

Audit of Lappeenranta-Lahti University of Technology LUT

3.3 Strategic development of the quality and impact of research

LUT has effective practices to ensure and develop the quality of its research

According to LUT's strategy, the university's research, development and innovation activities aim to contribute to a more sustainable world by focusing on four global themes derived from its key research competence areas. The University Board approves the strategic objectives and impact indicators for research, and monitors progress at least annually through its quarterly meetings. Strategy implementation is supported by strategic action plans, including one specifically focused on improving research performance. Each action includes defined indicators that are regularly monitored and discussed by the management team.

The Self-Assessment Report, formal documents, and interviews indicate that the university is committed to a range of national and international guidelines and policies, including the Declaration for Open Science and Research (2025), Good Practice in Researcher Evaluation (2020), the Human Resources Strategy for Researchers (2012), and the Agreement on Reforming Research Assessment (2022). The university has also established its own internal policies and practices to ensure high-quality research and to implement these guidelines.

The provost is responsible for research activities and their strategic development, while deans, heads of departments, and professors leading research groups play key roles in research management and development.

The quality of LUT's research environments is assessed regularly through the Research and Impact Assessment (RIA), which aims to stimulate and encourage world-class research and impact, strengthen the LUT research brand, position its units internationally, assess future research potential, evaluate the success of multidisciplinary collaboration within and beyond the organisation, identify current and emerging research strengths, and assess societal impact, entrepreneurship, and innovative capacity.

The RIA report from 2024 provides examples of recommendations for quality improvement from 2019. However, it is somewhat difficult to follow the full chain from identified weaknesses in 2019, through recommendations, to implemented improvements and their effects in 2024. The report also includes examples of societal impact. At the same time, publicly available information provides limited insight into assessment results, including identified strengths and weaknesses and the actions taken to address them. Enhancing the accessibility of such information would benefit both staff and external stakeholders.

Both the Self-Assessment Report and interviews highlight the importance of research infrastructure for the university and for the development of current and future research areas. LUT owns a wide range of laboratories and equipment for scientific and technological experiments and has access to relevant national

and international research infrastructures. Ensuring the necessary infrastructure and operational expertise requires both sustained funding and competence development.

The need for more strategic development of research infrastructure, including joint investments and shared use with academic and industrial partners, has been recognised and is addressed in the most recent strategic action plan for research. As part of this work, LUT is reviewing its research infrastructures to maximise utilisation and rationalise future investments. Research infrastructure has been identified as a strategic priority for the coming years in order to maintain and strengthen capacity. This is supported by the evaluation group, and LUT's strong collaboration with other universities and industry is a key strength in enabling joint investments and shared use.

To address current and future needs, the university's operating model has been revised to create more open platforms, where dedicated personnel facilitate collaborative research projects among staff and external partners in Finland and abroad. In line with this, a new university-level initiative, the System Earth Collegium, has been launched to advance interdisciplinary research towards radical innovations and scientific breakthroughs. In addition, since 2015 the university has invested internal seed funding in research platforms to support high-level interdisciplinary collaboration between schools and departments. These developments are aligned with the university's vision, strategy, and goals.

The audit confirmed that the university systematically identifies the strengths and areas for improvement of its research and actively addresses insufficient quality and identified challenges. These activities also provide follow-up data on the impact of development measures on research, innovation and development activities.

LUT monitors and enhances the societal impact of its research in line with its strategy

The university systematically assesses its societal engagement based on indicators and objectives set in its strategy, strategic action plans, and annual operations plan, which are largely focused on LUT's research, development and innovation activities. The indicators are monitored regularly, and the results are communicated in board meetings, management group meetings, and on the LUT intranet.

Examples of impact indicators include:

- 10 showcases of research excellence
- 60% external funding
- Leading European partner in industry collaboration
- A growing number of startups by LUT students, staff, and alumni
- Innovation and commercialisation of research results
- Company cooperation, including strategic partnership companies, the J. Hyneman Center for rapid prototyping, and the assessment of social impact.

As highlighted in the SAR and confirmed in the interviews, the societal impact of LUT's research is mainly monitored and effectively enhanced through strong industry collaboration and external funding. Collaboration with business and industry serves as the primary pathway for societal impact, ranging from joint research centres to commissioned research. The success of this approach is reflected in LUT's external RDI funding, which has increased steadily, reaching €39 million in combined national and international funding in 2025. To further accelerate this impact, LUT has appointed a Chief Growth Officer whose primary focus is to attract external investments, pursue growth in collaboration with companies, and diversify the university's funding base. As a concrete example of strong stakeholder relations, €12 million of external funding was raised from the market to support a new academic and research programme in civil construction engineering.

LUT has also established new multidisciplinary collaboration platforms with major industry partners such as Peab Asphalt and Kempower (through the Electric Mobility Research Center), which advance high-TRL (Technology Readiness Level) research directly into industrial applications. The Green Campus Open further facilitates the commercialisation of research and has led to successful spin-off companies such as SolarFoods and Aurelia Turbines. However, the University Board acknowledges that commercialising research and “making business out of research” remains a challenging area where further improvement and better data measurement are needed.

In line with this, the university identifies in its strategic action plan the need to strengthen its focus on broader impact beyond traditional academic outputs. As noted in the plan, current key performance indicators emphasise publications and degrees, while future development aims to place greater weight on impact-related measures such as partnerships, innovation activities, external funding, and stakeholder engagement. Planned measures include strengthening industry collaboration, supporting entrepreneurship and new business creation, and enhancing alumni engagement, thereby further reinforcing the university’s societal impact.

To support high-impact, transformative research, LUT launched the System Earth Collegium in 2025, aiming to bring together leading international researchers to generate radical innovations. External stakeholders highly value LUT’s platform-based ecosystem and recognise both the societal relevance and agility of its research, particularly in collaborative master’s-level projects and joint research initiatives. The strategic addition of social sciences in 2022 has further broadened the university’s impact by addressing the implementation, regulation, and societal dimensions of technology. Stakeholders and the University Board emphasise that this development is essential for understanding and managing societal change and for strengthening engagement with public authorities.

Overall, strong industry relations, close company collaboration, and the ability to secure external funding are key strengths of LUT. As a suggestion for further improvement, the audit team recommends building on these strengths and exploring further opportunities to expand industry collaboration at the doctoral level, to maximise the use of industry doctorates, deepen societal impact, and address untapped potential in Finnish university–industry collaboration.