



ELSEVIER

 TOMORROW *TODAY* IN RESEARCH **BUDAPEST 2026**

FROM DATA TO DECISIONS: EVIDENCE-DRIVEN STRATEGIC DEVELOPMENT

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Senior advisor for strategic development and internationalization, Slovak Technical University (STU), Slovakia

<https://www.lut.fi/en/profiles/jari-hamalainen>

About my international leadership and advisory roles

- » European Council of Academies of Engineering Sciences (**euro-CASE**)
 - » Vice-chair of the board, 2026-
 - » Member of the board representing Council of Finnish Academies (CoFA), 2018-
- » European University Association (**EUA-CDE**)
 - » Chair, Thematic Peer Group for "[Doctoral schools: building bridges beyond academia](#)", 2025-2026
 - » Member, TPG for "[Cotutelles and joint doctorates](#)", 2020-2021
- » European Cooperation in Science and Technology (**COST**)
 - » Chair of the Scientific Committee, 2017-2021
 - » Vice-chair of the Scientific Committee, 2015-2017
- » Slovak University of Technology (**STU**), Slovakia
 - » Senior advisor for strategic development and internationalization, 2026-
- » Riga Technical University (**RTU**), Latvia
 - » Member of the International Advisory Board, 2025-
 - » Advisor for "RTU 500" strategy, 2024
 - » Talk on university rankings in "RTU160", 2023
- » Tallinn University of Technology (**TalTech**), Estonia
 - » Analysing TalTech in university rankings, 2021
- » Institut Mines-Télécom (**IMT**), France
 - » Member of the Scientific Advisory Board, 2026-
- » **EULiST** European University Alliance
 - » Chair of the Management board, 2021-2024
 - » 10 universities; LUT, STU and IMT members

WHY UNIVERSITY STRATEGIES ARE NOT STRATEGIC

- »» Weak analytical foundation
- »» Too many priorities and no real choices
- »» Generic language and weak differentiation
- »» Weak link to resources and organisational capacity
- »» Participation without prioritisation
- »» Poor implementation, monitoring, and accountability



EVIDENCE-DRIVEN STRATEGIES

Strategies should be grounded in a rigorous analysis of the current situation, clear goal setting, and a focused set of actions that define how the university will move from its present position toward its chosen objectives.



Three points of the presentation

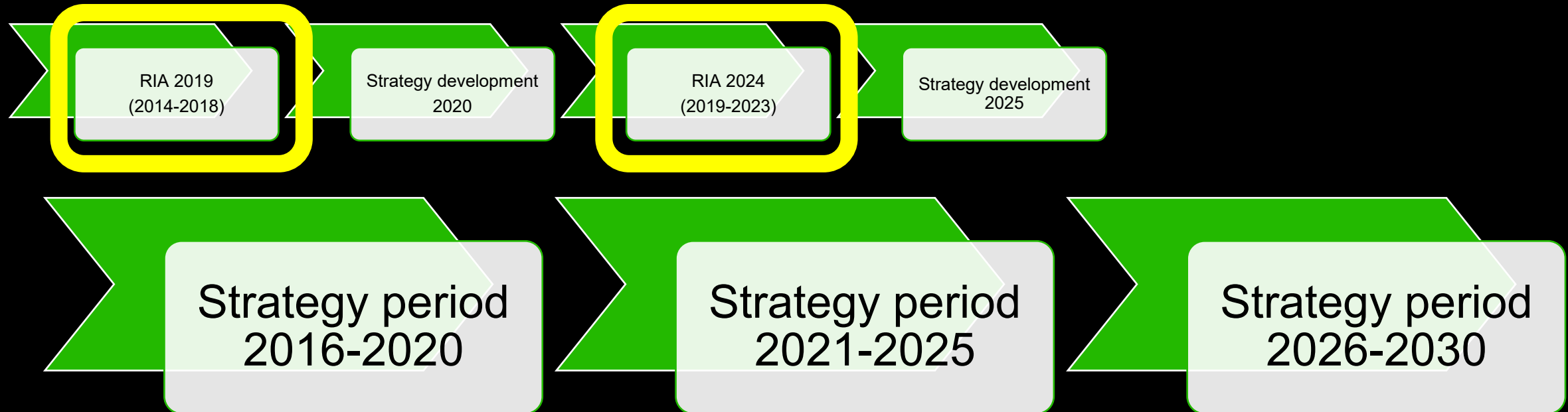
FROM DATA TO DECISIONS: EVIDENCE-DRIVEN STRATEGIC DEVELOPMENT

- 1) LUT strategies based on Research and Impact Assessment
- 2) Selection of strategic research focus areas at LUT
- 3) Building LUT's success in world university rankings

LUT STRATEGIES BASED ON RESEARCH AND IMPACT ASSESSMENT

■ LUT strategies based on Research and Impact Assessment (RIA)

STRATEGY PROCESS AT LUT



LUT strategies based on Research and Impact Assessment (RIA)

RESEARCH AND IMPACT ASSESSMENT AT LUT IN 2024

- » International expert panel formed at the end of 2023 consisting of chair and 11 other experts
- » Data collected from the previous 5 years and given to the self-assessment teams of LUT departments in January 2024 (11 departments)
- » The same data and the self-assessment reports sent to the RIA panel in June 2024
- » Campus visit and interviews for one week in September 2024
- » [The final report](#) ready in October 2024 and introduced to LUT board in December 2024



Maarja Kruusmaa, Veena Misra, Luciano Mule'Stagno, Annika Stensson Trigell, Dagnija Blumberga, Habib N. Najm, Øystein Moen, Chris Parkes, Ivo Vankelecom, Jouni Paavola, Tiziana Margaria, Jonas Puck

LUT strategies based on Research and Impact Assessment (RIA)

RESEARCH AND IMPACT ASSESSMENT AT LUT IN 2024

- » Research staff (FTE) in R1-R4 career stages
- » Total funding from different sources
- » List of on-going research projects
- » Bibliometric indicators (SciVal / Scopus)
- » All scientific publications based on national publication forum classification
- » Publications contributing UN SDGs
- » Links to professors and other key staff on LUT Research Portal and their H-indexes

SciVal Indicators	2019 - 2023
Example data of one LUT department	
Total Scholarly Output	444
Citations Count	3,700
Citations per Publication	8.3
Field-Weighted Citation Impact	1.21
Publications in Top 10% Journals	32.0%
Publications in Top 10% Most Cited	13.7%
Publications with Internal Collaboration	54.5%
Publications with International Collaboration	37.8%
Publications with Industry	3.4%

(Source: SciVal 01/2024)

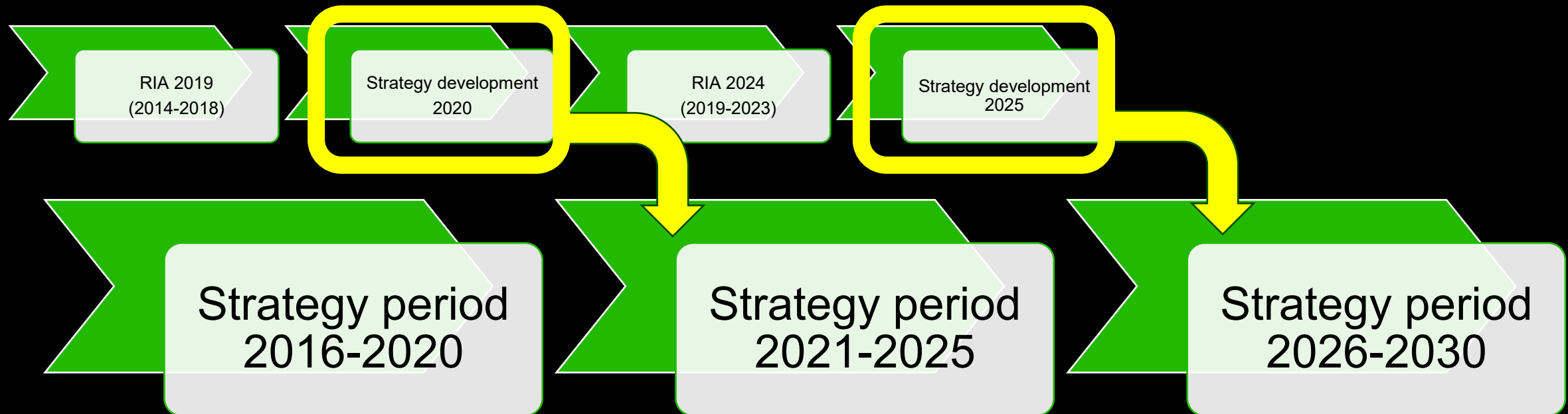
■ LUT strategies based on Research and Impact Assessment (RIA)

RESEARCH AND IMPACT ASSESSMENT AT LUT IN 2024

1. **Research excellence and scientific impact:** comparison for the international level. Quantitative data bases on the period of 2019-2023
2. **Research environment:** comparison/evaluation of overall environment, networks and partnerships, research careers and infrastructure
3. **Societal impact:** such as start-ups, policy decision making and contributions to UN Sustainable Development Goals (SDGs)
4. **Future perspective:** rising research themes, age structure of the departmental professorship and potential for the future (at the relevant level of the strategic focus areas of the LUT)
5. **University operations:** management and strategic measures, whether, for example, how university management supports excellence and impact such as doctoral school, career model, investments, research platforms and start-ups (i.e. commercial process)
6. **Recommendations for units of assessment (departments) and as a university level**

■ LUT strategies based on Research and Impact Assessment (RIA)

STRATEGY PROCESS AT LUT



SELECTION OF STRATEGIC RESEARCH FOCUS AREAS AT LUT

■ Selection of strategic research focus areas at LUT

PROFILING BY RESEARCH COUNCIL OF FINLAND

- » » “[Profi](#)” has been a competitive funding scheme by the Research Council of Finland designed to help Finnish universities strengthen their strategic research profiles and improve the overall quality of their research:
 - » » **Purpose:** The funding accelerates universities' strategic choices, bolsters emerging or high-quality research fields, and reduces fragmentation across disciplines.
 - » » **Application Process:** Each Finnish university submits a single, comprehensive application detailing concrete plans for chosen "profiling areas".
 - » » **Funding Usage:** The grants are frequently used to finance tenure-track recruitments, purchase specialized research infrastructures, and spearhead targeted international hiring.
 - » » **Evaluation:** Applications undergo rigorous international peer review and include interviews with university management. The Research Council evaluates proposals based on the strategic impact, monitoring processes, and concrete development measures.
- » » Since 2015, 50 M€ annually or 100 M€ bi-annually taken from the basic university funding of Ministry of Education and Culture and distributed as the Profiling funding

■ Selection of strategic research focus areas at LUT

RESEARCH PROFILING AT LUT

- » The strategic focus areas selected in LUT's own strategy development process and later strengthened with the RCF profiling funding (if being successful in competition)
- » The RIA 2024 report gives **recommendations based on two previous strategy periods**, 2016-2020 and 2021-2025, as it covers the years 2018-2020 and 2021-2023
- » The focus areas have a **strong influence on LUT's internal decision-making** for funding of the LUT research platforms (research programmes enhancing collaboration between the faculties), recruitment of tenure-track professors, and on laboratory investments in the strategy period 2026-2030

Selection of strategic research focus areas at LUT

RESEARCH PROFILING AT LUT

- »» Selection of the focus areas are based on research **excellence** and **extend**
 - »» Bibliometric data (Field-Weighted Citation Impact FWCI) and competitive research funding
 - »» Size of the focus area (M.Sc. and Ph.D. degrees, number of professors, total staff)
 - »» Note that a focus area is never based on the organizational structure but is a thematic field such that all faculties and their departments can contribute to.
- »» The goal is to be **the best** and **the biggest** in Finland and competitive globally in the selected focus areas



Increasing our educational and research impact

SCIENCE-BASED SOLUTIONS

REGENERATIVE USE OF NATURAL RESOURCES

PLANETARY RESOURCES

Securing long-term resource availability and ensuring a balance between human needs, the planet's natural systems, and biodiversity.

- Sustainable resource management, policies and governance, and circular economy
- Innovative, intelligent, and sustainable materials
- Utilisation of planetary resources amid changing climate conditions
- Processing, purification, and reuse of secondary and renewable raw materials

UTILISING DATA AND DIGITAL TECHNOLOGY TO BENEFIT SOCIETY

DIGITAL REVOLUTION

Utilising information and knowledge generation, processing, and digitalisation for societal impact.

- Industrial AI, automation, and software
- Advanced understanding of data and modelling of processes
- Human-centric digitalisation and its societal and planetary impact
- Value creation through design, modelling, and simulation

BUILDING RESILIENT BUSINESSES, INDUSTRY, AND COMMUNITIES

BUSINESS AND SOCIETY

Creating sustainable growth by promoting transformative innovations, ethical leadership, and the responsible use of advanced technology.

- Sustainable business transformation and innovation
- Policy, leadership, and systemic governance for sustainability
- Business and productivity through responsible technology solutions
- Responsible growth and resilience of critical systems

CLEAN ENERGY SOLUTIONS FOR INDUSTRY AND SOCIETY

ENERGY TRANSITION

Pioneering in clean energy solutions, optimising efficiency, and strengthening energy market and system resilience.

- Electrification of the energy system, industry, and infrastructure
- Optimising and securing the efficiency of energy generation, storage, and use
- Solutions for clean, resource-efficient, and carbon-neutral industry
- Energy policy, governance, and markets

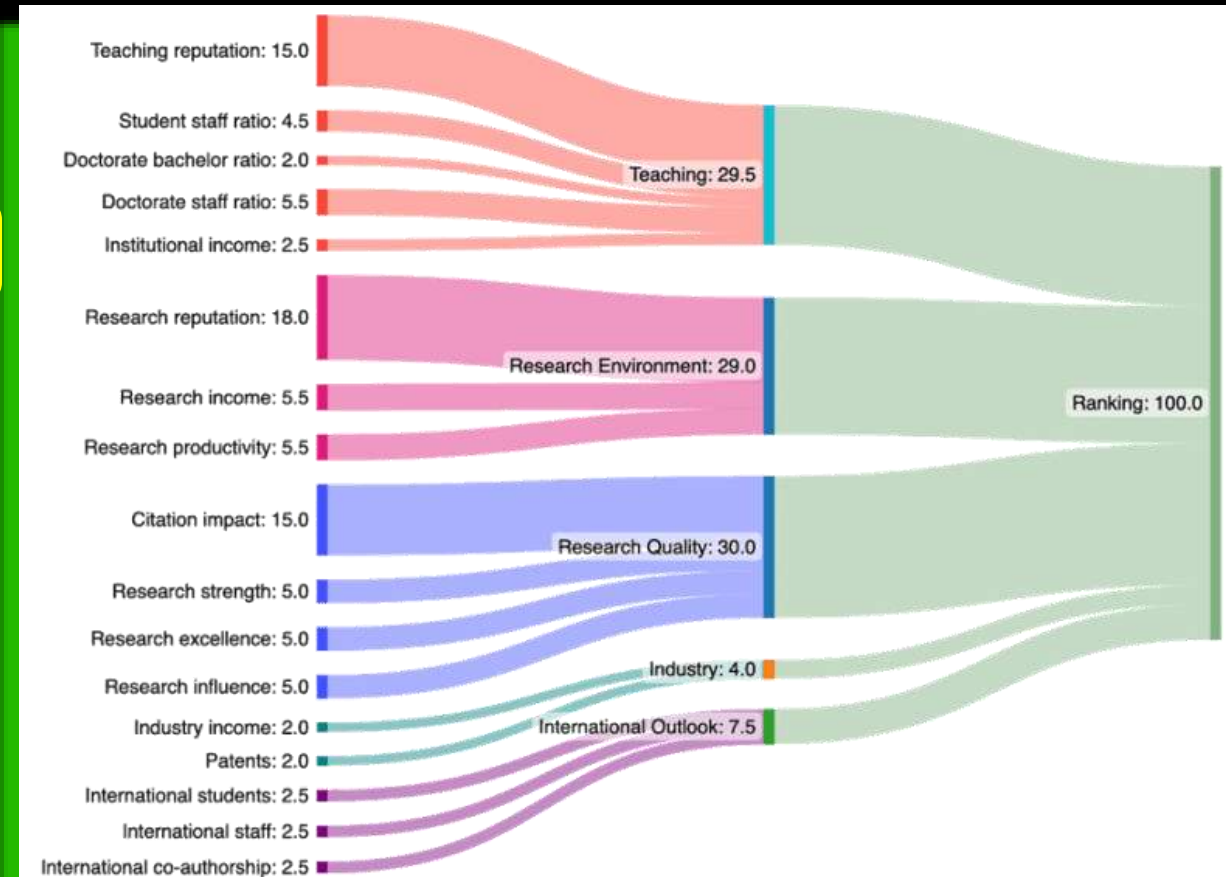
BUILDING LUT'S SUCCESS IN WORLD UNIVERSITY RANKINGS

Building LUT's success in world university rankings

TIMES HIGHER EDUCATION WORLD UNIVERSITY RANKING METHODOLOGY 2026

- » Reputation: 15 + 18 = 33 %
- » Research quality: 30 %
 - » Citation impact 15 %
 - » Research strength, excellence and influence 15 %
- » Teaching (without reputation): 14.5 %
 - » Doctorate/bachelor, doctorate/staff 7.5 %
- » Research (without reputation): 11 %
 - » Publications/staff 5.5 %
- » International outlook: 7.5 %
 - » International co-authorship 2.5 %
- » Industry: 4.0 %

Focus on 45.5 % of the indicators!



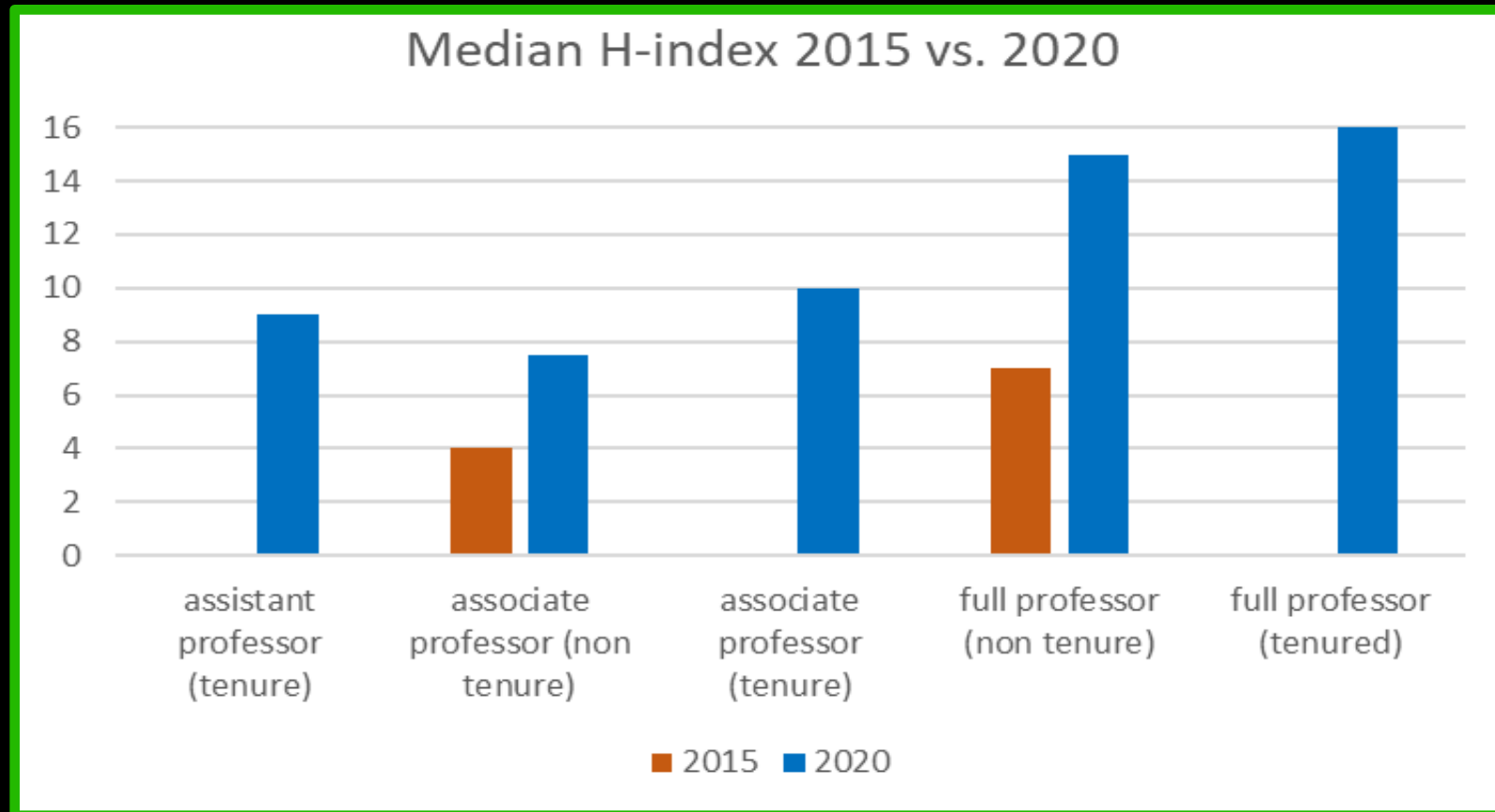
■ Building LUT's success in world university rankings

ACTIONS SINCE 2015

- » New tenure-track career model since 2015: all professor positions are internationally open
 - » High-quality publications, international co-authorships, and citations matter in the selection and promotion of professors in their career (assistant, associate and full professors)
- » Incentives in the salary system
 - » publication remunerations for others than full professors, and a bonus system for full professors
- » Cotutelles and joint supervising of doctoral candidates
 - » All doctoral student positions funded by the LUT Doctoral School given to professors who have invited an external professor as the secondary supervisor resulting in joint publications with that supervisor
 - » Strengthening collaboration with strategic partner universities, e.g. EULiST university alliance
- » RCF profiling funding and LUT's own funding for strategic focus areas

Building LUT's success in world university rankings

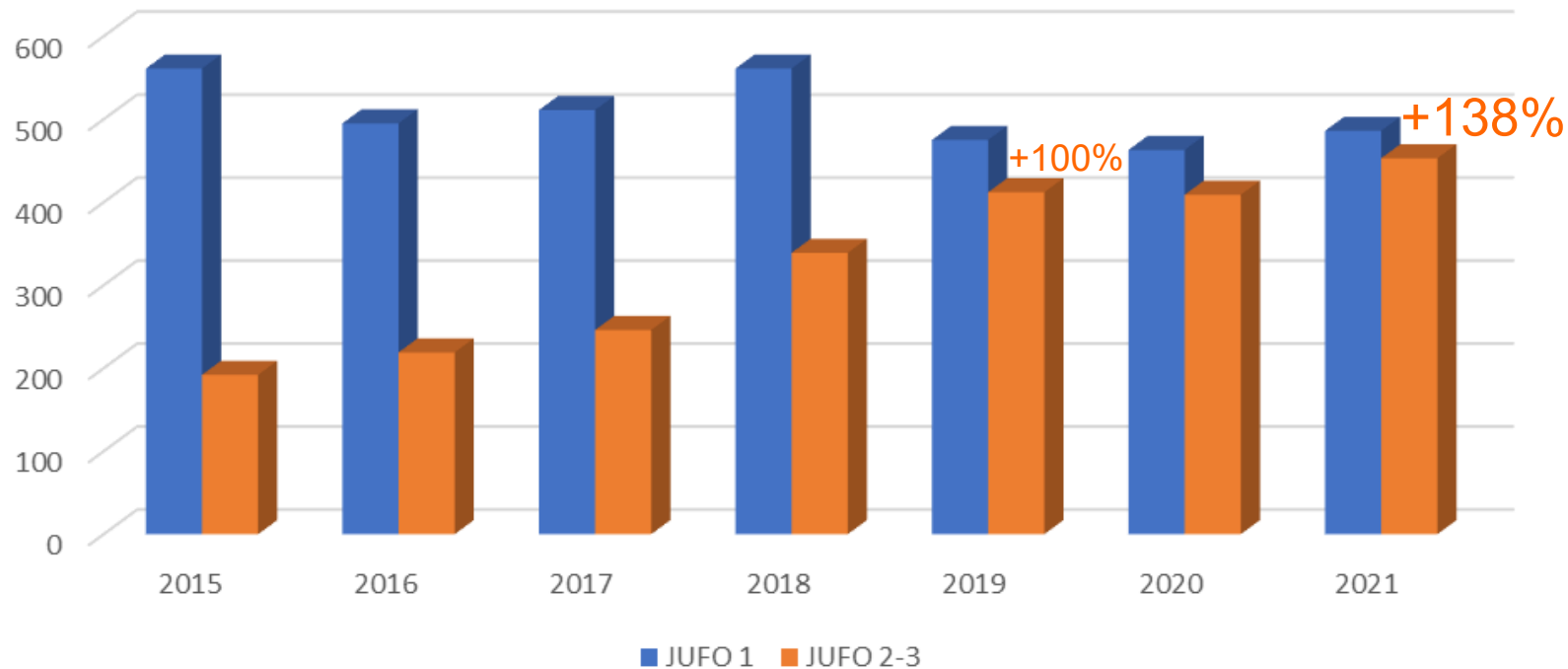
CHANGES IN H-INDEX VALUES



Building LUT's success in world university rankings

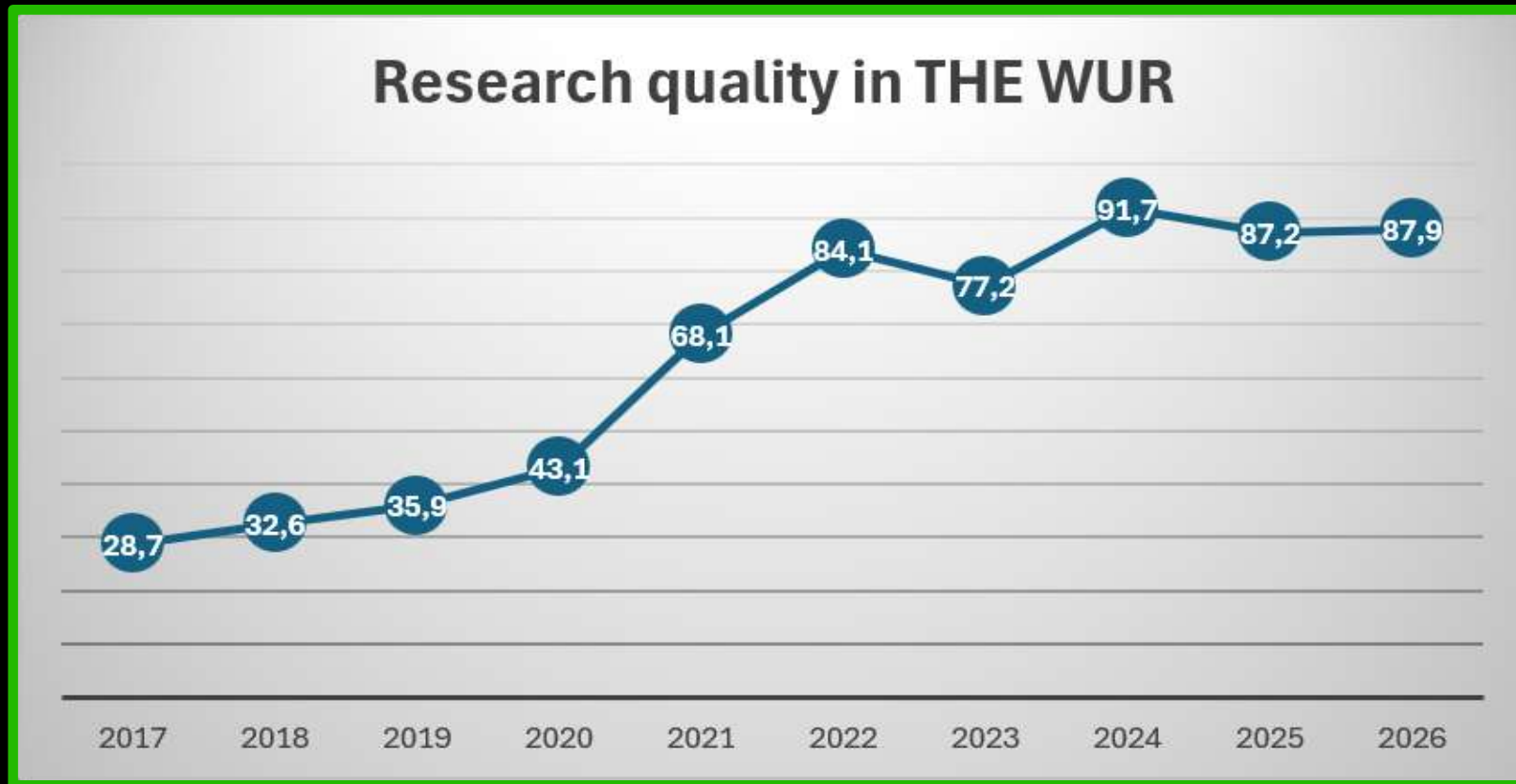
CHANGES IN HIGH-QUALITY PUBLICATIONS

JUFO publications in 2015-2021



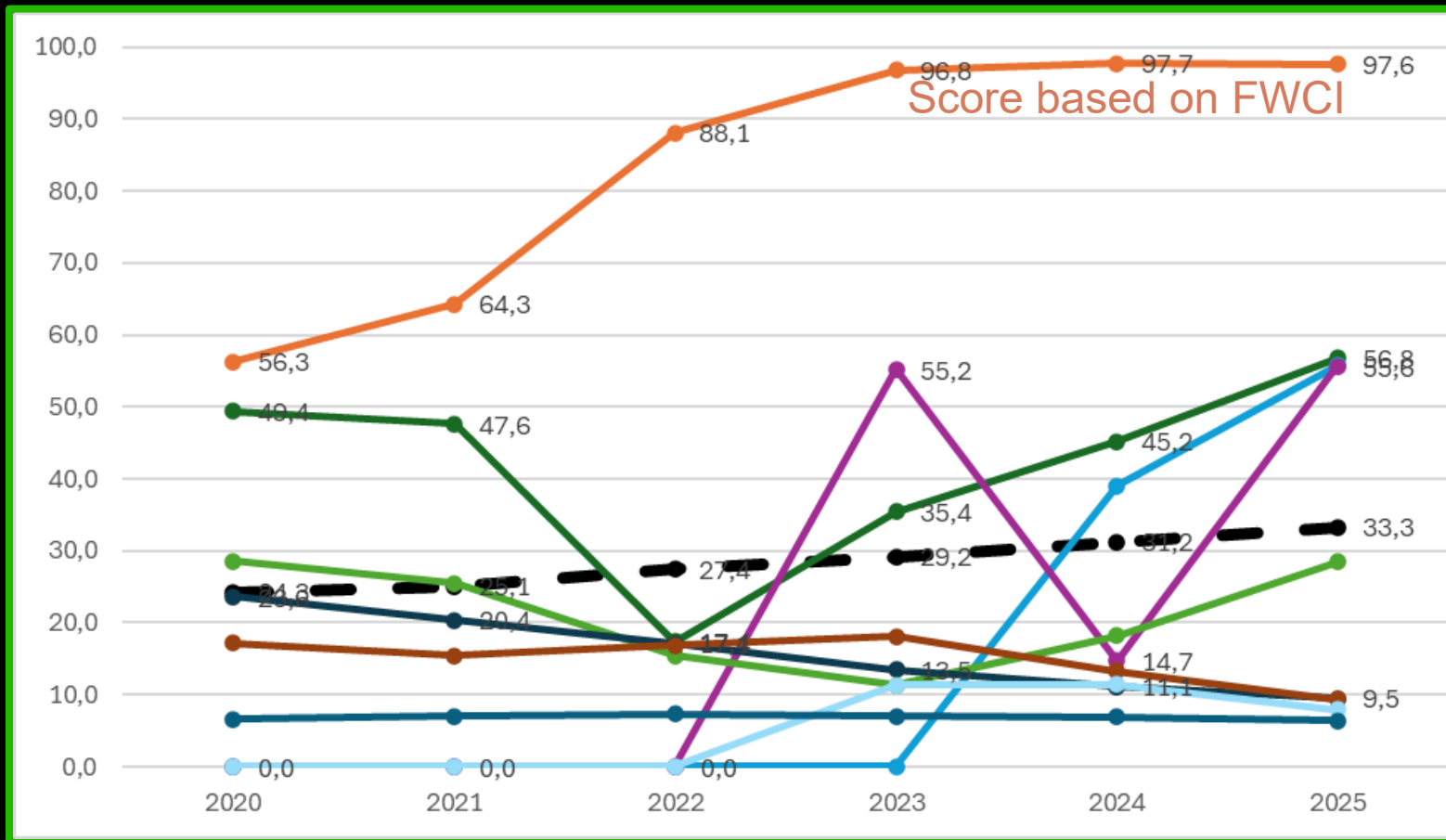
Building LUT's success in world university rankings

CHANGES IN THE WUR RESEARCH QUALITY



Building LUT's success in world university rankings

CHANGES IN QS WUR INDICATIONS



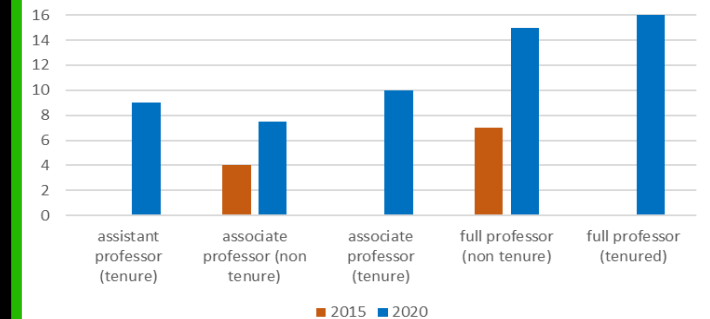
Building LUT's success in world university rankings

OVERALL SUCCESS IN UNIVERSITY RANKINGS

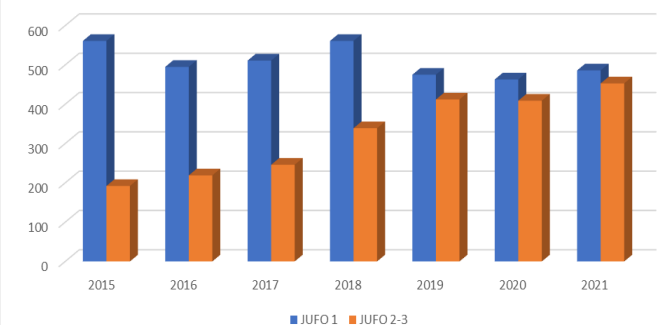
LUT in THE and QS



Median H-index 2015 vs. 2020



JUFO publications in 2015-2021

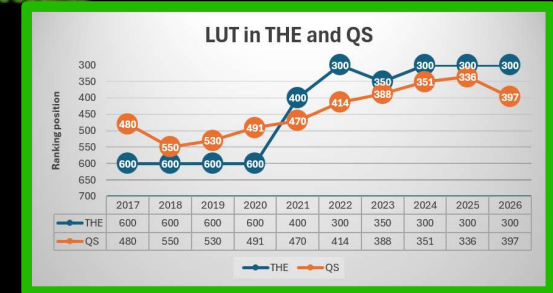
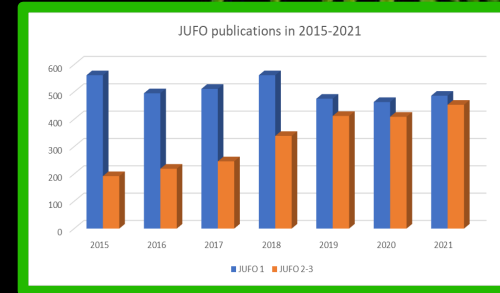


CONCLUSIONS

Conclusions

THE HUMAN LAYER

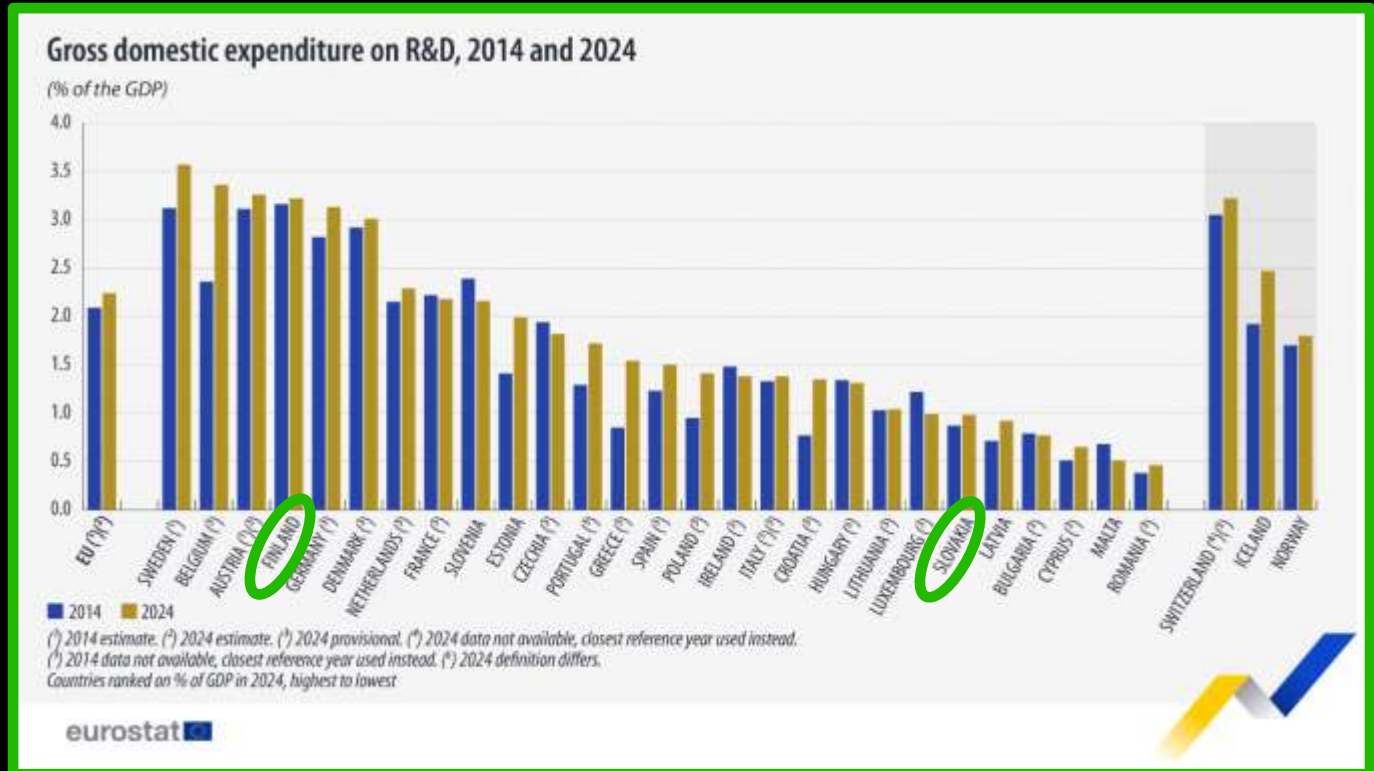
- » University strategies versus academic freedom
 - » Strategic decisions on new professorships but academic freedom for professors selected to the positions
- » Quantitative versus qualitative measures
 - » DORA (Declaration of Research Assessment) and CoARA (Coalition for Advancing Research Assessment)
- » Changes create always uncertainty, fear, and resistance
 - » University staff values autonomy and stable conditions
 - » Universities used to be “bottom-up election” instead of “top-down management” organizations
 - » All usual challenges in change management (unclear motivation and direction, poor communication, fear of loss, weak trust in leadership, etc.)
- » But, evidence-based analytical decision-making fits to universities
 - » Creating a culture of evidence-based leadership
 - » Less lobbying, less internal politics, less money-related debates, but openly communicated indicator-based decisions
- » Early successes make benefits visible and support momentum, and the first adopters create internal advocates



Conclusions

THE CEE PERSPECTIVE

- » Strategies cannot be directly copied from one university or country to another
 - » Finland's GDP = 2 x Slovakia's GDP
 - » Finland's R&D-% = 3 x Slovakia's R&D-%
 - » Same size of population, but six times higher R&D expenditures / person



Conclusions

THE CEE PERSPECTIVE

» Strategies cannot be directly copied from one university or country to another

EIS in Baltic states:

Estonia (strong)
Lithuania (moderate)
Latvia (emerging)



European Innovation Scoreboard (EIS): https://research-and-innovation.ec.europa.eu/knowledge-publications-tools-and-data/publications/all-publications/european-innovation-scoreboard-2025_en

Conclusions

THE CEE PERSPECTIVE

Despite differing levels of progress, Central and Eastern European universities are increasingly adopting **strategic leadership** and more **open academic career systems** to strengthen **research excellence** and **attract global talent**

1. University-level operations instead of independent faculty structures
2. Performance-based funding instead of headcount-based allocation
3. Competitive tenure-track careers instead of permanent civil-service posts
4. International recruitment without language-based restrictions
5. Performance-based salary rather than progression on years of service
6. HR processes supporting goal setting and development discussions
7. Stronger international networks and research funding
8. English-language programmes supported by international staff
9. Greater focus on sustainability and societal impact
10. Strengthening brand visibility to enhance reputation and attract talent

Objectives & Impact

- Achieved Outcomes
- Institutional Impact



Elevating Central & Eastern European research impact in the age of AI

