, computing infrastructure, specialized software, and dedicated research spaces. By providing researchers with the essential tools and environments they need, UoAs can facilitate high-quality research and support their pursuit of academic excellence.

### ***Funding***

Third-party funding plays an increasingly important role in supporting key research projects. The Research Council of Lithuania (RCL) has been instrumental in fostering innovative and important research projects, and it is crucial that the RCL continues to receive sufficient resources to play this role in the future. Some UoAs have been successful in obtaining funding from Horizon 2020 projects and other sources, demonstrating the potential for international research collaborations. However, the time-consuming nature of funding applications, especially to Horizon and national sources, is a significant commitment that is not adequately captured by this exercise. More diversified approach to funding, including search for other, less commonly known sources, can also be helpful. Additionally, participation in certain types of international calls is not always the shortest path to high-quality publications valued by the research community (since the priorities of the funding agencies are not always the same as the ones identified by academic researchers).

### ***Human Resources and Career Development***

Human resources across the UoAs are generally well-managed, with fair promotion systems based on research output (in the case of research involved faculty members). There is a focus on attracting and retaining talent, with clear recruitment and retention processes in some units. However, challenges related to age distribution and a heavy bias towards teaching in some units, which may affect research output, have been identified.

Doctoral candidates seem to be well supported financially, with increases in stipends being a critical factor. The leading UoAs provide a high level of research funding support for PhD students, including support for conference attendance and research. It is essential that all UoAs adhere to similarly high standards of PhD student support.

In conclusion, while the development potential of R&D activities across the UoAs is promising, addressing these identified challenges will be crucial to ensuring sustained growth and improvement in the coming years.

### ***Recommendations***

The recommendations for the eight Units of Assessment (UoAs) provide a comprehensive roadmap for enhancing the quality, impact, and international recognition of their research and development activities. These recommendations, while tailored to each UoA's unique circumstances, share common themes that can be broadly categorized into the following dimensions: research quality and output, internationalization, human resources and career development, infrastructure, and management. Note that these recommendations, should be considered along with suggestions that have been made all through the text earlier.

### ***Research Quality and Output***

A common recommendation across all UoAs is the need to enhance research quality and output. This can be achieved by targeting high-quality journals for publication, focusing on fundamental research areas, and

diversifying grant and project application sources. The UoAs are also encouraged to review their incentive systems to motivate researchers to publish in top-tier journals. In this respect, the almost exclusive focus on Web of Science impact factors is not an adequate strategy. Additionally, the UoAs are advised to establish systems to record the long-term effects of their research activities, including the number of citations and practical applications of their work.

### ***Internationalization***

The recommendations highlight the importance of increasing international visibility and collaboration. This can be achieved by participating in top-tier international conferences, inviting international scholars for seminars and workshops, and building international co-authorship networks. The UoAs are also encouraged to attract foreign scholars and fellows from prestigious institutions to enhance their international standing. Building international co-authorship networks is another valuable strategy for increasing international visibility. By collaborating with researchers from different countries, UoAs can expand their reach and contribute to global research discourse. This collaborative approach can result in high-quality publications that showcase the UoAs' expertise and attract international recognition.

### ***Human Resources and Career Development***

The UoAs are advised to focus on human resources development, particularly for PhD candidates. Recommendations include encouraging PhD candidates to write their theses in English, providing them with a clearly defined scope of duties, and offering competitive funds to finance their research work. Moreover, UoAs are encouraged to facilitate sabbatical leave for their employees. Sabbaticals provide valuable opportunities for academic staff to engage in research, collaborate with experts in their field, and acquire new skills and knowledge. Lastly, UoAs should prioritize professional development programs aimed at fostering innovation and enhancing skills. Offering training programs, workshops, and seminars enables employees to stay abreast of the latest developments in their fields, acquire new techniques and methodologies, and cultivate a culture of continuous learning and growth.

### ***Infrastructure***

Improving physical infrastructure is another common recommendation. While some UoAs are in the process of refurbishing their buildings, others are encouraged to expand their library collections to provide more resources for their researchers. To effectively implement these recommendations, UoAs should prioritize infrastructure development in their strategic planning. This involves allocating resources and seeking funding opportunities to support building refurbishments and library collection expansions. Regular assessments of infrastructure needs, in consultation with researchers and library professionals, are essential to identify specific areas for improvement. This ensures that investments are targeted and aligned with the evolving requirements of the academic community. UoAs should aim to create an environment that fosters research excellence by providing researchers with well-equipped and modernized infrastructure.

### ***Management***

The UoAs are advised to review their management structures and strategies. Recommendations include establishing advisory boards to strengthen ties with external partners, considering the organization of their own cyclical conferences, and developing strategies for the development of their respective fields. The UoAs are also encouraged to be more self-critical in their SWOT analyses and to incorporate the elimination of their weaknesses in their strategic documents.

In addition to these common dimensions, there are specific recommendations that do not fit under these categories. For instance, some UoAs are encouraged to focus more on research areas related to Economics,

while others are advised to strengthen commercial research or to develop a strategy for the development of Political Science as a field.

In conclusion, these recommendations can provide a valuable guide for the UoAs to enhance their research and development activities. By focusing on improving research quality and output, increasing internationalization, developing human resources, improving infrastructure, and enhancing management, the UoAs can significantly enhance their performance and international recognition.

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