

LODZ UNIVERSITY OF TECHNOLOGY

EVALUATION REPORT
EVALUATION WITH A SPECIAL FOCUS ON INTERNATIONALISATION

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Team:
Jürgen Kohler, Chair
Anja Oskamp
Janis Vetra
Samin Sedghi Zadeh
Jethro Newton, Team
Coordinator

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1. Introduction

This report is the result of the evaluation of Lodz University of Technology (TUL). The evaluation took place in 2018/19 following a request from the Rector of TUL, Professor Slawomir Wiak. The purpose of the evaluation of the university is to contribute to the advancement of its strategic management and to its organisational development, and to enable the university to strengthen its capacity to anticipate and to address change. In their deliberations the evaluation team assessed and focused on the university's strategic priorities and used this as a basis for making recommendations for the future.

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 the 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
- A support to improvement

The focus of IEP is the institution as a whole and not the individual study programmes or units. It focuses upon:

- Decision-making processes and institutional structures and effectiveness of strategic management
- 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?

The evaluation of TUL, with a special focus on internationalisation, uses the same IEP methodology but within this context pays special attention to the policies, structures and processes in place for supporting internationalisation at the institution. This includes looking

at specific actions for internationalisation, as well as exploring how internationalisation issues are mainstreamed throughout the institution's policies and processes.

1.2 Profile of Lodz University of Technology (TUL)

The Decree establishing TUL was signed in May 1945, though efforts to establish a technical university or polytechnic institute in Lodz date back to the 19th century. Initially TUL consisted of four faculties, for Mechanical, Electrical, Chemical, and Textile Engineering. In response to regional and national economic transformation during and since the 1990s, the university has grown to nine regular faculties, primarily in the fields of engineering and technology, with an additional International Faculty of Engineering. Doctoral schools are currently located in each of the nine faculties. In 2006, TUL established its University of the Third Age, and this was followed in 2008 by the establishment of the TUL Children's University.

The university is one of 397 universities in Poland, of which 130 are public universities; of the latter, 24 are universities of technology. Together these higher education institutions provide education to some 1,291,900 students, though student numbers have been decreasing since 2006 with a decline of 33.9% over a twelve-year period.

In common with most universities in Poland, TUL is governed by the regulations and policy frameworks of the Ministry of Science and Higher Education (MNiSW, hereafter referred to as "the Ministry"). For the purpose of programme accreditation, TUL is under the authority of the Polish Accreditation Committee (PKA), an independent body which undertakes obligatory assessments of compliance with national requirements for higher education provision. Since October 2018, however, the university has been initiating a process of internal governance and structural reform. This is in response to a new Law of Higher Education (also referred to as the Constitution for Science, or new Act or Act 2.0) and a new Regulation of the Minister of Science and Higher Education on conducting studies, which both came into force on 1 October 2018. The requirements of this new legislation, which has replaced several previous legislative acts, are being implemented over a period of several years. The new Statute of the university must be completed by 1 October 2019. Some regulations became operational in October 2018, with other regulatory provisions being introduced at several stages in October 2020 and 2021, and January 2022. Under this national dispensation, which is less prescriptive than the provisions in force until now, the university is allowed more autonomy and self-regulation in determining internal governance matters and in shaping organisational structures. The new law also provides more freedom for a rector to determine the policy of a higher education institution.

1.3 The evaluation process

In March 2019, TUL provided the IEP team with a self-evaluation report (SER) describing and analysing the university's vision, mission, and goals, its governance and management arrangements and processes, and also a SWOT analysis undertaken in conjunction with the preparation of the SER.

The IEP team learned that the SER had been developed by a team appointed by the university's rector to coordinate the self-evaluation process. Preparations had been led by the vice-rector for science. The self-evaluation team was comprised of representatives from the faculties and the central units responsible for internationalisation and included a student member. The SER was the product of a series of regular meetings and supporting activities over a three-month period and included input and data collected from various institutional sources and units. This work also overlapped with the work being undertaken to address the requirements of the new Law on Higher Education and Science which came into force in October 2018

From meetings with staff and students it became apparent to the IEP team that there was a reasonable awareness of the broad nature and purposes of the team's visit to the university. Information about the IEP process had been disseminated across the university prior to the commencement of the self-evaluation process. The team members were warmly and openly received at all levels of the university community. After the first visit the team requested some additional information, which was provided several weeks in advance of the second visit.

The two site visits took place on 2-5 April 2019 and 3-6 June 2019. The evaluation team (hereafter referred to as "the team") consisted of:

- Professor Jürgen Kohler, former Rector, Greifswald University, Germany, team chair;
- Professor Anja Oskamp, former Rector, Open University of the Netherlands, Heerlen, Netherlands;
- Professor Janis Vetra, former Rector, Rīga Stradiņš University, Latvia;
- Samin Sedghi Zadeh, Student, Niccolò Cusano University, Rome, Italy;
- Emeritus Professor Jethro Newton, former Dean, Academic Quality Enhancement, University of Chester, UK, team coordinator.

The team would like to express its thanks to the rector of the university, Professor Slawomir Wiak, for the welcome and hospitality provided during the two visits. Special thanks are also offered to the university's liaison person, Justyna Kopańska, for her excellent work in ensuring the smooth running of all aspects of the process and for her kind and efficient support throughout.

2. Governance and institutional decision-making

The team noted that TUL is the second largest university and the only technological university in the Lodz region. As a prominent technological university nationally, TUL is striving to become one of the top ten research universities under the Ministry's *Initiative of Excellence: Research University* programme. This reflects the TUL vision, which is to be recognised as an innovative research university with a technological profile, with a prominent place in Polish higher education, and an established position internationally. In developing its academic offer, TUL focuses on modern technologies, the business sector and creative industries, and sustainability. This is supported by the university's mission, which emphasises the pursuit of knowledge through education, scientific research, and through upholding the principles of creativity and entrepreneurship. From discussions with internal and external stakeholders, and from scrutiny of institutional documentation, the team formed the view that the university has an established reputation and track record of using its strengths in engineering and technology to adapt to the changing needs of the socio-economic environment. Furthermore, the team noted that a distinctive feature of the university's profile is that internationalisation is viewed as a means of implementing the institutional mission and of realising the TUL vision and strategic goals.

The team is confident that TUL will continue to play a leading role regionally and nationally, and sees that the university has already demonstrated its potential for raising its profile internationally and in the context of scientific research. However, from the perspective of the team, these ambitions need to be viewed in the context of a challenging operating environment. This will present TUL with challenges and difficult choices as the university plans for the future. This situation is acknowledged in the TUL SER and SWOT analysis, in which the university identifies threats and weaknesses that include increasing competition between universities nationally and internationally, demographic changes, insufficient scientific activity, and the lack of a central information system for planning purposes.

From discussions with TUL leaders and staff at all levels, the team noted the university's willingness to address these challenges by building on existing strengths and potential and making use of available opportunities. These include using the new higher education law to introduce organisational efficiencies; exploiting the good reputation of TUL nationally and regionally; building on scientific and innovative potential; continuing the good cooperation with the socio-economic environment; and using internationalisation as a key pillar of the new *Development Strategy 2020-25*.

Governance and management

A central consideration for the team's evaluation is that as a result of the new higher education law, and the requirements of Act 2.0, TUL is undergoing a period of change and transition in which regulatory matters, institutional strategy, and organisational structures are under review.

In their deliberations on arrangements for corporate and academic governance, the team paid attention to the relationship between the university and its central governance bodies and organisational units on the one hand, and its faculties and other emerging structures on the other hand. The team explored matters such as the greater freedom accorded to the university and the enhanced level of autonomy given to the rector under the new legal dispensation, concerning the right to choose vice-rectors and deans and to decide, within the strategic framework set by the University Council, on budget matters. The team also considered the degree of oversight of faculties and academic units exercised by higher level governance and management bodies, and the general functioning of TUL's arrangements for university finance and resources. Furthermore, the team took a close interest in lines of communication horizontally, between faculties and between other academic units.

As noted in section 1.2, while the university's new Statute is due for completion by October 2019, the finalisation of new sets of regulations is a phased process which will continue until early 2022. This includes the introduction of new internal norms such as Resolutions of Senate and Rector's Ordinances. The team noted that to take forward the work made necessary by the new law and the wider transition that the university is undergoing, the rector established ten development teams to address matters such as education affairs, scientific affairs, finance, cooperation with the economic environment, and TUL statutes. The new Statutes Commission includes representation from all faculties and organisational units and has met on a weekly basis to prepare a draft TUL Statute according to the requirements of Act 2.0. As an expression of the greater freedom and autonomy from which the university will benefit, in addition to new regulatory frameworks the team noted the establishment of twelve new scientific disciplines for research, a new doctoral school to replace those currently located in each of the faculties, and some new and pending changes in leadership arrangements.

The team noted that, to a large extent, the university's management structures are quite typical for a European university with an organisational structure that is currently focused around a rector, vice-rectors, senior central administrators, and a faculty structure led by deans. The rector line manages the deans, while the vice-rectors line manage the central functions. However, the team also noted that arrangements are in some respects quite elaborate, as is illustrated by the number of positions held by rector's proxies, and the comprehensive management and administrative infrastructure and organisational units in place to support key functions, such as internationalisation, research, and local and regional affairs. In some areas of strategic activity (e.g. planning, implementation, and quality assurance in education and research) several senior post-holders and middle-level managers have shared responsibilities.

The team noted that in carrying out his leadership function, the rector is supported by a team of four vice-rectors with responsibilities for science; innovation and development; education; and student affairs, and a chancellor and a bursar, with responsibilities for estates and financial matters, respectively. The rector is also advised on policy directions and on the operation of university systems and processes by ten rector's proxies. The responsibilities of

this advisory team are focused on quality, education, student affairs, student recruitment, internationalisation, student internships, doctoral affairs, sport, research and development, and academic entrepreneurship. For management executive purposes, a Rector's Council meets on a weekly basis, and includes the bursar, the four vice-rectors, several rector's proxies, the director of finance, and the chancellor. This group, which does not include deans, performs the functions of a senior management team. At faculty level, deans are responsible for the strategy, financial management of the faculty, and for implementing university policy. Each dean is supported by several vice-deans, with specific responsibilities on matters such as education, student affairs, and quality. Deans, who report to the rector on faculty development, also chair the Faculty Council, which meets on a monthly basis.

In seeking to understand the nature and functioning of the university's academic governance and deliberative bodies, the team noted the pivotal importance of the TUL Senate. This body, which meets monthly, approves the TUL Statute and regulations, sets the university's strategic direction, approves the budget and expenditure, exercises oversight of curriculum matters, and approves the rector's annual reports. To support the work of the Senate, the university has in place a system of Senate sub-commissions, for finance, statutes and organisational issues, HR development, and science, promotion, and international cooperation, each of which is chaired by a member of the full Senate body. Below this is a system of Faculty Councils, which set the general direction of the faculty, distributes the faculty budget, and exercises oversight of study programmes and doctoral studies. At the time of the team's visits, each faculty also included a doctoral school, though the team learned that these are to be superseded by a centrally organised Interdisciplinary Doctoral School (see section 6, pages 30-31).

In reflecting the foregoing arrangements for the management and governance of the university, the team formed the view that they are understood by the TUL academic community and function as intended. Furthermore, the team learned that all groups amongst the academic community are represented in the university's deliberative bodies, at all levels, and that this includes students. This provides all internal stakeholders with the opportunity, to varying degrees, to comment on and to influence university plans and policies. That said, prompted by the new legal dispensation, all of these arrangements are now subject to review, with the possibility and opportunity for rationalisation and streamlining of management and governance structures. This is a direction that the team wishes to encourage.

The team learned that a significant change now being implemented by the university, and which will impact markedly on both corporate and academic governance at the top of the institution, is the establishment of a new University Council. The formation of this new body, which will provide advice on the strategic direction of TUL, represents a fundamental change in corporate governance arrangements. The Council, which is a requirement of the new law, was due to hold its first meeting shortly after the team's second visit to the university in June 2019. This body will have three external stakeholders drawn from prominent positions in business, industry, and the media. It will also include three internal stakeholder members who are elected by the TUL Senate, and the chairperson of the student self-governance body

as a student member. Functioning as a board of trustees, the University Council will give final approval to the new TUL Statute, will consider the new TUL *Development Strategy 2020-25* and the rector's annual report, and will monitor financial affairs. It therefore provides an important accountability function regarding the university's strategic affairs. From meetings at a senior level, the team formed the view that this is a development which is welcomed by the university and is aligned well with the openness towards partnership with external stakeholders that was apparent to the team during their meetings at the university.

The team noted that, to date, some regulatory changes have been decided upon and implemented while others are not yet finalised. Some issues, such as the future position of faculties, and the arrangements for leadership positions, remain uncertain. However, through their discussions with the university, and scrutiny of institutional documentation, the team learned that the university has recognised some of the steps required to address future challenges. Future planning and organisational development require an effective central management information system. Here, action has been taken to coordinate and integrate IT systems and data and information systems. It has been recognised that some rationalisation of senior posts and organisational units (both administrative and academic) may be desirable. Here, there is a prospect that fewer vice-dean positions will be required and that the number of proxy positions may be reduced due to the rector's right, under the new law, to choose and appoint his senior managers independent of Senate voting. The need for improvement and greater professionalism in administrative functions has been acknowledged, and external funding is being used to achieve this. Alongside this, some administrative units have been merged to provide more effective support for organisational structures. The university's SER recognised the need for improved communication lines and information flows between faculties. Here, staff with whom the team met indicated their expectation that changes being introduced to academic structures and organisation have the potential for strengthening cooperation between faculties and for achieving optimum use of resources. Furthermore, the move from an organisational structure based on a federation of faculties towards a more centralised system of management and governance, and a re-organisation of faculty structures, may provide a basis for quicker and more responsive decision-making and implementation of decisions. With this in mind, as the university implements the changes it wishes to make in responding to the new law, **the team recommends that it should pursue all available opportunities for enhancing organisational efficiency through rationalisation of its management and governance arrangements, its organisational structures, and its decision-making processes.**

The university's capacity to manage change and to provide the necessary leadership has been a central consideration for the team. Here, sustainability in areas the university has identified as crucial to future institutional development is of paramount importance. These areas include: building an institutional quality culture; a stronger profile on the international stage; addressing the decline in student numbers and creating new markets; improved performance in research; higher positions in national and global rankings; the introduction of twelve new discipline councils in TUL's faculties; and the establishment of an Interdisciplinary Doctoral

School. From the perspective of the team, the university will need to resolve the question of how these priority areas and ambitious plans are to be supported in terms of sustainability. To achieve success in each of these areas much will depend not only on the effectiveness of any organisational and structural changes which the university introduces in its period of transition, but also the degree of ownership that is achieved for the new arrangements. In the view of the team, in order to achieve organisational cohesion a balance is needed between good management and executive decision-making on the one hand, and effective consultation and ownership on the other hand. This requires good quality leadership at all levels.

Academic organisation

At the time of the team's visit, figures provided by the university showed that of 15,605 registered students, 11,639 were Bachelor's students (of which 1 817 were part-time), 3 355 were Master's students (of which 1 081 were part-time), and 612 were doctoral candidates (of which 28 were foreign). Of the total student headcount, some 40% were female. Students are predominantly enrolled on a full-time basis. Across TUL's nine faculties and three colleges, there are 60 programmes of which 19 offer both full-time and part-time study modes.

For doctoral provision, the total headcount for 2018 was relatively low at 612, while for that year 67 graduations are recorded. (The matter of non-completion at all three cycles is discussed more fully in section 5, page 27). The highest numbers of doctoral candidates are currently to be found in the following scientific fields: Computing Studies; Chemical Technology; Chemistry; Chemical Engineering; and Engineering Technology/Biotechnology.

The team was informed that of 2 682 staff, 1 242 were categorised as academic staff (37.8 % female), and 1 440 were administrative staff. The total for academic staff included 119 professors, 217 "Doktor Habilitowany", 757 "Doktor", and 149MA/MSc. These staff were spread across three categories of academic staff, namely: research-teaching, research, and teaching.

As noted in section 1.2, a distinctive feature of TUL is that in addition to the regular faculties, the university has three Colleges, a Children's University and a Third Age University, and an International Faculty of Engineering (IFE). For the purposes of this evaluation, in view of the strategic importance attached to internationalisation by the university, the latter was of special interest to the team. This is discussed more fully in section 4.

Strategic planning and organisational development

The team was able to explore the university's organisational development agenda in some detail through considering institutional processes for strategic planning, and the degree of alignment between corporate planning and faculty level plans. Here, the team took account of the transition phase that TUL is currently undergoing.

The team noted that the university was in the final phase of implementing the TUL *Development Strategy 2015-20* which is based on five strategic objectives, each of which is underpinned by a set of operational objectives. The actions contained in that strategy identify timelines, responsibilities, resources, and measures in the form of performance indicators. The team also noted that each faculty has its own strategy which is broadly required to be consistent with the TUL strategy and mission. The team learned that the principal tool for monitoring progress on implementation of the *Development Strategy* is the rector's annual report to Senate, which is used for in-depth reflection on performance indicators, for analysis of strengths and weaknesses, and to put in place corrective measures. The team noted that as part of this process, faculties and other organisational units contribute by providing their information and data as part of the annual report. This report is available to all staff through the university's online platform.

However, the team learned that preparation of the TUL *Development Strategy 2020-25* was at an advanced stage, and awaited discussion by the University Council before being approved by the TUL Senate. The team noted that this work had been carried out simultaneously with work towards addressing and implementing organisational changes arising from the introduction of the new law on higher education. In common with the outgoing strategy, the *Development Strategy 2020-25* has as its central focus the aim of becoming an innovative modern research university with a technological profile and a prominent status in international rankings. The team learned that to prepare the new strategy, in October 2018 the rector had appointed a team of eleven persons, chaired by a senior academic with expertise in strategic management. The team was informed that this strategy is viewed as being more open and flexible than the outgoing strategy. The 36 basic objectives and 12 strategic areas, including science, learning and teaching, innovation, internationalisation, and university infrastructure, will inform the future direction of TUL. The team was interested to learn that the new law will require that the rector's annual report comments in detail on implementation of the strategy.

The team recommends that when the *Development Strategy 2020-25* is approved, each faculty and other academic and organisational entities should be required to review and update its own strategic plan to ensure strict alignment with university-level goals, directions, and key performance indicators. To ensure a holistic and cohesive approach to the implementation of institutional plans, this same principle of alignment should apply to supporting strategies in specific areas of strategic importance.

In reflecting on these matters, the team sought to evaluate the state of readiness of the university and its systems for carrying forward its challenging strategic agenda. Two points emerged from the team's evaluation.

First, the university does not at present have a separate internationalisation strategy. Though the team noted that the current TUL strategy and its successor strategy include provisions for various aspects of internationalisation. However, in view of the fundamental importance of this area for TUL's future plans, these ambitions may be better realised by the development

of a free-standing TUL internationalisation strategy, notwithstanding the need to align this with the objectives of the *Development Strategy 2020-25* as regards teaching, learning, research, and human resources. Regarding this, the team was encouraged to learn that as part of the university's preparations for implementing the requirements of Act 2.0, the rector has established an internationalisation strategy team and that work is already underway. This matter is discussed more fully in section 4, pages 22 and 23, and is accompanied by a team recommendation.

Secondly, the university acknowledged in its SER that, to date, it has lacked an effective and robust central management information system and data collection and data analysis capability. The team learned that various data is collected in different TUL information systems. However, through discussions with senior managers, the team was encouraged to learn that in response to this weakness steps are being taken to remedy this situation. Improvements are being made to central information systems with a view to improving the quality of data that is required for planning and quality assurance purposes. From the team's perspective, the university's capability for institutional planning and for monitoring the new strategy will be greatly enhanced if this matter can be resolved. The team noted that a new Centre for Strategic Analysis is to be established that will provide advice on improving the central information system and the quality of data available for strategic purposes. In parallel with this, a new Computer Centre will take responsibility for IT sub-systems and network security, and for enhancing the availability and robustness of management information systems in areas such as research-related activity. Therefore, **the team recommends that early progress is made in fully operationalising the new central arrangements for strategic analysis and management information systems.**

Finance and resourcing

The team learned that, as a result of changes at national level under the new law, the model of financing higher education is also changing. Ministry funds will be granted more directly towards the university and not, as has been the case until now, to its organisational units. The allocations will be based on algorithms such as student numbers and faculty profiles. For research, the twelve new scientific disciplines will be the focal point for this funding, and not the faculty. In effect, this allows the rector and the university's higher governance bodies more autonomy in making internal decisions on resource-related matters. The university is applying for extra research funding under the Ministry's *Initiative of Excellence: Research University* programme (see section 6, pages 30 and 32), but what is unlikely to change in any significant way is that the amount of money generally available to support the study process will continue to be considerably higher than for research activities.

The team noted that, as with other public universities, TUL is mainly financed through Ministry subsidies. One funding stream for didactic activities is based on student numbers (including foreign and exchange students), another stream is to support research. These amount to around 67% and 17% of total revenue, respectively. In addition, the Ministry provides grant or project money which is managed either by the National Centre for Research

and Development (NCBR), or by the National Science Centre (NCN) or by the Ministry itself. This is equivalent to around 6% of revenues. The remainder of the university's income comes largely from student fees and from the sale of services.

Regarding the division and allocation of external funding subsidies, the team learned that some funds are centralised to support central administration, academic support functions, and other central services, while other funds are decentralised to didactic units, such as faculties, the IFE, Institutes, Colleges, and faculty administrative support. For didactic purposes the largest allocations are made to the faculties of Mechanical Engineering, Electrical, Electronic, Computer and Control Engineering Chemistry, and Civil Engineering, Architecture and Environmental Engineering. For research, the biggest allocations are received by Mechanical Engineering, Chemistry, and Electrical, Electronic, Computer and Control Engineering. The heads of the various organisational units are authorised by the rector to take financial decisions in disposing of their allocated funds.

In overall terms, under the law in force until recently, the university's annual budget and the resource allocation process were initiated and overseen by the Senate sub-committee for Budget and Finance in consultation with the rector. The chair of that sub-committee and the head of finance met as required with the rector on an advisory basis. Under the new law, the rector has the authority to make final decisions in the context of the full Senate and with the authority of the new University Council. The budget and subsequent allocation process are currently determined on a formula basis and according to statutory duties. For management and central administrative purposes, the oversight, monitoring, and management of finances, is shared between the bursar and director of finance, in accordance with their respective responsibilities and involvement in governance and management bodies. From the perspective of the team, these existing processes function in a transparent manner and are compliant with national regulations. Further, the rector and Senate have available to them robust and up-to-date information on the financial situation of the university, and the bursar routinely monitors spending against allocation.

A further aspect of the university's financial affairs which drew the attention of the team is the Task Based Budget, which has operated at the university since 2016 and which for the past three years has amounted to c. 2.3 million euros. This operates as a mechanism which enables the rector, through the Rector's Council, to steer policy initiatives that support university priorities. The team heard several examples of how innovative ideas which had been brought to the rector's attention on a "bottom up" basis, had been supported through this budget. Examples included initiatives to support internationalisation, such as accreditation and staff mobility. In the view of the team, this mechanism serves the university well in meeting some of its strategic priorities.

In reflecting on all these matters, the team considered some of the principal challenges faced by the university in terms of funding and income generation. For example, demographic trends point to the prospect of a decline in student numbers and a consequent need to diversify income sources. Furthermore, since 2016, financing of research has declined due to

the completion of EU-funded projects. While new applications are being made to generate funding streams from new projects, competition is intense. The university rightly views the current national *Research Excellence Initiative* as a challenging opportunity to increase its funding considerably for the duration of that national scheme, which is intended to reward and drive research performance. The team noted that revenues from industry collaboration could potentially provide a partial solution. However, as is discussed in section 5, while the Centre for Cooperation with the Economy Innovation and Technology Transfer and other departments are making efforts to improve this situation, income to date is generally low.

3. Quality culture

The team noted that although the university's SER identifies the high quality of education and teaching as one of the five strategic objectives of the *Development Strategy 2015-20*, this is also an area in which the SER acknowledges the need for more progress. The team learned that, to date, developments have been made in several areas of quality assurance. This includes quality commissions at central and faculty levels on which there is student representation; guidelines for faculties; posts of responsibility to support the functioning and implementation of the TUL quality system (WSZJK); and the use of student feedback surveys and performance evaluation of teachers. These arrangements are in accordance with the relevant Rector's Ordinances and with the Senate Resolution of January 2018 which established WSZJK as TUL's quality system following a review of the effectiveness of previous arrangements. The team noted that while senior management oversight of quality is exercised by the vice-rector for education, the rector's proxy for the quality of education has responsibility for operational management and functioning of the internal quality assurance system. For governance purposes this system includes the University Council for the Quality Assurance of Education (KJK), appointed by the rector, which is responsible for the implementation of quality policy and for advising organisational units on procedures, and the Senate Commission for Education and Student Affairs, which acts as an advisory body on educational quality. The main objective of WSZJK is quality control, the promotion of pro-quality attitudes, and the improvement of the quality of education.

At the central level, WSZJK guidelines are issued to faculties and other organisational units who, as autonomous units, then create their own regulations. Activities are coordinated by the KJK, together with the Quality Office and the Education Affairs Office and Student Affairs Office. The team noted that while the Education Affairs Office and Student Affairs Office focus on educational quality assurance, in the past a Quality Office has dealt with administrative procedures, and matters such as ISO certification. However, the team learned that this office is no longer active.

The team was informed that an important aspect of WSZJK is the introduction of a new university survey system. This system, which was developed in cooperation with the Student Council and external stakeholders, incorporates evaluation of various aspects of the education process, namely, the study programme, the course units, teaching, study conditions, and doctoral studies. Responses are collected and anonymised electronically.

The team noted that at faculty level the dean, as chair of the Faculty Council, is responsible for the quality of education and for the implementation of policy and procedures. The dean is supported by a vice-dean for education and a vice-dean for student affairs with responsibility for quality and student affairs respectively. In addition to the Faculty Council, which oversees all academic matters, there are faculty commissions for the quality assurance of education and for the evaluation of the quality of education. Under these arrangements, councils at faculty level are responsible for implementing the internal quality system as stipulated by the University Council for the Quality Assurance of Education on matters such as conducting and

evaluating surveys of all students, requesting curriculum changes, and cooperation with the labour market. The team learned that, at present, each faculty is required to establish Study Programme Commissions but that this is now being replaced by a system of Field of Study Councils under the authority of the vice-rector for education. The responsibilities of these bodies are extensive and cover the development of the study field and programmes on curriculum matters, cooperation with the IFE, evaluation of survey outcomes, accreditation requirements and reports, and external affairs including internationalisation. The chair is appointed by the rector, while other members are proposed by the dean. Where there is interdisciplinary provision a joint committee is established between faculties. As is described in section 4, page 21, the IFE has its own Programme Council system covering provision in that faculty.

Regarding accreditation, the team learned that there are two dimensions, national and international. (The latter is discussed in section 4, page 22). The team noted that in the national context, there are two types of programme accreditation. The first, accreditation by the Polish Accreditation Committee (PKA), is mandatory. The team formed the view that TUL has a positive accreditation profile under these arrangements. All nine faculties and the three TUL Colleges have received positive assessments, with some fields designated as “outstanding”. The second type, accreditation in the field of engineering by the Accreditation Committee of Universities of Technology (KAUT) is voluntary and application is at the discretion of each faculty. KAUT is authorised by the European Network for Accreditation of Engineering Education (ENAAE) to also grant the European EUR-ACE (European Accredited Engineer) label. The team noted that, at the time of their visit, five TUL fields of study had been accredited by KAUT under these arrangements, and one faculty (Civil Engineering) has two fields that have been accredited. From the point of view of the team, this overall profile is a positive one and the members of the team encourage the university to continue to make progress in these matters. However, the team also took the view that, as the university furthers its aspirations for external recognition, it may wish to consider completing the internal work it has commenced in benchmarking against the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). This is discussed more fully below (see page 18).

In focusing on matters relating to quality culture, the team also took the opportunity to consider the university’s arrangements for the internal review of study programmes and for producing reports and data on educational quality at the level of Senate, faculty, and study programme. The team noted that an annual report is presented to Senate by the rector on the functioning of the quality assurance system. This report, which is available online to all members of the university through the TUL e-platform, provides an in-depth reflection on various matters such as legal developments, accreditation, survey outcomes, cooperation with student self-government, activities in support of the quality of education, and action plans for the forthcoming period. The report also includes a section on international cooperation and data on mobility and international project involvement. The team was

informed that the analysis of strengths and weaknesses identified in the report enables corrective measures to be put in place.

An annual report is also presented to the Faculty Council on the quality of education in the faculties and this covers student recruitment and progression, student achievement, faculty links with the labour market, and the implementation of the internal quality system. Annual reports on quality are also completed by Study Programme Leaders at the study programme level. The team was informed that individual units monitor their quality indicators on an ongoing basis and that action is taken as appropriate. Further, quantitative and qualitative data is collected and analysed for all reports. These reporting arrangements are used for both internal and external quality monitoring purposes, though data collected may change over time due to either Ministry requests or to TUL's own needs. However, the team noted that although study programmes are subject to periodic external review and accreditation, the university itself does not have its own internal review cycle for study programmes.

With regards to data collection and analysis, the team was encouraged to learn that new key performance indicators for quality assurance and quality control have recently been introduced on several levels, namely: quality assurance audit and ranking ratings; student survey ratings; and student employment. From the team's perspective this has the potential to strengthen quality monitoring. However, they noted that TUL acknowledged in its SER that actually using this data is an area of weakness for the institution. At present there is no uniform method for collecting and analysing information and data to monitor the quality of education. Each unit has its own scheme, thereby preventing aggregation, there is no central system for processing data from existing databases, and analysis requires the manual collection of data from various sources. The preparation of quality reports is therefore labour intensive (this also applies to the monitoring of internationalisation activities). Matters relating to lack of a central capability that enables automatic collection and processing of data from existing databases is the subject of one of the team's earlier recommendations (section 2, page 12). Regarding the monitoring and review process itself, the team learned that to address the problems associated with reporting on quality, the University Council for the Quality Assurance of Education (KJK) has devised a uniform template for reporting on the quality of education. This has now been successfully piloted in the Faculty of Mechanical Engineering and is now being applied across the university. In relation to this, and the matter of internal periodic review of study programmes, the team makes two recommendations. **First, the team recommends that the university should proceed to full implementation across all faculties, of the KJK template for reporting on the quality of teaching, learning, and research. Second, the team recommends that a process should be put in place for a five-yearly periodic review cycle for the internal review of all study programmes using both internal and external academic peer review experts with outcomes and recommendations being reported to the university Senate.**

With regards to student representation and involvement in institutional quality processes, the team noted that the Executive Board of the central Student Parliament is active in many ways. At the level of the faculty, Student Council representatives communicate with fellow students

in a variety of ways, including social media, email, and through student organised events. Student Council representatives have also been active in highlighting the importance of responding to student surveys. However, the team noted that while arrangements are in place for student representation on commissions at all levels, it was not clear during meetings with students whether all students were aware of these arrangements. Also, the team formed the view that to some extent communication on student concerns took place through informal channels such as personal contact with senior academic staff rather than through the formal channels of committees. Furthermore, it was apparent that new student representatives do not receive any formal training from the university's quality managers. Nevertheless, they do receive informal training and support from experienced Student Council members and the student bodies themselves organise courses to identify which student representatives are best suited to which tasks.

An integral part of the TUL quality system is the use of surveys to obtain feedback on the student experience. This relatively new procedure was developed in cooperation with the Student Council and external stakeholders and invites feedback on various elements of the education process. However, as the university acknowledges, this arrangement is not working as well as it wishes. Though this survey system provides opportunities for students to give anonymous feedback on various aspects of their experience of learning and teaching, the response rates can be quite low: only 20% in some areas and well below the desired 30% threshold. This is despite Student Council initiatives to raise the profile of the surveys amongst the student body. Students with whom the team met mentioned that one factor which inhibited responses is that surveys are distributed when they had almost completed a course and that any actions taken would not benefit them. Furthermore, the low response rate led them to query the value, validity, and representativeness of the survey data. Even so, students were able to cite examples of changes taking place in response to the feedback they provided, such as intervention by the dean in the event of negative feedback on teaching quality, and changes to modules. In addition, each year the Faculty Student Council meets with the dean and vice-dean to discuss all aspects related to the study process. The team noted that staff are continuing to work with Student Council representatives to improve response rates, and that student representative bodies have submitted proposals for a more focused and risk-based approach to selecting programmes to be evaluated in any given academic year.

Overall, the team concurs with the university's own assessment in its SER that while the quality system has merits, there is a need to make further progress. The team welcomes the recent action taken by the KJK, with student involvement, to revise the Senate policy for education quality and to make it more accessible to students. Nevertheless, as the university recognises, the level of awareness of the system across the academic community, amongst both staff and students, is quite variable and impedes progress towards building a quality culture. The team was not convinced that policy is fully understood and accepted by all staff. Furthermore, not all guidelines relating to quality are well-documented and the university does not currently have a "TUL Quality Assurance Handbook". In addition, the team was

informed that while some use has been made of Part 1 of the ESG (relating to internal quality assurance), none of the standards have been fully addressed and further work is required in this area. The team believes that in view of the university's internationalisation aspirations, this is a matter that should be prioritised since it provides an opportunity to benchmark against best European practice in quality assurance. The university's framework for internal quality assurance can be strengthened by making use of all standards listed in Part 1 of the ESG. Therefore, **the team recommends that the University Council for Quality Assurance in Education should complete a "gap analysis" and mapping exercise against each of the standards in Part 1 of the ESG and benchmark the university's quality assurance arrangements against these. The outcomes should be fully disseminated at all levels of the university. Furthermore, the team recommends that the outcomes should also be used to inform the completion of a "TUL Quality Assurance Handbook" that documents and codifies all aspects of the university's quality assurance policy, structures, and processes. When completed, this should also be supported by an extensive programme of staff training and awareness-raising.**

4. Internationalisation

The team learned that in the university's management and governance structures, oversight of internationalisation is exercised in various ways. Overall responsibility lies with the rector, though each of the vice-rectors share various responsibilities in areas relevant to internationalisation. In addition, four rector's proxies have advisory responsibilities for, respectively, education (including mobility), the Interdisciplinary Doctoral School, international research and development projects, and for the other aspects of internationalisation. The Director of the TUL International Cooperation Centre (ICC) is also responsible for leading the rector's team that is currently developing a new internationalisation strategy. In the view of the team, these arrangements provide extensive oversight arrangements on international matters.

The team was impressed by the initiatives undertaken by putting in place an extensive infrastructure under the ICC in 2017 and, prior to that, by establishing an International Faculty of Engineering (IFE) in 1997 as a pilot unit for introducing ECTS. The team learned that until 2017 the IFE was the main driver for internationalisation at TUL but that alone it did not have the capacity to deliver all the necessary activities and this led to the formation of the ICC. The team noted that the ICC provides a strong focal point for internationalisation processes and activities. The Centre brought together and rationalised several units dealing with international matters with a view to establishing TUL's reputation in matters such as mobility, project links, and didactic and research networks. As is outlined below, the ICC incorporates various offices and units to provide comprehensive support for internationalisation. The Centre is also responsible for international rankings and international accreditation.

The team noted that IFE study programmes are popular with Polish students and that the majority of IFE students are Polish nationals; other students are foreign and are enrolled at either Bachelor or Master's level on either a full-cycle or Erasmus mobility basis. At the time of the team's visit, figures showed that 1 337 students were enrolled at the IFE of whom 473 were identified as foreign students, with 389 on Erasmus programmes and 84 on a full-cycle programme. The team learned that numbers fluctuate during academic year in accordance with semester changes but that foreign students typically represent 25-30% of the student headcount. Of the 21 programmes offered in a foreign language, 20 are delivered in English and one in French. Of these, 13 are available at Bachelor level, and eight are available at Master's level.

Since its establishment the IFE has pioneered modern teaching methods and student-centred learning and has sought to disseminate and encourage this across other parts of the university. IFE students study separately from other students as their study programmes differ. In focusing on soft skills and student competences such as problem-based learning, the IFE has cooperated well with employers and alumni; some 50% of the IFE Board are external members. Similarly, the IFE has encouraged university-wide cooperation with European universities for mobility purposes. All IFE first cycle students are required to complete a mobility semester at a foreign university.

The team also noted the importance being attached to the newly established IFE Programme Council, which has an extensive range of responsibilities and which is to be chaired by the rector. This body, which has representation at vice-rector and director level, and from study field representatives and students, also includes strong external representation. Its responsibilities include IFE strategy, educational processes, and pedagogic matters for IFE study programmes. In reflecting on these matters, the team concluded that the IFE provides a good quality learning experience and reflects positively on the university's commitment to internationalisation. That the university has been able to use the IFE for recruiting and educating Polish national students is especially commendable.

The university supports internationalisation on various levels, including administrative and financial, both through the ICC and through other offices, such as the Project Office and EU Funds Division. The TUL Foreign Language Centre plays an important role in relation to the IFE for language provision but also has a wider university role in promoting languages, mobility, and multi-culturalism. It has been recognised internationally by achieving the EAQUALS (European Association for Quality Languages Services) accreditation award. Further, the team noted that the ICC itself has several units performing specialist international functions. The Student Mobility Office is responsible for all student mobility matters and dual diploma students, though the IFE Student Office deals exclusively with student records for IFE students. The Head of Staff Mobility Division is responsible for all guests, delegates, and TUL staff mobility and some aspects of project links. The university also has a Promotion and Information Division for promoting TUL abroad and for arranging events and project activities and supporting faculties and other organisational units. The team also learned that other important functions are performed by the Office for Cooperation with the Economy and Social Environment which supports the IFE in making links with regionally-based international companies, and the International Educational Projects Division which provides advice and administrative support for staff across the university in various educational projects. From the perspective of the team, the arrangements described are comprehensive and fit for purpose.

The team noted that IFE students, both foreign and Polish nationals, spoke positively of their experiences and of the opportunities available to them in terms of support, foreign language provision, and learning and teaching. Though there were variable views expressed by IFE students on the availability of and access to laboratory facilities and equipment (see section 5, page 27), students emphasised the importance of English language study and mobility opportunities in influencing their choice of both TUL and the IFE. They also highlighted the dedication of teaching staff. Incoming foreign students also valued the mentoring and induction information they received from the ICC at the point of arrival at the university.

The team considered several areas which illustrate the university's external-facing internationalisation activities. For example, the team noted that the university has been recognised through receipt of the ECTS Certificate and the Diploma Supplement Logo. Further, TUL has five joint/double diploma programmes with French and German universities and an extensive range of other academic partnerships and agreements. Data provided to the team indicated that the university has a total of 593 cooperation agreements; 80 international

research and development projects (including Horizon 2020 and Erasmus+); 100 exchange programme agreements; and 154 partners in Canada, the Middle East, Europe, China, Australia, and Latin America for didactic and scientific purposes. Together, these provide extensive opportunities for TUL staff and students. The university is also a member of the European University Association (EUA), Agence universitaire de la Francophonie (AUF) and Magna Charta Universitatum. The team considers that the university might also explore opportunities arising from the European Union initiative on “European Universities” supported by the recent Bologna Process Communiqué (Paris, 2018).

The team paid particular attention to the volume of mobility. The team learned that during 2018 there were 681 instances of outgoing mobility, with students being placed in 64 countries. 365 students went to Western European countries. During the IFE mobility semester, some 200 students were placed in 100 universities in 15 different countries under Erasmus agreements. However, the team noted that university faces challenges in sustaining levels of both incoming and outgoing mobility. Furthermore, while outgoing numbers fluctuate, it is difficult for TUL to exceed current numbers for student mobility since students face economic difficulties. A further weakness acknowledged by the university is that the number of foreign academics employed on a full-time basis is low (18 in 2018), while the number of visiting professors is also modest (56 in 2018). Therefore, the opportunities to share good practice in education and research is restricted and is less than the university desires.

The team noted that the university also wishes to strengthen their performance in the areas of rankings and accreditation. The SER indicated that although the university has already achieved EUR/ACE (European Accredited Engineer) the low number of international accreditations is viewed by the university as a weakness and a cause for concern. To correct this the university has created the Accreditation and International Rankings Division located in the ICC to support faculties in this area and has obtained funding to increase the number of accreditations. Information available to the team indicated that TUL is one of 12 Polish universities included in *Times Higher Education World University Rankings*, that the university took part in the *QS World University Rankings* and *U-Multirank 2018*, and is also exploring classification in the *Shanghai Rankings*. The rector informed the team that, reflecting a general weakness in Polish higher education, the university’s position in rankings generally, and world rankings specifically, is rather low and that given the strategic importance of improving this position, he is seeking to change the attitudes of academic staff.

The team believes that the structures that include the IFE and ICC provide a good basis for building sustainability into future plans for internationalisation. From the team’s perspective, to support the university’s focus on activities that include international mobility, projects, research, study programmes, and foreign languages provision, it has in place the necessary administrative structure and academic arrangements to enable TUL to sustain its internationalisation ambitions. The team recognises that the Accreditation and International Rankings Division is a valuable function in view of the university’s aspirations. Furthermore, as

is discussed in section 5, the infrastructure arrangements to support research development are also fit for purpose in facilitating the internationalisation of research.

However, the university faces challenges given the strategic emphasis placed upon building TUL's international reputation in areas such as national and global rankings, mobility, and scientific and education project links. As noted above, this includes fluctuating mobility rates, a low level of incoming mobility of foreign experts, increasing competition for European project calls, and the difficulties of obtaining additional accreditations and improving ranking positions. In the view of the team, this represents a challenging and competitive operating environment, and one which calls for a clear strategy and action lines.

The university has acknowledged in its SER that, to date, it has not developed a free-standing strategy for internationalisation. Instead, internationalisation is incorporated in the priorities and objectives of the current *Development Strategy 2015-20*. Given that the internationalisation of education and research is viewed as a means of implementing the institutional mission, this lack of strategy should be resolved as a matter of urgency. Therefore, the team have been encouraged to note that amongst the teams that the rector has established to address the implications of the new higher education law, the Director of the ICC is chairing an "International Team" to complete work on such a strategy. Accordingly, **the team recommends that the work currently being progressed to identify a TUL International Strategy should be completed for implementation as from 1 January 2020. The strategy should identify realistic and measurable targets. It should provide the foundation for:**

- **sustainable resources for the ICC and IFE infrastructure;**
- **selectivity in the choice of partnerships to ensure added value in both teaching and research;**
- **greater customisation of the study programme offer to attract international mobility students.**

5. Learning and teaching

The university has full autonomy in matters relating to learning and teaching. The team learned that governance bodies, management arrangements, and organisational units are in place to provide an extensive institutional focus for a range of educational functions and activities. The TUL Senate maintains overall oversight of regulations for curriculum matters, fields of study, and student affairs and is supported in this by both the sub-commission for Education and Student Affairs and the University Council for the Quality Assurance of Education. The latter has an aggregate view of curriculum change at faculty level and also deals with programme accreditation matters and works in conjunction with the central Education Affairs Office in ensuring that requirements for ECTS and learning outcomes are being met. Educational matters at faculty level are overseen by Faculty Councils which are responsible for the development and implementation of study programmes and learning outcomes and for proposing changes to the curriculum. While the rector has principal responsibility for teaching activities and the learning environment, he is supported in this by the vice-rector for education who is responsible for the organisation of the education process, and by rector's proxies for education and student affairs and for student internships, who act in an advisory capacity. From meetings with university staff, it was evident to the team that these arrangements are well established and are understood by the academic community.

The team noted that the university provides a wide range of study programmes that reflect the institutional focus on student employability in engineering, technology, and other fields, and that the curriculum is profiled to reflect this. Study programmes are aimed at addressing the needs of the labour market regionally, nationally, and internationally. The university has made good efforts to keep pace with socio-economic transformation and this is reflected in the objective specified in the *TUL Development Strategy* that commits the university to providing "a high level of education and a modern teaching offer". The university views its ability to respond to regional labour market needs and the demand for employable graduates as an area of strength. From the evidence available to them, including the way in which the curriculum is profiled, this is a view that the team can endorse. A strength in the area of learning and teaching is the international focus as represented by the foreign language delivery in the study programmes of the IFE and the foreign language provision available to students in the university's regular faculties, though some of the latter students with whom the team met indicated that they would value more time to learn a foreign language. For IFE students there is a mandatory mobility semester that requires a foreign language capability. A further attractive feature of the university's programme portfolio is the availability of dual diplomas with 19 foreign universities in the UK, Germany, Netherlands, Italy, France, and China, with others pending.

The team also considered other curriculum-related matters, such as curriculum design and development and took account of the views of staff and students. In general terms TUL has a track record of engaging with higher education developments in the European Higher

Education Area (EHEA), and a three-cycle system is in place as well as a learning outcomes-based approach to curriculum design. The team noted evidence that internal and external stakeholders are consulted on curriculum matters, though it was not clear how consistent this practice is across all faculties. The team heard examples of external stakeholders being active in defining learning outcomes and in assessment of student achievement, and two faculties have introduced a procedure for industry representatives to be involved in the evaluation of didactics. The team also heard that some deans consult student representatives when planning a new study programme. From the perspective of the team, these are examples of good practice in curriculum development and are worthy of dissemination across all faculties. The team also heard from some staff that study programme and curriculum regulations may not be implemented consistently across all faculties. However, the team also learned that new regulations had been approved by Senate in February 2019 and noted that the implementation process provides an opportunity for regulations covering all study programmes and curriculum design to be applied in common across all faculties.

A further area of interest for the team was the type and level of support services made available by the university to its students, including international students. The team noted that the national accreditation body has undertaken positive evaluations of the TUL student support system and that survey feedback from students is similarly positive. From the perspective of the team, from the evidence made available to them in institutional documentation and through discussions with staff and students, the university's support arrangements are comprehensive and fit for purpose for all students. The team noted that the student support infrastructure includes a Student Administrative Assistance Office, a Career Guidance Office, a Disabled Persons Office, and a TUL Scholarships scheme that provides financial assistance for disadvantaged and disabled students and rector's grants for high achieving students. Under the new law, improvements are being made to how social funds for scholarships are to be distributed. The team was also interested to learn that the university's information portal, which functions as a "Virtual Campus", provides educational materials and other information and is accessible to all TUL students and staff. The team also noted the extensive range of clubs, societies, and sports activities that the university supports and makes available to all students.

The team was encouraged to note that the university has experience of engaging with higher education developments in the EHEA, such as through involvement in EUA's "EFFECT" project (European Forum for Enhanced Collaboration in Teaching, funded by the Erasmus+ programme), and recognises the need to modernise its approach to learning and teaching. In response to the new law on higher education, further work is underway on the modernisation of study programmes, including continuing the focus on student competences. The work on student competences and soft skills is valued by external stakeholders especially since this improves graduate employability. From the perspective of the team, the university can also make use of this focus on "TUL Graduate Competences" for promotional purposes.

From this and other developments, the team learned that progress continues to be made in the direction of student-centred learning. Major contributory factors here have been the

work of the IFE and the more recent activities organised by the University Development and Human Resources Office. The IFE has used student-centred pedagogic practices since its establishment in 1997, and its pioneering role in this area is a strength of that faculty. The latter Office has more recently put in place an extensive programme of voluntary didactic training in support of student-centred learning that includes short courses on design thinking, case study and problem-based learning approaches, as well as digital literacy skills. This has been funded partly through external funding under the “Didactics 2.0” project, and partly through internal TUL funding. This initiative is widely appreciated by TUL staff.

From the perspective of the team, these developments are welcome and necessary. However, in view of the challenge of building a quality culture, there remains scope to make further progress and to strengthen institutional arrangements for the sharing and dissemination of good practice in learning and teaching. This is also a view expressed by students with whom the team met. Their experience is that the level and extent of student-centred and interactive approaches is variable between different staff and study programmes. From the SER and from discussions with academic staff, it was apparent that one of the obstacles in this area, is that there is an absence of any clear mechanisms for the sharing and dissemination of good practice in learning and teaching and academic practice more generally. This perhaps reflects the limited interaction and communication between faculties as described in section 2, page 9. Furthermore, while TUL wishes to place more strategic emphasis on research, it remains predominantly a teaching university and in the view of the team, an appropriate balance should be maintained between teaching and research with excellence in the former being valued and rewarded accordingly.

The team notes that having completed the “Didactics 2.0” project, the university has now grown an extensive bank of in-house expertise in innovative academic practice. There is an opportunity for this expertise to now be shared with other colleagues. **The team recommends that to facilitate further capacity-building in student-centred learning, the university should establish a Learning and Teaching Enhancement Forum to provide a focal point for round table discussions and pedagogic training for innovation in learning and teaching, and for sharing best practice drawn from TUL’s faculties and external sources.**

In furthering their enquiries on learning and teaching the team noted the positive profile of TUL in the area of employability. The team was impressed by the Senate policy whereby a work-related internship is obligatory for all first cycle students. For each placement a report is completed by the tutor and student. While each faculty implements this policy in various ways, from the perspective of the team this represents good practice. Faculties use an Industry Board to obtain advice from employers on the development of study programmes and the organisation of placements, to ensure that these reflect industry needs. The team also learned that use is made of graduate tracking data obtained from both the Ministry and the university’s own graduate surveys. At faculty level, such data is discussed at both Faculty Councils and study programme committees, and oversight of this is exercised by the Vice-Dean for Education. Students with whom the team met confirmed the value of the internships scheme, and that they receive good preparation for the labour market. Though

some students on some study programmes indicated that they would like to receive more application of theory and more emphasis on practical work in preparation for the world of work, the evidence indicates that TUL graduates are well recognised by employers. The team also noted that more effort is being made to support entrepreneurship, including for students who wish to start businesses, and that entrepreneurship classes will be introduced in all study programmes.

Students, including those who had undertaken an Erasmus placement, generally spoke well of the quality of their learning experience and the accessibility of their tutors. Most students indicated that TUL had been their first choice due to its positive reputation in the Polish higher education sector. The team noted that learning materials are available online through the university's "Virtual Campus" platform and that faculty library resources include online databases. However, students reported variable experiences regarding access to equipment and laboratory facilities, including accessibility out of class hours, and access to staff research projects. This is an area that the university and its faculties can monitor through the various student feedback surveys that are used, or even by using student focus groups.

A further area of concern identified by the team, which was acknowledged in the university's SER and in meetings with students and staff, relates to students' completion of their studies, either through non-completion, failure, or inability to finish within the regulated timescale. The university confirmed that this is a problem that applies to all three study cycles. The team heard from university staff that there are various contributory factors, but that the most prominent factor is that a significant number of students are in paid employment while they are also registered as a student. Though this varies between study cycles, faculties and study programmes, the university will wish to ensure that robust processes and tools are in place to collect and act upon information on student progression and completion. The university may also find it helpful to consider creating more opportunities for part-time study through discussion with employers, and to making more use of possibilities for awarding academic credit for work-based learning.

6. Research

As referred to earlier, the team noted the university's strategic aspiration to grow capacity in scientific research and this is reflected in both the current *Development Strategy* and the new draft strategy which will cover the period 2020-2025. The requirement to undertake research and development to the benefit of society is also incorporated in the TUL mission. Institutional documentation, including the SER, illustrated TUL's long tradition of conducting research and of cooperating with industrial partners. The team noted that research has become a key task for the future strategic direction of the university and noted the emphasis now being placed on creating strong research teams in areas such as engineering and technology for sustainable development. The university leadership envisages growth in research as central to improving the competitiveness of TUL. To support this aspiration, the university wishes to build on its track record of successful applications for research projects both under the Ministry of Science and Higher Education and other national bodies, and in EU funding programmes such as Horizon 2020. Special features of the university's plans for research include the establishment of twelve scientific disciplines in TUL and twelve discipline councils, the introduction of a new Interdisciplinary Doctoral School, and the general internationalisation of TUL's research portfolio.

From the perspective of the team, the university has available to it appropriate posts and expertise at senior level and a suitable infrastructure to support research and development, project administration, and economic collaboration through technology transfer. The team noted that the university has a vice-rector with overall senior management responsibility for science, a rector's proxy for research and development, and a Director of Centre for Cooperation with the Economy, Innovation and Technology Transfer. Administrative support is provided by several offices including a Projects Office and a Technology Transfer Office, and an office for Accreditation and Rankings. The establishment of the Computer Centre and new arrangements to improve data and information, as described in section 2, page 12, includes a responsibility for creating a system for more robust research-related data. In the university's governance structures, the Senate sub-commission for Science, Promotion, and International Cooperation provides advice to the rector and vice-rector on matters such as science and industry links and the internationalisation of research. The team formed the view that these arrangements are fit for purpose and provide good underpinnings for TUL's research aspirations.

The team noted that according to university policy all academic staff are required to do research, to publish, and to be involved in projects. Currently, for teaching staff this requires 40% of their time, and for scientific staff 90% of their time. However, meetings with staff indicated that in reality some staff are predominantly involved in teaching. Under the changes being introduced in accordance with the new higher education law, while the balance between teaching and research can be negotiated, all staff are required to be research active. Individual evaluation will become more important in the allocation of external funds, with less emphasis on the organisational unit. The requirement therefore is to increase overall

scientific activity and outputs at the individual level. Furthermore, though during the period 2013-2017 TUL won some 186 million PLN (ca. 45 million euros) in grants from the Ministry, the National Centre for Research and Development (NCBR), and the National Science Centre (NCN), it is expected by the university that this should be improved upon. Similarly, while over the same period some 4 500 publications were indexed in the WoS Core Collection, and 3 334 and 3 345 were listed, respectively, in journals with an impact factor or by Thomson Reuters, the university is again seeking improvement.

The team observed that TUL has positioned itself well in the context of research in the Polish higher education sector. The university has good working links with national bodies such as the Ministry, the NCBR and the NCN. TUL has an obligation to collaborate with industry in scientific fields and has an established record of regional contracts with industry. The team also learned that there are international research contracts with partners drawn from across the EU in areas such as chemistry, mechanical engineering, materials engineering, and biotechnology and that outputs include joint publications. The team also noted that there are bilateral agreements without external funding which bring benefits to TUL's research teams in terms of publications and also research internships.

The team learned that reporting on research follows similar reporting lines to the processes described in section 3, pages 16-17. At faculty level each Faculty Council receives an annual report on research and scientific activity including grants, funding, publications, and patents. This includes a SWOT analysis for improvement purposes. These reports inform the rector's annual report on the state of research which he presents to the TUL Senate. The team noted that when fully established, the new discipline councils will adopt a similar procedure, with reports being made to the Rector with data being aggregated for reporting at university level.

The team was especially interested in the importance to the university of the national methodology for the parametric evaluation of science which is undertaken on a four-yearly cycle and which compares the scientific achievements of universities' research centres. Under this scheme, which is undertaken by a Commission for the Evaluation of Scientific Units, the Ministry confers a grade on each research unit on a scale from A+ (leading) to C (unsatisfactory). Currently, TUL has eight faculties with category A status and views this as indicating potential for building high class research teams. In taking forward this aspiration, the university faces a new challenge as a new parametric evaluation body is being established with a new methodology. To respond to this the rector has taken the decision to establish the twelve new scientific disciplines referred to earlier. These will be subject to new indicators, with the new method using specific parameters, such as grants, research papers, monographs, and patents. The team noted that TUL self-evaluation regulations will be updated to reflect the new parametric evaluation requirements.

The team learned that oversight of the new discipline councils will be the responsibility of the heads of the discipline councils, and that these heads (mostly faculty deans) have already been identified by the rector. The heads of the discipline councils will report to the rector. The team noted that these discipline councils are discipline-led, thereby reflecting the

changes taking place under the new law including the new parametric evaluation method, whereby funding will focus on disciplines. Previously, evaluation and therefore funding has been at faculty level. Whereas a discipline (such as mechanical engineering) may previously have been spread across several faculties it will now be located in one discipline council. This does not, however, preclude the possibility of links between discipline councils for the purpose of inter-disciplinary research. The team saw that these new arrangements have become a central feature of the TUL strategy in terms of research capacity building, research outputs, and research funding. It remains to be seen how far this important organisational development will go towards contributing to the realisation of the university's strategic goals for research. However, from the perspective of the team, the new discipline councils will offer the opportunity to build high quality research teams in areas of strength. In order to achieve this, ensuring the competent leadership of each discipline council for stimulating research activities more broadly amongst staff will be decisive. Furthermore, as is described below (page 32), the opportunity to obtain significant additional external funding through the national *Research Excellence Initiative* may be an important catalyst for these new arrangements.

The team also evaluated matters relating to doctoral studies and doctoral provision, including the university's plans to establish an Interdisciplinary Doctoral School. The group of doctoral candidates with whom the team met confirmed that their academic experience was good and that learning resources, laboratories and equipment, supervision arrangements, and contributions from external experts, were of a high quality. Though a number of them had progressed from Bachelor and Master's levels at TUL, others, such as international students, indicated that they had chosen TUL above other universities. They also noted that they had received training on entrepreneurship and establishing start-up companies, though this had taken place largely during first cycle studies. However, while doctoral candidates confirmed that academic content and communication on academic matters has been good, communication, organisation, and information for non-academic matters (such as accommodation, scholarships, and mobility opportunities) in the first year of their doctoral studies had been poor. Also, they had received insufficient support on developing academic writing skills to help them with publication.

In establishing the Interdisciplinary Doctoral School, the team learned that the university is setting an ambitious target of recruiting 140 students per year across all disciplines. One of the strategic drivers for the emphasis on international recruitment is that, as a reflection of national demographic trends, the number of Polish national students is in decline. The decision to internationalise doctoral recruitment in this way had been taken by the previous rector who had seen the potential but had been constrained by unfavourable regulations at national level for both recruitment at doctoral and Master's level. The new legal dispensation enables non-Polish students to apply for scholarship funding, thereby addressing an important obstacle currently faced by international students. The amount of the scholarship will also be raised. Though it is anticipated that some students will continue to be lost to industry, the expectation is that more students will complete their studies rather than

prioritising paid employment. A further obstacle has also been removed as doctoral studies will now be conducted in English, rather than being restricted to Polish. Students will also benefit from a three-month period of international mobility.

The centralisation of doctoral provision in this way will mean that existing doctoral schools in faculties will be discontinued, and will open up the possibility for more interdisciplinary research. In their meeting with research staff, the team were informed that centralisation meant that improvements could be made to generic doctoral training, to supervision and progress monitoring arrangements. It is also intended that the teaching load for doctoral candidates will be significantly reduced to allow time for research.

The team noted that one of the biggest challenges anticipated by the university arises from the demands of centralising administrative support and providing a common training programme for doctoral candidates. At the time of the team's second visit, the regulations at national level had not been clarified, but it was expected that internal rules would be in place by October 2019. In concluding their evaluation of these plans, **the team recommends that before fully operationalising the new central Interdisciplinary Doctoral School, a comprehensive "Postgraduate Research Student Guide" should be completed containing, all the academic and non-academic information required by doctoral candidates prior to them joining the university and commencing their studies.**

With regards to technology transfer and links with business and industry, the team noted that there is strong institutional support for such activity. At senior management level the vice-rector for innovation and development has overall responsibility, though operational management and administrative support is provided for various purposes by the Director for the Centre for Cooperation with the Economy, Innovation and Technology Transfer, the rector's proxy for research and development projects, and the Head of the Projects Office. The team noted that there is a realisation that prioritising the commercialisation of research involves changing attitudes amongst academic staff. The academic staff with whom the team met emphasised how helpful the central functions are to them as active researchers in matters relating to technology transfer, including making patent applications; advice on intellectual property rights and contractual and legal matters; and preparations for project applications and start-up companies. They also highlighted the work being done to change student attitudes to entrepreneurship and drew attention to the establishment of an Academic Entrepreneurship Centre that supports students.

The team noted a range of activities and initiatives involving collaboration with companies and industrial partners, local start-up companies and a pre-incubation zone, training for project leaders, and the sharing of laboratory facilities and expertise with external companies. However, the team also formed the view that there is untapped potential in the area of applied research and knowledge transfer in partnership with local and regional business and commerce. The team learned that although there is a feeling among research active staff and research managers and administrators that the technology transfer culture is beginning to change and that infrastructure support exists, the university is engaging the services of an

external expert to provide advice on streamlining the structures for innovation and the commercialisation of research.

In concluding their evaluation of research, the team notes that the university acknowledges the specific challenges it faces if it wishes to become more research intensive and to improve its position in international rankings. These include improvement in parametric evaluation outcomes; increasing research activity and publications at individual level; resolving the doctoral studies completion rates; and increasing income generation beyond current funding sources. The university also recognises the increasingly competitive environment for project funding and research partnerships. In connection with this, the team learned that new research funding is becoming available at national level under the Ministry's *Research Excellence Initiative*, through which a number of top universities will be selected for additional research funding of up to 50 million euros over the next five years. The university expressed optimism that it is well placed to receive some of this additional funding and plans to submit its application by the end of June 2019. Nevertheless, with regard to funding more generally, the team believes that the university will need to pay close attention to how its research agenda is to be taken forward in a financially sustainable way. This is likely to involve making difficult choices about which research areas can be supported in the future. Therefore, **the team recommends that the university should decide what are its areas of strength in research, and what areas are to be prioritised. It should then allocate resources to support sustainability.**

7. Service to society

The team noted that active cooperation with the external environment is a strategic objective in the present university *Development Strategy* which requires partnership and cooperation with educational institutions; business, industry, and entrepreneurial activity; civic authorities; and local and regional government. This commitment, which reflects the importance attached to such links in the TUL mission, is being carried forward into the new *Development Strategy 2020-25*. The team was reassured to see that such commitment is also reflected in the responsibilities of senior university leaders, and in the organisational infrastructure. For example, while the rector has overall responsibility for cooperation with the economic and social environment, he is supported in this by the vice-rector for innovation and development, and the vice-Rector for education. The former is responsible for cooperation with industrial consortia, technology parks, and business support, and also academic entrepreneurship; the latter is responsible for cooperating with the economic community to ensure links between study programmes and labour market needs. Faculty strategies include supporting objectives.

The team noted that several organisational units have specific responsibilities for socio-economic cooperation. These include the TUL Promotion Section, and the Centre for Cooperation with the Economy, Innovation, and Technology Transfer. Other significant organisational units which contribute in a major way to the university's strong profile in the area of external affairs include the ICC and the IFE. In addition, as an illustration of the university's strong commitment to service to society, TUL has established a secondary school, a Children's University, and a University of the Third Age, each of which uses staff from TUL's faculties to deliver lectures and workshops, with students also benefiting from access to TUL's resources, such as leisure facilities. The team learned that the Children's University has benefited over 15,000 students between the ages of 7 to 17, over a period of 12 years. The team commends these initiatives as examples of good practice in external affairs.

The team was impressed by the positive views expressed regarding the TUL corporate identity and "brand", the value attached to the study programmes offered by the university, and the general quality of TUL graduates. To illustrate the university's contribution to the socio-economic environment and the benefits it provides to society, external stakeholders drew attention to the leading role taken by the university in the city and surrounding region in various areas of activity. These include TUL involvement in business incubators and start-ups; leading regional clusters and consortia for business, industry and academia in areas such as IT, energy technologies, and construction; engaging the business community in workshops and presentations at the university; and supporting the city in a range of cultural and sporting projects, in civic regeneration, and in the promotion of science.

External stakeholders also commented positively on the university's commitment to internationalisation and appreciated TUL's openness to the global world and to the international business community, particularly given the need to attract international investors into the region. Alumni with whom the team met offered high praise for the

successful work of the IFE and indicated their appreciation of the focus on foreign language provision. They also appreciated the emphasis placed on developing the competences and soft skills in areas such as teamwork and problem-based learning.

Finally, the team also explored the ways in which external stakeholders are involved in the development of the institution. The group of stakeholders with whom the team met confirmed awareness of the governance changes being introduced under the new law for higher education and indicated that the university had communicated the general nature of the changes to them. The team also heard examples of direct involvement in the provision and supervision of internships and work placements. The team was also able to confirm with external stakeholders that, in their experience, study programmes are adjusted to the needs of the labour market and to graduate employability. Some external stakeholders provided examples of providing input into curriculum design and delivery at TUL. However, even though there are good examples of this, it is acknowledged in the university's SER that there remains untapped potential for increasing their involvement in the actual delivery of study programmes. Therefore, **the team recommends that faculties take steps to increase the contribution of external stakeholders to study programme delivery through presenting lectures, workshops, or masterclasses.**

8. Conclusion and recommendations

The recommendations of the team relate to matters that have a direct bearing on the university's future strategic development and the realisation of the TUL vision to be recognised as an innovative research university, with a prominent place in Polish higher education and an established position internationally.

Governance and institutional decision-making

- As the university implements the changes it wishes to make in responding to the new law, the team recommends that it should pursue all available opportunities for enhancing organisational efficiency through rationalisation of its management and governance arrangements, its organisational structures, and its decision-making processes;
- The team recommends that when the *Development Strategy 2020-25* is approved, each faculty and other academic and organisational entities should be required to review and update its own strategic plan to ensure strict alignment with university-level goals, directions, and key performance indicators. To ensure a holistic and cohesive approach to the implementation of institutional plans, this same principle of alignment should apply to supporting strategies in specific areas of strategic importance;
- The team recommends that early progress is made in fully operationalising the new central arrangements for strategic analysis and management information systems

Quality Culture

- The team recommends that the university should proceed to full implementation across all faculties, of the KJK template for reporting on the quality of teaching, learning, and research;
- The team recommends that a process should be put in place for a five-yearly periodic review cycle for the internal review of all study programmes using both internal and external academic peer review experts with outcomes and recommendations being reported to the university Senate;
- The team recommends that the University Council for the Quality Assurance of Education should complete a "gap analysis" and mapping exercise against each of the standards in Part 1 of the ESG and benchmark the university's quality assurance arrangements against these. The outcomes should be fully disseminated at all levels of the university.;
- Further, the team recommends that the outcomes should also be used to inform the completion of a "TUL Quality Assurance Handbook" that documents and codifies all aspects of the university's quality assurance policy, structures, and processes. When

completed, this should also be supported by an extensive programme of staff training and awareness-raising.

Internationalisation

- The team recommends that the current work to develop a TUL International Strategy should be completed for implementation as from 1 January 2020. The strategy should identify realistic and measurable targets. It should provide the foundation for:
 - sustainable resources for the ICC and IEP infrastructure
 - selectivity in the choice of partnerships to ensure added value in both teaching and research
 - greater customisation of the study programme offer to attract international mobility students.

Learning and teaching

- The team recommends that to facilitate further capacity-building in student-centred learning the university should establish a Learning and Teaching Enhancement Forum to provide a focal point for round table discussions and pedagogic training for innovation in learning and teaching, and for sharing best practice drawn from TUL's faculties and external sources.

Research

- The team recommends that before fully operationalising the new central Doctoral School a comprehensive "Postgraduate Research Student Guide" should be completed, containing all the academic and non-academic information required by doctoral candidates prior to them joining the university and the commencing their studies;
- The team recommends that the university should decide what are its areas of strength in research, and what areas are to be prioritised. It should then allocate resources to support sustainability.

Service to society

- The team recommends that faculties take steps to increase the contribution of external stakeholders to study programme delivery through presenting lectures, workshops, or masterclasses.