IEP INSTITUTIONAL EVALUATION PROGRAMME

TECHNICAL UNIVERSITY OF KOŠICE

EVALUATION REPORT

EVALUATION WITH A SPECIAL FOCUS ON INTERNATIONALISATION

September 2023

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1. Introduction

This report is the result of the evaluation of the Technical University of Košice, Slovakia. The evaluation took place during two visits, the first, on-line, in February 2023 and the second, on-site, in May 2023.

1.1 Institutional Evaluation Programme

The Institutional Evaluation Programme (IEP) is an independent membership service of the European University Association (EUA) that offers evaluations to support participating institutions in the continuing development of their strategic management and internal quality culture. IEP is a full member of the European Association for Quality Assurance in Higher Education (ENQA) and is listed in the European Quality Assurance Register for Higher Education (EQAR).

The distinctive features of IEP are:
- a strong emphasis on the self-evaluation phase;
- a European and international perspective;
- a peer-review approach; and
- support for improvement.

The focus of IEP is the institution as a whole and not the individual study programmes or units. It focuses on:
- decision-making processes and institutional structures and effectiveness of strategic management; and
- relevance of internal quality processes and the degree to which their outcomes are used in decision-making and strategic management, as well as perceived gaps in these internal mechanisms.

All aspects of the evaluation are guided by four key questions, which are based on a "fitness for (and of) purpose" approach:
- What is the institution trying to do?
- How is the institution trying to do it?
- How does the institution know it works?
- How does the institution change in order to improve?

1.2 Technical University of Košice's profile

1.2.1 The Technical University of Košice (TUKE) has its main campus in the centre of Košice[1]. Košice, the second city of Slovakia, has a population of around 240,00. The town is situated in the south eastern part of the country and forms part of the Kosice region, one of eight administrative regions in Slovakia. Kosice is close to the Slovak borders with Ukraine, Poland and Hungary[2].

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[1] Seven of TUKE's nine faculties are centrally based in Košice. The Aeronautics faculty is located in the suburbs of the town, while the Faculty of Manufacturing Technologies is based in *Prešov* about 30km from Košice.

[2] It is about 20 kilometres from the Hungarian, 80 kilometres from the Ukrainian and 90 kilometres from the Polish borders.

1.2.2   The Technical University of Košice received its university title in April 1991. Prior to that, from the early 1950s, it had been designated as Košice Technical College. The history of higher level learning in Košice, however, dates back to the mid-17th century. A focus on higher technical education - ore mining, production and processing of metal materials - emerged in the region around a hundred years later. In the last 30 years the University has developed its subject offering and now comprises nine faculties ranging in coverage from Civil Engineering to Mining, Ecology, Process Control and Geotechnologies and from Economics to Arts. The faculties are augmented by a range of specialist departments covering, *inter alia*, social sciences, physical education, engineering pedagogy and computer technology. A relatively new science park provides an important focus for the encouragement of R and D and the development of knowledge transfer.

1.2.3   For the period to 31 October 2022, total student enrolments at TUKE, for all levels of study, were 11,234 with the largest numbers of students studying in the faculties of Electrical Engineering (3467) and Mining, Ecology, Process Control and Geotechnologies (2019). Considerably smaller numbers are found in the faculties of Materials, Metallurgy and Recycling (240) and Arts (277). In the period of the current strategic plan, overall student numbers have grown by approximately 25%. Within these total university enrolments there has been an even greater increase in international student numbers in the same period. In the academic year to 31 October 2016 the overall total of international students stood at 366. In the academic year to 31 October 2022 the number had grown to 4387. Most of this growth has occurred in the academic years from 2019-2022 with nearly 4000 students from Ukraine enrolled in the academic year up to 31 October 2022[3]. In terms of faculty enrolments, the largest populations of international students can be found in the faculties of Electrical Engineering and Informatics, Mining, Ecology, Process Control and Geotechnology and Mechanical Engineering. In some faculties Ukrainian students comprise up to 50% of their enrolments. Apart from Ukrainian students, the majority of international students come from the Czech Republic, the Russian Federation and India.

1.2.4   The increase in Ukrainian students predates the Russian invasion of Ukraine in February 2022, but following the invasion the numbers of Ukrainian students studying at TUKE has increased very significantly. As a result of the war the Slovak and Ukrainian governments reached an agreement that Ukrainian students be allowed to enrol in Slovakian universities free of tuition fees for those programmes that are taught in Slovak. While this external reality has affected other universities in Slovakia, the impact has been considerably greater at TUKE. Political and policy uncertainty also exists within the national context with major changes to government occurring during the period of the Team's second visit to Košice. These immediate internal and external challenges are reinforced by some longer standing economic structural problems in the country contributing to a relatively low percentage of GDP being allocated to higher education, uncompetitive staff salaries and resource constraints in both current and capital expenditure. All this points to a major challenge for the University to make efficient and effective use of limited resources.

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[3] The numbers of Ukrainian students enrolled at TUKE from October 2016 onwards are as follows: 2016 - 298; 2017 - 547; 2018 - 924; 2019 - 1233; 2020 - 1509; 2021 - 1798; 2022 - 3970. Full year figures for the academic year 2022/23 were not available at the time of the Team's visit in May 2023.

1.3 The evaluation process

1.3.1   The TUKE self-evaluation process was overseen by a Steering Committee comprising eight members - 5 Vice-Rectors, the Bursar and two members of the International Department. The composition of the Steering Committee was determined by the Rectorate. The Team notes that there were no faculty members represented on the Steering Committee and were advised that discussions and dialogue between the Vice-Rectors and Vice-Deans of the faculties had taken place on a very regular basis and that, in addition, comprehensive data had been sent through from faculties to the Steering Committee to support the development of the Self-Evaluation Report (SER). The team also notes that there was no student representative on the Steering Committee although the team was informed that it was possible for students to engage in the discussions relating to the IEP process that took place in the faculties. In its meeting with student representatives the Team received confirmation that they had not been involved in the IEP process. Equally students involved in the faculty meetings with the Team were largely unaware of the reasons for being asked to meet with the Team.

1.3.2   The SER was signed off by the Rectorate and also shared with members of the Senate. While the Team understands that the development of the SER was an iterative process between the centre, the faculties and other areas of the University, the Team, through its discussions with various internal stakeholders, finds that there was a strong 'top-down' element to the approach to the IEP evaluation. In the view of the Team it might, therefore, have been appropriate for the university to engage with broader groups of staff and students when discussing the various aspects of the IEP; and this might have increased the sense of ownership of the evaluation process. This could be seen as something of a lost opportunity.

1.3.3   The SER itself is developed in a largely narrative style with considerable detail given over to descriptions of international activities, particularly the ULYSSEUS project. The Team understands the instinct to develop the SER in this way given the focus on internationalisation. However, this presented the Team with some difficulties. Thus, while the SER provides brief details on governance, quality systems, learning and teaching and research, the Team was left with many questions relating to these areas and the basic organisational structures and systems of the University. Regardless of the focus on internationalisation, a better understanding of these core contextual areas was missing for the Team and this resulted in a request for additional information and data to help fill in some of these gaps (see Appendix 1). It also meant that some time was spent in the on-line meetings held in February probing the extent to which the University's fundamental governance / decision-making infrastructure and academic organisation were best placed to support TUKE's current activities in the international space and the ambitions for developing those activities into the future. This also continued into the second on-site visit in May. The Team also finds that the SER's descriptive style often left the document lacking in analysis or self-reflection. A SWOT analysis presented at the end of the SER does not, therefore, make links to the substance of the report and appears to the Team as somewhat random; and when asked about the lessons learned from the SER process the Team was advised by members of the Steering Committee that there were no great surprises that emerged.

1.3.4   The self-evaluation report of the Technical University of Košice, together with the appendices, was sent to the evaluation team in February 2023. The visits of the evaluation team to the Technical University of Košice took place from 27th to 28th February 2023 (on-line) and from 9th to 13th May 2023 (on-site), respectively. In between the visits the University provided the evaluation team with further

comprehensive documentation. The Team's additional documentation request is shown in Appendix 1.

The evaluation team (hereinafter named the Team) consisted of:

- Professor Brian Norton, former President, Dublin Institute of Technology, Ireland, team chair

- Professor Simona Lache, Vice-Rector for Internationalisation and Quality Evaluation, Transilvania University of Brasov, Romania

- Associate Professor Irina Yefimova, Representative in Central Asia, ASIIN (the Accreditation Agency for Study Programmes in Engineering, Informatics, Natural Sciences and Mathematics), Kazakhstan

- Damian Michalik, PhD student, University of Warsaw, Poland

- Dr Raymond Smith, former Registrar, London Metropolitan University, UK, team coordinator

The team thanks TUKE staff and students for all their inputs, the Rector, Professor Stanislav Kmet, the Vice-Rector for International Relations and Mobilities, Professor Radovan Hudak and, institutional liaison, Juraj Majcher.

2.   Governance and institutional decision-making

Vision, Mission, Strategy and Planning

2.1   This IEP evaluation process coincides with two significant aspects of governance and institutional decision-making for the University. First, the need to finalise a new Strategic Plan for the coming seven year period and secondly, the election process for a new Rector for a four year term of office from August 2023[4]. This election process also involves likely changes to the senior leadership team of the University at the level of Vice-Rectors.

2.2   These moments in the University's development provide an opportunity to reflect on past and current successes and challenges; set out the strategic direction it wishes to take in the medium to long-term and for its senior leadership to engage with all internal and external stakeholders in reviewing the institution's Vision and Mission and how far that requires change and adaptation to the future needs of the society in which it is embedded. While this is a normal watershed moment in the university life-cycle, there have been, in the last few years, significant external events, some on-going, that have required an immediate response and where those responses have been required in a more reactive way, for example, the Covid-19 pandemic and the war in Ukraine. This current moment therefore allows for reflection not just on the achievements in relation to the current Strategic Plan published in 2016[5], but also such new external impacts that will reach into the medium to long term and that require their own specific elements of reflection. In this sense, the new leadership of the University faces more challenges than would have been anticipated in 2016.

2.3   The current Strategic Plan sets out the University's Vision as being

> 'a leading research and educational institution at the national level and recognized abroad, an attractive place with a collegial and friendly atmosphere for creative activities of its students and staff, co-creating a cultured cohesive community, equipped with modern infrastructure, confident and attractive centre of creativity and innovative actions for the benefit of knowledge and society.'

The primary Mission is described as becoming

> 'a research institution that is part of the European education and research area, is to protect knowledge, develop education and spread literacy based on scientific knowledge and creative scientific and artistic activity in the spirit of national and universal humanitarian and democratic traditions.'

In the context of the Vision and Mission statements the University also seeks to emphasise a number of features, including interdisciplinarity and internationalisation.

2.4   TUKE's current Strategic Plan has been developed around eight pillars - education; science and research; human resources; management; internationalisation; infrastructure development; ICT development and co-operation with practice and the non-academic sphere. Each of the pillars sets out a range of strategic objectives - in the cases of education, science/research and infrastructure development these cover extensive lines of activity. For example under the umbrella of education

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[4] The election for the new Rector took place on 15 May - after the end of the Team's second visit. Details of the appointment can be found on the TUKE website at https://www.tuke.sk/wps/portal/tuke/university/news/vysledky-volby-kandidata-na-rektora
[5] *Long-Term Strategic Plan of the Technical University of Košice, 2016-2023*

there are twenty-four separate bullet points identifying areas to be pursued. By contrast, under the internationalisation pillar there are six bullet points relating to future objectives.

2.5   Within each of the pillars, there is no evidence of prioritisation relating to the objectives; and some of the bullet points appear more akin to second tier activity (sub-objectives) than core strategic level objectives. For strategic planning purposes these do not represent SMART (specific, measurable, achievable, relevant, and time-bound) objectives nor did the Team find evidence, either through the submitted SER and additional documentation or through elaboration in meetings, of the systematic development of clear targets, milestones and timelines. This is acknowledged in the additional information provided by the University where it is confirmed that 'specific milestones are not included in the University's strategic plan' and that, although annual reports did consider progress on the Strategic Plan, the annual monitoring of achieved results was not fulfilled. The University also notes that this shortcoming was highlighted by the Supreme Audit Office of the Slovak Republic.

2.6   In the strategic planning process it is also of fundamental importance to support the development of targets and timelines by allocating specific objectives to named individuals / areas so that they can report on progress and be held accountable for their actions. This might, for example, relate to a particular Vice-Rector role, central department or Faculty management teams. And given the strong levels of autonomy reflected in the University's faculty structures, this might also involve the introduction of focussed operational plans within which roles and responsibilities are clearly delineated between those requiring central university action and those being cascaded down to deliverables in the faculties. The Team heard from various quarters that that it can be one thing to write about institutional targets but another thing to fully engage strongly devolved faculties in the delivery of such targets. Precise and well-crafted operational plans can help overcome some of that resistance.

2.7   Earlier in this report (paragraph 1.2.4) the Team notes that making efficient and effective use of limited resources is one of the major challenges facing the University. This applies to the ways in which the strategic planning process is developed, managed and then implemented. A strategic plan cannot be established without close reference to the financial realities of the organisation. In the absence of such a benchmark test, some objectives can become immediately unrealisable because they lack the appropriate funding and others can become unwittingly redundant because resources are not available beyond the short term. The University comments that the state budget for a public university consists of four elements that cover (1) accredited study programmes (2) research, development or artistic activity (3) the development of the University and (4) the social support of students. While the 'methodology of budget distribution at public universities is not binding on the methodology of the Ministry of Education' the University largely adheres 'to the philosophy of the Ministry's methodology when distributing the budget'[6]. In doing so, the University takes account of data from the previous 2-6 years to assess precise distributions in relation to, for example, education and research. In addition, the Team notes that the University has been using a social-solidarity approach[7] to budget distribution for some considerable time and this is to be commended. The Team has no particular view on a historical as opposed to, say, a zero based budgeting approach. It does, however, stress the need to carefully calibrate budget distribution to reflect the strategic ambitions of the University. A mapping of the strategic objectives against available human and organisational

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[6] Additional Information provided to the Team.
[7] Social-solidarity philosophy and principles (following Durkheim) are often applied in the public sector - education, health, not for profit organisations - and emphasise the cohesion between individuals in a society that ensures social order and stability and the interdependence between individuals in a society, which allows individuals to feel that they can enhance the lives of others.

resources must be at the forefront of budget development, approval and management mechanisms. And that budget process must be agile enough to channel resources to areas that have been identified as being of strategic importance.

2.8   As the next Strategic Plan is finalised there are, therefore, a range of recommendations that the Team would suggest relating to the content, structure, sustainability and monitoring of the Plan. It is recommended that (a) *the strategy for 2024-2031 should have clear targets and timelines to achieve the vision and mission of the university* (b) *a clear, unified financial/HR plan for resources and organisation change should be developed to implement the University's overall strategy* (c) *for each aspect of the University's activities there should be single operational plans within which there are agreed roles/targets for each Faculty* (d) *there should be clear internal accountabilities for the achievement of each strategic objective* and (e) *resource allocation should be transparent and reflect needs / priorities / plans rather than the formulaic basis/model on which that funding was allocated*.

Governance

2.9   An organisational chart for the University is provided at the beginning of the SER. The organisational structures that support the governance of a higher education institution can often present themselves as complex, involving, as they do, a mixture of executive actors / forums and deliberative / committee based decision-making. And the intersection between the executive and deliberative arms of decision-making is often the most challenging to understand.

2.10   The TUKE model of governance tends towards being unnecessarily complex. In part this may be the result of an organisational diagram that seeks to be comprehensive but where key aspects, especially around the operation of committees, are not fully developed. For example, the Accreditation Commission is clearly a very significant body for the University - a critical check on the quality of academic programmes[8]. The Commission is tasked with 'impartially, objectively, professionally, transparently and fairly' accrediting, implementing and modifying study programmes based on the prior delegated authority of the Slovak Accreditation Agency for Higher Education. There is also an Accreditation Council that reports to the Commission and prepares the appropriate programme accreditation documentation for the Commission. These committees are not shown on the diagram. While the Senate has some involvement in confirming the membership of the Commission[9], it is unclear from the SER what relationship the Senate and the Commission have in terms of the Senate's stated position as 'the supreme body of the university's academic self-governance' The Team is, however, aware that the respective positions of the Senate and the Commission are determined by the TUKE statute and the Slovak Act on Higher Education.

2.11   Some of these uncertainties could be resolved by internal reflection on the hierarchy of deliberative bodies and the resulting reporting relationships. *The Team recommends, therefore, that there should be a separate openly-available organogram of all committees (including those in faculties) and that this diagram should display reporting relationships and be supported by terms of reference for each individual committee.* More broadly, the *Team recommends that the University organogram be developed to include all functions, departments and institutes including those in faculties.*

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[8] *Statute of the Accreditation Commission of the Technical University of Košice* available through the TUKE website
https://www.tuke.sk/wps/portal/tuke/university/organy-univerzity
[9] The Commission has 10 members, who are appointed by the Rector after prior discussion in the Academic Senate. 3 of the 10 members are representatives of external stakeholders and there are also 2 student representatives.

2.12   In the additional documentation provided by the University, the membership of the Senate is said to comprise of 29 members, 10 of which are student representatives drawn from the faculties. During its meeting with members of the Senate, the Team established that there had been an adjustment to the membership of the Senate and that its overall membership is now 15, with 5 student representatives. In determining the membership of a key body such as the Senate, there is always a balance to be struck between appropriate representation and the effective delivery of the tasks associated with that body. In some cases, a very large membership can be unwieldy. These are very much matters for the University to consider. The Team is, of course, aware that there may be constraints placed on the University by the Slovak Act of Higher Education. Notwithstanding this, however, the Team would encourage the University to reflect on how far the newly constituted Senate allows for the levels of overall knowledge and experience needed for the supreme body of academic governance and how far the unequal representation of students from smaller faculties might discourage the full the engagement of the wider student body. Equally, given the numbers of students that are enrolled from countries outside Slovakia is there a sense in which those students lack a voice at this level of governance? For example, should there be additional dedicated representatives of international students on the Senate? The student voice is clearly a critical factor in supporting the on-going development of the University; and alongside these representative opportunities through formal governance channels, the *Team asks the University to consider if there is a need to encourage more diverse means of independent student representation / feedback to / at a wide range of levels in the university.*

Institutional leadership

2.13   In discharging his responsibilities for the leadership and management of the University, the Rector is supported by a range of advisory bodies including the Management Board, Rector's Collegium and Rector's Council. From the Team's external perspective, there seems to be some overlap in the memberships and ways in which these advisory bodies operate. The Team did not have the opportunity to consider this in depth. However, in terms of institutional leadership, the Team did explore the roles and responsibilities of the Vice-Rectors. The Team understands that the Vice-Rectors are formally allocated 12% (approximately half a day a week) of their time in that role. Most of them have other significant responsibilities such as Head of Department or research commitments in their faculty. The Team received the role descriptors for each of the Vice-Rector and it is immediately apparent that the time allocation for the roles is insufficient to successfully discharge those responsibilities. This was acknowledged in various meetings and is, the Team was informed, an active point of discussion within the senior leadership team.

2.14   While there are clearly on-going and significant short-term challenges for the Vice-Rectors, there is an opportunity for the University to consider re-setting these roles in a number of respects. First, given aspects of overlap in the roles and the time constraints, *consideration should be given to (possibly fewer) largely full-time Vice-Rectors*. Secondly, in redesigning these roles there is a real need *to align Vice-Rectors' responsibilities to strategic goals. For example, there should be one Vice-Rector clearly responsible for **all** international activities*. Thirdly, and very much in the spirit of the University's focus on internationalisation, *the Vice-Rector positions should be open to a competitive international recruitment process.*

2.15   The Team makes these recommendations regarding the Vice-Rector roles as a way to enhance the strength of the senior leadership group and consequently support the broader vertical and horizontal integration of the University. And again in the context of internationalisation, the team also

recommends that leadership activities and institutional decision-making are benchmarked against those in peer universities. This might be achieved, for example, via an international advisory board reporting to the Rector.

Organisation

2.16 As has been noted earlier in this report, each of the University's nine faculties make decisions with local autonomy. This is not an uncommon organisational model and at TUKE it is a well-established platform for institutional development. However, while such autonomy provides for some agility in decision-making it can also lead to a degree of parochialism and, in the worst circumstances, a silo mentality that inhibits change and innovation. In meetings with both central and faculty constituencies, the Team was exposed to a wide spectrum of views on the strengths and weaknesses of the current organisational arrangements. The challenge, as ever, is to retain appropriate local operational autonomy, but with institutional coherence so that the sum of the University is greater than its constituent parts. This approach to balancing central and faulty decision-making should not, however, be allowed to inhibit change. Horizontal co-operation between faculties can sometimes only take the institution so far. On occasion there is also a need for structural change. The configuration / number of faculties should always be open to scrutiny and, with the constraints on the University's budget unlikely to diminish, *the Team recommends that such a review of faculties takes place so that this part of the organisational structure can align with the priorities of the new strategic plan*. Whatever configuration of faculties is decided upon, *removing disincentives to greater subject synergies would provide more electives / choice / opportunities for current students as well as for new interdisciplinary programme development*. This principle of structural change to support institutional coherence can also be extended into the science / research domain. The Team *recommends that the University also considers the development of institution wide research centres that can bring together several faculty's research activities* and these should reflect the priorities established through the Strategic Plan. The Science Park could be a host / model for this and it could also provide an important platform for wider international research co-operation.

2.17 Alongside such structural changes to faculties and the research environment, greater strategic focus can also be achieved by using the normal methodologies of the strategic planning process to ensure that all key university activities are embedded in a single operational plan within which there are agreed roles / targets for each faculty / area of the University. Performance should be monitored / audited periodically and reported. And the quality loop can be closed on such a process by *establishing a dedicated unit to provide evidence and analysis for, and monitoring of, strategic plans*. Such a unit should routinely sanity-check data (e.g., for planning, budget allocation, staff advancement and quality). This should help ensure that robust, agreed data informs decision-making at all levels of the University.

2.18 The impetus to consider change, in all its dimensions, can be reinforced by the encouragement given to staff to question the *status quo* and to discuss the nature of change and how it might be achieved. This can be enhanced by bringing in staff from outside the University, especially from institutions that occupy other parts of the European space, and whose experience can introduce new perspectives. The Team understands that this can sometimes be inhibited by bureaucratic and legal barriers in Slovakia. And, from discussions that the team had, it often seems to be assumed that base salaries in Slovakia will not attract international staff. This view needs to be challenged and the Team *recommends that consideration should be given to advertising selected key roles internationally with higher salaries augmented by alternative sources (e.g. project income)*.

3. Quality culture

3.1   Alongside the mission and vision of the University, emphasis is placed on 'fulfilling quality criteria and promoting the features of excellence and intellectual maturity in all areas of activity'. In the SER it is stated that responsibility for institutional quality norms resides with the 'top management' of the University. Overarching quality systems are framed around government legislation and ISO 9001:2000 standards.

3.2   The SER comments that 'the development of a quality institutional culture is based on the long-term tradition of the existence of TU…'. In more concrete terms the University has established a Quality Board and this has been designed to 'ensure compatibility of the governance of all the TU organisational units and processes with the governance systems of the University as a whole, in compliance with EN ISO 9001:2000 standards.' In terms of senior oversight, the Rector is 'responsible for the implementation of principles of the quality management system'. On a day-to-day basis the Vice-Rectors and faculty Deans are responsible for 'promoting best practice and ensuring that the University's Quality Policy is understood and complied with'. The implementation and monitoring of these ISO standards is delegated to a Commissioner for Quality who manages a division of Quality Management comprising, amongst other things, of a Quality Management Office and the TUKE Quality Board. Currently, the Commissioner for Quality also takes on the role of Bursar of the University. The ISO standard obviously offers a benchmark for the effective and efficient functioning of systems and processes, many of which relate to economic and administrative matters. In this sense it is perhaps understandable that the roles of Commissioner for Quality and Bursar are joined together.

3.3   The framework for academic quality, however, sits outside these ISO arrangements and is co-ordinated by the Academic Senate, the Accreditation Commission and the Scientific Council. Nationally, the quality of provision in higher education institutions is overseen by a relatively new body - the Slovak Accreditation Agency for Higher Education (SAAHE) and this is currently the driver for academic quality systems. The mission of this Agency is 'to contribute to improving the quality of higher education through modern tools following the European Standards for Quality Assurance in Higher Education (ESG 2015). The Agency is intended to provide a mirror of quality to higher education institutions and to decide on the granting of appropriate accreditations following the law'[10].

3.4   The Team understands that TUKE is going through the SAAHE institutional accreditation process to determine how far it meets the internal quality assurance thresholds established by the ESG. That accreditation process involves the appointment of an external review panel by SAAHE and that review panel is tasked with considering (a) the information provided by the university through an on-line application process (b) information obtained from an on-site visit to the HEI (c) available data and (d) consultation with external stakeholders and other interested parties. The review panel's outcome report is considered by the SAAHE Executive Board[11].

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[10] SAAHE is an ENQA (European Association for Quality Assurance in Higher Education) Affiliate and is undergoing an external review coordinated by ENQA. The review will evaluate whether and how the agency meets the expectations of the *European Standards and Guidelines for Quality Assurance in the EHEA.* The review is scheduled to finish in October 2023.

[11] The SAAHE's Methodology for evaluation of standards can be found at
https://saavs.sk/en/methodology-for-evaluation/

3.5   In discussion with senior leaders the Team was told that, in order to meet these external requirements, TUKE had developed a new internal quality assurance system in the last year. This system covers all aspects of new programme accreditation, modification of existing programmes and monitoring mechanisms, including feedback processes. It is intimately connected to the ESG. New programme proposals, for example, go to an Accreditation Board chaired by the Rector and need to fulfil a range of criteria including meeting the long-term plans of the University. In terms of monitoring there is a Board for each programme composed of the professor responsible for the programme, four other members of academic staff, a student representative for each level of study and three representatives from practice. These Programme Boards meet on a regular basis and can propose programme modifications if that is thought to be appropriate. Annual monitoring reports are submitted to the TUKE Accreditation Commission. The University's website provides a detailed summary of the various elements of the TUKE internal quality system[12].

3.6   Recently (April 2023) the University has highlighted four policy objectives that sit at the heart of its quality assurance system[13]. These relate to (a) the sustainability of the quality assurance system at TUKE (b) the quality of education (c) the interconnection of research and education (d) transparency and information management. These high level objectives are accompanied by a more detailed set of objectives with linked responsibilities and a single deadline of 31 December 2023[14]. One of the key objectives relates to obtaining institutional accreditation by SAAHE and it appears that many of the other objectives are strategically linked to successfully achieving this objective. Thus there are detailed objectives relating to, *inter alia*, staff training on the ESG, benchmarking - by comparing study programmes at TUKE with programmes in Slovakia or abroad, improving the monitoring of the internal quality system by rationalising the indicators used in the University, improving course and programme completion rates, and improving approaches to student centred learning. There are also a range of objectives that embrace elements of internationalisation, some, as already noted, around benchmarking and others relating to staff and student mobility, international recognition of research and making sure that information on study programmes is produced in a form accessible to international students.

3.7   Within the policy objective relating to the retention of students, the University stresses the need to raise student awareness of the possibilities for providing feedback on the quality of their programmes / courses through anonymised surveys. This recognises that responses to institutional level surveys are low (30% or less). In addition, many of the students that the Team met were somewhat sceptical about the value of these feedback mechanisms; this coincided with a view from some students that wider engagement with efforts to enhance the quality of their academic experience through, for example, representative roles, was not worth the effort and was a distraction from their studies. It is very apparent from the additional information provided to the Team and the discussions it had with staff and students that the University has made significant efforts to try and capture the student voice through surveys / questionnaires. Some of these efforts are via the MAIS information system, while others are more faculty based through feedback at the programme / course level and sometimes via an individual tutor's personally designed survey. Feedback surveys at the faculty level are not prescribed and some faculties are more active in this respect than others. This can lead to differential outcomes in terms of the student experience and result in an inconsistent

picture across the University. The Team believes that a rationalisation of the student survey activity process would be of benefit to both students and staff. It recommends, therefore, that *University and faculty on-line student questionnaires be combined and be made available on a customised basis (by programme and student type) to each student by their unique student identifier. This change should take place alongside a refreshed effort to further encourage completion of student questionnaires and communicate outcomes / resulting actions to students.* There are also opportunities for the University to correlate and consider some of the issues raised by TUKE students with those provided nationally in the SAAHE on-line survey conducted in 2021[15].

3.8   In many ways these quality objectives offer a more focused and refined view of some of the long term strategic objectives relating to education than those that are set out in the current Strategic Plan. They provide an encouraging platform for the structure, content and approach of the new strategic plan. In this context, the *Team wishes to reinforce the need to ensure effective routine internal audits of compliance with quality processes whose outcomes are openly available and acted upon.* And in relation to the University's focus on internationalisation within the IEP process, it recommends that (a) *the internationalisation of curriculum be given due consideration in quality enhancement processes, for example by being systematically checked at the point of new programme initiation and also during the re-accreditation of programmes* (b) *to ensure portability / transferability internationally of accredited courses / programmes, quality assurance and enhancement processes should be clearly consistent with the requirements of the European Standards and Guidelines* and (c) *international activities should be included in staff promotion criteria*.

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[15] https://saavs.sk/wp-content/uploads/2022/11/Suhrnna_sprava_o_zisteniach_prieskumu_nazorov_studentov.pdf There is a summary of the main findings translated into English on pages 15-18.

4. Internationalisation

4.1 At the beginning of the SER, the University sets out a range of areas in the international domain that it is looking to progress into the next period of its strategic development. These are based on the strategic objectives for internationalisation presented in the University's current Strategic Plan and include an increased focus on the quality of international relationships, student and staff mobility and the recruitment, ideally on long term contracts, of high quality foreign experts. TUKE's focus on internationalisation is 'very closely linked' to the national Higher Education Internationalisation Strategy which covers the period to 2030[16]. The national strategy involves the following strategic goals:

- Improving the quality of higher education through internationalisation
- Increasing the availability of international experience during studies
- Modernization of higher education in the context of internationalisation.

A number of detailed goals are then presented.

4.2 TUKE's international strategy for 2024-2031 is currently in preparation and, according to the SER, the intention is to 'pick up' where the previous strategy left off and 'recalibrate the key elements to reflect the current conditions'. The Team assumes that there will be an accompanying Action Plan - similarly updated from the current version[17] - and that targets, timelines, responsibilities and monitoring will feature prominently in the document. During meetings with those directly involved in developing and implementing international strategy there was some discussion of the issues holding back the realisation of key aspects of TUKE's international agenda. These mirror the national situation and revolve around the demographic of an aging population and a decline in the working age population, problems attracting foreign university teachers and researchers for stays beyond the framework of international mobility[18] and high levels of competitiveness in the HE sector within Europe and beyond.

4.3 Clearly, TUKE's new international strategy, while evolutionary by nature, should have a galvinising impact on the university community, particularly if there is real transparency in what is to be achieved, by what means, by whom and to universally agreed timescales. One example of how this might be highlighted relates to the ambition to foster international relations initiatives. In this context the University says that it is seeking to 'increase and support international student recruitment'. This is separate to any improvements in student mobility via Erasmus and other mobility schemes. As has been noted earlier in this report (paragraph 1.2.3), enrolments of international students represent a significant proportion of total student numbers. And while the war in Ukraine has been a unique factor in the recent growth in international students, there is always a need to plan into the future and then

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[16] https://www.minedu.sk/data/att/21822.pdf
[17] Set out in the SER pp.15-16.
[18] The Slovak Ministry of Education describes the problem as being caused 'mainly by various administrative and legal obstacles. One of the obstacles is the limitation imposed on the position of "associate professor" and "professor" - the positions may not be filled in by a person without a scientific-pedagogical title or an artistic-pedagogical title of "associate professor" or "professor" for a period longer than three years. Various aspects related to the exercise of the rights and obligations of foreigners in relation to longer stays in Slovakia, including the administrative complexity of some processes, may also negatively affect the interest of foreigners to work and study at Slovak schools' . https://www.minedu.sk/data/att/21822.pdf p.8.

make adjustments as circumstances dictate. The Team did not find any evidence that projections / targets for international student recruitment for the current strategic planning period had formed part of that process. In various meetings it was said to the Team that there was a commitment to increasing international student numbers but this was presented in a very open ended manner with no identified measurable targets either by way of percentage increase or numerical change. This presentation of the situation applied whether in discussion with centrally based staff or with representatives of faculties.

4.4   The wider implications of this lack of recruitment planning can be very marked for a whole range of institutional decisions - capital infrastructure spending, human resource planning, programme development, pastoral services and so. This is not an exact science but establishing desired patterns of recruitment and developing relevant marketing and recruitment strategies are a fundamental building block for this aspect of an international strategy. The Team recommends, therefore, *that unified university-wide projections should be made for international students, by faculty, by country, and by when*. Furthermore, *a clear plan - coherent, shared and costed - to achieve those projected numbers should be in place that includes relevant resources and organisational change*. As noted earlier, this approach could be aided by one Vice-Rector taking responsibility for all International activities.

4.5   The Team understands that the new international strategy needs to be carefully crafted and that the usual mechanisms for consulting on, and approving, the strategy need to take place. This, after all, should help ensure the widest possible ownership of what is being committed to and also contribute to institutional coherence. However, at this point the Team would argue that, with the national policy already in place and showing clear examples of deliverables and how they might be measured, it is important that the University *bring forward the Vice-Rector's strategy for internationalisation at the earliest opportunity.*

4.6   In its discussions across the University the Team was able to focus some of its time on the extent to which the current infrastructure provides adequate support for international students. This revealed a rather mixed picture with on-going debates around establishing international offices in faculties as well as in the central administration, the level of support provided to international students by external agents, the positioning of Ukrainian students within the international student community, and the extent to which international students felt they were being integrated both academically and socially into the fabric of the University. The international student voice was not homogeneous. So while many of the Ukrainian students that the Team spoke to had adapted relatively quickly to their academic programmes, from a social integration perspective they saw themselves being grouped with 'home' students as they were studying on programmes taught in Slovak. This meant that some aspects of orientation were almost taken for granted and while there is practical information on the University website directed towards Ukrainian students it is linked to an external organisation[19]. More generally, the practical information provided to international applicants is linked to the International Organization for Migration (IOM)[20]. International Students enrolled on programmes delivered in English, such as those from India, were generally happy with their academic experience on their programme but lacked a locus for wider pastoral support. Most had been

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[19] The Slovak Corps of Ukrainian Students is a non-political, non-profit youth educational organization. On its website it states that it aims to help Ukrainian students 'avoid unscrupulous activities of some intermediaries, difficulties with registration of temporary residence, etc.' The website offers a range of information on studying in Slovakia. https://skkus.eastportal.sk/language/uk/o-nas/

[20] Established in 1951, IOM 'is the leading intergovernmental organisation in the field of migration and is committed to the principle that humane and orderly migration benefits migrants and society. IOM is part of the United Nations system, as a related organisation'. https://www.iom.int/

recruited through an agency in India and found the transition to living in Kosice quite difficult. In addition, while written information for international students was generally available in English, information talks provided on campus were delivered in Slovak. This reflected the fact that most international students were from countries such as Ukraine, the Czech Republic, and the Russian Federation and were capable of understanding Slovak. This was a source of some frustration for those students studying in English. *The Team, therefore, asks that the University ensure that all relevant information (and information sessions) for international students is available in English.*

4.7 There is an awareness within the TUKE leadership and management community that some of the current infrastructure arrangements are not serving the diverse needs of the TUKE international student community in the best possible way. The human face of the university is a critical reassurance for international students; and while the current International Relations Office (IRO) is stated in SER as providing 'a contact point and information resource for international students', this appears to apply largely to mobility students, while the key stated aims of the office are geared to 'the preparation of university-wide co-operation agreements, the management of mobility programmes and the co-ordination of the Erasmus+ programme'.

4.8 As has been noted earlier in this report (paragraph 1.3.3), the SER provided the Team with a very comprehensive description of development projects aimed at enhancing internationalisation at TUKE. This narrative covered, in particular, the MOVE Project, the InterTUKE Project and ULYSSEUS European University.

4.9 The University is taking forward many of the issues relating to the internationalisation of its environment through the InterTUKE project, a development project funded by the Slovak Ministry of Education, Science, Research and Sport with a budget of around one million Euros. The SER states that 'after the completion of all project activities, TUKE will have a functional, permanent and up-to-date information, advisory and educational structure that will ensure accurate and clear communication flows and support services for foreign students and employees.' The Team notes, in particular, the intention to create an International Welcome Office (IWO), which 'will enable the use of existing personnel capacity for more intensive and targeted work with the international community.' From the description of the InterTUKE project in the SER it is not clear what level of resources will be dedicated to the IWO and how far it will be a prominent student facing office. Given the overall numbers of full-time international students and the complexity of issues faced by those students, the Team believes that there is strong argument for *creating a one-stop-shop 'international office' to support all international and exchange students activities, orientation and **on-going support***. This might be embraced by the InterTUKE project and play a complementary role to the IWO. It is critical that such an office is situated prominently on the main campus, that it is capable of seeing large numbers of students and that it works closely with international facing staff (both academic and administrative) in the faculties. In this context the Team *recommends that the University avoids doing things inefficiently by creating multiple international offices in each faculty as well as at the centre.*

4.10 The Team is pleased to note that the InterTUKE project is also looking at the wider academic and cultural environments that exist for international students (and staff) at the University. In the SER it is stated that:

> The project will significantly contribute to the creation of a motivating environment with active intercultural dialogue directly at the university, facilitating the integration of foreign students and academic staff into the university and local communities and promoting diversity, tolerance and interest.

The importance of such work cannot be underestimated; equally it is sometimes extremely challenging to translate theory into practice. The Team, therefore, encourages the University to move speedily from aspirations into concrete actions and use the tools of the strategic planning process to establish targets, responsibilities and timelines for delivering this improved environment for the international student community. *Consideration of how to improve academic and social integration of international students should be an on-going process for the whole university community*. And, notwithstanding some of the constraints of national legislation, *representation of international students in the Senate and other central and faculty committees can be seen as one concrete measure in taking this agenda forward.*

4.11   The ULYSSEUS European University project features very prominently in the University's SER. Funded through the EU's Erasmus + programme, ULYSSEUS is described as 'an excellency-recognized university, internationally attractive, open to the world, persons-centred and entrepreneurial European University for the citizens of the future'[21]. Alongside TUKE, the Ulysseus Alliance includes five other universities - Seville, Côte d'Azur, Genoa, Management Center Innsbruck and Haaga-Helia University of Applied Sciences. Two new members - Münster and Montenegro - have recently joined the Alliance. Work on establishing the Alliance began in 2017 and came to fruition in 2020. The recent three year period has involved developing a range of activities related to education, research and innovation. TUKE has a small core team that co-ordinates the university's project activity which includes the management of the work package 3 (Challenge-Driven Education, Research and Transfer of Knowledge)[22]. TUKE also has responsibility for implementing one of the six Innovation Hubs - relating to digitalisation - and with a focus on 'driving the theme of digital transformation and society across the whole Ulysseus European University.'[23] Within the Alliance, work is currently underway on the preparation of a follow-up project to continue its activities for the next four years (2023-2027).

4.12   The development of European universities has formed a leading part of EU strategy and policy for education and research since 2017[24]. Given this direction of travel at both EU and national level it is perfectly understandable for TUKE to become involve in the ULYSSEUS Alliance. The commitment required to sustain such involvement, however, is considerable and demands a very clear strategic steer and a significant sign up from internal and external stakeholders. The Team finds that some of this is in place and that, in particular, institutional leaders are clear about the benefits that can flow from the project. At other levels of the University, the picture is more mixed with some faculties well engaged with developments, while others are seen to be quite far removed from activities and still to be convinced that there are real, tangible benefits to be realised from the Alliance. The Team also understands that it has also been difficult to mobilise student interest in the Alliance, although there are some signs of progress with some students participating in events and PhD students getting involved in some of the research packages. There are also some very dedicated staff who are clearly very committed to the project and see it as a journey where co-operation, internally and externally, can only be built over the long-term. The Team met with some of TUKE's Alliance partners during one of its on-line meetings and the comments made to the Team were very positive, stressing open channels of communication, high levels of trust and real world expertise. Partners from outside the Alliance shared these opinions and had formed robust collaborations over an extended period of time.

4.13   The University has already invested appreciable resources and staff time into the ULYSSEUS project. There is perhaps a watershed moment on the horizon as a new 4 year project plan is discussed and agreed amongst its members. Inevitably, this will look to accelerate some of the deliverables only

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[21] https://ulysseus.eu/about-us/
[22] This includes developing a framework for double/multiple degrees, flexible curricula and strategies to improve teaching and learning.
[23] SER, page 29.
[24] As a recent example see, https://education.ec.europa.eu/document/commission-communication-on-a-european-strategy-for-universities?

partially achieved to date. At the same time TUKE is close to finalising its new Strategic Plan and its new Internationalisation strategy. There are a wide range of considerations at play here. What, for example, is TUKE's business model for the sustaining its involvement in ULYSSEUS? How far is the organisational architecture of TUKE placed to deliver on these partnership demands? How will the planning processes for the University and the Alliance coalesce? And what more needs to be done to bring university staff, students and external stakeholders into a broadly supportive mind set for the next stage of the ULYSSEUS project? Many of the issues raised and recommendations made by the Team in Section 2 of this report should be seen as central in helping to answer these and other related questions.

5. Teaching and learning

5.1   The SER makes a brief reference to teaching and learning, placing it in the context of TUKE's education quality policy, highlighting student choice of topics, opportunities for internships and variety in teaching methods. TUKE's nine faculties all offer programmes at Bachelor, Masters and PhD levels. Most faculties offer a limited number of programmes at each level. Three faculties - Mining, Ecology, Process Control and Geotechnologies, Mechanical Engineering and Electrical Engineering - have more substantial portfolios[25]. There is, however, no evidence of inter-faculty programmes although many programmes do allow, timetabling permitting, for courses to be taken outside the parent faculty. Many of these programmes are accredited for teaching in Slovak and English although two faculties - Arts and Materials, Metallurgy and Recycling – do not offer programmes in English while the Manufacturing Technologies programme offer at bachelor and masters level is very largely restricted to Slovak language delivery. Full-time and part-time modes of study are generally available across the nine faculties. If, however, the University is to embrace an ambitious increase in enrolments of international students it will need to consider accrediting *more programmes that can be taught in English*. In addition, The Team is, however, encouraged to note that, within the InterTUKE project (see paragraph 4.9 below), one of the activities to support the internationalisation of TUKE employees 'is the creation of an English-language education concept and the implementation of long-term and short-term courses with the aim of developing the language competences of TUKE employees with the potential for their involvement in employee mobility and improving communication with foreign students and employees'. This would be an important addition to the TUKE educational support infrastructure.

5.2   In the additional information sent to the Team, faculties provided information on their approaches to student-centred learning (SCL). For example, the Faculty of Electrical Engineering and Informatics comments that teaching and learning strategies involve, *inter alia*, active learning involving case studies; learning in teams; experiential learning through company visits; technology supported learning and mentoring. Given faculty autonomy in relation to education, examples provided by other faculties were sometimes more limited. Students that the Team met spoke of the variability of their teaching and learning experience. For the Team, SCL is not as embedded a concept as it needs to be and students mentioned that their experience on a course was often determined by the enthusiasm and inventiveness of the individual lecturer. An institutional learning and teaching strategy might help to bring some consistency to the student experience in this respect. In addition, the resources dedicated by TUKE to supporting the delivery of teaching and learning has diminished in recent years and *the Team recommends that consideration be given to strengthening university-wide pedagogic training and support for academic staff*. This can also be used to respond to student demand for greater digitalisation, availability of licensed software and IT skills training.

5.3   The Team is encouraged to see that at the institutional level the interconnection between research and education is stressed in both the respective sections of the Strategic Plan. This is emphasised with particular reference to the second level of study. As part of the policy objectives relating to the TUKE quality assurance system there is also a goal to enhance the synergies between education and research[26]. So, for example, stress is placed on the role of Programme Leaders in ensuring that programme learning outcomes reflect the link between education and current research

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[25] Based on 2023/24 accredited programmes shown on the TUKE website https://www.tuke.sk/wps/portal/tuke/uchadzaci/studijne-programy Between them these three faculties offer 91 programmes across all levels. The other 6 faculties offer a total of 54 programmes across all levels.
[26] https://pdf.tuke.sk/kvalita/CK_TUKE_2023_VSZK_EN.pdf

and also that webinars should be organised for teachers so that they can help ensure research integrity; prevent plagiarism and other elements of academic fraud. Students that the Team met were generally content with the opportunities to engage in research or research related activity as part of their programme of study[27]. However, the University needs to take care that the strategic focus on second level opportunities is not taken forward at the expense of creativity in introducing these concepts at the first tier.

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[27] Under the umbrella of the Science Park it is encouraging to see a competition for students relating to their final year thesis (all study levels). Those applying for the competition can get support for the practical use of their final thesis. The winners of the competition receive 'a financial award helping them with their further development and can extend their solution in the real environment of the startup center'. https://uvptechnicom.sk/en/competition-top-students-final-thesis-with-the-business-potential/

6.   Research

6.1   It is made clear in the SER that research is largely organised at faculty level. The Department of Science, Research and Doctoral Studies overseen by the Vice-Rector has 'only a co-ordinating function and provides only methodical guidance to faculties. It has no controlling functionality.' Faculties can ask for help from the Department in preparing and submitting applications for national and international grants that require submission through the University. In all other circumstances responsibilities reside with the faculty including cooperation with international partners. In terms of academic governance TUKE has established a Scientific Council chaired by the Rector and comprising 35 internal and external members. As part of its responsibilities the Council expresses its opinion on the long-term strategy of TUKE as presented by the Rector; regularly evaluates the performance of TUKE in educational activities and in the field of science, technology and art; approves the criteria for obtaining professorial titles; and discusses proposals for granting a scientific-pedagogical or artistic-pedagogical titles.

6.2   At the institutional level the current Strategic Plan sets out 16 objectives designed to strengthen the position of TUKE ' as a leading research university in Slovakia and recognised abroad.' The objectives include:

- Increase the international impact of the results of scientific research, artistic, and creative activities of TUKE employees, including an increase in citations and references.
- Systematically support effective international scientific cooperation and increase the activities and success of TUKE in international grant competitions with an emphasis on Horizon 2020.
- Inspire faculties and partners to interdisciplinary mutually beneficial cooperation, to create space for exceptional interactions that can bring unexpected knowledge and fundamental results – discoveries.
- Regularly evaluate the university's placements in international rankings and the shares of individual faculties in individual evaluation categories.

6.3   The Team received information on the research outputs of all the faculties in the period from 2016-2021. This presented a mixed picture of achievement in terms of percentage income received by each faculty and trends can be seen to vary on the basis of grants obtained at home and those received from international sources. Overall faculties' share of financial resources received in 2021 for home projects increased by 25% in the five year period from 2017[28]. In terms of individual faculties this home income is very heavily dominated by the output of Mechanical Engineering, Electrical Engineering, Mining, and Manufacturing Technologies. The distribution of research income from international grants is rather different with a smaller overall value and Economics by far the outstanding achiever in this respect.

6.4   Alongside these measures of research success based on income received, the University uses international rankings as a benchmark of success - QS World University Rankings , the Times Higher Education World University Rankings and U-Multirank[29]. These measurements are now ubiquitous in world higher education and they can provide a helpful guide to research output and citation impact.

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[28] Largely spread across the Scientific Grant Agency (VEGA), the Cultural and Education Grant Agency (KEGA) and the Slovak Research & Development Agency (APVV) although in some faculties income received from other sources of domestic grants is quite prominent.
[29] U-Multirank is developed and implemented on the initiative of the European Commission by an independent consortium led by the Centre for Higher Education (CHE) in Germany, the Center for Higher Education Policy Studies (CHEPS) at the University of Twente and the Centre for Science and Technology Studies (CWTS) from Leiden University, both in the Netherlands, as well as the Foundation for Knowledge and Development (Fundación CYD) in Spain.

However, these quantitative measures reveal only a part of the health of the research environment and culture of an institution. Increasingly, within the HE space, emphasis is being placed on the institutional research environment and research culture and correspondingly less on research outputs and individual successes. For example, the EU Commission is supporting an exercise designed to reform research assessment. Over 350 organisations from 40 plus countries expressed an interest in being involved in the process, including some from Slovakia, and an agreement was published in July 2022. This agenda for change is clearly of some significance, not least because it is being brought together in a European framework; the overarching goal is to maximise the quality and impact of research. The common vision presented through this initiative

> 'is that the assessment of research, researchers and research organisations recognises the diverse outputs, practices and activities that maximise the quality and impact of research. This requires basing assessment primarily on qualitative judgement, for which peer-review is central, supported by responsible use of quantitative indicators'.

6.5   TUKE therefore has an opportunity to reset its approach to research assessment in this emerging international setting and adapt its quality systems for research accordingly. In this context, *the Team recommends that the University ensures that metrics for research encourage quality and impact*. This approach can be aided by greater integration of research communities across the University. It has been noted earlier in this report (Section 2) that organisational / structural change can help horizontal collaboration in areas such as research and education. In addition, the University already has some key building blocks for this evolutionary change. The TUKE Science Park, for example, is becoming a central vehicle and focal point for creating conditions 'for the permanent development of research and development with a constant impact on the transfer of knowledge and technologies, or innovation practice both at the international, national and regional level.' The Team is pleased to note that this research and innovation ecosystem has a very solid international grounding as it seeks to achieve 'internationally comparable results of scientific, research and development collaboration with practice'. This promotion of the Science Park as something more than just a physical space is central to the embedding of collaboration and the enhancement of research culture.

6.6   A core objective of the Science Park project is to deliver 'top applied research and development in selected areas of science, including its social and humanitarian dimension'. The areas identified to support this objective are information and communication technologies; electrical engineering, automation and control systems; engineering; civil engineering (construction, transport, geodesy); environmental engineering (mining, metallurgy, water management sciences), including its social and humanitarian dimension. The Science Park setting offers many opportunities for extending and diversifying TUKE's research footprint. There are clear synergies between the discipline areas noted above and the impetus towards interdisciplinary research should be exploited. It is notable that the University is placing emphasis on the social and humanitarian dimension. There are clearly areas within the social sciences and the arts where expertise can be brought to bear on such applied research and development.

6.7   The Team has built up a picture from its various meetings with academic staff of a very strong commitment to research. On the whole, academic staff state that they have sufficient time to undertake research; normal academic staff contracts involve an equal 50-50 % commitment to teaching and research. This is often a difficult balancing act for staff to pull off, especially as the mantra of 'publish or perish' is still relatively deep rooted in the research environment[30]. A greater ability for

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[30] Marc Schiltz, President of Science Europe, has commented that 'metrics have led us into a blind alley. Let's start recognising the full breadth of value created by researchers'. https://research-and-innovation.ec.europa.eu/news/all-research-and-innovation-

academic staff to focus on research does not entirely obviate this difficult reality. In the Team's view, however, there is merit in allowing some staff contracts to be based solely on research activity and it *recommends that the University gives consideration to this possibility in its human resources strategy*. Academic staff commented to the Team that they felt broadly supported within their faculty setting to publish in peer reviewed journals and become involved in project based research activity. However, mechanisms for co-operation across faculties is, according to those research active staff that the Team met, something that is lacking and, as noted earlier in this report, the strongly autonomous structure of faculties at TUKE can lead to an enclosed view of research within an individual faculty.

6.8   The Team views the lack of inter-faculty research collaboration as a weakness of TUKE's current arrangements and it *recommends, therefore, the creation of university-wide research centres, possibly hosted by the Science Park, as a way of improving research integration across the University.* Clearly, such developments can also offer a platform for greater international collaboration. The external grant environment, particularly via EU funding streams, is often geared to projects that offer interdisciplinary expertise and university wide research centres can play a significant role in that respect. And, in the ULYSSEUS European University, TUKE also has a ready-made international vehicle for embedding such an approach. In this context the Team *recommends that TUKE's involvement in ULYSSEUS is used as a basis to (a) find preferred partners for research projects and (b) identify partner universities as role models for research development*.

6.9   Mention was made to the Team on a regular basis in meetings held across the University - faculty staff and managers, senior leadership team - that diversifying the academic staff profile with external international research expertise was a considerable challenge. As mentioned earlier in this report this issue is highlighted in the Slovak strategy on internationalisation and TUKE emphasises this problem in its SWOT analysis located at the end of the SER. The Team did hear, however, that some faculties had managed to find ways to overcome some of the administrative and legal problems facing such appointments and *the Team urges TUKE to redouble its efforts to attract greater numbers of international research staff.* A more straightforward approach to increasing the involvement of international staff might come from enabling external international PhD supervision. After all, this would not require a permanent base in Slovakia and regular visits in both directions plus on-line engagement could provide a *modus vivendi* for successful supervision. *The Team recommends that this is considered within the TUKE statues and regulations for PhD supervision.*

6.10   The team would advise that, in taking forward this ambitious research agenda, the Vice-Rector for Research and the Vice-Rector for Innovation, working closely with faculty Deans, are given appropriate authority to drive this change. This links with the Team's earlier recommendation relating to the roles of the Vie-Rectors (paragraph 2.14 above).

7.   Service to society

7.1   The focus on internationalisation as part of this IEP evaluation process meant that some of the normal considerations relating to service to society could not feature prominently in the Team's discussions with staff, students and local / regional external stakeholders. However, there are aspects of service to society that the Team wishes to highlight as part of this evaluation. In particular, this relates to the embracing of students from Ukraine into the university community. The scale of this activity has been emphasised elsewhere in this report. However, the numbers involved sometimes do not reveal the extent to which this involves a major collaboration between the University and local, regional and national agencies. Ukrainian students that the Team met were clearly comfortable in their environment and had been assisted in adjusting to living and studying in another country by staff and fellow students within TUKE. For the university to provide the levels of academic and pastoral support required, in what has been a relatively short time frame, is an impressive achievement and one that should bring it some considerable pride. And alongside this major institutional commitment the Team also found some of the normal activities associated with service to society - whether the opening up of the Science Park to external partners and audiences or the commitment of PhD students going into schools to support young women engage with STEM subjects. All this is to be commended.

8.   Conclusion

8.1   The University's decision to choose internationalisation as a special focus for this IEP evaluation is a timely and forward thinking one. The evaluation comes at a time when a range of factors are converging to determine TUKE's future direction. In particular, the University stands on the cusp of a new strategic plan, an updated internationalisation strategy, the recent election of a new Rector and the need to agree a fresh set of policy objectives and actions spanning the next four years of the ULYSSEUS European University project - TUKE's flagship international partnership within the EU. In addition the international approach to research assessment is evolving at a fast pace and the complexion of TUKE's student body will continue to be influenced by the far-reaching implications of the war in Ukraine.

8.2   The Team finds that TUKE has an enthusiastic, articulate and, mostly happy, student community together with a committed and reflective staff across the university. These staff and student constituencies are served by generally good facilities and, in particular, a relatively new science park that has huge potential for supporting the University research and development footprint both nationally and internationally. This potential is aided by TUKE being well located in a key regional centre and transport hub supporting, and supported by, local and regional stakeholders.

8.3   Internationalisation offers many opportunities and probably an equal number of threats and challenges, some obvious, some less so. In the medium to long term the University has decisions to make that will inevitably determine some fundamental aspects of the nature and identity of the institution. Most notably, this can be seen in its involvement in the ULYSSEUS European University project. TUKE needs to use this watershed moment in its development to consider how it balances borderless education through the ULYSSEUS alliance with a range of independent bilateral arrangements currently in place through its faculties. This embraces all three cycles of education, staff and student mobility and science and research. The discussions around the priorities of the new Strategic Plan and the refreshed internationalisation strategy should be, more than ever, a shared discourse with all internal and external stakeholders. This may not be a binary choice but it will be one of some significance in terms of the allocation of resources and the structures that need to be in place for the University to thrive, especially in the international domain.

Summary of the recommendations

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1   The new university strategy (2024-2031) should have clear targets and timelines to achieve the vision and mission of the University.

2   A clear unified financial / HR plan for resources and organisation change should be developed to implement the University's overall strategy.

3   For each aspect of the University's activities there should be single operational plans within which there are agreed roles / targets for each faculty

4   There should be clear internal accountabilities for the achievement of each strategic objective.

5   Resource allocation should be transparent and reflect need / priorities / plans rather than simply follow the formulaic basis / model on which that funding is allocated.

6   Consider how governance can be simplified with effective and documented evidence-based decision-making processes with robust agreed data informing decision-making.

7   Notwithstanding the national legislative context, consider whether the Senate is in-reality positioned to be the 'supreme body of the University's academic self-governance'.

8   The University organogram needs to include all functions, departments and institutes including those in faculties.

9   A separate openly-available organogram of all committees (including those in faculties) and their reporting relationships needs to be produced.

10   Consider if there is a need to encourage more diverse means of independent student representation / feedback to / at a wide range of levels in the University.

11   Align Vice-Rectors' responsibilities to strategic goals. In this context, consideration should be given to (possibly fewer) largely full-time Vice-Rectors roles and those positions should be open to international applicants.

12   Benchmark leadership activities and decision-making against those in peer universities (for example, via an International Advisory Board reporting to the Rector).

13   Establish a dedicated unit to provide evidence and analysis for, and monitoring of, strategic plans. Such a unit should routinely sanity-check data (e.g. for planning, budget allocation, staff advancement and quality).

14   Performance should be monitored/audited periodically and reported

15   Review the configuration / number of faculties

16   Remove disincentives to interfaculty co-operation to allow for more electives / choice / opportunities for current students as well as for new interfaculty programme development.

17   Give consideration to university-wide research centres that could bring together several faculties' research activities.

18   Give consideration to advertising selected key roles internationally with higher salaries augmented by alternative sources (e.g. project income).

19   The internationalisation of curriculum should be given due consideration in quality enhancement processes.

20   To ensure portability / transferability internationally of accredited courses / programmes, quality assurance and enhancement processes should be clearly consistent with the requirements of the European Standards and Guidelines.

21   University and faculty on-line student questionnaires should be combined and made available customised (by programme and student type) to each student on the basis of their unique identifier.

22   Measures should be taken to further encourage completion of student questionnaires and communicate outcomes / actions to students.

23   Ensure effective routine internal audits of compliance with quality processes whose outcomes are openly available and acted upon.

24   Consideration must be given to strengthening university-wide pedagogic training and support for academic staff.

25   To meet future international student demand more programmes will need to be taught in English.

26   Bring forward the Vice-Rector for International Relations and Mobilities' strategy for internationalisation.

27   Unified university-wide projections should be made for international students, by faculty, by country, and by when. Ensure that there is a coherent, shared and costed university plan for how those students will be recruited. A clear plan to achieve those projected numbers should be in place that includes relevant resources and organisational change.

28   Create a one-stop-shop 'international office' to support all international and exchange students activities, orientation and on-going support.

29   Avoid doing things inefficiently (e.g. creating multiple international offices) both centrally and in each faculty

30   Include international activities in academic staff promotion criteria.

31   Consider ways in which to improve the academic and social integration of international students.

32   Ensure all relevant information (and information sessions) for international students is available in English.

33   Notwithstanding the national legislative constraints explore the representation of international students in Senate and other formal committees.

34   Ensure that there is wide awareness of the questionnaires for each group of international students and that the results of those questionnaires inform the provision of relevant student services.

35   Ensure that metrics for research encourage quality and impact.

36   Maintain effective support for project development.

37   Use Ulysseus (a) as a basis to find preferred partners for research projects (b) identify partner universities as role models for research development.

38   Enable external international PhD supervision.

39   Attract more staff to solely do research.

40   Explore how more international research staff can be attracted.

Appendix

IEP Team Request for Additional Information / Data

Statistical Information / Data

1   For the period of the current strategic plan (2016-23) a year on year breakdown of student enrolment, progression and graduation data, disaggregated to the faculty level, shown by undergraduate, masters, and PhD levels. These data should also show study year. These data should also distinguish between 'home' and 'international' students. International students should not include those studying on the basis of mobility programmes.

2   For the period 2016-23, year on year data of full-time international students enrolled at the University with their country of origin, disaggregated to the faculty level.

3   For the period 2016-23, a breakdown of numbers of international students by country of origin studying specific programmes

4   For the period from 2016-23, year on year data of incoming and outgoing student international mobility, disaggregated to the faculty level.

5   For the period from 2016-23, year on year data of incoming and outgoing staff international mobility, disaggregated to the faculty level.

6   For the period 2016-23, data and analysis of student drop-out rates at undergraduate, masters and PhD levels at both institutional and faculty levels.

7   For the period 2016-23 a breakdown of staff - full-time teaching staff, full-time research staff, sessional teaching staff, and administrative / technical staff, allocated by faculty and research institute as appropriate. Details of staff-student teaching ratios for this period.

8   For the period 2016-23 any analyses of research outputs e.g. by income, journal etc.

Strategies / Policies / Procedures

9   A copy of the University's Strategic Action Plan for the period 2106-23 showing targets, milestones, responsibilities and evidence of annual monitoring of achievements.

10   A summary of the University's Quality Assurance policies and procedures, including access to the institutional Quality Handbook used by centrally and faculty based staff. Evidence of how these policies and procedures are mapped to the European Standards and Guidelines. Samples of student questionnaires used at the institutional and faculty levels.

11   The University's research strategy and any related action plan for the period 2016-23.

12   Institutional Teaching and Learning Strategy with particular reference to Student Centred Learning (SCL). Examples of additional strategies operating in the faculties.

13   A description of the national admissions process together with TUKE institutional and faculty based policies and procedures e.g. ability to set separate entrance exams for candidates. Figures on applications – 'home' and 'international' for the period 2016-23 broken down by faculty and level of study.

14   In relation to the SWOT analysis at the end of the University's Self-Evaluation Report, the evidence developed by the University to support these conclusions, especially in relation to strengths and weaknesses.

15   A summary of any benchmarking exercise conducted by the University against other similar institutions in Slovakia or more widely in Europe.

Governance / Organisation

16   A diagrammatic representation of committees at both the institutional and faculty levels.

17   Terms of reference for institutional and faculty committees together with their memberships and reserved powers i.e. those that cannot be delegated.

18   Role descriptors for each of the Vice-Rectors.

19   A narrative outline of the budget process - basis for allocation from central government, distribution methodology to faculties, research institutes and administrative units. Hard data of recurrent and capital income and expenditure over the period 2016-23.

20   A summary of the role and status of the Students' Union / Association, including issues of independence from the University's management, budget allocation, election processes for student representatives at both central and faculty level. Details of any international students that have elected positions (numbers).

21   A summary of the development of alumni policy over the period 2016-23.