



KAUNO TECHNOLOGIJOS UNIVERSITETAS **VEIKLOS VERTINIMO IŠVADOS**

INSTITUTIONAL REVIEW REPORT OF ***KAUNO TECHNOLOGIJOS UNIVERSITETAS***

Grupės vadovas:
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Grupės nariai (kategorija):
Panel members (category):

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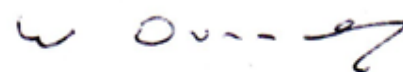
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CONTENT

I. EXECUTIVE SUMMARY	3
II. INTRODUCTION	4
2.1. Background of the review process.....	4
2.2. Background information about the institution.....	6
III. ANALYSIS BY EVALUATION AREAS.....	7
3.1. Management	7
3.2. Quality Assurance	18
3.3. Studies and Research (Art)	23
3.4. Impact on Regional and National Development	33
IV. EXAMPLES OF GOOD PRACTICE.....	38
V. RECOMMENDATIONS FOR ENHANCEMENT	39

I hereby certify that this is the final text of the institutional review report of Kaunas University of Technology.



Prof William Donnelly

I. EXECUTIVE SUMMARY

1. The purpose of the external review is to determine the quality of the performance of a higher education institution based on the findings of the external review, to create prerequisites for improvement of the performance of a higher education institution, to promote a culture of quality, and to inform founders, academic community and the society about the quality of higher education institutions.
2. This review report is based on the evidence given in the self-evaluation report, additional evidence requested by the Panel, information provided by the Centre for Quality Assessment in Higher Education (hereinafter – Centre, SKVC) and a site visit, where meetings with a wide range of audiences were held.
3. The Panel was composed of the reviewers, following the Experts Selection Procedure approved by the Director of Centre for Quality Assessment in Higher Education on 31 December 2019 [Order No. V-149](#) and included the following members:

Panel chairperson: Prof. William Donnelly

Review secretary: Dr. Demelza Curnow

Panel members (category):

Prof. Peeter Normak (academic)

Prof. dr. Vincent Wertz (academic)

Gintaras Vilda (social partner)

Mick Scholta (student)

4. As a result of external review **Kaunas University of Technology** (*Kauno technologijos universitetas*) is given a **positive evaluation**.
5. Evaluation areas:

Area	Assessment with points*
MANAGEMENT	3
QUALITY ASSURANCE	3
STUDIES AND RESEARCH (ART)	4
IMPACT ON REGIONAL AND NATIONAL DEVELOPMENT	4

*5 points - **excellent** – the area is rated exceptionally well in the national context and internationally;

4 points – **very good** – the area is rated very well in the national context and internationally, without any drawbacks;

3 points – **good** – the area is being developed systematically, without any major drawbacks;

2 points – **satisfactory** – the area meets the minimum requirements, and there are drawbacks that must be addressed;

1 point - **unsatisfactory** – the area does not meet the minimum requirements, there are fundamental drawbacks.

6. **9** examples of good practices were found; **11** recommendations are made.

II. INTRODUCTION

2.1. Background of the review process

7. The external review of **Kaunas University of Technology** (hereinafter referred to as KTU or the University) was organised by the Centre for Quality Assessment in Higher Education and carried out in May 2023 by an Expert Panel of international experts (hereinafter – the Panel). It was conducted in accordance with the Procedure for the External Evaluation and Accreditation of Higher Education Institutions and Branches of Foreign Higher Education Institutions, Evaluation Areas and Indicators approved by the Minister of Education, Science and Sport of the Republic of Lithuania (hereinafter – the Procedure) on 19 of December 2019 [Order No. V-1529](#) and the Methodology for Conducting an Institutional Review in Higher Education approved by the Director of SKVC on 9 of March 2020 [Order No V-32](#) (hereinafter – the Methodology).
8. According to the Procedure the external review consists of the following stages: submission of a self-evaluation report prepared by the higher education institution to the Centre; formation of an expert Panel and analysis of the self-evaluation report; expert Panel visit to the higher education institution; the preparation of the external review report, decision-making on the external review as well as accreditation and publication thereof; follow-up activities aimed at improving the performance of the higher education institution, taking into account the external review report.
9. At the preparatory stage of the external review, the Panel received a Self-Evaluation Report (hereinafter – SER) with 39 annexes. SKVC provided to the Panel additional information about the University, as set in the Methodology (Chapter 26), including statistical data on students and staff; financial data; findings from the ex-post study field reviews, institutional reviews and evaluations of research and development activities; information on violations of academic ethics from the Office of the Ombudsperson for Academic Ethics and Procedures of the Republic of Lithuania. The Panel requested additional information, such as financial management regulations, governance structures, minutes relating to committee oversight of programme development and monitoring, and evaluation of performance against action plans and key performance indicators (KPIs).
10. The site visit was undertaken after a training session organized by SKVC staff and preparatory Panel meetings. The Panel visited the University 16 -18 May 2023 where it had formal meetings with fourteen groups of internal and external stakeholders and carried out a tour of resources. Subsequently, the Panel met both in-person and virtually to review and agree conclusions and recommendations. The review report was finalised by correspondence and submitted to the SKVC.
11. In line with the Procedure the external review focused on four areas covered by the evaluation indicators and related criteria: **Management, Quality Assurance, Studies and Research (Art)** and **Impact on Regional and National Development**. In analysing the evidence collected, the Panel also gave due consideration to the recommendations of the previous review held in 2014.
12. The review of a higher education institution assesses each of the evaluation areas with one of five ratings: **excellent** – 5 points – the area is rated exceptionally well in the national context and internationally; **very good** – 4 points – the area is rated very well in the national context and internationally, without any drawbacks; **good** – 3 points – the area is being developed systematically, without any major drawbacks; **satisfactory** – 2 points – the area meets the

minimum requirements, and there are drawbacks that must be addressed; **unsatisfactory** – 1 point – the area does not meet the minimum requirements, there are fundamental drawbacks.

13. The decision on **positive** evaluation is made when none of the evaluation areas is evaluated unsatisfactorily (1 point). The decision on **negative** evaluation is made when at least one of the evaluation areas is evaluated unsatisfactory (1 point).
14. In line with the Methodology the review report, prepared by the Panel is reviewed by SKVC and sent to the higher education institution to submit comments on factual errors and the evaluations based thereon. The Panel revises the report in response to the comments from the higher education institution (if applicable) and submits it to SKVC.
15. The Panel received Kaunas University of Technology's comments and considered them. The panel considered five of these to be substantive points. Three were accepted by the panel and the report was amended to reflect this. Two further points were rejected by the Panel. For one of these, whilst the Panel did not accept the University's additional submission, they were willing to edit the text of the report slightly to clarify the point. The other point was rejected by the Panel and no change was made to the report. In addition, a small number of corrections or clarifications were noted, for example to the names of projects or centres, some of which were a consequence of translation. The Panel was pleased to receive these and accepted all of them in the final text of the report. KTU also asked the Panel to reconsider the evaluation of one area. The Panel reviewed the evidence as requested but reconfirmed their original decision and the evaluation remained unchanged.
16. After the Panel considers comments from the higher education institution (if applicable) and finalizes it, the report is considered by the external Commission of the Higher Education Institutions' Review (hereinafter – the Commission), set up by SKVC. On the basis of the proposal, made by the Commission, provisioned in the Commission's regulations, approved by the order of the Director of SKVC on 8 of January, 2020 order [No. V-5](#), SKVC takes one of the decisions:
 - to evaluate the performance of the higher education institution positively;
 - to evaluate the performance of the higher education institution negatively.

The higher education institution shall be entitled to lodge a reasoned complaint to the Commission for Appeals formed by the Centre.

The decisions of the Centre and the Commission for Appeals may be appealed against in accordance with the procedure established by the Law on Administrative Proceedings of the Republic of Lithuania.

17. On the basis of the external review decision SKVC takes one of the following decisions on the **accreditation** of the higher education institution:
 - to **accredit for a period of seven years** if performance of the higher education institution is evaluated positively;
 - to **accredit for a period of three years** if performance of the higher education institution is evaluated negatively;
 - to **provide no accreditation** if the repeated external review results of the higher education institution are negative.

18. SKVC announces the decision on the external review together with the conclusions of the external review and the decision on the accreditation of the higher education institution on its website. The higher education institution respectively announces the decision on the review of the higher education institution together with the external review report on its website and maintains it until the next external review.

2.2. Background information about the institution

19. Kaunas University of Technology originates from the technical faculties of the University of Lithuania, which was founded in Kaunas in 1922, and subsequently became an independent institution. In 1950, it was reorganised into Kaunas Polytechnical Institute before taking its present name on 31 October 1990. The University operates as a public institution.
20. The University states its **mission** as being “to provide research-based studies at the international level, creating and transferring interdisciplinary knowledge and innovative technologies for the sustainable development of the state, and forming an open creative environment that inspires talents and leaders.” Its **vision** is “to be an internationally competitive, interdisciplinary university of technology, creating and transferring new knowledge and innovations.”
21. The University has nine faculties (one of which is in Panevėžys), eight research institutes, and seventeen administrative and service departments. Students are enrolled on higher education programmes across the three Bologna cycles: Bachelors, Masters and Doctorate. At the time of the review, the University had 7,654 students (including international students), comprising 5,224 undergraduates, 2,102 master’s students and 328 doctoral students. Although the University offers study programmes across a range of disciplines, significantly the highest numbers are within the field of Engineering. In contrast, numbers within the social sciences are low, although this is an academic area in which the University has active researchers. Overall student numbers have shown a decline over the five-year period leading up to the review, although the admissions figures for 2022-23 indicate this trend may be reversing.
22. In terms of staffing, the University reported a total of 1,954 staff (with a full-time equivalent (FTE) of 1,818) of which 795 (581 FTE) are designated as teaching staff, 645 (330 FTE) are designated as researchers, and 514 are administrative staff. The University plans to address a reduction in funding for administrative staff through greater efficiencies and improved automation of key systems.
23. The University is actively engaged in international partnerships, co-operating at various levels with educational institutions across fifty countries. One notable and strategically important alliance to which KTU belongs is the European Consortium of Innovative Universities (ECIU), which has attracted funding through the Erasmus+ European University Alliances Initiative.
24. At the time of the review, the University was in the process of electing a Rector for the next five-year cycle.

III. ANALYSIS BY EVALUATION AREAS

3.1. Management

Management area is analysed in accordance with the following indicators and criteria, set up in the Methodology.

1.1. Compliance of the higher education institution's strategic action plan with the mission, assurance of its implementation:

1.1.1. The strategic action plan is consistent with the mission of the higher education institution, legal acts regulating research and study activities and it takes into account the provisions of the national research and study policy, the European Higher Education Area and the European Research Area;

1.1.2. The parts of the strategic action plan (analysis of the current situation, priorities and aims, objectives of the activities, implementation means, resources, planned performance indicators) are appropriate and justified;

1.1.3. Regular monitoring of the implementation of the strategic action plan is carried out and the results are used to improve performance management.

25. KTU has a Strategy 2021-2025 which sets out the mission, vision and strategic priorities for the University going forward. There is a Strategic Action Plan for the same period which was developed following extensive engagement with both internal and external stakeholders. Underpinning this development is the evaluation of the internal and external environment captured in a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis. There is also a comprehensive suite of strategic guidelines underpinning the strategic action plan. Annually, the University submits its Strategic Action Plan for the next three years to the Ministry of Education, Science and Sport. This includes the actual and planned use of state funding for the next period.
26. The strategic action plan reflects the activities of research and studies in Lithuania including Lithuania's progress strategy "Lithuania 2030"; the vision for the future of research and studies of Lithuania "Scientific Lithuania 2030"; and the National Education Strategy 2013-2022. The plan is also consistent with the key provisions of the European Higher Education Area (EHEA); and the European Research and Innovation Area (ERIA) as well as the provisions of the European Horizon and Horizon 2020 programmes. The view of the Panel is that the University's strategic plan is consistent with the mission of the University and takes appropriate account of the provisions of the EHEA and ERIA.
27. The five-year KTU strategy is supported by an implementation plan (2021-2025), designed to achieve systematic and effective implementation of the objectives of the Action Plan. Monitoring of the implementation of the projects of the action plan is carried out at least twice a year, and responsibilities rest with the Vice-Rector for Studies, the Vice-Rector for Research and Innovation, and the Director of Organisational Development for their respective areas. The Panel considers that the resources and performance metrics set out in the KTU implementation plan are appropriate and justified and that the implementation and review processes ensure that the goals of the strategic plan are met.
28. The Panel concluded, however, that there is one drawback to the effectiveness of the implementation plan as it currently exists. Although the implementation plan is detailed and sets out priorities, actions and the action project manager and supporting team, the Panel's review of

the plan revealed the use of a mixture of actions and activities in support of the implementation of the KTU strategic plan. The plan needs to distinguish clearly the actions which will be carried out to achieve each objective. Further, in some instances, responsibility was given to a team rather than an identified individual or post, meaning that accountability and authority were not clear. Thus, the Panel **recommends** that, for purposes of transparency and accountability, the activities of the action plan should be clearly identified and the plan updated to include the individuals responsible for the delivery of each activity rather than listing the overall team members.

29. In meetings with the Panel, members of the University confirmed that the strategic action plan is reviewed twice a year by way of a process which includes reports on the activities of the academic departments. The review process involves discussions at the Rectorate level, senior management and across the organisational structure down to individual committee and community members. The discussion focuses on what has been done successfully and it also identifies necessary changes to the action plan for the second half of the academic year. This includes making changes to the action plans of individual departments if required. The Panel considered this to be a robust approach for maintaining oversight of progress against the plan and enabling adjustments in-year, although the University could potentially reduce to one review of the implementation plan each year without introducing risk. In contrast, the strategic plan is revised only when major changes occur and not more than once a year. The Panel was satisfied that the University's approach to monitoring is effective, including the practice of revising the strategic plan only when major changes occur.

1.2. Effectiveness of process management of the higher education institution:

- 1.2.1. A clear structure for governance, decision making and distribution of responsibilities is defined;*
- 1.2.2. Regular process management analysis is performed, preconditions for process improvement and risk management are planned;*
- 1.2.3. Stakeholders are involved in the management process at an adequate level.*

30. At the highest level, the governance structure at KTU consists of the Council and the Senate and a single-person governing body, the Rector. The senior management team comprises the Rector with the Vice-Rector for Studies, the Vice-Rector for Research and Innovation, and the Director of Organisational Development. The Senate, which is the collegial governing body of the University, responsible for managing the University's academic affairs, has four standing committees: Studies; Research and Innovation; Student Affairs; and Strategic Development and Finance. The University also has self-governing bodies: Faculty Councils and the Students' Association. The organisational structure includes a Rectorate, which was presented to the Panel through documentation and discussion as an advisory body to the Rector.
31. The Council is responsible for the management of the University's strategic affairs, the strategic development of the University, the quality of its activities, the proper management of the University's resources and changes in its structure. The Council is also required to ensure the University's accountability to the public, its social responsibility, and its prompt and effective response to changes in the environment.
32. The responsibility for the overall management of the University rests with the senior management team. The Deans of Faculty, Directors of Research Institutes, Directors of Departments and Heads

of Centres have delegated responsibility for the management of their own areas while ensuring compliance with the University's management priorities.

33. During meetings with representatives of the University, the Panel heard that the senior management team meets fortnightly, as does the Rectorate. The Rectorate consists of the Rector, the Vice-Rectors, the Director of Organisational Development, the Deans of the Faculties, the Directors of the Research Institutes, the President of the Students' Association, and the heads of the other departments appointed by order of the Rector. This gives a usual membership of 25 people but is flexible in that additional members can be invited to the Rectorate depending on the discussion topic. The Panel also understood that any member of the University community can propose a subject for discussion. Depending on the discussion, the Rectorate can agree on decisions. Some of these decisions are then forwarded to the Senate for formal ratification while others remain Rectorate decisions. Representatives of the University confirmed to the Panel that Deans and Directors may then adopt the Rectorate decisions as they wish. This suggests that the function of the Rectorate is not purely advisory. Whilst the Panel recognises that the University community generally values the opportunities presented by the Rectorate, the blurring of formal and informal decision-making within the governance structure is not entirely helpful and may prove limiting to the effectiveness of the University as it grows.
34. The Rector of the University is responsible for the proper management of operational risks at the University. The University's operational risk management also involves the heads of the top level and structural departments, the University's Internal Control and Quality Committee. The Internal Audit of the University provides independent, objective assurance on the adequacy and effectiveness of the University's governance and risk management by investigating and assessing the University's governance, risk management and internal controls and providing recommendations and advice to the University's management. The Internal Audit is directly subordinate and accountable to the rector of the University and the Council and Senate of the University. The plan for internal audits is drawn up following the Internal Audit Methodology approved by the order of the rector. The internal control system and processes of KTU, as well as the principles of operational risk management which help to ensure the implementation of an effective operational risk management process in the organisation, are also regulated by the Internal Control Policy of Kaunas University of Technology. The Panel confirmed that the structures put in place in KTU for the management of risk, and the role of the senior executive, Internal Control and Quality Committee and Internal Audit, are sufficient for the effective management of risk.
35. Representatives of the University described the decision-making processes as operating both top-down and bottom-up. The development of the new strategic plan was given as an example in which the community reflected on the strengths and weaknesses of the organisation to identify priorities. The outcome of the process was then put to Council. The University also noted that the Council is currently considering flattening management levels to provide more local authority for areas to decide their own developmental priorities. The Panel heard that this new structure was intended to provide greater jurisdiction for Deans and would be supported by clear delineation of which decisions sat within the authority of local areas and which would need to progress for Council approval. From the evidence presented, the Panel considered that revising the management structures in the way described would strengthen the University's ability to meet challenges and optimise its capability to capitalise on opportunities.

36. Students and external stakeholders are involved in all aspects of the management structures of the University. The Students' Association elects and delegates two members to the University Council, elects 10 members to the University Senate, delegates students from the faculties to the faculty councils (which must comprise at least 20% of the faculty council members), and either represents students in their capacity or delegates them to the Rectorate, the University Study Quality Committee, the University Dispute Settlement Committee, all field study programme committees, and academic employee selection Panels.
37. Social partners are included in the University Council (five members), faculty councils (two to three members each), research institute councils (one to two members each), as well as field study programme committees, academic employee performance evaluation and competition committees, committees for the defence of study projects and final degree projects, working groups for the preparation of study programmes, groups for the external evaluation of study fields and preparation of the summary of the self-assessment of institutional evaluation. In addition to formal participation of the external stakeholders in the University committees, social partners meet twice a year with the key academic leaders in the universities and are involved in programme review and new programme development. The external stakeholders also support the student placement programme by offering internships to KTU students. Overall, the Panel was assured of extensive exchanges between the external stakeholder community and the University.
38. The Panel's meetings with representatives of the University corroborated the written evidence in confirming the deep and active involvement of both students and external stakeholders throughout the University's management and governance structures (see paragraph 77 below). Furthermore, the Panel saw evidence that the University keeps its processes under review, as illustrated by the Council's current review of the management structures.
39. Whilst there are management and governance structures in place, the role of the Rectorate in the overall management structure goes beyond that of an advisory body to the Rector. Feedback from the Panel discussions indicated that discussions made at the Rectorate would be discussed further in the faculties and could be brought to the Council. Furthermore, during the review visit, there was acknowledgement by the University members that there can be a conflict between the decisions taken by the senior executive and the decisions made by the Rectorate. Discussions with stakeholders also revealed that stakeholder engagement was not followed up with a feedback process. This lack of feedback has the potential to lose valuable intelligence for the University and alienate internal and external stakeholders. The Panel **recommends** that the management and governance structures are revised to ensure that the University is well-placed to leverage the knowledge and expertise of all its stakeholders to meet challenges and make the most of opportunities.

1.3. Publicity of information on the performance of the higher education institution and its management effectiveness:

1.3.1. Systematic collection and analysis of the performance data, results (including student employment and graduate career monitoring) is in place, data is used for the improvement of performance of the higher education institution;

1.3.2. Information on the performance of the higher education institution is clear, accurate and accessible to the academic community and the public, and is provided regularly to the founders and members of the legal entity.

40. The University has invested heavily in IT management systems to support management decision-making based on the timely collection and analysis of data across the whole organisation. The management of the University's operational processes, including the proper implementation and monitoring, risk management and continuous improvement of operational processes, is based on the Deming Cycle method (*PDCA: Plan, Do, Check, Act/Adjust*). The introduction of visually informative and intuitive data analytics solutions at the University has created an opportunity to strengthen analytics-based performance management and move from descriptive to predictive analytics. At the same time, the system has greatly facilitated short- and long-term planning processes, monitoring, and various reporting processes. A common list of indicators developed and used in all the University's value chain processes is continuously updated with indicator specification.
41. The University has created an internal website to display data from the data analytics system which is automatically updated at specified intervals. The University administration and faculties can access a suite of data analytics on studies (student admission, student contingent, work accounting of academic employees), doctoral studies (doctoral students, science fields and areas, defended dissertations), human resources (job positions, full-time equivalents, demographics), and ongoing projects.
42. Data on graduate employability and career development are collected by sending a questionnaire developed by the University to graduates. This includes information on the graduate's post-graduation employability information, the graduate's current career, professional mobility, continuing education and professional preparation. The data are collected 12 months after graduation. Thereafter, a shortened questionnaire on career changes is sent periodically.
43. The University's strategic and other key documents related to the University's financial, economic, research, study and other activities, external quality assessment and accreditation of study programmes and other aspects are regularly published on the public access websites managed by the University, as regulated by the Law on Higher Education and Research of the Republic of Lithuania.
44. The University regularly provides data under the established procedure to the Ministry of Education, Science and Sports of the Republic of Lithuania, the National Agency for Education (Student Register, Diploma and Certificate Register), and other institutions on the grounds stipulated by the legislation of the Republic of Lithuania.
45. Representatives of the University described to the Panel how the data analytics system is an important tool in supporting management and academic and administrative staff in the effectiveness of their work in the University. A particularly interesting aspect of the data analytics system is the student early warning system and intervention system which enables the University to identify students who are at risk of not succeeding in their course. The Panel considered that the University had robust arrangements in place for the systematic collection and analysis of performance data and were using that data effectively across the whole organisation. KTU has provided English translation of articles in social media and in particular on its website which makes it easy for international students to locate information on studying in KTU. All scientific papers are published in English and accessible on-line. However, the University annual research reports as presented on their website are only available in Lithuanian. These should be made available in English also.

1.4. Effectiveness of human resource management:

- 1.4.1. Clear and transparent principles and procedures for the formation, management, evaluation of academic and non-academic staff are established and applied;*
- 1.4.2. The higher education institution has sufficient academic (in-house academic staff) and non-academic staff to meet its operational objectives;*
- 1.4.3. The qualifications of the academic and non-academic staff are appropriate for the purposes of the higher education institution;*
- 1.4.4. Conditions are created for the academic staff to improve the knowledge and skills required for teaching and research activities;*
- 1.4.5. Conditions are created for non-academic staff to develop competencies.*

46. KTU has developed a number of strategic guidelines which inform the development of the University's longer-term strategic plan. This includes "Guidelines for development of human resources 2025", which contains a vision (to be an "Interdisciplinary University, competitive at the international level, developing and transferring new knowledge and innovations"), a goal (of "Ensuring the effective implementation of the University's activities and strengthening the competences of its human resources"), and values (Social responsibility, Cooperation, Continuous improvement), as well as strategic objectives and success criteria. The need for academic staff is determined according to the Description of the Procedure for Calculating the Need for Lecturers for the Academic Year. Advertisements and additional information (for example, the necessary documents and salary rates) are published on the University's website [<https://en.ktu.edu/work-at-ktu/>] with a separate site for each academic unit. Evaluation of academic staff is conducted according to the document Guidelines for the Performance Evaluation and Competitions for the Job Positions of Teachers and Researchers of Kaunas University of Technology. For each academic position, a thorough job description is available. Procedures of that are described in detail in Description of Procedures for Attestation and Organization of Competitions for Positions of Lecturers and Researchers adopted by the Senate of the University on 31 October 2016. These documents are freely available on the University's website. For academic as well as for non-academic staff, the University has implemented an annual activity planning and evaluation system, which also includes individual interviews between managers and employees. The Panel was satisfied that the system is well-documented and implemented effectively. This includes supporting material such as detailed templates that have been developed for annual activity reports for various staff categories.
47. KTU states that an optimum student:teacher ratio is one of the conditions for ensuring the quality of studies and that according to the QS World University Rankings for 2023 KTU is ranked favourably for this ratio. Based on the staff and student figures presented by the University (see paragraph 21 above), the student to teacher ratio is 13,17. This is further enhanced as researchers take some of the teaching load (the ratio of students to teachers and researchers combined is 8,4).
48. A key priority of KTU's Internationalisation strategy is to attract international academic employees. The University leverages external funding opportunities to attract international academics. In addition, five ex patriate Lithuanians were attracted to return to the country and joined the University during the evaluation period (three of them received support from the European Union Funds and two received partial funding from the Marius Jakulis Jason Foundation). According to the Activity Report of KTU for 2022, the ratio of international academic employees is 4,93. Ambitious targets have been set in the strategic implementation plan

to increase the percentage of international staff at KTU. The view of the Panel is that KTU has created a strong international research presence, particularly within Horizon Europe, which should create opportunities to increase the percentage of international academic staff in line with the targets set in the implementation plan. To meet these targets, the Panel **recommends** that KTU develops a clear recruitment plan led by a senior executive.

49. In terms of student mobility, the number of outgoing exchange students has been decreasing in recent years, while the number of incoming students has remained stable or increased [SER]. The Panel requested and received additional information from KTU on student mobility which indicates that the ratio of incoming and outgoing students is not balanced: while the share of international students for full-time studies is approximately 11%, to which approximately 3% of international students on part-time studies can be added, the share of outgoing students is approximately only 2.4%. Thus, actively developing a higher proportion of international faculty could, to some extent, compensate for the relatively low international study experience of the students (implementation of the so-called Internationalisation at Home principle). The share of international doctoral students attracted by the University (according to the data of the Education Management Information System ([ŠVIS](#))) [SER] is the highest among all universities in Lithuania (increasing from 16% in 2017 to 24% in 2021). The University should continue in its efforts towards increased use of English to support this.
50. The minimum qualification requirements for academic staff by different scientific fields are described in detail in the Description of Procedures for Attestation and Organization of Competitions for Positions of Lecturers and Researchers. This document also describes what is considered academic activity. Special attention is paid to English language skills; for example, subjects taught in English are a separate indicator. The Panel was confident that the qualification requirements set are adequate for the purposes of the positions.
51. The University has implemented a programme for new teachers in 2023 that includes the values, strategic priorities, and also the systems and processes. It has recently also adopted a policy for onboarding new staff. The Panel also heard that mentorship was incorporated into the approach and considered by members of the University to be a key mechanism in maintaining the sense of community across the University. Nevertheless, as part of the University's documents are only in Lithuanian, onboarding of international staff sometimes has difficulties. As already noted, (paragraph 45), remedying this would strengthen the University's practices further and support it in meeting its ambitions for internationalisation.
52. Competence development at the University is regulated by The Guidelines for the Development of Didactic Competencies of the Teachers of Kaunas University of Technology, a comprehensive document stating the functions and obligations of main stakeholders (the University, the first level academic departments, EDU Lab Centre for Excellence in Teaching and Learning, teachers). These Guidelines include the process of needs analysis, preparation and offering of continuing education programmes, and financing, and they also set out a process model of development of didactic competences, description of didactic competences, a template of a recommended portfolio of the teachers' pedagogical activities and templates for planning competence development activities. The courses are described on the EDU_Lab webpage: the objective, schedule and content. The Vice-Dean of a Faculty has to plan the training of academic staff of the Faculty. He/she discusses with heads of programmes what is needed, and then provides that information to the relevant professional services department. Academic staff have a 5-year evaluation period and

they have an expectation of development in that time. The panel's view is that the 5-year evaluation period is helpful in enabling staff to focus on more long-term development goals complementary to the University's strategic priorities. This, in turn, ensures better alignment of the staff development investment with the strategic development of KTU's academic programmes.

53. The Library of the University offers another type of training, both to students and to the staff. The topics cover the use of internationally-recognised reference management programs and also practices relating to e-resources, plagiarism detection, intellectual property rights and licensing, amongst others. Whilst a range of training and development is available, the Panel's experience was that training information is scattered among different websites and sometimes difficult to find. For example, the SER states that "The Research and Innovation Projects Centre organises periodic training on project proposal preparation and project management". Members of the Panel were not able to find the webpage of this centre. Moreover, the website for employees (<https://en.ktu.edu/for-employees/>) has several links to various services, but no link to any training offer.
54. The University is very open to managing flexibility in the staff contract without using formal sabbaticals, for example, teaching can be concentrated into one semester so that the other one is free for research including writing. Staff who met the Panel confirmed this to be effective and a valued approach.
55. Proposals for the competence development of non-academic staff are first written in the annual activity plan and evaluation report. Employees rate themselves on certain competencies and their managers do the same (there is an electronic tool developed for that), and then discussed and agreed upon in the individual interview with the employee's direct superior. The development of tailored competencies is then planned. Training English language skills has been the most popular; between 2017 and 2021, 156 non-academic employees took this course. University employees can, for free, attend one study module per semester at the University. On some administration matters – for example, student admission – the University organises special training targeted at those directly involved in these activities. The University has several projects in human resource development, including career and competence development, evaluation systems, and employee training schemes. The projects are formally reviewed twice a year but informally monitored on an ongoing basis. However, in KTU's Strategic Action Plan for the years 2022-2024, the evaluation indicator relates only to the number of Erasmus+ visits by students, not by staff and, in fact, there is no indicator in the Action Plan to measure staff development. This gap should be addressed. While the University confirmed during the Panel discussions that investment in staff development was aligned with the strategic plan priorities the Panel considers that the University should clearly document in the action plan the actions and indicators against the strategic priorities. In particular, both employees and their managers should clearly articulate how the agreed development plans are aligned with the strategic priorities
56. From the evidence submitted and the meetings that took place during the review visit, the Panel is confident that the University has appropriate arrangements in place for human resource management. In particular, the Panel **commends** the University on its implementation of an effective structure of annual individual development interviews for academic and non-academic staff. There is, however, an opportunity for the University to enhance its approach to the recruitment of and support for international staff as a way of supporting institutional ambitions for internationalisation.

1.5. Efficiency of financial and learning resource management:

1.5.1. Financial resources are planned, allocated and used rationally;

1.5.2. Various financial resources for the implementation of higher education activities are attracted;

1.5.3. Learning resources for provision of studies and research (art) activities are planned and used rationally;

1.5.4. Learning resources for conducting studies and research (art) activities are appropriate, sufficient and available.

57. Financial arrangements are regulated by several documents, the most important of which are the Procedure for the Management, Use and Disposal of Funds and Property Owned by Kaunas University of Technology, the Guidelines for the Financial Management Model of Kaunas University of Technology, the Financial Management Regulations of Kaunas University of Technology.
58. Budgeting processes and the main tasks in the budget are linked to the strategic goals and KPIs. This is monitored through an annual review of the budget with funding then adjusted accordingly to meet the KPIs. Approximately 50% of the University's income comes from the state and 50% from other sources. In terms of the approval process, the budget proposal is first presented to the Senate, whose role is to consider how cost-effective the achievement and activity have been and then prepare the next year's budget. This approach was confirmed during the Panel discussions.
59. The budget of the faculties is formula based with the number of students the key determining factor. Budget levelling mechanisms are in place to maintain staff in case student numbers fall excessively (causing the decrease of the budget).
60. During the review visit, meetings with the University staff confirmed that the Vice-Deans provide data to inform the budget allocation. For research, allocation is based on the research review exercise. The University takes up to 15% of a project grant for overheads (15% of direct costs). Faculty budget is confirmed by the Faculty Council, after negotiations with the University administration. Additional funding is then allocated for strategic development.
61. About €100 000 is allocated to a special fund for supporting cooperation with other universities in Kaunas. Another €100 000 is allocated annually to the Students Association, from which about €60 000 comes from the University budget. The largest part of the Students Association budget goes for project funding and the faculty association students can also make applications for these funds through a competitive process which was described to the Panel during the review meetings.
62. Financial resources for the implementation of the activities of the University are divided into three groups: state budget allocations, income from external services and targeted (attracted project) funds. The total amount in all three groups has been increased continuously over the years, from 2017 to 2021, by 30.9%, 35.8% and 126%, respectively. Total revenue increased by 48.5% over this time period (from €50,127 million to €74,445 million). The extremely high growth in targeted funds is primarily due to the success of projects funded by the European Structural Funds. With regard to the services provided, it is necessary to highlight the almost two-fold increase in the volume of Research & Development services. At the same time, although the number of programmes offered and the number of learners has increased, the revenues from in-service training (non-formal studies) has decreased from about 1% of the total University budget in 2017

to less than 0,6% in 2021. Given the increasing role of universities in supporting lifelong learning, the Panel considers that the resourcing of this area should have a corresponding increase in the share of resources. With this caveat, the Panel was confident that the division of the financial resources by the University is in line with its activities and strategic priorities.

63. During the review visit, the Panel learnt, however, that the volume of Continual Professional Development (CPD) and lifelong learning is actually higher than is reflected in the budget, because only those courses developed specifically for continuing education are taken into account. A significant number of participants are pre-University level and, in addition, many courses are provided free of charge. The Panel's view was that this ambiguity was also partly a consequence of the quality arrangements for lifelong learning being less formally structured than those for the programmes of study. (This is discussed further under 3.2 Quality Assurance - see paragraph 79 - and 3.4 Impact on Regional and National Development, particularly paragraph 162.)
64. In total, between 2017 and 2021, expenses exceeded income by €2.225 million (revenue €318.04 million, expenses €320.265 million). The share of expenditures on wages and on goods and services has tended to decrease, and that for infrastructure has increased in the budget of the University.
65. The University has consistently made its use of space more efficient, which has made it possible to sell some real estate objects and thereby reduce the maintenance costs of the buildings (yearly about €750,000). The University has adopted a development plan for the university campus. In the years 2017-2021, nearly €20 million have been invested in the renovation of buildings, the modernization of the learning environment (including laboratory furnishings) and the development of information systems. The use of funds is based on the University's five-year (2021-2025) Activity Plan. This describes the activities, expected outcomes, and the projects planned to achieve them (project objective, activities, performance indicators, units participating in project execution).
66. The KTU library also has important tasks at the national level, coordinating and administering the activities of the "Lithuanian Academic Electronic Library eLAN" consortium of national repositories. KTU Library is a partner of the European open-access infrastructure OpenAIRE and acts as a national open-access information centre.
67. On the other hand, the University still has 34 immovable property objects with a total of 204 000 m², to accommodate the needs of 9 600 members of the university (7 654 students and 1 954 employees). A comparison with other Lithuanian universities that have equivalent numbers of staff and students and significantly smaller premises raises the question of the efficiency of space use which is an average of 21m² for each person, especially considering the relatively high maintenance costs. The criteria for the use of fixed assets established by the Ministry of Education, Science and Sports have been met, (Approved by Order No V-619 "Regarding the establishment of assessment criteria for the use of long-term assets managed by public higher education institutions under the trust agreement" of the Minister of Education, Science and Sport of 28 June 2018) with the exception of the maintenance costs of the property used for up to 10 months in recent years. The cost of maintenance of permanently used property (31,97€/m²) was very close to the set limit value (32,4€/m²).
68. The University has in total 493 rooms for study purposes, all equipped with the necessary technology and internet access. The technological tools in the laboratories are described on the

University's website, as well as request forms for borrowing them. The procedure of the management of open access research and experimental (socio-cultural) development resources, the provision and technical conditions of open access services, the principles of the pricing of open access services and the income administration at KTU is thoroughly described in The Guidelines for the Management of Open Access Research and Experimental (Socio-Cultural) Development Resources and Services and their Provision to External Users at Kaunas University of Technology, which is a freely available document. The University is using a range of software tools, including Moodle as the basis for the virtual learning environment, and Zoom, MS Teams and BigBlueButton for online learning/teaching. The Panel was satisfied that the learning resources could support a range of learning and teaching modes, and that the students have access to both the physical and electronic resources and tools that they need to succeed.

69. Dormitories are available for students, and the University noted some disappointment in the SER that there was not a greater demand for these from the students. The Panel heard, however, that students considered these a relatively expensive option and concerns were also raised about the condition of some of the buildings. The Panel advises the University to work in partnership with its student body to identify their needs and develop a strategy accordingly for the renovation of the University accommodation and to make it a more attractive option.
70. The University has the ambition that, within 5 years, all energy needs will be covered by renewable energy. Currently, 30% of electricity is provided by solar Panels. KTU is investigating how the heat produced by computers in the summer can be stored in order to reduce the energy needs in the winter.
71. From the description of the process through documentation and meetings, the Panel is confident in the soundness of the University's approach to the planning, allocation and use of financial resources. In noting the disproportionate costs associated with the University's infrastructure, however, the Panel suggests that the University may wish to consider seeking opportunities for efficiencies relating to its infrastructure. This would also be supported by considering how resources might be directed to areas of study and research that will provide specific benefits and therefore have the most impact on the region.
72. **In summary,** KTU has an established governance, leadership and decision-making structure which supports the strategic development of the University in support of the national and regional academic, social and economic priorities. Its management culture is based on collegiality and University-wide participation in academic decision-making. Its management has invested in effective data analysis and business systems to support effective management planning and decision-making processes. The financial management structures in place within KTU are effective and in line with national policy. The University has a considerable amount of physical research and teaching infrastructure on the main campus and in the city of Kaunas. Panel saw examples of new infrastructure development also. Overall, the infrastructure is well managed and fit for purpose. However, there are opportunities for the university to develop strategies for the optimisation of the use of the infrastructure in line with its academic, research and innovation priorities.

The University has developed effective structures to support both its academic and non-academic staff development which have contributed positively to the quality of the student experience and also to optimise the potential of its international teaching, research and innovation engagement for

the benefit of the wider Lithuanian society. While there has been a very effective restructuring of, KTU's organisational and management structures in line with the last institutional review there is still a need to optimise further the management decision-making structure to ensure that the University is capable of responding to the changing national and international academic environment in a timely and strategically effective manner.

Overall, the division of the financial resources by the University is in line with the its activities and strategic priorities. The area where the University has the maximum flexibility is in the allocation of research infrastructure. The approach taken by KTU rewards the faculties which are successful in competing for funding. The allocation process allows for the allocation to be averaged over a number of years so as to allow for better strategic planning. A percentage of the research funding is allocated to overheads and another percentage is available to support strategic projects. One area identified by the Panel for further reflection is the financial allocation to support life-long learning which should increase back to at least the level it was at in 2017.

73. **Judgment:** the area is being developed systematically, without any major drawbacks; and is given 3 point(s).

74. **Recommendations for the area:**

- For purposes of transparency and accountability, the activities of the action plan should be clearly identified and the plan updated to include the individuals responsible for the delivery of each activity rather than listing the overall team members.
- The management and governance structures should be revised to ensure that the University is well-placed to leverage the knowledge and expertise of all its stakeholders to meet challenges and make the most of opportunities.
- In order to meet the targets for international staff as set out in the strategic plan, KTU should develop a detailed international staff recruitment plan led by a senior executive.

75. **Good practice examples:**

- The University has implemented an effective structure of annual individual development interviews for academic and non-academic staff.

3.2. Quality Assurance

Quality Assurance area is analysed in accordance with the following indicators and criteria, set up in the Methodology.

2.1. Implementation and effectiveness of the internal quality assurance system:

2.1.1. The higher education institution has approved and made publicly available internal quality assurance documents that are consistent with the Standards and Guidelines for Quality Assurance in the European Higher Education Area;

2.1.2. Internal quality assurance measures of planning, implementation and improvement are appropriate, applied periodically and ensure the involvement of the whole institution and stakeholders;

2.1.3. Processes for planning, implementation, monitoring, periodic evaluation and development of activities are specified;

2.1.4. Students and academic and non-academic staff of the institution receive effective support;
2.1.5. Provisions and procedures for academic integrity, tolerance and non-discrimination, appeal and ethics are specified and applied;
2.1.6. The results of the external review are used to improve the performance of the higher education institution.

76. Quality Assurance processes are applied to all activities of KTU, i.e. studies and lifelong learning, research and innovation and finally organisational development. As observed in the section above on Management and Strategy, KTU has a well-developed vision of Quality Management, based on the Deming Cycle (Plan - Do - Check - Act). Many indicators pertaining to quality are accessible to the management and to the academics via the Academic Information System which help support the individual and collective efforts for improving quality in all their activities.
77. Quality Assurance for studies is very well documented, as set out in the “Internal Study Quality Assurance System” (ISQAS). Further, alignment with the ESG is demonstrated through a mapping of the ISQAS to each of the elements in Part 1 of the ESG. Several committees are in place, at different levels, to monitor the quality of studies from course level to programme level, and teachers, students and social partners (including employers, alumni) all demonstrably play an active role in these committees (see paragraph 38 above). Indeed, the Panel found that the comprehensive engagement of external stakeholders, including social partners and alumni, embedded in every aspect of the quality assurance of studies, and the robust arrangements to support them in fulfilling their roles effectively, was to be **commended**.
78. The interactions between the University’s committees for quality assurance are well documented and clearly support the University in active assessment of, and improvements to, the quality of its provision. In the quality assurance of studies, the Panel considered that the emphasis on student-centred education, development of teachers’ competencies, and monitoring of the success of students was to be praised. The KTU procedure for deciding on terminating study programmes or creating new ones is well documented and makes use of precise indicators on which the appropriate decisions are based.
79. In contrast, lifelong learning is less well-developed at KTU (see paragraph 162 below) and the committees noted here (see also SER) do not appear to deal explicitly with the lifelong learning courses. The Panel’s observation was that systematic quality assurance process for lifelong learning, involving all stakeholders, could be strengthened to bring it in line with the robust arrangements that are in place for the rest of the University’s provision.
80. KTU state in their SER that Quality Assurance in research and innovation focuses on the relevance, interdisciplinarity and competitiveness in the international environment, the value creation of the transferred knowledge and technologies, the impact on business and society at regional and country level, and the development of scientific competencies of academic employees and doctoral students. The evaluation of individual researchers is well documented through annual activity planning and evaluation, supported by Academic Information System
81. The SER notes that “responsibility for quality assurance and improvement in research and experimental development lies with the Deans and Vice-Deans for Research, the Directors of Research Institutes, the Department of Research Affairs, the Research and Innovation Projects Centre and the National Centre for Innovation and Entrepreneurship, within the scope of their respective responsibilities”.

82. However, documented evaluation of research groups or centres, in particular with respect to interdisciplinarity, internationalisation, technological transfer was not detailed during the visit. As opposed to the field of studies, where several committees are in place, the evaluation seems to rely heavily on individuals (for example, Vice-Rector, Deans and Vice-Deans, Directors) and there is no evidence that the social partners are included in the process.
83. In terms of organisational development, the SER outlines that “Quality assurance in organisational development is based on effective resource management, promoting leadership, consistently improving the quality of business processes, focusing on people and their well-being, developing competencies, promoting sustainability and social responsibility, ensuring smooth communication, and fostering the unity of the community”. The SER also mentions that “responsibility for the overall quality management of the organisation's activities lies with the Director of Organisational Development, the Director of the Department of Performance Management, the Head of the Strategy Monitoring and Processes Office and quality project managers, as well as University’s Internal Control and Quality Committee”. In reflecting on these statements and the evidence presented through the documentation and the review visit, the Panel observed that the process of decision-taking is not documented and, overall, is not sufficiently transparent. The Panel’s view was that too much in the purview of individuals and the lack of evidence presented difficulties in assessing whether the process was working as described. This potentially weakens institutional oversight so the Panel **recommends** that the University revise its quality assurance arrangements for research to ensure that there is a transparent process for decision-making, supported by documentation. This should take account of good practice in organisational governance.
84. The SER identifies the role of the 2021-2025 Action Plan of Kaunas University of Technology in the systematic and effective implementation of the objectives of the long-term strategic plan. A review of the Quality Assurance section of the action plan focuses on the defining the objectives and planned project objectives but is weak on precise actions which are to be implemented to achieve these objectives, as noted above (see paragraph 28, and the first recommendation under section 3.1)
85. The University relies primarily on feedback to improve the quality of its performance and, in order to collect this feedback, it makes extensive use of surveys, the responsibility for which rests with the Quality Assurance and Development Office and the Strategy Monitoring and Processes Office. The Panel had some reservations, however, about the effectiveness of this approach, as explained in the following two paragraphs.
86. At the course level, feedback from the students is collected after each semester. This is by way of a survey that students must complete if they want to access the marks of their exams. Whilst the challenge of encouraging students to complete surveys is a universal one, the Panel considered that this approach by KTU is not an appropriate measure, particularly since it means the quality of the received feedback is not guaranteed. Moreover, students were critical of the end-of-semester surveys, perceiving a lack of response to them by the University. Mid-term feedback surveys are organised by the Students Association and, in contrast to the end-of-semester surveys, were considered by staff and students to be relatively useful because the feedback provided by students was then discussed and, where necessary, action taken.

87. It is also through surveys that feedback is sought from external stakeholders. Whilst a substantial amount of information and data are collected through these surveys, the Panel saw little evidence of how and where the collected information is discussed, what action is eventually taken and how the loop is closed, i.e. how the different stakeholders - having contributed to the surveys - are informed about any actions or response. The Panel's conclusion was that the University has an over-reliance on surveys as a tool and they are used ineffectively, particularly in terms of closing the feedback loop. The Panel therefore **recommends** that the University revises its approach, considering more innovative methods of seeking feedback and, furthermore, ensures that the feedback loop is closed so that stakeholders can see that their reflections are used to inform performance management of the institution. Other such approaches might include focus groups with stakeholders, written and oral midterm evaluations, oral focus group interviews during the semester, lecture evaluations, partnership working and workshops on key themes jointly identified by the University and stakeholders, including students.
88. Both academic and non-academic staff are supported when starting at the university through a sound introduction, and policies are in place to support that (see paragraphs 51-5 above). However, as also noted above, there is a reliance on the Lithuanian language to make a smooth transition into teaching obligations, which creates some obstacles for international staff when starting at KTU. Academic staff are supported in distributing their workload which makes a more periodical focus on teaching, or research including writing of articles or books, possible. Furthermore, whilst formal sabbatical leaves are possible, the University complements this with a flexible approach to the distribution of teaching loads, meaning that the option is not used extensively.
89. KTU has structures and systems in place to support students with special needs and a separate committee, which includes student representation, determines the physical or cognitive support granted for the student. A non-competitive scholarship is given to students on a needs-based application. Furthermore, costs can be lowered in some circumstances to support students. The accessibility of KTU's older buildings creates difficulties for students with physical disabilities. This is recognised by the University's senior management, however, and the Panel saw evidence of work to address this. There are opportunities for the University to communicate this plan of work to their students, who expressed some frustrations at the speed of response, some of which may be attributable to a lack of response to feedback. The Panel saw evidence that there is a thoughtful approach to the renovation and construction of buildings to mitigate a range of disabilities. This includes the new Library which is a formidable example of where enhanced accessibility has been integrated into a range of aspects of the building's design. Psychological support is provided for students, but consultations are limited to 10 sessions per academic year. The Panel observed that, for a student who is struggling, and particularly one with more complex needs, this limit could be reached quite quickly. Thus, the Panel concluded that, whilst support for students with special needs is, for the most part, extremely good, increasing support provision related to mental wellbeing should now be the priority.
90. The University operates a Talent Scholarship system, which is very competitive for students. Because the allocation of Scholarships to study fields is calculated on the number of students within that area, the Scholarships are unevenly distributed across faculties. As a consequence, students are competing against the rest of their cohort in addition to having to meet a minimum threshold to be considered for a Scholarship. The Panel's discussions with students revealed that this was not understood by students, who perceived the system as unfair. The Panel **recommends**

that the University revises the Talent Scholarship system and the way it is communicated to students so that student perceptions of unfairness are addressed.

91. Social Scholarships are available for students as well. The Panel heard a student view that these scholarships are seldomly awarded due to the strict criteria and that, owing to this, few students were thought to apply for the scholarship. The Panel suggests that the University may wish to review its criteria for Social Scholarships to be confident that they are operating as intended.
92. International students are well-supported by the staff and their fellow students, and the Panel heard examples from a range of initiatives designed to ensure both academic and pastoral inclusion of international students within the University community.
93. Relatively low numbers of students from the University go out on international exchange. In exploring this, the Panel heard various reasons for why students do not choose to go abroad, but the greatest inhibitor appeared to be financial concerns, with students considering themselves unable to finance their studies abroad, especially with regard to meeting living costs in other countries. There was a particular issue for part-time working students who considered they were not able to leave their jobs temporarily to enable (for example) a semester abroad. There may be opportunities for the University to work with employers who could play a role in supporting students for such mobility projects. However, more general financial pressures mean that many full-time students also have casual work, which they cannot afford to lose. The Panel recognised that the University is sensitive to these challenges and is attempting to address them through shorter opportunities for international visits, for example of just one or two weeks at a time. The Panel encourages the University to continue to explore initiatives that remove impediment to international student mobility.
94. KTU has procedures and policies for academic integrity as detailed in the SER. The Panel understood that, between 2018 and 2022, eleven cases went to the *Office of the Ombudsman for Academic Ethics and Procedures*, seven of which were found to be violations. The Panel explored this through their meetings with the University, and were reassured that there was a robust process in place and appropriate action had been taken in response to these cases.
95. Students receive guidance on academic ethics, and guidelines are displayed in the central part of the Moodle platform (the University's virtual learning environment (VLE)). There is a process under which students can appeal or complain about decisions on academic dishonesty. From the evidence presented and meetings, the Panel concluded that the grounds for appeal were not sufficiently well understood by students which resulted in the submission of invalid appeals by students. The Panel encourages the University to consider what additional support might be put in place to improve student understanding of the academic dishonesty penalty system and the appeals and complaints process to reduce the risk of students making invalid appeals.
96. **In summary**, there are mature arrangements in place for the Quality Assurance of studies at KTU, with decisions on improvements being taken by appropriate committees where all stakeholders are represented. The comprehensive and effective use of external stakeholders, in particular, is an example of good practice.

Although the other areas of activity of the University, namely research and innovation and operational development, are also included in the Quality Management Strategy of the University, the quality assurance processes are not as well developed and documented. Whilst the Panel did

not consider that this constituted a significant drawback, it does present an opportunity for the University to strengthen its approach and build on good practice that is already in place for the wider University.

Similarly, the Panel observed an over-reliance on surveys as a mechanism for feedback and the University's approach in this area could be improved to ensure that feedback from stakeholders is truly representative and that the University then both reflects on it and provides a response.

Support for academic and non-academic staff is very effective. The Panel also considered that the University was actively working to support international students and students with accessibility needs, including in some quite innovative ways. As outlined above, the students also benefit from several scholarship schemes but, as the selection procedures do not appear completely fair to the student body, some further consideration of these by the University would be helpful, either to address the distribution of the scholarships or the student perceptions of disparity.

Finally, KTU determines objectives for quality enhancement of different processes but precise actions to be taken in order to meet these objectives are sometimes lacking.

97. **Judgement:** the area is being developed systematically, without any major drawbacks and is given 3 point(s).

98. **Recommendations for the area:**

- The University should reflect on the over-reliance on surveys and revise its approach, considering more innovative methods of seeking feedback and, furthermore, ensure that the feedback loop is closed so that stakeholders can see that their reflections are used to inform performance management of the institution.
- The University should revise its quality assurance arrangements for research to ensure that there is a transparent process for decision-making, supported by documentation. This should take account of good practice in organisational governance.
- The University should revise the Talent Scholarship system and the way it is communicated so that student perceptions of unfairness are addressed.

99. **Good practice examples:**

- The comprehensive engagement of external stakeholders, including social partners and alumni, embedded in every aspect of the quality assurance of studies, and the robust arrangements to support them in fulfilling their roles effectively.

3.3. Studies and Research (Art)

Studies and Research (Art) area is analysed in accordance with the following indicators and criteria, set up in the Methodology.

3.1. The level of research (art), compatibility of studies and research (art) and its compliance with the strategic aims of activities:

3.1.1. The study and research (art) activities carried out and their results are consistent with the mission and strategic aims of the higher education institution;

3.1.2. The level of research (art) activities is sufficient for the ongoing studies of the higher

education institution;

3.1.3. Studies are based on research (art);

3.1.4. Consistent recognition of foreign qualifications, partial studies and prior non-formal and informal learning is performed.

100. The majority of KTU's study programmes are in the fields of Engineering, Technology and Natural Sciences, although the University also has a small amount of provision in the Humanities and Social Sciences in which there is active research.
101. The KTU mission is to provide research-based studies at the international level, creating and transferring interdisciplinary knowledge and innovative technologies for the sustainable development of the state, and forming an open creative environment that inspires talents and leaders. All study programmes of the University are developed and then delivered taking into account the University's mission and strategic objectives, as well as the state and University priorities. The objectives, results and content of study programmes are based on the long-term European Union and national strategies, the prospects for the development of society,
102. KTU's research is focused on the creation and application of knowledge for the benefit of its stakeholders and the region. Research is benchmarked against international best practice through the establishment of collaborations with leading European research universities and industry partners particularly within the European Research Area. The partner universities ensure an alignment between their teaching courses, their content and the research activities of each institution. KTU engages with its stakeholders to ensure the transfer of research knowledge through collaborative projects. KTU also actively monitors and responds to the European and Lithuanian skills agenda and responds through the development of new programmes in areas of strategic priority such as Artificial Intelligence, Data Science and Engineering and Management of Business Digitalisation.
103. The unity of research/art activities and studies at KTU is ensured by the participation of teachers and students in research and experimental development/art activities, the participation of researchers in the study process, and the transfer of scientific knowledge and research/art skills to first and second cycle students and doctoral students. To ensure the integration of research/art activities into the study process, the University applies the assessment criteria "the results of the module correspond to the latest and/or relevant knowledge of the results of research/art and its application in practice." Each year, during the considerations of the University's study programme portfolio, two research-related criteria are also assessed in the study fields: the level of research and research-based studies. New study programmes are only developed in those study fields which have a link with the relevant research field in which the University performs research/art activities. The Panel confirmed that the relationship between the study programmes and academic research is at an appropriate level.
104. One of the major challenges for KTU is the decreasing student numbers. The University's response is to set ambitious targets for student numbers within the action plan. The total number of students studying at KTU in 2020-21 was 8060, dropping to 7656 in 2021-22 and 7343 by 2022-23, although admissions for 2022-23 showed a small increase from the previous year (2380 for 2021-22 rising to 2406 for 2022-23). The target numbers are 8300 (2022-3), 8700 (2023-4) and 9100 (2024-5). Likewise, the targets for international students are 901 (2020 entry), 1028 (2022 entry), 1185 (2023 entry) and 1326 (2024 entry).

105. University staff explained to the Panel that a key challenge for admissions is the declining level of mathematical skills in gymnasium graduates. The University runs a number of courses for students of Kaunas Gymnasium and other schools across Lithuania, and also encourages parents to attend open days in the University. The Panel recognises the level of commitment of the University to supporting pre-university students. However, discussions also indicated that the University has not developed a realistic plan to bridge the qualification gap between real student numbers and the targets set. The view expressed by the University staff to the Panel was that the priority was to maintain a quality threshold for potential students irrespective of the decreasing scientific and mathematical qualifications of the applicant pool.
106. KTU has developed four open, self-paced bridging courses in mathematics, physics, chemistry, and programming fundamentals which allow first-year students, whose level of achievement in state maturity examinations is below the advanced level (85 and above in the state maturity examination, with a maximum of 100 points) to strengthen their skills free of charge. To ensure that the University's students begin their studies better prepared, the University has also opened its bridging courses to schools in 2021. In the light of the challenge that KTU is facing with falling student numbers, the Panel suggested that the University should consider strategies for identifying potential in applicants and lower the access threshold for courses which are struggling to attract sufficient student numbers. The bridging courses could then be made mandatory for weaker students and used to bridge the qualifications gap, thereby increasing the number of successful student applications in line with targets through appropriate academic support.
107. To reduce student attrition, the University initiated a student drop-out management project in 2016, re-positioned from 2017 as the "Student Success at the University System". As part of the project, the University has foreseen preventative measures (for example, integration of first-year students, academic, social, psychological, financial support) and interventional actions (including early warning and drop-out management systems). Through this initiative, the University has reduced student attrition from 16.08% (2017-18) to 12.39% (2020-21). The most significant decreases were in voluntary dropout, from 9.23% (2017-2018) to 7.18% (2020-2021), and in dropout due to non-satisfactory results, from 2.90% (2017-2018) to 1.93% (2020-2021). On-time completion of second cycle students also improved (59% in 2017 to 68% in 2021), while on-time completion of first cycle students remained similar (50% in 2017, 50% in 2021, and 53% in 2022). Whilst acknowledging there had been only small improvement in on-time completion of first-cycle students, the Panel recognised there had been a significant impact across the other categories and these results affirmed the success of the University's work in this area.
108. The University has developed a highly-effective system for monitoring student progress which demonstrably contributes to improving student progress indicators. For example, the number of students with non-satisfactory results has decreased from 22.95% (spring semester 2017) to 15.38% (spring semester 2021); the number of re-taken final assessments has decreased by 20% from 2017 to 2021, and the number of repeated interim assessments has decreased even more significantly. Again, the Panel considered that the University's deliberate measures have led to a significant and evidenced improvement in student outcomes and commends KTU's efforts and achievements in this area.
109. The University is already making conscious efforts to develop interdisciplinary study programmes. Furthermore, open courses and multidisciplinary modules are encouraged. Academic staff are supported by faculty management through extra hours for collaboration with other

faculties on these study programmes, but the support depends on the respective Deans. The study programme still belongs to one of the faculties, where the cost must be held, but the new financial system better supports multidisciplinary collaboration. The Panel heard that the Lithuanian system of higher education restricts the extent to which multidisciplinary courses can be developed. Nonetheless, the Panel recognised the efforts of the University to enhance the student experience through its approach and **recommends** that the University should continue the innovative work around ways to deliver multidisciplinary experiences to the students within the constraints of national requirements.

110. In meetings, the Panel heard from external stakeholders that the University's students and graduates are valued for their technical skills and knowledge. Reflections from external stakeholders also observed that the University is beginning to focus on development of students' softer skills, too, and that this is a direction of travel that should continue in order to enhance employability. The Panel considered that there may be opportunities for the University to use the foundation of subjects in Humanities and Social Sciences to increase these skills in Engineering, Technology and Natural Sciences to support the good fundamentals of the technical skills that are already recognised by social partners and **recommends** that this should be explored further by the University.
111. Students at KTU are encouraged to participate in internships at companies in the region. The University supports the process through tripartite agreements between the University, the company, and the student, to ensure an accountable contract for the student. The student has a supervisor both at the University and at the workplace and completes their internship with a reflective report on the placement. Internships are discussed further in section 3.4.
112. KTU is heavily involved in Research and Development and Innovation (R&D&I) which contributed extensively to the national and regional development (see section 3.4). In 2018, four faculties revised their structure to centralise management and administrative functions at the level of the Dean's office to ensure that, as far as possible, academic staff's time could be concentrated on academic activities.
113. One of KTU's aims is to encourage students' entrepreneurship and innovation and particular focus is placed on the entrepreneurial component of their studies to the extent that development of student entrepreneurship is included in the University's strategic objectives. The University's success in this area is evidenced through the EBPO [Environmental Performance Working Group] 2021 report 'Supporting Entrepreneurship and Innovation in Higher Education in Lithuania' which states: "KTU appears to be the most advanced in integrating entrepreneurship research into entrepreneurship teaching and learning. KTU is a good example of how entrepreneurship research can be integrated into entrepreneurial education. Its international-quality entrepreneurship research is reflected in teaching and connected to the local environment".
114. The Panel found evidence that doctoral students of the University valued the level of supervision and support that they receive. It was clear to the Panel that the University staff who supervise PhD students provide structured supervision and support and ensure that PhD students have opportunities to spend time abroad working with partner institutions. The Panel also considered that the University's Doctoral committees within each faculty provide effective oversight of the work and progress of the PhD students within the faculty. This enables the students to complete their studies successfully within the allocated 4 year period. The Panel was of the opinion that the

University operates an effective and robust Doctoral Supervisory Committee structure which provides an important mechanism for supporting PhD students to successful and timely completion of their qualifications.

115. The University carries out R&D&I in the areas of natural sciences, technologies, medicine and health, social sciences and humanities and art activities. The comparative assessment of the University's research activities of the assessment units conducted by the Center for Monitoring and Analysis of Science and Studies (MOSTA) in 2018 indicated that the quality of the University's R&D activities in most science fields is at a high level but with limited international recognition [SER]. The University's overall comparative assessment score in the area of technologies is 3.41 (2nd among Lithuanian universities), in the area of natural sciences - 3.08 (2nd among Lithuanian universities), in the area of social sciences - 3.42 (4th among Lithuanian universities), and in the area of humanities - 3.83 (3rd among Lithuanian universities). The Panel was of the opinion that the level of international recognition of KTU research in Engineering in particular has increased since 2018 particularly through the universities engagement in the European Innovation and Technology Institute (EIT) and European Universities Alliance Initiative through the European Consortium of Innovative Universities.
116. The unity of research/art activities and studies at KTU is ensured by the participation of teachers and students in research and experimental development/art activities, the participation of researchers in the study process, and the transfer of scientific knowledge and research/art skills to first and second cycle students and doctoral students. [SER].
117. The results of the University's research, experimental development and art activities also determine the number of allocated state-funded positions in master's and doctoral studies. In the allocation of state-funded master's and doctoral positions of studies, this indicator is 95% for master's studies and 80% for doctoral studies in science/art. During the evaluation period, the University has steadily retained second place among Lithuanian universities in terms of the number of allocated state-funded positions for both master's and doctoral studies [SER].
118. To promote the development of competencies of young scientific leaders and doctoral students at the University and the development of interdisciplinary/cross-cutting research through research project activities, annual competitions for research projects funded from the internal resources of the University are launched for target groups or in the priority science fields of KTU. Students are encouraged to publish the results from these projects and are supported in this effort by the academic lecturers. KTU's success in the Europe framework programme particularly in the development of its network of international research partnerships. The Panel's visit to a number of KTU research centres and faculty confirmed the quality and depth of the research which is carried out at an international level in collaboration with leading European research institutes. KTUs teaching programmes are informed by the state-of-the-art research outputs from their research. The relationship between the research and teaching was clearly articulated and in particular the accessibility to the academic research leaders and infrastructure to the student population.
119. Analysing the University's scientific publications for the period 2017-2022, cooperation with Lithuanian research and academic institutions has grown, reflecting the strategy's direction to increase the scope of interdisciplinary research and cooperation with strategic partners. While the majority of these publications are with partner institutions with Lithuania there has been an increase in publications with international partners. Cooperation with international institutions has

also grown significantly, with the share of joint publications moving from 34% (2017) to 54% (2021) (WoS data). There has also been a prioritisation of international peer-reviewed journals by the research academics and doctoral students.

120. From a tour of resources to the research institutes, the Panel saw clear evidence of the major investment that the University has made in the state-of-the-art research infrastructure and technology. A distinctive characteristic of the University's approach is that access to this infrastructure is not confined to academic staff and PhD students but is also available to undergraduate and postgraduate students to support their project work. This manifests through a unique level of opportunity for undergraduate and master's students to access and use specialist equipment, giving them significant opportunities to develop skills that will be advantageous both in industry and higher-level study as well as enhancing the quality of the work they can produce in their formal study programmes. The Panel considered this an excellent initiative and noted that this is not established general practice across universities. Thus, the Panel commends the University for the level of access to research facilities and laboratory infrastructure that is provided to students across all three cycles of studies.
121. KTU has established a set of nationally recognised guidelines for the recognition of *partial studies and prior non-formal and informal learning* achieved by students of the university or potential students who wish to apply for access to KTU courses. Each academic year, about 1,700 study modules are credited to students. This number decreased during the COVID-19 pandemic, student mobility and opportunities for part-time studies were significantly restricted due to the closed borders of foreign countries, which resulted in the crediting of approximately 930 study modules in the last two academic years.
122. In 2017, KTU was granted the right to conduct academic recognition of education and qualifications, related to higher education and acquired under the educational programmes of foreign countries and international organisations for prospective students [SER]. KTU provides the SKVC with information on academic recognition decisions, and other information if requested, within the established deadlines and under the applicable procedures. As reported by KTU, the quality of the decisions taken has been improving since 2017 from 69% of decisions taken correctly in 2018 to 99.6% in 2021 [SER]. This has resulted in KTU being granted the right to carry out the academic recognition process independently in 2023. This recognition is crucial in supporting KTU internationalisation priority and in particular in ensuring that KTU attracts top quality international students. Education courses or modules within the ECIU alliance are easily transferred. The Panel considered that the processes of the ECIU recognition could provide the University with a good example for future recognition processes.
123. The SER describes how one of the admissions requirements for master's study programmes (as an alternative to additional studies or as an additional requirement) is more than one year of work experience relevant to the study field of the intended study programme (by submitting a certifying document). This approach has been extended in 2023 to the professional competency of the professional candidates with ≥ 1 year of work experience relevant to the study field of the intended programme. Credits may be given for already acquired learning outcomes under the procedure laid down by the University, in the case of professional experience in the field of the study programme to be studied, the procedure for inclusion of competencies acquired via informal or non-formal learning is applied. The Panel recognises its importance for the future development of KTU's life-

long learning offering to regional industry. The overall view of the Panel is that KTU's approach to recognition of partial studies and prior non-formal and informal learning is proactive and supports the Universities strategic commitment to educational access to its students and regional stakeholders and in particular to its commitment to Internationalisation.

124. The Panel's tour of resources (most notably the visit to the engineering research centres) confirmed that research carried out in the ultrasound and material science institutes is of international standard. It was also noted that the research infrastructure including building and equipment is at an international standard.
125. The research collaborations established with leading international high technology companies and leading research universities across Europe were also impressive and testimony to the caliber of the work carried out in this field at KTU.

3.2. Internationality of studies, research (art):

3.2.1. The higher education institution has a strategy for internationalisation of research (art) and study activities (including indicators of internationalisation), means for its implementation, and measurements of the effectiveness of these activities are performed (not applicable to colleges unless provided for in its strategic documents);
3.2.2. The higher education institution integrates aspects of internationalisation into the content of studies and research (art) activities.

126. Through the SER, the University identifies Internationalisation as a key priority of the KTU's strategic plan. The SER states that "Developing internationalisation, which will enable more productive activities, better quality and dissemination of results, and the emergence of new strategic partnerships".
127. Through meetings during the review visit, the Panel was assured of KTU staff's awareness of and commitment to internationalisation and its value to the future of the University, staff and students, and the region. Furthermore, the Panel considered that KTU and its academic community are proactive in seeking opportunities for engagement in collaboration particularly within the European framework programme and Erasmus exchange programmes as well as beyond Europe.
128. From the SER, the Panel learnt that the University cooperates with more than 500 educational institutions from more than 50 different countries. The majority of the agreements cover staff mobility and research collaborations between the agreement partners. KTU also promotes the creation of joint, double-diploma, twinning study programmes and modules with international partners. For example, during the evaluation period, double-diploma study programmes were launched with the University of Central Florida (USA-39 students), the Polytechnic University of Cartagena (Spain-177 students), and the Hamburg University of Technology (Germany-74 students).
129. However, KTU also acknowledges the challenge that the University faces in encouraging students to travel abroad for internships or studies. The number of outgoing exchange students has been decreasing in recent years, while the number of incoming students has remained stable or increased. In 2018-2019, the University recorded a negative exchange in student balance (i.e. more hosted students than outgoing students): 248 exchange students left, and 165 students arrived in 2017-2018, compared to 94 and 238 respectively in 2021-2022. In exploring this during the review visit, the Panel learnt that many of the students have part-time jobs and protecting their

employment is a major influencing factor in their willingness to take up the opportunity of an international exchange.

130. The Panel considered that there is a considerable management overhead and financial cost in maintaining such a large number of international agreements particularly when such agreements do not result in increased transfer of students or an imbalance between outgoing and incoming student numbers. It is important to review regularly collaboration agreements from a strategic relationship and impact perspective.
131. In the SER, KTU identifies the European University Alliance programme European Consortium of Innovative Universities (ECIU) as a central pillar of the University's Internationalisation strategy. This position was reaffirmed to the Panel during the review visit, which also indicated the broad level of staff and student participation in ECIU. The Panel was convinced of the strong synergy between the strategic priorities of KTU and those of ECIU, particularly in the areas of entrepreneurship and innovation in research and teaching, and recognised the benefits that this relationship brought to the University. The Panel **recommends** that the University should continue to capitalise on the benefits already offered through ECIU by ensuring that this is embedded throughout the strategy and reflected in the action plans.
132. Key outputs from the ECIU collaboration include the development of interdisciplinary modules "Project Development Project" (a compulsory or alternative module that is offered in 32 study programmes) and "Development of Challenge-Based Innovation" (an elective module outside of the curriculum of study programmes). In addition, the modules are also used to engage students in solving real-world work problems within the wider Kaunas stakeholder community providing a valuable platform for collaboration between students, staff and the regional stakeholders.
133. Student and staff mobility is a key pillar of KTU's internationalisation strategy. The number of international collaboration agreements has already been referenced above. The Panel saw evidence that KTU employees are encouraged to use the Erasmus+ mobility programme for teaching and learning. Applications are evaluated taking into account the priorities of the Erasmus+ programme and the strategic objectives of the University and the department. There were 223 visits of academic and non-academic employees funded in 2018, 248 in 2019, 28 in 2020, 132 in 2021, and 256 in 2022. Taking out the two years that were seriously impacted by the Covid-19 pandemic, this shows a gradual increase in outgoing international visits.
134. During the review visit, the Panel was presented with examples of the quality of the support provided by KTU to incoming students. For instance, visiting international students were met at the airport and brought to their residence and then provided with ongoing support during their study period at the University. Staff are aware of the international students on their course and actively monitor their progress. The Panel recognises the University's efforts in supporting international students coming to study in KTU and recommends that the University gives careful thought to the scalability of the support system for international students as the numbers increase to meet the University's ambitions, and develop a strategy accordingly.
135. KTU is part of a cooperation agreement with Universities in the Baltic region. This has enabled the regional universities to share intelligence, advice, examples of best practice and case studies which benefit and inform decision making in each partner university. In 2018, the University signed a Memorandum of Understanding with eight Baltic Universities. This Memorandum of Understanding formally establishes the CERN Baltic Group and establishes a joint Master's study

programme in physics, as well as many other activities. The University is a co-founder of the EIT Knowledge and Innovation Community RawMaterials Baltic, together with Riga Technical University (RTU) and Tallinn University of Technology (TalTech). As of 2019, the activities of the "RawMaterials Baltic" included the organisation of six large-scale events that attracted around 700 participants and raised almost EUR 124,000 for ecosystem development. This co-operation has the potential to enhance the quality and performance of the third level educational sector across the region.

136. The University has signed seven co-operation agreements with international higher education and academic institutions on the implementation of double degree doctoral studies and joint supervision of doctoral students, under which eight doctoral students are currently studying at the University and have been assigned two research supervisors, one from the University and the other from an international higher research and academic institution.
137. The Panel noted that all KTU doctoral students are required to take at least one study module in an international higher education institution or, alternatively, to complete a research fellowship of at least three months. Furthermore, all dissertation defence boards require participation of foreign academic experts. The Panel considered that these requirements were an effective approach in helping to ensure that the quality of the PhD research is at an international quality.
138. The success of KTU's International strategy is the growth of research and innovation capacity. KTU has been Lithuania's leading institution in terms of participation in the European Union's research and innovation funding programme Horizon 2020 for the period 2014-2020 and has the same ambition for the new programme European Horizon (2021-2027) [SER]. This is largely due to the Universities strategy of promoting staff participation in Horizon 2020. The University engagement in Europe commenced in 2015 when it set a clear set of KPIs for participation in Europe. It also established the Research and Innovation Projects Centre which supports academic engagement in European projects.
139. There has been a considerable growth in the overall quality of the research activity within the University as evidenced by the increase in the number of internationally peer-reviewed publications with an impact factor which are co-authored with international institutions. This has increased from 113 publications in 2017 to 286 in 2021, as stated in the SER. A review of the publications indicates a very large distribution of international collaborating partner organisations. This is in line with the high number of international partnerships (see paragraph 127 above).
140. The share of international doctoral students attracted by the University (according to the data of the Education Management Information System (ŠVIS)) is the highest amongst all universities in Lithuania. The total percentage of international students studying in Lithuania who are located in KTU has increased from 16% in 2017 to 26.5% at the time of the review. When discussing the potential growth of PhD student numbers with senior management and staff, the Panel queried the University's reliance on state-supported places. Postgraduate stipends funded by EU funding grants and industry-sponsored doctoral studies are a standard approach across Europe and the Panel strongly encourages the University to explore such opportunities as a means of increasing the number of PhD students studying at KTU.
141. The Panel also **commends** the University for its leadership in establishing research collaborations with the other universities in Kaunas such as Vytautas Magnus University and Lithuanian University of Health Science in support of regional economic development. One

important example of the impact of this collaboration is the establishment of a Centre of Excellence for Sustainable living developing AI solutions in the manufacturing, energy, health and transport sector which has received €15million of European funding and a similar amount from the Lithuanian Government.

142. **In summary**, the majority of KTU's study programmes are in the fields of Engineering, Technology and Natural Sciences, although the University also has a small amount of provision in the Humanities and Social Sciences in which there is active research. There is strong alignment with regional needs. The research areas map very well to the curriculum. In terms of programmes, studies and research maps. The University is committed to quality in its teaching and research and attracting the best students. The University is committed to ensuring that students successfully complete their studies and have established a student drop out management system which includes academic, social, psychological, and financial support. The curriculum is research informed and KTU is committed to incorporating multidisciplinary studies, research and innovation in to the first and second cycle curriculum. Students are clearly valued and embedded within the organisation. They are a committed community who appreciate the opportunities they have had to study here. Technical skills of graduates are recognised by companies.

KTU exhibits national leadership in the quality of its research and postgraduate studies. The University has established strong strategic partnerships with leading academic and industry partners across Europe which has enabled it to successfully compete for European Research funding. These partnerships have enabled the University to conduct state of the art research and publish its results in high quality journals as well as investment in state-of-the-art research facilities which are accessed by its undergraduate and postgraduate student community. Its areas of research prioritisation and leadership aligns with the regional industrial priorities. The University has established a highly effective postgraduate studies support infrastructure through doctoral committees which has enabled the university to attract the highest percentage of international postgraduate students in addition to national students.

143. **Judgment**: the area is rated very well in the national context and internationally, without any drawbacks and is given 4 point(s).

144. **Recommendations for the area**:

- The University should explore opportunities to use the foundation of subjects in Humanities and Social Sciences to increase soft skills of students within Engineering, Technology and Natural Sciences to support the good fundamentals of the technical skills that are already recognised by social partners
- Continue the innovative work around ways to deliver multi-disciplinary experiences to the students within the constraints of national requirements.
- The University should continue to capitalise on the benefits already offered through ECIU by ensuring that this is embedded throughout the strategy and reflected in the action plans.
- The University should give careful thought to the scalability of the support system for international students as the numbers increase to meet the University's ambitions and develop a strategy accordingly.

145. **Good practice examples**:

- Through deliberate measures and targeted intervention, the University has significantly improved student outcomes, including retention.
- The level of access to research facilities and laboratory infrastructure that is provided to students across all three cycles of studies.
- The success of the University's leadership in establishing research collaborations with the other universities in Kaunas such as Vytautas Magnus University and Lithuanian University of Health Science in support of regional economic development.

3.4. Impact on Regional and National Development

Impact on Regional and National Development area is analysed in accordance with the following indicators and criteria, set up in the Methodology.

4.1. Effectiveness of the impact on regional and national development:

4.1.1. The higher education institution carries out an analysis of national and (or) regional demands, identifies the needs to be met and foresees the potential impact on national and (or) regional development;

4.1.2. The monitoring, analysis and evaluation of the effectiveness of the measures on national and (or) regional development are performed.

146. The University's strategic aims with regard to the development needs of the region and the state are outlined in the University's mission and comply with the National Strategy for Sustainable Development, the State Long-Term Development Strategy, the Lithuanian Progress Strategy "Lithuania 2030", the Programme for the Implementation of the Priorities of the Development of Research and Experimental Development and Innovations Programme (Smart Specialisation). Impact on national and regional development is then assessed through the careful monitoring of specific indicators defined in the action plans and which are periodically reviewed and adjusted as necessary. From the evidence presented by the University and meetings during the review visit, the Panel was confident that the University is proactive in its efforts to analyse and identify national and regional needs and, furthermore, uses informal networks and opportunities to complement formal ones. This included the creation of the "Centre of Excellence of AI for Sustainable Living and Working – SustAIInLivWork" and the development of the joint Kaunas District innovation ecosystem. Similarly, the University is using both quantitative and qualitative data to monitor and assess the impact of its activities. The Panel also saw evidence of a range of initiatives deployed by the University to provide the wider community with managed access to its campus and facilities such as joint research projects between local industry and the KTU research centres. KTU has a large number of initiatives that encourage second-level students to engage with the university and experience third-level education. "University of Kids" links children with top-level researchers, and a talent programme which engages 300 to 400 students with access to the university as well as physical and virtual open days for parents.
147. Sustainability, including sustainable practices and responsibility to the environment, is one of the highest priorities for the University, and this is reflected both in its practices within the University and its approach to regional and national strategies. The University contributes to the implementation of the Vision of the City with Smart Management Under the Principles of

Sustainability and Green Deal (Strategic priorities of Kaunas City 2030). For example, in 2018, the University signed a Memorandum of Understanding on co-operation in the field of smart cities and infrastructure with Bentley Systems Europe B.V., YIT Lietuva, INHUS Group, Kauno Tiltai, Staticus. Digital Construction, based upon which, the Intelligent City and Infrastructure Centre (IMIC) has been established at the University.

148. The University is committed to sustainable practices on its own campuses as well (see paragraph 70 above). Currently, 30% of its own energy needs are provided through renewable energy sources and KTU is aiming to increase this to 100% within 5 years. The University's initiatives in this area are also achieving international recognition. In 2020, a unique project that covered the roof of the building complex of Chamber IX of the University with a solar power system received the "Energy Globe Award", selected out of five hundred innovative ideas from more than 180 countries.
149. The University's employees are active participants in the region's "public life". Through both the SER and meetings during the review visit, the Panel had examples of how University staff were making a positive contribution through their competencies by shaping policy in the governing bodies of other institutions (for example, Radio and Television Commission of Lithuania, LINPRA Presidium, the Board of the Research Council of Lithuania, Kaunas City Council for Academic Affairs, Lithuanian Confederation of Industrialists, the Board of the Lithuanian Education History Museum.); in the preparation of strategic documents of national importance (for example, the 2021-2030 National Progress Programme, the State Strategy of Progress "Lithuania 2050"), and various regional associations (for example, Kaunas Regional Association of Industrialists and Employers, Lithuanian Electric Energy Association, Association of Lithuanian Chambers of Commerce, Industry and Crafts).
150. KTU also makes a significant impact through contributions to the region's cultural and historical activities, for example, the project "Adaptation of a Cultural Heritage Monument for Public Service" [SER], which was implemented in 2019-2022 and presented to the public the pride of Kaunas modernist architecture owned by the University: the former military research laboratory and its movable heritage objects.
151. The University's partnerships with business, social, research and other non-governmental organisations [SER] have a direct impact on, and create value, for Kaunas and other Lithuanian regions, and this was illustrated to the Panel through the SER and meetings that took place during the review visit. Within the University itself, this includes the activities of the Panevėžys Faculty of Technology and Business, but KTU staff are also actively involved in the Lithuanian Engineering Industry Association (LINPRA), Kaunas Regional Association of Industrialists and Employers, the Association of Lithuanian Chemical Industry (LChPIA) and a number of other organisations. The University's staff also contribute to the activities of working groups of various national institutions: for example, they are actively involved in the coordination group of the National Commission for Industrial Competitiveness "Industry 4.0" which works in six areas: digital manufacturing, digitisation-enabling services, human resources, standardisation and legal regulation, cyber security, and digitalisation of the circular economy industry, and contributes to the development of regional policy.
152. KTU's impact on regional and national development also stems from a range of different initiatives that the University itself has founded. In addition to the work of Panevėžys Faculty of Technology and Business, KTU is the founder of two integrated research, study and business

centres - "Santaka" and "Nemunas" valleys - and it owns the academic publishing house "Technologija". The University has also set up a number of other educational establishments: KTU is the main shareholder of the private ISM University of Management and Economics and the founder of Kaunas University of Technology Gymnasium. This is ranked as the 2nd best gymnasium in Lithuania in terms of student achievements and has two general education institutions: Kaunas University of Technology Engineering Lyceum and Kaunas University of Technology Vaižgantas Pro-Gymnasium. To promote STEAM, the University is setting up thirteen classes in its name in general education institutions (13 classes) across Lithuania.

153. The University uses its close relationship with businesses and social partners to assess new developments in science and technology, identifying their long-term environmental impact as well as potential risks, and then uses this information to inform the study programmes, particularly with regard to student skills. The study programmes in all study fields focus on the development of subject knowledge, cognitive, practical and transferable skills. To provide real-life market examples and practical aspects, and integrate challenge-based learning, students solve real-life societal challenges and problems, with guest speakers from the business sector and other organisations. As described above (paragraph 77), the University engages external stakeholders very effectively in every stage of the lifecycle of a programme of studies. In conjunction with efforts to anticipate and meet the needs of the region and national development, the University has developed an exceptional holistic approach to its relationship with external stakeholders. Thus, the Panel **commends** the University on its close integration with social partners, and the highly-effective two-way engagement of social partners in programmes of study and University members in businesses that provides an exceptional depth and quality of the relationship, enriching both the University and wider communities.
154. KTU is also working with regional organisations and other higher education providers in the Kaunas region to promote Kaunas as an attractive destination for students. The Panel recognised that, whilst the University continued to maintain its own identity and market itself to prospective students, it was also one of the key leaders in developing and encouraging a more co-operative approach that was supporting the development of Kaunas as a vibrant student town and which would then aim to retain the graduates in the region when they enter employment. A further consequence of this is that industry is also being attracted to invest in Kaunas because of the strength of the universities and the size and quality of the labour force that is emerging from them. The Panel **commends** KTU for its work in forging a strong relationship with the municipality, attracting industry and promoting Kaunas as a student destination.
155. Another of KTU's very successful initiatives is the National Centre for Innovation and Entrepreneurship. This has supported a number of initiatives in developing and establishing a remarkable range of products and businesses. The Panel **commends** the University for the vision and management of the National Centre for Innovation and Entrepreneurship, and particularly the operational structure which has embedded key links in each faculty and which is one of the defining characteristics enabling its success.
156. For more than two decades, KTU has been organising the young researchers' innovation exhibition and competition "Technorama". Every year, the exhibition presents approximately 60 innovative solutions which are evaluated by a commission composed of the academic community and business partners. In addition to its formal relationship with and support for the Kaunas University of Technology Gymnasium (and Kaunas University of Technology Engineering

Lyceum and Kaunas University of Technology Vaižgantas Pro-Gymnasium), the University runs an extensive programme of activities for children to encourage them in developing an interest and skills in science and technology. This includes a “University for Kids” (taking c 100 children each semester), an annual talent programme (providing opportunities for between 300-400 children each year) and an annual Open Evening scheme in which labs are open to the public every Friday evening and visitors can talk to researchers about their projects. The Panel commends the University on its engagement with schools and other groups to promote science, innovation and technology.

157. Annually, the University organises one of the “largest career-planning events in the Baltic States”, taking place in Kaunas "Žalgiris" Arena. During the event, 130-155 companies and organisations from the business and public sectors present themselves and career opportunities in their sector, and offer specific job and internship opportunities for final year students or graduates. Students also have an opportunity to learn about the future trends of the labour market and listen to lectures by companies and guest lecturers.
158. In 2017-2021, more than 650 cooperation contracts were signed with various companies and organisations to develop inter-institutional cooperation with common objectives, as well as more than 400 contracts for support allocated for the implementation of various targeted activities (as well as practical skills (paragraph 162)). Further, KTU Startup Space is actively involved in creating and strengthening the innovation ecosystem of Central Lithuania: in almost ten years of its activities, it has organised initiatives focused on technology innovators and business developers and which now number in their hundreds.

4.2. Assurance of conditions for lifelong learning:

- 4.2.1. The higher education institution monitors and analyses the need for lifelong learning;*
- 4.2.2. The higher education institution anticipates the diversity of forms and conditions of lifelong learning and ensures their implementation;*
- 4.2.3. The higher education institution performs the evaluation of assurance of conditions for lifelong learning.*

159. The University aims to continuously promote development and lifelong learning, both within and outside the University. This approach is emphasised in the University's strategy, where continuous improvement is one of the University's core values.
160. In 2022, the University conducted a survey of the needs for lifelong learning which identified the needs for competence development and the learning characteristics and expectations of learners (667 respondents). External stakeholders seemed unaware of any response by the University to the surveys it conducts with them. When the Panel explored this with representatives of the University, they suggested that response is by way of articles that they produce for local newspapers. As noted above in section 3.2, this is not an effective or appropriate way to respond, nor is the reliance on a survey which will not reach key groups, and the Panel advises the University to include lifelong learning in other conversations and direct work that takes place with social partners.
161. In 2017, the University Senate approved the 2022 Strategy of Studies which updated seven key priorities for studies, which included the development of a lifelong learning system. These priorities are also included in the new University strategy and annual action plans of the departments. One measurement of the University's success in developing this area is that, in 2022,

KTU was included in the "Impact Ranking 2022" published by the *Times Higher Education* (THE). The University scored particularly highly in the Lifelong Learning Opportunities (87.6 out of 100 points)

162. In 2018, the University's Internal Audit carried out a performance audit entitled "Evaluation of Non-Formal Education Activities" to assess whether the University effectively manages and implements the non-formal education process, whether the objectives of the non-formal education activities are being achieved. The evaluation resulted in five recommendations which have been implemented between 2019 and 2021.
163. The University advised the Panel that, during 2021, 48 new non-formal education programmes were developed and approved, and 81 non-formal education training courses were organised with 3,313 participants. These included highly-specialised technical training courses for particular industries, international PhD summer schools, technical skills development for educationalists, and language courses. [Appendix 39 Non-Formal Education Programmes] Whilst this shows monitoring of uptake of the University's activity in this area, and was clearly informing the focus of the University's energies, the Panel considered that the University was not then evaluating the information in a systematic or meaningful way or making best use of its formal governance structures (as referenced above in paragraph 79). The Panel **recommends** that, to support its further development in this area, the University should implement a more structured approach to the development, management and oversight of lifelong learning within the University's quality assurance frameworks to provide a more efficient and structured approach to this area of provision and to meet the needs of employers on regional and national level on a wider scale of preparing employees for the future workplaces.
164. The University encourages volunteering activities by providing opportunities to volunteer at organised events, thus gaining practical experience which is evaluated (extra points are awarded) in the University's talent and patron's scholarship competitions.
165. **In summary**, KTU's mission is to provide research-based studies at the international level, creating and transferring interdisciplinary knowledge and innovative technologies for the sustainable development of the state, and forming an open creative environment that inspires talents and leaders. The University is committed to ensuring that new knowledge and technologies serve not only the well-being of people but also the environment, by purposefully fostering a culture of sustainable development and responsibility within the University community, contributing to sustainability and strengthening responsibility to the environment, society and region.

The University's targeted partnerships with business, social, research and other non-governmental organisations have a direct impact on and create value for Kaunas and the Lithuanian region. KTU employees are actively involved in the activities of the Lithuanian Engineering Industry Association (LINPRA), Kaunas Regional Association of Industrialists and Employers, the Association of Lithuanian Chemical Industry (LChPIA) and other organisations, and take part in the activities of working groups of various national institutions. There is a strong track record of collaboration between regional industries and KTU's research centres in Innovation and knowledge transfer. Regional stakeholders are actively involved in all aspects of the university academic programme and in particular student placement. The University graduates are highly

regarded by local industry and play a major role in the growth of the regional economic development.

The University's engagement in the economic development of the region is complemented by its contribution to the social and cultural development of the region. Sustainability as well as sustainable practices and responsibility to the environment is one of the highest priorities of the university. The university was a key contributor to the implementation of Kaunas strategic priorities 2030 such as vision of the city through smart management supporting the European principles of sustainability and the green deal. The University actively collaborates with the regions the regional Gymnasium schools to promote science and engineering and encourage students to continue their studies at third level in the region.

In terms of continuing education, the University does deliver bespoke courses to local industry such as the construction industry and many of its undergraduate modules are delivered as standalone modules to industry. KTU, together with its European partners has developed a policy document on micro credentials. KTU has commenced the process of the development of a lifelong learning programme. It should focus on developing a comprehensive set of programmes to support regional industry.

166. **Judgment:** the area is rated very well in the national context and internationally, without any drawbacks and is given 4 point(s).

167. **Recommendations for the area:**

- Implement a more structured approach to the development, management and oversight of lifelong learning within the University's quality assurance frameworks to provide a more efficient and structured approach to this area of provision and to meet the needs of employers on regional and national level on a wider scale of preparing employees for the future workplaces

168. **Good practice examples:**

- The close integration with social partners, and the highly-effective two-way engagement of social partners in programmes of study and University members in businesses that provides an exceptional depth and quality of the relationship, enriching both the University and wider communities.
- The vision and management of the National Centre for Innovation and Entrepreneurship, and particularly the operational structure which has embedded key links in each faculty and which is one of the defining characteristics enabling its success.
- The forging of a strong relationship with the municipality, attracting industry and promoting Kaunas as a student destination.
- Engagement with schools and other groups to promote science, innovation and technology.

IV. EXAMPLES OF GOOD PRACTICE

The Panel identifies the following examples of good practice in:

Management:

- The University has implemented an effective structure of annual individual development interviews for academic and non-academic staff.

Quality Assurance:

- The comprehensive engagement of external stakeholders, including social partners and alumni, the quality assurance of studies, and the robust arrangements to support them in fulfilling their roles effectively.

Studies and Research (art):

- Through deliberate measures and targeted intervention, the University has significantly improved student outcomes, including retention
- The level of access to research facilities and laboratory infrastructure that is provided to students across the three cycles of studies.
- The success of the University's leadership in establishing research collaborations with the other universities in Kaunas such as Vytautas Magnus University and Lithuanian University of Health Science in support of regional economic development.

Impact on Regional and National Development:

- The close integration with social partners and the highly-effective two-way engagement of social partners in programmes of study and University members in businesses.
- The vision and management of the National Centre for Innovation and Entrepreneurship, and particularly the operational structure which has embedded key links in each faculty and which is one of the defining characteristics enabling its success.
- The forging of a strong relationship with the municipality, attracting industry and promoting Kaunas as a student destination.
- Engagement with schools and other groups to promote science, innovation and technology.

V. RECOMMENDATIONS FOR ENHANCEMENT

The Panel's recommendations for further enhancement are:

Management:

- For purposes of transparency and accountability, the activities of the action plan [SER Appendix 11] should be clearly identified and the plan updated to include the individuals responsible for the delivery of each activity rather than listing the overall team members.
- The management and governance structures should be revised to ensure that the University is well-placed to leverage the knowledge and expertise of all its stakeholders to meet challenges and make the most of opportunities.
- In order to meet the targets for international staff as set out in the strategic plan, KTU should develop a detailed international staff recruitment plan led by a senior executive.

Quality Assurance:

- The University should reflect on the over-reliance on surveys and revise its approach, considering more innovative methods of seeking feedback and, furthermore, ensure that the feedback loop is closed so that stakeholders can see that their reflections are used to inform performance management of the institution.
- The University should revise its quality assurance arrangements for research to ensure that there is a transparent process for decision-making, supported by documentation. This should take account of good practice in organisational governance.
- The University should revise the Talent Scholarship system and the way it is communicated so that student perceptions of unfairness are addressed.

Studies and Research (art):

- The University should explore opportunities to use the foundation of subjects in Humanities and Social Sciences to increase soft skills of students within Engineering, Technology and Natural Sciences to support the good fundamentals of the technical skills that are already recognised by social partners
- The University should continue the innovative work around ways to deliver multi-disciplinary experiences to the students within the constraints of national requirements
- The University should continue to capitalise on the benefits already offered through ECIU by ensuring that this is embedded throughout the strategy and reflected in the action plans.
- The University should give careful thought to the scalability of the support system for international students as the numbers increase to meet the University's ambitions and develop a strategy accordingly.

Impact on Regional and National Development:

- The University should implement a more structured approach to the development, management and oversight of lifelong learning within the University's quality assurance frameworks to provide a more efficient and structured approach to this area of provision and to meet the needs of employers on regional and national level on a wider scale of preparing employees for the future workplaces.

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