

Research Assessment 2025

University of Helsinki

Aura Kivilaakso, Henna Moore, Johanna Kolhinen and Juliet Gellert (eds.)



UNIVERSITY OF HELSINKI

Assessment results and reports

Contents

Abstract 4

Tiivistelmä 4

Sammandrag 4

Preface 5

Executive summary 6

Assessment reports 8

9 Overall assessment of the University of Helsinki

14 Health and Life Sciences

- 17 Faculty of Biological and Environmental Sciences
- 25 Faculty of Medicine
- 31 Faculty of Pharmacy
- 37 Faculty of Veterinary Medicine
- 44 The Finnish Museum of Natural History
- 52 The Helsinki Institute of Life Science

60 Science, Technology and Environment

- 62 Faculty of Agriculture and Forestry
- 66 Faculty of Science

72 Social Sciences and Humanities

- 76 Faculty of Educational Sciences
- 82 Faculty of Law
- 88 Faculty of Social Sciences
- 93 Faculty of Theology
- 100 Helsinki Collegium for Advanced Studies
- 105 Swedish School of Social Science
- 110 Faculty of Humanities

Appendices 116

- 117 Appendix I: Assessment plan
- 120 Appendix II: Terms of reference
- 123 Appendix III: Assessment criteria
- 124 Appendix IV: Panel structure and composition
- 125 Appendix V: Self-assessment report template
- 128 Appendix VI: Assessment report templates
- 134 Appendix VII: Assessment guidelines
- 138 Appendix VIII: Definition of the term
interdisciplinarity

Research Assessment 2025
University of Helsinki (RAUH)

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Abstract | Tiivistelmä | Sammandrag

Research Assessment 2025 University of Helsinki (RAUH)

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Aura Kivilaakso, Henna Moore, Johanna Kolhinen and Juliet Gellert (eds.)

This report presents the key findings of the 2025 Research Assessment of the University of Helsinki (RAUH 2025). It examines the scientific quality, societal impact, and research environments of the University and its 15 Units of Assessment, which comprise all 11 faculties and four research-focused independent institutes of the University.

The assessment is based on a broad evidence base that includes metric data covering the years 2019–2023, unit-level self-assessment reports, and for the first time, a university-level self-assessment focusing on interdisciplinarity. Together with the observations and interviews conducted by the external assessment panel of 27 experts, this material has formed the basis for the assessment reports presented in this volume. These reports offer a comprehensive overview of the University's disciplinary strengths, interdisciplinary practices, and the conditions for long-term research renewal. The assessment highlights internationally competitive performance across the University and identifies structural and strategic factors that influence interdisciplinarity, research sustainability, and institutional development. The results will inform future planning at both unit and university level.

Keywords: universities, research assessment, enhancement-led evaluation, strategic development, interdisciplinarity

Tämä raportti esittelee Helsingin yliopiston vuoden 2025 tutkimusarvioinnin (RAUH 2025) keskeiset tulokset. Arviointi tarkastelee yliopiston ja viidentoista arvioitua yksikön tieteellistä laatua, yhteiskunnallista vaikuttavuutta ja tutkimusympäristöä. Arviointiin yksiköihin lukeutuvat kaikki yliopiston yksitoista tiedekuntaa ja neljä tutkimuspainotteista erillistä laitosta.

Arvioinnin aineistoina toimivat määrällinen aineisto vuosilta 2019–2023, arvioitujen yksiköiden itsearviointiraportit sekä ensimmäistä kertaa toteutettu yliopistotasoinen, tieteidenvälisyyteen keskittyvä itsearviointi. Näiden sekä 27 asiantuntijasta koostuvan kansainvälisen arviointipaneelin havaintojen ja haastattelujen muodostama kokonaisuus on luonut perustan tässä raportissa julkaistaville arviointiraporteille, jotka tarjoavat kattavan näkymän yliopiston tieteenalakohtaisiin vahvuuksiin, tieteidenvälisiin käytäntöihin ja tutkimuksen pitkäjänteisen uudistumisen edellytyksiin. Arviointiraportit tuovat esiin yliopiston eri alojen kansainvälisesti kilpailukykyisen tutkimuksen ja tunnistavat rakenteellisia ja strategisia tekijöitä, jotka vaikuttavat tieteidenvälisyyteen, tutkimusedellytysten kestävyys- ja yliopiston kehittämiseen. Arvioinnin tulokset tarjoavat suuntaa tulevaisuuden suunnittelulle sekä yksikkö- että yliopistotasolla.

Avainsanat: yliopistot, tutkimusarviointi, kehittävä arviointi, strateginen kehittäminen, tieteidenvälisyys

Denna rapport presenterar huvudresultaten från Helsingfors universitets forskningsutvärdering 2025 (RAUH 2025). Den granskar den vetenskapliga kvaliteten, den samhällliga genomslagskraften och forskningsmiljöerna vid universitetet och dess femton utvärderingsenheter, som omfattar samtliga elva fakulteter och fyra forskningsintensiva fristående institutioner.

Utvärderingen baseras på ett omfattande underlag som inkluderar metriska data från åren 2019–2023, enheternas självutvärderingsrapporter samt, för första gången, en universitetsövergripande självutvärdering med fokus på interdisciplinarity. Tillsammans med observationerna och intervjuerna som genomfördes av den internationella utvärderingspanelen med 27 experter har detta material utgjort grunden för de utvärderingsrapporter som presenteras i denna publikation och som ger en heltäckande bild av universitetets styrkor inom olika vetenskapsområden, tvärvetenskapliga arbetssätt och förutsättningar för långsiktig forskningsförnyelse. Utvärderingen lyfter fram forskning på internationellt konkurrenskraftigt nivå inom alla områden och identifierar strukturella och strategiska faktorer som påverkar interdisciplinarity, forskningens hållbarhet och universitetets utveckling. Resultaten ger vägledning för den framtida planeringen på både enhets- och universitetsnivå.

Nyckelord: universitet, utvärdering av forskningen, utvecklande utvärdering, strategisk utveckling, interdisciplinarity

Preface

Over the past few years, the University of Helsinki has advanced interdisciplinarity through a range of strategic initiatives, including faculty-level development processes, the preparation of the Roadmap for Implementing Research Themes (2023), and several targeted internal funding mechanisms. Among these are strategic Boost funding instruments, such as the Interdisciplinary Research Openings (IRO), which have supported emerging research directions and fostered new forms of collaboration across academic boundaries.

Given this background, the University sought to highlight interdisciplinarity as a key element in the 2025 Research Assessment of the University of Helsinki (RAUH). In addition to unit-level self-assessments and metric data, the RAUH 2025 assessment introduced a new university-level self-assessment with a dedicated focus on interdisciplinarity. This new component enabled the University to present an institution-wide perspective while complementing the analysis carried out in each unit of assessment.

The University of Helsinki Research Council played a central role in drafting the university-level self-assessment. As a body representing the research leadership of faculties and research-focused independent institutes, the Council actively shaped the narrative and recognised its own position as an interdisciplinary actor within the University. The writing process enabled the Council to articulate institutional strengths and challenges, to deepen shared interpretations and to contribute to a more cohesive research vision for the University. The process itself demonstrated the value of collaborative analysis and mutual learning, reflecting the ethos of enhancement-led evaluation.

The scope of this assessment is intentionally broad. Adjusting both the granularity and analytical zoom level of the assessment allow the University to identify long-term developments and examine the evolving nature of interdisciplinarity in ways that quantitative or more metric-oriented assessments cannot. This approach was well received by the panel members, whose feedback provides the University with both affirmation and constructive guidance. An important element of this perspective is the University's emerging set of top research areas that were under preparation during the RAUH process: Future Technologies, Learning and Evolving Societies, Precision Health, and Sustainable Planet. The purpose of the top research areas is to bring together the University's strengths and to enhance the visibility of its research.

This interdisciplinarity-focused assessment represents a new endeavour for the University of Helsinki. It has already proven valuable as a reflective learning exercise during self-assessment and panel meetings that advance institutional thinking, refine leadership practices, and strengthen the foundation for more integrated approaches to research. Equally, it has served as a significant development tool for faculties and research-focused independent institutes, supporting their own strategic reflection, leadership of research activities and long-term renewal. The additional insights offered by the external panellists' reports further enrich this work. The University is committed to drawing on the results as it develops its research activities in the years ahead.

Many colleagues across the university community participated in the assessment. Many thanks to all of you for your dedicated work in preparing this assessment. I would

like to thank the steering group members for the valuable and insightful comments they provided throughout the process, the Research Council for its bold and innovative approach in preparing the university-level report, and University Services for their excellent work at all stages of the process. My sincere thanks also go to the expert panellists for their deep commitment and for dedicating their time to the evaluation. I am confident that this assessment will provide valuable insights and tools to support the future development of our research activities.

Anne Portaankorva

Vice-Rector for Research, Doctoral Education and Sustainability

Chair of the Assessment Steering Group

Executive summary

Assessment results

The 2025 Research Assessment of the University of Helsinki (RAUH 2025) provides a comprehensive and analytically rich overview of the University's and its units' research activities, highlighting their achievements, strengths, and areas for further development across the institution. The assessment shows that the University of Helsinki performs at a high international level across all disciplinary areas, with numerous pockets of world-leading excellence. At the same time, it highlights a set of structural, strategic and operational challenges that require targeted action to secure renewal, interdisciplinarity, competitiveness and long-term sustainability.

At the university level, the assessment panel commends the University of Helsinki for its strong and diverse research base, its internationally competitive performance across disciplines, and its capacity to sustain excellence through long-term institutional commitment. In addition, the assessment panel commends the University for its willingness to rethink organisational and funding structures in support of interdisciplinarity. The panel sees the University's forthcoming top research areas, Future Technologies, Learning and Evolving Societies, Precision Health, and Sustainable Planet, as promising frameworks, though the underrepresentation of the Social Sciences and Humanities is viewed as a strategic weakness. The University hosts a large set of profile initiatives (PROFI), Centres of Excellence, and research infrastructure, but the relationships between these initiatives, the top research areas, and the University of Helsinki Strategy 2021–2030 require clearer articulation. Challenges related to coordination across faculties, uneven incentives for interdisciplinary engagement, and the sustainability

of long-term infrastructures, especially field stations and ecosystem platforms, are noted as areas needing decisive action.

Across the **Health and Life Sciences subgroup**, research quality is consistently high, with internationally recognised outputs, strong infrastructure, and major successes in competitive funding, including European Research Council (ERC) grants and national Flagships. The Faculty of Medicine and Helsinki Institute of Life Science (HiLIFE) deliver strong translational research, though both would benefit from clearer, more coherent institutional strategies and strengthened integration with one another and with clinical partners. The Faculty of Biological and Environmental Sciences and the Finnish Museum of Natural History (Luomus) show world-class expertise in ecology, biodiversity, arctic research, and collections-based science, but face significant challenges relating to fragmented data management, reliance on external funding and the sustainability of critical infrastructure. The Faculties of Pharmacy and Veterinary Medicine demonstrate strong societal engagement and innovation potential, yet require more systematic pathways for commercialisation, stronger links with the social sciences, and better support for early-career researchers. The panel subgroup emphasises that resolving these issues is essential for sustaining excellence in rapidly evolving research domains.

In the **Science, Technology and Environment subgroup**, the Faculty of Science stands out as one of the most productive units in the University, responsible for over one-third of top-tier publications. It hosts several flagship-level interdisciplinary environments, including the Institute for Atmospheric and Earth System Research (INAR), the Finnish Center for Artificial Intelligence (FCAI) and the Atmosphere and Climate Competence Center (ACCC), that

are internationally influential. Its challenge is the sustainability of high external-funding dependence and the renewal of costly infrastructure. The Faculty of Agriculture and Forestry has renewed itself successfully, adding new areas such as novel foods and bio-based materials, but faces a critical need to increase the number of doctoral researchers and deepen collaboration with industry and with INAR. A more strategic approach to long-term infrastructure planning and talent development would further strengthen this subgroup's contribution to the University's research profile.

Within the **Social Sciences and Humanities subgroup**, the panel found evidence of high-quality research across all units, with high scientific quality, strong international visibility and significant societal relevance in many areas. The SSH faculties have improved their external funding portfolios and interdisciplinary engagement, although doctoral completion times remain problematic in several units, and several units could communicate and celebrate their social engagement and societal impact more effectively. The Helsinki Collegium for Advanced Studies remains a major interdisciplinary asset, yet declining core funding and limited administrative capacity threaten its ability to maintain this role. The panel underlines the importance of maintaining the SSH disciplines as integral contributors to the University's strategic research themes and interdisciplinary initiatives.

Taken together, the assessment illustrates a university with significant strengths: internationally leading research in key domains, strong participation in national and EU research infrastructure, and a vibrant, collaborative research culture. At the same time, it underscores the need for strengthened strategic coherence, more predictable long-term investment, especially in infrastructure, career structures and digital capacity, and more systematic support for interdisciplinarity,

innovation and societal impact. The panel concludes that the University of Helsinki is exceedingly well positioned for future success, provided that attention is directed to these systemic challenges and that strategic development proceeds in a coordinated and sustained manner.

Assessment framework

The RAUH 2025 assessment reflects the University of Helsinki's enhancement-led approach to evaluating research activities. The framework was designed to provide a coherent, institution-wide view of research quality, societal impact and the research environment, with a strengthened focus on research renewal and interdisciplinarity. In accordance with the Finnish Universities Act (558/2009), the assessment also fulfils

the University's statutory responsibility to conduct regular evaluations of its research. (Appendices I and II.)

The assessment framework is summarised in Table 1 below.

The assessment covered 15 units of assessment, consisting of 11 faculties and four research-focused independent institutes. Each unit was evaluated against three criteria – Scientific Quality, Societal Impact, and Research Environment – supported by sub-criteria that guided both the self-assessment process and the external panel's analysis (Appendix III). Interdisciplinarity was embedded systematically across all criteria through a dedicated subsection on collaboration and interdisciplinary practices.

The assessment was conducted by an international panel of 27 experts, organised into three sub-groups representing the major disciplinary areas: Life Sciences;

Science, Technology, and Environment; and Social Sciences & Humanities (Appendix IV). Consistent with the enhancement-led approach, no rating scale or grades were used. The emphasis was placed on qualitative judgement, reflective analysis and forward-looking recommendations.

The assessment drew on a multi-layered evidence base, combining:

- unit-level self-assessment reports
- metric data from 2019 to 2023, including publications, external funding, and personnel
- a university-level self-assessment with a focus on interdisciplinarity
- panel observations and interviews conducted during the site visit.

A site visit from 24 to 28 November 2025 played a central role in the evaluation. During the visit, the panel interviewed representatives of all units of assessment, as well as key university-level actors including the University of Helsinki Research Council, doctoral education representatives, and representatives of the profile areas (PROFIs). These discussions provided essential qualitative context, enabling the panel to deepen its understanding of research conditions across the University. The self-assessment and assessment report templates, the panel guidelines, as well as the definition of the term interdisciplinarity as it is applied in this evaluation, are provided in Appendices V–VIII of the assessment report.

The assessment took place during a period of active strategic development. While metric data reflected past performance up to 2023, many units of assessment were simultaneously engaged in renewal initiatives, including the preparation of the University's new top research areas. As these processes progressed during the assessment period, the material available to the panel combined retrospective analysis with forward-looking perspectives, consistent with the principles of enhancement-led evaluation.

Taken together, the RAUH 2025 framework provides a structured, transparent, and development-oriented approach to assessing the University's research. It enabled the panel to form a nuanced understanding of research quality, interdisciplinary practices and the organisational conditions necessary for long-term renewal.

Table 1: Assessment framework.

Purpose of the assessment	To reveal and confirm the quality and impact of research, to identify emerging and strong research areas, and to support renewal.
Units of assessment	15 Units of Assessment: <ul style="list-style-type: none"> • 11 faculties • 4 research-focused independent institutes
Assessment criteria	<ul style="list-style-type: none"> • Scientific Quality • Societal Impact • Research Environment <p>Each main criterion was supported by sub-criteria that guided both the self-assessment process and the external assessment panel's analysis. Interdisciplinarity was addressed under each criterion.</p>
Panel structure	27 international experts in three subgroups: <ul style="list-style-type: none"> • Life Sciences • Science, Technology and Environment • Social Sciences and Humanities
Evidence base	<ul style="list-style-type: none"> • Unit-level self-assessment reports • Metric data (2019–2023): publications, external funding, personnel • University-level self-assessment on interdisciplinarity • Panel analyses and discussions • Site visit 24–28 November 2025, including interviews
Methodological approach	Enhancement-led approach emphasises continuous development and quality enhancement.

Assessment reports

Overall assessment of the University of Helsinki

Overall assessment of the University of Helsinki

Description of the use of criteria

In line with the University of Helsinki's instructions for the RAUH 2025 assessment, the primary emphasis of the University-level Assessment Report is on the assessment criterion Research Environment, examined through the specific lens of interdisciplinarity. While the full evaluation of the University of Helsinki's research (covering Scientific Quality, Societal Impact, and Research Environment) is presented in detail in the unit-level assessment reports, the university-level assessment concentrates on how institutional conditions enable and support interdisciplinary research.

Panel feedback for the University of Helsinki

Summary

In general, the university-level self-assessment report is informative, well-structured, and clearly expressed. It outlines and justifies the decisions that have been taken and is realistic and frank about the potential challenges that the University might face in carrying out its strategy. It is impressive that the University has been willing to reconsider about altering its internal infrastructural organisation and funding model to support more interdisciplinarity. It is open to change and willing to think creatively about how interdisciplinary research can be supported.

The panel learned through site-visit meetings with management that there is a government-led effort to establish university profiles, with several national competitive calls being made over the last ten years. The University of Helsinki has mobilised researchers in this relatively complex landscape of interdisciplinary research platforms and centres that have reshaped university research. How well the University translates these opportunities into innovative research and attractive knowledge environments is an important question.

The main areas for the assessment are scientific quality, societal impact, and research environment. We were provided with substantial data available on the PowerBI platform, where bibliographic, personnel, and funding are presented, and where comparisons, correlations, and trends are easily analysed. PowerBI also provides data relevant for societal impact, though only over a limited period. Across the University, however, approaches to documenting and evaluating societal impact vary considerably. Developing more standardised criteria and indicators – while allowing for disciplinary differences – would make it easier to compare practices, share good examples and use tools such as PowerBI more effectively in strategic decision making.

Interviews with leaders of units across the University provided us with many important insights into how strategic decisions are made, especially regarding the major competitive calls for Centres of Excellence, profile building areas (PROFIs) and Flagships. These external grants are among the few avenues for recruiting new tenure-track academic staff and are a major catalyst for creating interdisciplinary collaborations within the University.

Top research areas and interdisciplinarity at the University of Helsinki

One mechanism through which the University of Helsinki aims to promote interdisciplinarity – following recommendations from its International Advisory Board – is the introduction of **top research areas**, scheduled for launch in early 2026. The proposed top research areas, tentatively titled *Future Technologies*, *Learning and Evolving Societies*, *Precision Health*, and *Sustainable Planet*, are intended to showcase the University's research strengths and foster collaboration across disciplinary boundaries.

It is essential that excellence across the University, including both faculties and research-focused independent institutes, is visibly represented within one or more of these

top research areas. However, at present, the social sciences and humanities research community appears to be treated only as having a subsidiary role. This is regrettable, given the strong international standing of many departments in these fields. Their contributions could be made far more visible and, ideally, the Social Sciences and Humanities should be centrally represented in at least one top research area, as well as playing a cross-cutting role.

Relationship to existing strategic initiatives

University of Helsinki's broader strategy for addressing societal challenges includes the establishment of **profile building areas (PROFIs)** linked to its strategic research themes. These initiatives are externally funded as part of a national effort to concentrate research excellence within universities across Finland. Across two phases, 25 initiatives were outlined. Up to 2020, three strategic themes guided this work; from 2021 onwards, four new themes were introduced to guide research development until 2030. As many PROFI-funded initiatives mature, it will be important to ensure that their activities remain sustainable beyond the external funding period and that their contribution to quality, competitiveness, and interdisciplinarity is systematically evaluated.

In addition, five new **Centres of Excellence** have been awarded by the Research Council of Finland for the period 2026–2033: one in Medicine, one in Biological and Environmental Sciences, one in the Humanities, and two in Physics and Astronomy. Furthermore, a portion of the extraordinary funding allocated by the University of Helsinki Board for 2024–2028 has been earmarked for **Interdisciplinary Research Openings (IROs)**. As this scheme is still in its initial phase, it is too early to assess its effectiveness; few details were provided in the self-assessment. There is particular potential for the IRO scheme to act as a bridge between high-risk interdisciplinary projects and more traditional disciplinary research agendas, provided that its

selection and allocation processes are sufficiently clear and streamlined. Going forward, it will also be important to align these strategic initiatives more explicitly with the priorities of the European Research Area (ERA) and Horizon Europe missions, both to enhance competitiveness and to maximise societal impact.

From an organisational perspective, the top research areas appear to offer a coherent framework for grouping PROFIs, Centres of Excellence, and Flagship initiatives, while also highlighting key research infrastructure. Although the top research area concept is still relatively recent and has not yet been formally launched, it is already known in some parts of the University. Nevertheless, as noted above, staff in the Social Sciences and Humanities overwhelmingly felt that their excellence is not adequately reflected in the current top research area structure.

Therefore, the University of Helsinki should communicate the **purpose and function of the top research areas** more clearly. Are they primarily intended to package existing initiatives into a more visible and coherent framework, or will they actively guide future resource allocation, recruitment, and strategic development? Closely related to this is the need to clarify the relationship between the top research areas and the four Research Themes defined in the University of Helsinki Strategy 2021-2030: do the top research areas replace the existing themes, or do they constitute an additional strategic layer? Without these clarifications, confusion will continue, and opportunities will be lost. In designing and implementing the top research areas and related initiatives, particular attention should be paid to fostering collaboration between the life sciences, social sciences and humanities, so that complex societal challenges are addressed through genuinely integrative research approaches.

Organisational structure and interdisciplinarity

The University of Helsinki's organisational structure is overly complex, comprising 11 faculties and four research-focused independent institutes distributed across four campuses. This raises fundamental questions about how best to connect units in ways that genuinely facilitate interdisciplinary research. Large and successful faculties may have limited incentives to

engage in such collaboration unless clear academic, financial, or intellectual benefits are evident.

Interdisciplinarity remains a central strategic ambition at the University of Helsinki, and many centres, institutes, and top research areas appear to have been designed explicitly as nodes for interdisciplinary research. However, interdisciplinary research brings its own challenges, including issues of researcher identity, publication practices, and securing funding for projects that do not fit neatly within established disciplinary boundaries. Cultural differences related to disciplinary traditions may also come into play and can present challenges in how research is carried out, in traditions, in the communication of results and in identifying funding sources. In addressing the challenges that interdisciplinary research entails, the University of Helsinki could potentially learn from the joint research endeavours involving Aalto University, where interdisciplinarity is a central research priority.

University of Helsinki would benefit from examining the **leadership and organisational models** of such institutes – both internally and in collaboration with partners – to identify best practices for supporting interdisciplinary research. In particular, it is crucial to ensure that successful interdisciplinary initiatives are not undermined by diverging priorities or incentive structures within researchers' home departments. In parallel, the University would benefit from developing systematic mechanisms for measuring and rewarding interdisciplinarity at both the institutional and unit levels.

Following the assessment of the University of Helsinki's operating structures and management system (TOIJO) in 2023, the University considered establishing collaborative forums within each subgroup but ultimately decided against this approach. While the reasons for this decision were not articulated in the self-assessment report, the panel strongly feels that including strategic platforms in university governance is essential for creating an organisation that can utilise its breadth effectively in interdisciplinary networks and platforms. To signal the strategic importance of interdisciplinary activity, it would also be beneficial for major interdisciplinary networks and platforms to have a clear voice in university-level governance. Developing more predictable,

long-term funding models for such networks would further strengthen their contribution to the research environment.

Nevertheless, the University may wish to reconsider mechanisms that actively support the creation of interdisciplinary links, especially across campuses. This could involve dedicated physical spaces for inter-campus interaction or the organisation of regular events designed to foster collaboration. Given its long-standing role in facilitating high-level research dialogue, the Helsinki Collegium for Advanced Studies (HCAS) could play a valuable role in such efforts.

Faculties and research institutes

There are 11 faculties at the University of Helsinki, and these vary dramatically in size. The differences between faculties become important in both having a critical and effective mass to support the many facets of a knowledge environment, but also in the strategic directions identified by different faculties. Faculty size is currently not considered in the university-wide prioritisation process for profile building areas (PROFIs), which creates a potential risk for imbalance.

A question we considered is that of the relationship between tenure-track staff within institutes, such as HiLIFE, and the faculties within their subgroup (e.g., Health and Life Sciences), as well as Institute for Atmospheric and Earth System Research (INAR). Several issues exist. How much say do the faculties have in the appointment of tenure-track staff to institutes? What mechanisms are in place for deciding which faculty a tenure-track staff member will be assigned to, and how they can contribute to teaching within that faculty? What discussions take place upon retirement when a new professorial position might be announced within an interdisciplinary centre? More broadly, many research staff working in interdisciplinary institutes or on short-term project funding are not appointed as staff members or professors. This can put them at a disadvantage in grant applications, leadership opportunities, and long-term career progression. The University would benefit from articulating a more unified career framework that clarifies pathways for early-career researchers and fixed-term staff, and from considering how responsibilities and recognition are shared between institutes and faculties.

A potential challenge concerns cultural tensions or bureaucratic barriers between units – such as faculties and independent institutes – that may hinder effective collaboration. The University of Helsinki has identified these risks in its Roadmap for Implementing Research Themes (2023), in which the need to transcend boundaries and increase flexibility is articulated as a key development area. How will the University ensure that its research environment is structured to minimise these barriers?

A case in point is INAR, which is an exceptionally strong research institution with a global footprint in terms of research, environmental policy, innovation, and education. INAR hosts a range of international research infrastructure facilities and leads the development of new atmospheric monitoring systems with global impact. INAR maintains databases within the Institute and is also instrumental in organising the large databases within Integrated Carbon Observation System, European Research Infrastructure Consortium (ICOS-ERIC), Aerosol, Clouds and Trace Gases Research Infrastructure (ACTRIS-ERIC) and others which are crucial for atmospheric modelling, and ultimately climate modelling. INAR's strategy is thus well aligned with the University's strategic directions. INAR spans two faculties and several departments within these. It is one of the prototype examples of a PROFI initiative which has grown and matured, and truly interdisciplinary research is at the core of its work. It appears that INAR is well acknowledged within the Faculty of Science but less so in the Faculty of Agriculture and Forestry. There is a risk that diverging strategies and overall priorities can be detrimental for INAR's stability or ability to grow in the future.

As well as the internal networks such as Helsinki Institute of Life Science (HiLIFE) and HCAS, the University of Helsinki is also strongly engaged with international networks such as League of European Research Universities (LERU) and Una Europa. These are very positive for promoting interdisciplinarity, the former through its policy work and the latter through its aim of establishing interdisciplinary collaborative hubs.

Funding and sustainability of research base

Core funding was identified as an issue for several units of assessment. The nature of this challenge varies, as the units operate under different funding models. In some cases, core funding has been insufficient to meet increasing costs and statutory duties (e.g., Finnish Museum of Natural History Luomus). In the case of the Faculty of Veterinary Medicine, its finances are tied together with those of the Veterinary Teaching Hospital, making its funding vulnerable to external crises. In the case of HiLIFE, it carries full financial responsibility for the Laboratory Animal Centre, one of its sub-units, whose increasing operational costs have created growing budgetary pressure. How will the University address these challenges to ensure that units are placed on a more sustainable financial footing?

The self-assessment reports give a number of examples in which interdisciplinarity can facilitate external funding, for example from the Research Council Finland, Horizon Europe, Business Finland, and private foundations. A key question is how the University can ensure that collaborative groups do not form solely to obtain funding and then disperse back into narrower disciplinary units once projects conclude. This dynamic is already creating uncertainty; for example, the range of activities originally planned at the Helsinki Institute in Social Sciences and Humanities (HSSH) appears to have been constrained by uncertainty regarding its long-term future. As a result, HSSH has not yet fulfilled its potential as a catalyst for innovative research. The ongoing reduction of PhD completion times to 3–4 years also deserves careful monitoring, to ensure that time pressures do not compromise the quantity or quality of doctoral research.

Commercialisation of research via Helsinki Innovation Services was seen as problematic by a number of units, primarily due to the office being very slow in processing potential applications. This is a pressing concern, as universities are increasingly expected to deliver societal impacts, and this requires more agility and faster processes. In addition to streamlining these processes, clearer incentives and support mechanisms for activities such as invention disclosure, patenting and entrepreneurship would encourage staff to engage with commercialisation. Closer collaboration with external partners such as VTT (the Technical Research

Centre of Finland) could likewise strengthen innovation pathways and amplify societal impact.

Although the University has a strong track record in attracting highly competitive external funding, including European Research Council (ERC) grants, there is still untapped potential. More systematic mentoring of applicants – for example through internal review, mock interview panels, and encouraging researchers to serve as ERC reviewers or panel members – could help to increase both success rates and the retention of ERC grantees.

Research infrastructure

The University of Helsinki has invested heavily in hosting large-scale research infrastructure, both national and international. This is positive because these play a major role in promoting and facilitating interdisciplinarity. The University has been successful in obtaining Research Council of Finland research infrastructure funding (FIRI) for national and international research infrastructure, and CSC IT Center for Science offers comprehensive services in high-performance computing and data management, meaning that the University is well situated in terms of high-quality instrumentation. While their coordination (via the Research Infrastructure Committee), and management (via host units) are clearly described in the self-assessment report, what is less clear is the level of financial support from the University of Helsinki and/or individual units for infrastructure, and how this is decided on an ongoing basis. In particular, the current core funding policy, whereby host units are expected to provide the entire 30% matching contribution for major infrastructure investments, raises questions about long-term sustainability and equity between units.

As research infrastructure requires continuous maintenance and regular renewal, a comprehensive plan for financing running costs and upgrades is needed, as well as training and retaining competent technical staff. This is especially critical for field stations and ecosystem research infrastructure, which underpin world-leading work in climate, geoscience and biodiversity, and depend on long-term, stable funding. Given the large investment by the University in hosting and investing funding in research infrastructure, it is essential that these facilities are widely accessible across the University.

The top priority is to ensure easy access for internal staff and students, but the University should also consider whether there is a market for external users, which could both enhance collaboration, and bring in additional funding to help support the research infrastructure financially. At the same time, the rapidly growing demand for AI and data-driven research requires proactive development of policies, computational capacity and data services, in close collaboration with CSC and considering opportunities within EuroHPC. This is particularly important for genomics and precision medicine, where additional bioinformatics expertise and scalable computing resources will be necessary. For collections-based research, accelerating digitisation and AI-supported data processing – for example in collaboration with Luomus – will be essential to meet emerging global biodiversity data standards and to fully exploit the University's unique assets.

STRENGTHS

- A considerable amount of internationally leading interdisciplinary research is conducted across the University.
- Senior management provides strong leadership in promoting interdisciplinarity.
- Most units have strong publication portfolios.
- Collaboration between units is extensive.
- There is strong involvement in national and international networks.
- A large number of Centres of Excellence and Flagships are hosted across different units.
- The University of Helsinki has been highly successful in securing PROFI funding.
- The University has a superb range of infrastructure.
- There is a strong track record of external funding, including ERC grants.
- Much high-impact research is being carried out.

DEVELOPMENT AREAS

- Cultural and structural differences between faculties and institutes still hinder interdisciplinary collaboration.
- Interdisciplinarity needs clearer metrics, incentives and recognition mechanisms. University-level top research areas underrepresent excellence in social sciences and humanities.
- IRO processes and criteria require clarification and streamlining.
- Better alignment of the University's research priorities with the European Research Area (ERA) and Horizon Europe missions is needed.
- Career structures for institute-based and short-term researchers are unclear, affecting competitiveness.
- Commercialisation support and incentives remain insufficient.
- Collaboration with key partners such as VTT is underutilised.
- The reduction of PhD completion time to 3–4 years should not risk research quantity or quality.
- Long-term sustainability of field stations and ecosystem research infrastructure is uncertain.

RECOMMENDATIONS

Research infrastructure and long-term sustainability:

- The University should review and potentially revise the 30% matching funding policy for major research infrastructure investments.
- The University should improve its capacity to maintain and upgrade infrastructure and instrumentation over the long term.
- Given the University's major investment in research infrastructure, it is essential that these facilities are widely accessible across the institution.
- The University should address the growing demand for AI and data-driven research through appropriate policies

and infrastructure as well as accelerate digitisation and AI-based data processing for its collections (e.g. via Luomus).

- The University should consider expanding computational resources and bioinformatics expertise, in collaboration with CSC and considering EuroHPC, to support genomics and precision medicine research.

Strategic direction and interdisciplinarity:

- The University should encourage greater collaboration among life sciences, social sciences, and humanities.
- The University should reconsider the nature of the top research areas to ensure that research strength in the social sciences and humanities is centrally represented.
- The new IRO funding mechanism should be used to bridge gaps between high-risk interdisciplinary projects and traditional disciplinary research.
- The University should aim to standardise evaluation criteria for societal impact across units.
- The University should clarify governance and secure long-term funding for interdisciplinary networks and ensure PROFI initiatives remain sustainable and evaluate their impact.

Research excellence, digital capacity and careers:

- The University should enhance ERC performance via structured mentoring of reviewer participation.
- The University should develop a unified career structure and consider how to support better the career development of early-career researchers and those on short-term contracts.

Health and Life Sciences

Panel summary report

Health and Life Sciences

Description of the use of criteria

The Health and Life Sciences panel subgroup applied the three main assessment criteria – Scientific Quality, Societal Impact, and Research Environment – in its assessments of the six Units of Assessment: the Faculty of Biological and Environmental Sciences, the Faculty of Medicine, the Faculty of Pharmacy, the Faculty of Veterinary Medicine, the Finnish Museum of Natural History (Luomus), and the Helsinki Institute of Life Science (HiLIFE). The assessment of Research Quality was based on a combination of metrics provided for each unit, information in the self-assessment reports, and insights from interviews during site visits. Collaboration, both within and between units, as well as external with other university's units and national and international groups, was assessed as a key driver for interdisciplinarity. We emphasise that interdisciplinarity should be a means to an end, rather than a goal in itself.

For Societal Impact, the panel looked for ambition, evidence of strategies for valorisation of research results, collaboration with external bodies, commercialisation, sustainability, and public engagement. In terms of Research Environment, the subgroup considered how well the units' strategies are aligned with the University's priorities, their ambitions and mechanisms for achieving them, the available infrastructure, and monitoring their performance and progress towards their goals.

In this subgroup-level report, we provide an overview of overarching issues common to all units within the panel subgroup, based on self-assessment reports and site visit. More detailed assessments and specific recommendations can be found in the individual unit-level assessment reports. Our primary aim in the interviews and reports was to support the units in improving performance and integration.

The panel subgroup's feedback for the University of Helsinki

Overall, the research strategies of the Health and Life Sciences units are generally well aligned with the University's priorities, with emphasis on multidisciplinary and interdisciplinary research, innovation, and sustainability. We had the impression from the interviews that relations between unit staff were generally harmonious and mutually supportive. PROFI funding has been particularly important in promoting interdisciplinary research within and between the units. It is too early to say what the impact of the University's internal Interdisciplinary Research Openings (IRO) funding will be, nor how the units will mesh with the University's new "top research areas". From the panel's perspective, an important question is how well the units are positioned to expand interdisciplinary research in ways that both align with and help shape the university-level "top research areas". To improve the ability of units to be outward-looking, it will be important to develop unified strategies and synergies within individual units. Staff and doctoral students within a unit should feel that their primary affiliation is with their unit, rather than with a subsection of it (division / department).

Scientific Quality

The Health and Life Sciences subgroup units generally have strong international reputations for research and have high levels of scientific outputs. There are already strong interdisciplinary collaborations across the units. Joint positions have enhanced collaborations between units, although care must be taken going forward not to over-dilute the identities of the units. Mechanisms will be needed to ensure that co-funded positions allow all contributing units to receive appropriate recognition for research outputs. We note that

it would be very helpful to develop a coherent initiative for neuroscience, which is currently split between Medicine and HiLIFE in a way that is sub-optimal. In addition, stronger integration of social science methodologies could enhance interdisciplinary research quality, where relevant.

Societal Impact

Some of the units have strong connections to societal impact, industrial needs, and clinical practice, with excellent records of innovation, invention disclosure, and patent activity. However, some of the units have a less effective record. It would be helpful to introduce coordinated valorisation pathways for research results. Some units have strong public engagement, as well as involvement in science advocacy and providing expert advice (at both Finnish and European levels). There is scope for targeting research more directly towards societal challenges. Where appropriate, units should develop a clear vision for translation from basic science to clinical or commercial impact. In this context, it will be important for the University of Helsinki to improve the service for the commercialisation of research; current procedures are too slow. Some units, for example, the Faculty of Pharmacy, are very effective in their commercialisation, whereas others are less so.

Furthermore, the exploitation of results in the form of technology transfer or patent filing is not always fully considered in the evaluation of individual researchers, and this could discourage this type of activity. Some units have expressed the need to expose young researchers to specific training on entrepreneurship. Across the subgroup, approaches to documenting and evaluating societal impact also vary considerably, and more consistent monitoring systems would help units both to demonstrate their achievements and to identify areas for further development.

Research Environment

Most of the units have excellent infrastructure and access to advanced instrumentation. Extensive hosting of RCF Research Centres of Excellence contributes to an outward-looking atmosphere. The campus co-location of the Faculty of Medicine with Helsinki University Hospital (HUS) is a huge advantage for clinical research. For other units (and to some extent for the Faculty of Medicine), the spread of faculties and institutes across the University's various campuses is a challenge and can act as a barrier to collaboration. Joint activities such as seminars and research retreats can help to lower such barriers. Funding, both core and external, is critical to units being sustainable and to their ability to expand their research activities and collaborations. Some units hold quite a few ERC grants, although this is somewhat variable across the subgroup, and it would be good to improve this. To this end, it would be helpful to expand across the subgroup the existing mentoring programmes for ERC applicants. We note that there is an issue with the Laboratory Animal Centre (LAC), which operates under the Helsinki Institute of Life Science (HiLIFE), is facing an increasing deficit. Some action is needed to find a way to ensure financial sustainability.

As emerging fields such as AI-supported research and largescale health data analytics expand rapidly, additional investment in skills, secure data infrastructure, and AI awareness training will be increasingly necessary. In addition, many international researchers face challenges in contributing fully to teaching and public engagement due to limited Finnish proficiency, suggesting a need for improved language support mechanisms.

STRENGTHS

- The subgroup demonstrates internationally leading and interdisciplinary research with strong societal impact, supported by excellent publication records, advanced methodologies, advocacy and policy-advice activities, and extensive engagement in national and international networks.
- The units host major national research platforms, including Research Flagships, Centres of Excellence, extensive infrastructure platforms, and the FinnGen project in genomics and personalized medicine, contributing to strong research environments.
- Innovation and commercialisation activities are well-developed, and the subgroup maintains generally positive and supportive research cultures with widely used advanced technologies.

DEVELOPMENT AREAS

- Units need clearer articulation of research visions, strategies, and goals, including alignment with the University of Helsinki's "top research areas", stronger evaluation mechanisms, development of unified strategies and synergies within units, and unified strategic direction across Health and Life Sciences.
- Strengthening interdisciplinary collaboration, incorporating social science methodologies, increasing AI capacity through targeted training, and systematically supporting scientific renewal are important development needs.
- More stable and diversified funding is required, including core funding, Finnish and EU sources, infrastructure funding (e.g., FIRI co-funding gaps), and improved mechanisms for commercialisation, valorisation, and industry engagement. A clearer vision for translation from basic research to clinical or commercial impact is also needed.
- Organisational challenges include retention of staff on fixed-term contracts, improving communication/outreach, enhancing support for international staff lacking Finnish skills, and addressing unit-specific vulnerabilities (e.g., Luomus and the Laboratory Animal Centre).

RECOMMENDATIONS

- Units should define clear research visions and goals, expand interdisciplinary initiatives, establish scientific advisory boards, and strengthen strategic coordination across Health and Life Sciences. Each unit should also link its vision to improved external funding strategies and regularly evaluate whether its research portfolio is optimal.
- To ensure better coordination across the campus, establishing a Life Sciences board or council, consisting of the Life Sciences Deans, the Director of HiLIFE, and the Director of infrastructure is recommended.
- Increase investments in emerging areas such as AI and neuroscience, improve clinical data integration and shared research infrastructure, and develop long-term strategies for infrastructure renewal and rationalisation. Where appropriate, research priorities should be refined to match One Health perspectives, such as by creating joint research programmes across veterinary, medical, and environmental sciences. Support for advanced drug delivery and nanotechnology research in Pharmacy through shared facilities should also be strengthened.
- Expand collaboration with industry, Technical Research Centre of Finland VTT, and social sciences; improve University-level commercialisation processes; and encourage innovation activities along with clear valorisation pathways. Mechanisms for assigning professorial status to senior Institute and Hospital staff should be developed to strengthen integration and funding opportunities.
- Strengthen public engagement, organise joint events to support inter-unit connectivity, improve transparency in leadership selection processes, and ensure co-funded positions are credited appropriately. Systems should also be developed for monitoring and enhancing societal impact.

Faculty of Biological and Environmental Sciences

Assessment summary

The Faculty of Biological and Environmental Sciences demonstrates strong **scientific quality** and international recognition, particularly in ecology and molecular biology. Success in securing competitive funding – including ERC grants, Centres of Excellence, and researcher positions funded by the Research Council of Finland – reflects research excellence. Restructuring into three research programmes has strengthened interdisciplinarity while maintaining disciplinary depth.

Societal impact is evident through active engagement in policy forums, collaborations with national institutes and industry, and participation in EU projects. Still, systematic documentation of impact and broader outreach to non-academic stakeholders requires development. The **research environment** is robust, supported by structured governance, infrastructure renewal, and participation in major networks such as Helsinki Institute of Sustainability Science (HELSUS), Helsinki Institute of Life Science (HiLIFE), and European Strategy Forum on Research Infrastructures (ESFRI) consortia. However, challenges remain. Data management is fragmented, external funding dependency is high, and a large proportion of early-career staff hold fixed-term contracts.

Key recommendations include implementing a faculty-wide data management strategy, sharpening the focus of the research by identifying additional key areas, diversifying funding sources, strengthening career pathways for early-career researchers, and enhancing visibility in policymaking and societal engagement.

STRENGTHS

- The Faculty demonstrates high scientific quality and impact, reflected in its 12th-place ranking in Ecology in the Shanghai listing, for example.
- It achieves an impressive number of peer-reviewed publications per FTE at staff levels 3–4 (6.6).
- The unit has a strong track record in obtaining ERC grants, comparable to the Faculty of Medicine and the Faculty of Pharmacy.
- Joint positions with HiLIFE have greatly benefited the Faculty, although the optimal number required to maintain expertise remains to be clarified.
- The field stations provide unique opportunities for interdisciplinary research and dissemination.
- The research stations also serve as excellent and effective platforms for outreach activities.
- Tenure track positions come with a reserved professorship, ensuring clear advancement opportunities.
- Expectations for tenure track performance are appropriately calibrated.
- The Faculty operates a mentoring programme for ERC grant applicants, including mock interviews.

DEVELOPMENT AREAS

- The research focus could be further sharpened; a SWOT analysis would help identify future directions and opportunities for improvement.
- Although the Faculty demonstrates excellent science, it lacks a clearly articulated overarching vision.
- Innovation output – including patents, start-ups, and other commercial activities – requires strengthening.
- Further analysis is needed to identify obstacles and collaboratively improve outcomes, including those related to commercialisation.
- The funding base should be diversified, particularly through increased EU and other international funding.
- The unit should carefully consider the appropriate amount of infrastructure that can realistically be sustained through core

funding, including long-term maintenance costs, relative to staff size.

- The Faculty could enhance visibility by providing a list of specialists available for media inquiries and making it available online and through university channels.

RECOMMENDATIONS

- Collaboration with the Faculty of Pharmacy should be strengthened, particularly in commercialisation, where Pharmacy has demonstrated strong success.
- The University should offer attractive career paths to retain ERC grant recipients.
- While the unit provides mentoring for ERC applicants, mentoring for starting and consolidator ERC grantees – potentially arranged outside the unit – would be highly beneficial.
- Given the Faculty's excellent Shanghai Ranking in Ecology, it should be very competitive for ERC Advanced Grants in Ecology and related disciplines.
- As the report identifies many fields of research excellence, it would be important to nominate two to three additional areas (beyond ecology) in which to pursue world-leading status systematically and to allocate resources accordingly, for example through new tenure track positions.
- The Faculty should explore opportunities for collaboration with the Technical Research Centre of Finland (VTT).
- Current collaboration between the Faculty of Biological and Environmental Sciences and the Faculties of Veterinary Medicine and Medicine appears limited, and opportunities for expanding such collaboration should be explored.
- The Faculty is encouraged to make greater use of field stations for outreach activities, including in collaboration with the Finnish Museum of Natural History (Luomus), which presents an excellent opportunity.
- Strengthening cross-disciplinary ties should be seen not as an end in itself, but as a means of achieving breakthroughs in specific research areas.
- The Faculty should define three to five scientific goals with measurable or otherwise clearly understandable and quantifiable outcomes.

Assessment of the Unit

1. Scientific quality

Research profile and its development

Based on the distributed material and site visit, the assessment panel had a very easy task to conclude that the research profile of the unit is of high quality, and it has clearly been developing positively during the last years. Naturally, part of this development (increased publication volume) is based on the general increase in scientific productivity in Finland and Europe alike, but part is clearly due to the unit's own excellence. The Faculty's research profile is generally well balanced and, as noted earlier, aligned with the overall aims of the University. While ecology is clearly the scientific champion of the evaluated research topics, it must be stated that all the other research topics are also at excellent scientific levels. However, it is partially problematic to allocate some of the Faculty's research topics within the current top research areas defined by the University. This should not be interpreted as a weakness of the Faculty – on the contrary, our evaluation confirms that these research topics are highly relevant and based on the Faculty's natural strengths.

The issue lies in the way top research areas are currently defined. They do not fully accommodate several of the Faculty's world-class research domains. As a result, excellent research – potentially at ERC level – remains outside the top research areas framework. This creates a strategic challenge: if such areas are not recognised within the University's priorities, it becomes difficult for the Faculty to support their growth (for example, through tenure-track positions), even when these areas represent internationally competitive excellence.

Examples of these gaps include highly specialised molecular biology research, such as structural virology, protein assembly, ageing, and bioengineering of wood materials, which are internationally outstanding but do not map neatly to the top research areas. Similarly, theoretical and computational biology – covering biophysics, theoretical biology, and structural bioinformatics – is essential for scientific advancement but remains largely invisible in the

themes of the top research areas. Basic evolutionary and organismal biology, which addresses fundamental evolutionary processes and species-level ecology, is also critical yet not explicitly highlighted in top research areas that emphasise applied sustainability or health outcomes. Finally, there is an innovation and commercialisation gap: while the Faculty has a strong innovation potential, for instance in metabolic profiling for cancer detection and extracellular vesicle production, the top research areas do not strongly emphasise commercialisation in environmental or biodiversity contexts.

There is some uncertainty regarding how current political circumstances may impact research, particularly in Arctic and climate-related fields, because Russia plays a significant role in providing critical data. As a result, information gaps in these areas may arise. However, simultaneously, the Finnish contributions to research in the Arctic may become even more valuable. Conversely, the Department of Molecular and Integrative Biosciences (MIBS) area appears to be less affected by these challenges.

The Faculty demonstrates a strong commitment to methodological innovation across its research programmes. Novel and interdisciplinary approaches are evident in several areas. For example, the Ecosystems and Environment Research Programme (ECOENV) has developed advanced risk and decision analysis tools and introduced participatory urban planning methods that integrate GIS and ecological data. Within MIBS, researchers have pioneered inducible gene-editing systems and bioengineered tissue platforms, alongside breakthroughs in visual neuroscience that link retinal coding to behaviour. Similarly, Organismal and Evolutionary Biology Research Programme (OEB) has combined drones, thermal imaging, and AI for ecological monitoring and created open-source resources such as the DALI server for protein structure comparison.

While these developments highlight the Faculty's capacity for cutting-edge research, it is clear that resource requirements vary substantially across disciplines. This has important implications for infrastructure planning, as certain

high-end instruments can consume a significant portion of available funds. Coordinated investment strategies – ideally at the University level or through Biocentre Finland – are essential to avoid duplication and ensure efficient use of resources. For instance, several units have expressed interest in acquiring similar high-cost equipment, such as advanced mass spectrometry systems and cryo-electron microscopes.

Methodological development is supported through annual infrastructure renewal budgets of €300,000–€500,000 and strategic funding for early-career researchers and new hires. However, the sustainability of instrument maintenance remains unclear, particularly regarding whether costs are borne by users or covered centrally. To maximise impact, all major instruments should serve a broad user base and operate under a sustainable, typically fee-based, maintenance model.

Joint positions, especially with Aalto University, have already proven beneficial for advancing methodological expertise. Expanding such collaborations to include Universities of Applied Sciences and the Technical Research Centre of Finland (VTT) would further strengthen innovation capacity, particularly given the commercial potential of several methods already developed within the Faculty.

Scientific impact

The Faculty's research addresses some of the more pressing global issues, including climate change effects in the Arctic, sustainability systems, and the challenges of biodiversity loss and restoration, ensuring alignment with worldwide scientific priorities. Key areas of investigation also span evolutionary pressures in fisheries, methane emissions in coastal ecosystems, stem cell roles in vascular cambium regulation, protein assembly changes linked to ageing, and tissue regeneration during ageing – demonstrating a comprehensive approach to advancing biological and ecological sciences.

These impactful research directions are supported by significant investments in advanced equipment and innovative methodologies, which have strengthened local capabilities and enabled the pursuit of internationally recognised work,

especially in specialised fields like ocular research. The Faculty's achievements are reflected in its global standing: it is ranked 12th in ecology and within the top 100 in all biological disciplines on the Shanghai Ranking and is widely acknowledged for its originality and influence in the academic community.

Further underscoring its research excellence, the Faculty has secured substantial external funding, including seven ERC grants, three Centres of Excellence, and an Academy Professor. Citation metrics confirm its impact, with a Category Normalised Citation Impact 96% above the global average, and an outstanding 226% above average in the MIBS subunit. Collectively, these accomplishments highlight the Faculty's commitment to international recognition and leadership in the Life Sciences.

Collaboration and interdisciplinarity

The Faculty is organised into three research programmes (as of 1 January 2026 departments) – Molecular and Integrative Biosciences (MIBS), Organismal and Evolutionary Biology (OEB), and Ecosystems and Environment (ECOENV) – which together foster both field-specific and interdisciplinary research. This structural approach has proven successful in supporting collaboration and innovation, and its continued effectiveness should be assessed periodically to ensure it remains aligned with faculty goals. Regular activities such as faculty webinars, annual PI retreats, and social events have become highly popular and effective mechanisms for promoting knowledge exchange and strengthening internal networks.

The Faculty has actively maintained shared teaching positions and dual affiliations with units like Luomus and HiLIFE, which has expanded cross-disciplinary collaboration and broadened the range of expertise available. Joint professorships and tenure-track appointments, particularly those in computational sciences, further reinforce these interdisciplinary connections.

Strategic profile building areas (PROFI) have played a significant role in facilitating shared positions and fostering interdisciplinary cooperation. Through these actions, institutes such as HELSUS, HiLIFE, and Helsinki One Health (HOH)

have been established, now serving as key platforms for collaborative research and innovation.

Research infrastructure platforms, notably HiLIFE, coordinate the use of infrastructure across units and improve access to shared resources. For instance, Instruct HiLIFE integrates the infrastructure of the Faculty of Biological and Environmental Sciences and HiLIFE-BI, enabling the joint use of advanced technologies and strengthening collaborative research. Nevertheless, as collaborative activities expand, closer attention may be needed to ensure that translational research topics receive sufficient focus and are not overlooked within these partnerships.

The Faculty maintains robust partnerships with key national research organisations, including Natural Resources Institute Finland (LUKE), Finnish Environment Institute (SYKE), Finnish Institute for Health and Welfare (THL), Finnish Meteorological Institute (FMI), and the Finnish Red Cross. These collaborations, along with joint efforts with Aalto University and the University of Jyväskylä, help to enhance inter-university connections and strengthen nationwide academic networks. The Faculty is also actively involved in prominent EU-level research infrastructure consortia such as Instruct-ERIC and EMBC ERIC. It leads several EU framework projects and Marie Skłodowska-Curie Doctoral Networks, and contributes to global ecological initiatives like Nutrient Network (NutNet), GLUE, and Plant Population Dynamics Network (PlantPopNet), as well as international biodiversity databases such as Global Biodiversity Information Facility (GBIF). In addition, the Faculty partners with industry leaders including Stora Enso and Gates Agricultural Innovations and works with regional councils. The Faculty plays an important role in policy development, contributing to major processes such as the EU Arctic policy and Finland's strategy for nature restoration. Faculty management involves directors from all research programmes, promoting broad-based decision making, while strategic personnel planning and infrastructure renewal are coordinated to advance collaborative objectives and support the Faculty's long-term mission.

Internal collaboration at the University is robust, underpinned by well-established programmes and events. Nonetheless, expanding joint staff positions may further strengthen relationships and facilitate more personnel

exchanges. Although seminars consistently attract high attendance, their effectiveness relies on participants' proactive involvement rather than their mere presence.

The Faculty distinguishes itself by maintaining a stable faculty-wide organisation segmented into three major research programmes, which effectively support both internal and external collaboration. In contrast, other units function as integrated entities (the Faculty of Pharmacy), utilise thematic coordination (Luomus), or are structured around temporary research initiatives (Faculty of Medicine's Research Program Unit). The partitioning of the Faculty into research programmes has helped to bring together people within the unit who work on similar questions.

The Faculty has partnerships with national and international research organisations but has not established collaboration with the Technical Research Centre of Finland (VTT). This is a missed opportunity for joint methodology development and commercialisation. The Faculty uses university innovation support such as the Helsinki Innovation Services, but some researchers find external commercialisation processes more effective due to there being fewer delays and risks. Simplifying university commercialisation procedures is needed to support research outcomes better. Internationally, the Faculty of Biological and Environmental Sciences is active, but the University's support for global collaboration is unclear. More transparent and coordinated guidance would improve international partnerships and resource use. To move forward, the Faculty should focus on building new technical partnerships and improving internal processes for commercialisation and international collaboration.

The Faculty actively fosters global partnerships through participation in EU research infrastructure (Instruct-ERIC, EMBC ERIC) and coordination of one EU framework project alongside involvement in 11 Horizon Europe projects. The Faculty supports ERC applicants with proposal preparation funding and salary.

International engagement is further supported by Marie Skłodowska-Curie Doctoral Networks, ESFRI sites, and contributions to global ecological and biodiversity networks (e.g., NutNet, GBIF). Shared infrastructure platforms and strategic mapping of policy venues ensure sustained collaboration and impact.

Potential and renewal

Short-term recommendations: The Faculty's existing structure, divided into three research programmes, is working effectively and should remain as is. However, urgent attention is needed for infrastructure planning. High-cost equipment purchases, such as mass spectrometry systems and cryo-electron microscopes, must be coordinated at the University or Biocentre Finland level to prevent duplication. Increasing joint positions with Aalto University and exploring partnerships with universities of applied sciences would enhance methodological innovation like also initiating collaboration with VTT. Furthermore, commercialisation procedures should be streamlined university-wide, as current processes are seen as being slow and hindering success.

Long-term recommendations: The Faculty should develop thematic clusters that unite molecular, ecological, and computational expertise, promoting interdisciplinarity and impactful research. Societal impact strategies must also be strengthened, focusing on policy influence and public engagement. At the university level, support for ERC-level research areas outside current top research areas definitions is essential, including more flexible tenure-track options for ERC grant holders to retain talented staff. Commercialisation procedures should also become more agile and transparent to fully realise research innovation potential.

STRENGTHS

- Strong international reputation in biological and environmental sciences, particularly in ecology and related fields.
- Proven success in securing competitive funding (ERC grants, Centres of Excellence, Academy positions).
- Active participation in EU framework programmes and international research infrastructure consortia (e.g., Instruct-ERIC, EMBRC-ERIC).
- Positive impact of restructuring into three research programmes, fostering interdisciplinarity while maintaining disciplinary depth.
- High level of collaboration with national institutes, industry partners, and global networks.
- Continuous increase in external funding and successful diversification of funding sources.
- Commitment to mentoring and career development for early-career researchers.

DEVELOPMENT AREAS

- The data management strategy is fragmented and largely project-based; it needs a coherent faculty-level approach.
- Reasons for the gender imbalance at senior staff levels (3 and 4) requires investigation and monitoring.

- Infrastructure renewal relies heavily on limited annual budgets; long-term sustainability could be at risk.
- Uncertainty in external funding (60% of total budget) poses strategic challenges.
- Limited visibility of the Faculty's role in shaping international policy despite stated ambition.

RECOMMENDATIONS

- Develop and implement a comprehensive data management strategy to ensure sustainability and compliance.
- Introduce measures to reduce dependency on fixed-term contracts and strengthen career pathways for early-career researchers.
- Monitor and actively address gender balance at senior levels through targeted recruitment and support.
- Continue diversification of funding sources, with emphasis on EU and international programmes and explore new private-sector partnerships.
- Increase strategic engagement in global policy forums to enhance visibility and impact.
- Expand infrastructure funding applications to EU and international sources to complement core funding.
- Regularly assess funding growth to distinguish real increases from inflationary effects and adjust strategy accordingly.

2. Societal impact

Target areas, audiences, research questions and goals

The Faculty's research delivers broad societal impact, reflecting its interdisciplinary approach and widespread research infrastructure. Core areas include biodiversity conservation, ecosystem resilience, climate change response, sustainable land use, One Health environmental health, Arctic and boreal research, and bio-based innovation. Audiences range from national and EU policymakers to agencies like SYKE, LUKE, THL, FMI, industry partners, local communities near field stations (Tvärminne, Lammi, Kilpisjärvi), international bodies such as the Intergovernmental Panel on Climate Change (IPCC) and Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), and the wider public via science communication and citizen science. Research addresses critical challenges including halting biodiversity loss amid climate change, the impacts of Arctic warming, environmental influences on health, integrating ecological data into urban planning, the role of bio-based materials in the circular economy, and governance for sustainable resource use and resilience.

Activities and outcomes

Innovation and intellectual property development are important to the Faculty's work. However, increased focus is needed in this area. Establishing an innovation team dedicated to Biological and Environmental Sciences is recommended to drive commercialisation suited to its varied research areas better.

The Faculty plays a pivotal role in shaping policy, contributing to national and EU strategies such as the Nature Restoration Regulation, and establishing itself as a trusted source of scientific expertise. Its industry partnerships with companies like Stora Enso, Valio, Orion, and Gates Agricultural Innovations highlight its ability to turn research into economic and sustainability gains. The unit is also a leader in biodiversity and sustainability initiatives, notably through the Carbon Action platform, which strengthens regional climate resilience.

Internationally, the Faculty's participation in bodies like IPCC and IPBES, its advisory work on EU Arctic strategies, and involvement in Marie Skłodowska-Curie Doctoral Networks and EU projects supports global research collaboration.

Thanks to the biological research stations, the Faculty demonstrates strong potential to expand its societal impact through more proactive outreach. The panel sees potential for these stations to evolve into hubs for citizen science, experiential learning, and partnerships with local businesses. While current activities include collaboration with regional actors, educational programmes, and public engagement, these could be scaled up significantly. Expanding teacher training programmes and school camps would further strengthen educational outreach. There is also a clear opportunity to increase media presence, by developing interactive content for social platforms, and organising high-visibility events.

Collaboration with the Finnish Museum of Natural History (Luomus) should be activated more systematically. Joint exhibitions, integrated outreach initiatives, and shared biodiversity education programmes would create synergies between the museum's strong public interface and the unit's scientific expertise.

Applied solutions development, such as algae-based wastewater treatment, and data-driven services like biodiversity information systems (ABIT) and runoff modelling tools, represent contributions that could be communicated more to stakeholders. Overall, we recommend that the Faculty capitalise on its capacity to attract large public interest by adopting a more strategic approach to outreach and partnerships. This would strengthen the unit's role as a key contributor to sustainability and science-based decision-making.

Collaboration and interdisciplinarity

While the unit already benefits from strong research topics and unique research stations that facilitate collaboration with society and policymakers, there are additional supporting opportunities worth developing to enhance societal impact. Communication with policymakers is an area needing improvement; although the unit produces high-quality research, outreach efforts should be more targeted and

employ interactive formats, digital platforms, and concise, evidence-based briefs to make research findings more accessible and usable. Expanding citizen science and public co-creation initiatives through research stations and online tools would help foster public engagement and trust in science. Further scaling educational collaborations – such as teacher training, school camps, and integration with national curricula – would deepen the reach of sustainability education.

Establishing formal partnerships with regional and local governance, including municipalities and Regional Councils, would provide a clearer path for translating research into policy and practice. Joint initiatives with other University of Helsinki units could also allow for shared infrastructure and outreach, creating a more coordinated approach to addressing societal challenges. Currently, the approach to policy engagement remains conventional and could be improved to address societal needs more effectively.

Potential and renewal

Research stations should be given a more active role in outreach. Each site could host systematic, annual activities aimed at politicians, ministry officials, and industrial partners. Such events would facilitate dialogue and the exchange of knowledge, helping to address environmental challenges collaboratively.

Organising thematic “policy and science days” at the stations, focusing on issues such as biodiversity or climate adaptation, would offer targeted opportunities for engagement and practical collaboration. These initiatives would reinforce the unit's reputation as a reliable source of expertise for policy decisions.

Joint outreach with the Finnish Museum of Natural History and other university units could further increase visibility and public engagement. Integrated exhibitions, public campaigns, and shared education programmes would enhance the impact of research. Additionally, a rotating “Science Ambassadors” scheme, through which researchers engage directly with ministries, the media, and regional councils, would ensure consistent representation and strengthen the unit's profile in science-policy discussions.

STRENGTHS

- Active participation in national and international policy forums, including the United Nations Framework Convention on Climate Change and the Baltic Sea Long-Term Large-Scale Eutrophication Model (BALTSEM).
- Strong collaborations with national institutes (LUKE, SYKE, THL, FMI) and organisations such as the Finnish Red Cross.
- Industry partnerships with companies like Orion, Valio, Lamor Corporation, and Fortum Waste Solutions, demonstrating applied research impact.
- Membership in major university-level initiatives (HELSUS, HiLIFE, Helsinki One Health), addressing sustainability and health challenges.
- Coordination and participation in EU-funded projects and research infrastructure consortia, contributing to policy-relevant research and capacity building.

DEVELOPMENT AREAS

- Societal engagement activities are not systematically documented or evaluated; impact metrics are unclear.
- Limited visibility of the Faculty's contributions in shaping international policy beyond participation in networks.
- Outreach to non-academic stakeholders (e.g., NGOs, municipalities) could be expanded for broader societal impact.
- Communication of research outcomes to the public and decision-makers needs strengthening.
- Industry collaboration is strong but concentrated in specific areas; diversification could enhance societal relevance.

RECOMMENDATIONS

- Develop a structured approach to monitor and report societal impact, including clear indicators and success stories.
- Increase strategic engagement in policymaking processes to ensure faculty expertise influences decisions at national and international levels.
- Expand partnerships with NGOs, municipalities, and other societal actors to broaden impact beyond academia and industry.
- Strengthen science communication and outreach activities to improve visibility and public understanding of research outcomes.
- Diversify industry collaborations to include emerging sectors relevant to sustainability and health.

3. Research environment

Operating culture

The Faculty operates under a structured framework that supports the University of Helsinki's strategy. The **faculty implementation plan** is in place and progress is monitored by the management team. The plan is updated regularly and undergoes a full revision every four years. The **Rules of Procedure** define the basic operations of the Faculty. The implementation plan translates the University strategy into tangible actions. The Faculty aims to maintain its international reputation in biological and environmental research and teaching, with particular strength in areas such as ecology. Interdisciplinary research is encouraged, and there is a clear intention to build partnerships across disciplines. We also note an ambition to participate strategically in national and international policy forums. This is seen as a way to ensure that the Faculty's expertise contributes to broader societal and scientific discussions.

The Faculty has actively pursued major competitive funding opportunities. Between 2019 and 2023, seven ERC grants were obtained, along with funding for three Centres of Excellence, one Academy Professor position, and several Academy Research Fellowships. The largest share of extramural funding continues to come from the Research Council of Finland. We note an increase in EU funding, which aligns with the Faculty's strategy to diversify its funding base. This approach strengthens resilience and supports long-term research capacity.

The Faculty maintains overall gender balance, although the distribution at staff levels 3 and 4 requires investigation. The management group prepares a four-year personnel plan, which is approved by the Faculty Council. This plan focuses on research renewal through strategic hiring and infrastructure support and includes measures to ensure transparency and fairness in recruitment processes, as well as actions aimed at attracting and retaining key personnel.

A notable concern is the high proportion of early-career researchers on fixed-term contracts, currently at 73%, with most positions funded by external sources. This situation makes retention of promising staff particularly

important. To address this, the Faculty provides partial salary support for early-career applicants to Research Council of Finland Academy Researcher positions and ERC Starter or Consolidator grants. It also covers 30% of costs for Research Council of Finland infrastructure grants and offers an additional 20% funding for Centre of Excellence principal investigators. Start-up packages are provided for new professors and lecturers, and the Faculty supports preparation costs for European grant applications while offering additional funding for successful grants. Furthermore, lab and office space has been reduced to secure funding for 13 ongoing lecturer positions.

The Faculty has demonstrated a commitment to continued staff development by supporting the use of the University's institution-wide guidelines for flexible parental leave, part-time arrangements, educational leave of absence, and opportunities for short-term research visits. In addition, the Faculty provides mentoring programmes for tenure-track staff, new group leaders, and postdoctoral researchers, ensuring guidance and career development across different career stages.

Sustainability of the research base

The Faculty hosts ESFRI research infrastructure sites and participates in global networks such as the United Nations Framework Convention on Climate Change and the Baltic Sea Long-Term Large-Scale Eutrophication Model (BALTSEM). These activities require ongoing staffing, maintenance, updates, and renewal of infrastructure and associated real estate. Data management has so far been largely project-funded, and there is a clear need for a more coherent and sustainable Faculty-level strategy and infrastructure to support long-term research needs.

In terms of funding, the Faculty aims to diversify its sources while continuing to invest in EU and early-career researcher funding applications. This approach is essential for maintaining competitiveness and ensuring the sustainability of research activities.

Approximately 60% of the Faculty's budget comes from external funding, which introduces a significant level of uncertainty. More than half of this external funding originates from the Research Council of Finland (RFC), while national private foundations represent the second largest source. The

Faculty allocates an annual budget of €300,000–€500,000 for infrastructure renewal.

Efforts to diversify the funding base have shown results, with new contributions from the Nordic Novo Nordisk Foundation and the Swedish Research Council. Overall funding has increased continuously over the past five years, although it remains unclear whether this growth reflects real expansion or is primarily due to inflation.

Collaboration and interdisciplinarity

The Faculty aims to provide an environment that supports both specialised research and multi- or cross-disciplinary collaboration. This approach is considered to be essential for maintaining a leading position in the fields covered by the Faculty and for advancing interdisciplinary research.

The restructuring of the Faculty in 2018 into three research programmes has had a positive impact on multidisciplinary work. It enabled the formation of a critical mass of expert researchers in related fields while preserving strong discipline-specific expertise. This balance supports both depth and breadth in research activities.

The unit is also implementing measures to diversify its funding base and attract more international funding, with a particular focus on EU and other global funding opportunities. These efforts are intended to increase robustness and resilience in the research environment.

The Faculty has a strategic plan for future staff hiring, which will be incorporated into the personnel plan prepared by the management group. A diverse range of shared positions across multiple units contributes to organisational robustness and flexibility.

To strengthen research capacity, the Faculty provides supportive funding for projects financed by national foundations and the EU. In addition, several measures are in place to attract and retain talented staff and secure competitive funding. These include partial salary support for early-career researchers applying for RFC Academy Researcher positions and ERC Starter or Consolidator grants, coverage of 30% of costs for RCF infrastructure grants, and an additional 20% funding for Centre of Excellence principal investigators. Start-up packages are offered to new professors and lecturers, and the Faculty supports preparation costs for

European grant applications as well as provides additional funding for successful proposals.

Collaboration between faculties: The Faculty actively promotes collaboration and interdisciplinarity through several mechanisms. PROFi actions have led to the creation of shared teaching positions, strengthening ties between units. Dual affiliations exist with the Finnish Museum of Natural History (Luomus) and three HiLIFE institutes, further expanding research and teaching networks.

Faculty members participate in major university-level initiatives, including HELSUS (with around 80 staff), HiLIFE (approximately 50 staff), and Helsinki One Health (HOH).

Internal funding opportunities, such as the Interdisciplinary Research Opening (IRO), support cross-disciplinary projects. In addition, HiLIFE provides targeted funding for grand challenge projects and Research Infrastructure platforms, including Instruct HiLIFE, which enhances access to advanced research resources.

National collaboration: The Faculty maintains strong connections with national research institutes and organisations, including LUKE, SYKE, THL, the Finnish Red Cross, and FMI. Collaboration also extends to academia through shared positions, such as the one established with Aalto University.

Consortia projects, for example FINStrukt, further strengthen cooperative research efforts. In addition to public partnerships, the Faculty engages actively with industry. Current collaborations include projects on ion channels with iN Therapeutics, BIOPUTS with the Lamor Corporation, TEITUR/TT-P34 with SYKE, and initiatives with Valio. Other examples include the salmon parentage assignment with LUKE, algal growth studies with Aircohol, and projects with Orion. The Bioputs2 project with Fortum Waste Solutions illustrates the Faculty's commitment to applied research and innovation through industrial partnerships.

International collaboration: The Faculty is actively engaged in European research infrastructure consortia, including Instruct-ERIC and EMBRC-ERIC. It also coordinates a Marie Skłodowska-Curie Actions (MSCA) Innovative Training Network, which supports doctoral training and international collaboration.

In addition, the Faculty is a partner in 11 ongoing EU framework programme projects, among them Biodiversa+. These activities demonstrate a strong commitment to international research cooperation and access to competitive European funding.

STRENGTHS

- Structured framework aligning faculty operations with university strategy, supported by the implementation plan and rules of procedure.
- Positive impact of restructuring into three research programmes, fostering interdisciplinarity while maintaining disciplinary depth.
- Strong infrastructure renewal commitment with an annual budget of €300,000–€500,000 and start-up packages for new faculty.
- Hosting ESFRI research infrastructure sites and participation in global cooperation frameworks and networks such as the United Nations Framework Convention on Climate Change (UNFCCC) and BALTSEM.
- Membership in HELSUS, HiLIFE, and Helsinki One Health, providing access to interdisciplinary platforms and resources.
- Internal funding mechanisms (e.g., Interdisciplinary Research Opening) and HiLIFE support for grand challenge projects and research infrastructure platforms.

DEVELOPMENT AREAS

- Data management remains fragmented and project-based; the Faculty has not yet fully operationalised the university-wide research data policy or established unit-level practices to ensure coherence across projects.

- Heavy reliance on external funding (60% of total budget) introduces uncertainty for long-term sustainability.
- Infrastructure renewal depends on limited annual budgets; additional external sources are needed.
- High proportion of early-career researchers on fixed-term contracts (73%) poses risks for continuity and expertise retention.
- Limited systematic evaluation of research environment quality and effectiveness of support measures.

RECOMMENDATIONS

- Strengthen the implementation of the University's research data policy at faculty level by clarifying roles, improving oversight of data management practices, and ensuring researchers have access to adequate local support and guidance in line with university-level requirements.
- Continue diversification of funding sources, with emphasis on EU and international infrastructure grants.
- Strengthen measures for retention and career development of early-career researchers to reduce vulnerability.
- Expand infrastructure funding applications beyond national sources to secure long-term research capacity.
- Introduce regular monitoring and evaluation of research environment quality, including feedback from staff and stakeholders.

Potential and renewal

The Faculty allocates an annual budget for continuous infrastructure renewal. Core funding is used to co-finance Research Council of Finland infrastructure calls, and start-up packages are provided for new professors and lecturers. Renewal of research expertise is supported by targeted measures for the most promising early-career researchers.

Applications for infrastructure funding from EU and other international sources are actively pursued. With its annual renewal budget, overheads, and core funding, the Faculty has established a foundation for long-term sustainability of the research environment. Recent efforts to diversify the funding base have been successful, and these measures should be continued in the coming years.

Faculty of Medicine

Assessment summary

The Faculty of Medicine is the second largest faculty of the University of Helsinki based on personnel, and the largest based on research output. It delivers over 30% of the University's research publications and doctoral degrees. The Faculty is known for its high-quality translational research, which combines strong basic and clinical research. The research areas represented by the Faculty cover a variety of interrelated disciplines in health and life sciences, reflecting the basic education programmes of the Faculty in medicine, dentistry, psychology, logopaedics, and health sciences.

The current research programmes in the period from 2019 to 2026 are the following:

- Applied tumour genomics
- Clinical and molecular metabolism
- Human microbiome research
- Individualised drug therapy
- Sleep and stress in health and in transition from acute to chronic diseases
- Stem cells and metabolism research programme
- Systems oncology
- Translational cancer medicine programme
- Translational immunology programme

The Faculty of Medicine further hosts six national research centres of excellence, respectively on tumour genetics, stem cell metabolism, complex disease genetics, biological barrier mechanics, music mind body brain, and antimicrobial resistance. Two further centres on metabolic integration, and immune endothelial interfaces will be added. The Faculty further hosts 90 small individual research centres. Finally, the Faculty of Medicine is a host of iCAN – the Digital Precision Cancer Medicine Flagship comprising an ecosystem of universities with biobanks, hospitals, and companies dedicated to solving the cancer challenge.

A common thread across all research areas of the Faculty is the connection to the clinical research environment. Many faculty members are affiliated with Helsinki University Hospital (HUS), including the Children's Hospital, both located at the same campus. In 2023, the Faculty had 673 full-time equivalent (FTE) teaching and research staff. Since 2019, the Faculty has made consistent progress in publication quality and research funding, including notable advancements in securing ERC Starting Grants. The Faculty hosted 14 prestigious European Research Council (ERC) grants from 2019 to 2023, but the proportion of EU funding has not increased.

The Faculty of Medicine's key strategic research areas include cancer research, personalised diagnostics and treatment, genetic epidemiology, endocrinology and metabolism, brain, mind and mental health, as well as infections and immunity. The Faculty targets these research areas by means of selected research programmes, brought together under a Research Programme Unit (RPU). The current nine research programmes within the RPU are unevenly distributed between the four strategic research areas with four programmes focusing on cancer, three on metabolism, one on sleep, and one on personalised medicine. The Faculty's leadership aims to reduce the number of research programmes after 2026.

The Faculty has made considerable progress in fostering a culture of innovation, successfully translating research discoveries into impactful solutions. This progress is reflected in a growing number of spinoffs and commercialisation initiatives. Nonetheless, further strategies are needed to broaden the innovation landscape and increase the technological and commercial maturity of the Faculty's research projects.

Although the initiatives and actions described are notable and impressive, it may facilitate further improvements for

society and healthcare to develop and communicate a broadly supported and recognised overall coherent vision and research strategy within the Faculty covering the next 5 to 10 years. This would align with and be coordinated with other faculties and research units at the University of Helsinki, as well as regionally and nationally.

STRENGTHS

- The Faculty is large, the second largest within the University.
- It produces a high volume of high-quality research output.
- There is excellence across a wide range of research areas.
- The Faculty has identified strategic research areas to guide development.
- Research output has shown continued growth.
- State-of-the-art research facilities support advanced research activity.
- The Faculty has access to national databases such as the national cancer registry and FinnGen.
- Its location on the Meilahti Campus provides proximity to healthcare partners and clinical infrastructure.
- The Faculty operates in an environment with approximately 15,000 students.
- It hosts a large number of national research centres of excellence and the iCAN Flagship.
- The Faculty maintains strong international connections and networks, both within the Faculty and across its healthcare partners.
- Public engagement is strong, with visible experts representing the Faculty of Medicine.

DEVELOPMENT AREAS

- The Faculty appears to lack a clear, broadly supported, and widely recognised research strategy.
- While research programmes are formed through a bottom-up process driven by scientific excellence, their distribution across the Faculty's strategic research areas appears uneven.
- The current structure of research programmes may give the impression of limited inclusiveness.
- New research centres have not yet been identified.
- This challenge also concerns the departments that will replace Medicum and Clinicum.
- The position, character, and purpose of the many research centres remain unclear.
- Collaboration with HiLIFE is sub-optimal, and this is recognised by both sides.
- Collaboration with other faculties contains gaps and could be further expanded.
- It would be desirable to increase the number of HUS staff having affiliations with the Faculty, subject to organisational agreements.
- Although the long-term strategy highlights "strengthening infrastructure," its practical meaning remains unclear.

RECOMMENDATIONS

- Develop and communicate a broadly supported and recognised overarching vision and research strategy that is coordinated with other faculties and research units across the University.
- Determine the future overall research programmes in coordination with the departments.
- Align themes, priorities, centres, and departments to create a coherent structure.
- Define the character and role of the departments.
- Aim for a more even distribution of programmes across the strategic research areas; this may require reassessing and refining the areas.
- Ensure that the areas and programmes are made more inclusive.
- Enhance collaboration and integration with key local partners such as HiLIFE, other faculties, and the hospitals.
- Opportunities for collaboration should be strengthened, for example with the Faculty of Veterinary Medicine (Helsinki One Health) and the Faculty of Pharmacy (AMR, brain diseases), which offer strong potential for joint international leadership.
- Define goals for evaluating clinical and societal impact over five- and ten-year periods.
- Develop a strategy to achieve these goals within a specified timeframe.
- Increase external research funding, including EU funding.
- Develop a strategy for securing investment funding for facilities.
- Develop a coherent initiative in neuroscience, including neuropathology, psychiatry, psychology, and cognition.

Assessment of the Unit

1. Scientific quality

Research profile and its development

The Faculty of Medicine is currently undergoing significant organisational reform. Historically, research staff were employed in the Clinicum and Medicum entities, with all professors in the research programmes holding a position in the Research Programmes Unit (RPU). The Faculty plans to restructure into four departments and renew their research programmes approximately every four years. The aim is to simplify the structure, increase collaboration with degree programmes, and assemble smaller entities into larger, more coherent units. At the time of the interview, there was no full clarity regarding the structure of these four departments.

Strategic research areas are selected through dedicated programmes, which receive targeted financial investment. Of the nine current programmes, four focus on cancer research. The same pertains to the iCAN Flagship. The Faculty also conducts substantial research outside these programmes, such as in psychology (with significant EU funding), and pandemic-related studies. The RPU model has enabled efficient, high-quality research, with future plans to reduce the number of programmes to five or seven, providing more support and fostering continuity.

The self-assessment report and the interview made clear the insufficient alignment between the six profile building areas of the University, the four strategic research areas of the Faculty, the nine selected research programmes within the RPU, and the six (growing to eight) research Centres of Excellence. This also pertains to the further connection with HiLIFE and iCan. It creates a busy landscape which may not optimally benefit from the full potential of all partners and infrastructure. The 90 research centres are on average small and seem to play a minor role. It is unclear what will happen to them after the organisational reform.

The Faculty's research infrastructure is robust, with an annual budget of approximately €2 million for new

investments. The RPU's facilities cost €300,000 annually, with funding models shifting towards performance indicators. The Faculty has succeeded in securing internal and EU funding, supporting both established and emerging research areas.

Doctoral education is a key focus, with the Faculty producing around 30% of the University's PhD graduates. The system has been reformed to support students better, offering career guidance and networking opportunities through research programmes. Innovation is actively supported, with tools and processes in place to foster multidisciplinary research and translational impact.

Looking ahead, the Faculty aims to streamline its structure further, deepen collaboration (especially in neuroscience), and enhance coherence between research and teaching. There is a commitment to developing AI expertise for new students and building an ecosystem that strengthens the operating environment for research excellence.

Scientific impact

The Faculty of Medicine at the University of Helsinki stands out for its broad scientific impact, both nationally and internationally. The Faculty is committed to translational and clinical research. The close ties to HUS, including the Children's Hospital, facilitate the rapid application of scientific discoveries to patient care. The strategic focus on cancer research is evident, with four out of the nine research programmes dedicated to this field, including the iCAN Flagship and the collaborative FinnGen initiative, both of which have advanced personalised medicine and biobank-based research.

Beyond cancer, the Faculty has excelled in psychology, neuroscience, and other fields, securing substantial EU funding and fostering multidisciplinary collaborations. Its partnership with HiLIFE has deepened scientific exchange, particularly in neuroscience and life sciences, and the One Health strategy has promoted impactful research at the intersection of human and animal health. The Faculty's research infrastructure, supported by an annual budget of approximately €2 million,

enables cutting-edge investigations and new investments in emerging fields.

The Faculty's societal impact is notable, with research aimed at improving patient outcomes, developing innovative treatments, and influencing healthcare policy. Its commitment to public engagement is reflected in popular science reviews and systematic programmes that increase business collaboration and knowledge transfer. Doctoral education is another pillar, with the Faculty producing around 30% of the University's PhDs and reforming its system to support career development and networking better.

Looking forward, the Faculty is poised to enhance its scientific impact by streamlining its structure, deepening collaborations, and investing in AI expertise and multidisciplinary research, ensuring continued leadership in medical science.

Collaboration and interdisciplinarity

Collaboration is central to the Faculty's research profile. This is strongly facilitated by the geographical location in the healthcare cluster. There are solid ties with HUS, including the Children's Hospital, with many principal investigators affiliated there, facilitating extensive clinical research. Partnerships with HiLIFE have deepened, especially in neuroscience and cancer research (iCAN, FinnGen). The Faculty is also intensifying cooperation with the Faculty of Veterinary Medicine around biobank activities and the Helsinki One Health strategy.

The ties with the respective partners could be further intensified by improving the structure and governance, and by identifying common goals and shared investments. The panel noted in the interviews that the relationship with HiLIFE is often tense, with discussions regarding teaching by HiLIFE, decision making, budgets and cost-sharing (e.g., the animal facility) not being resolved despite the respective deans (including the Dean of the Faculty of Medicine) being members of the HiLIFE board.

Likewise, the collaboration with the clinical partners HUS and the Children's hospital could also be intensified, and more inclusive for the large clinical faculty.

Potential and renewal

The Faculty indicates that there is potential for the existing research efforts and teams to continue, while expanding by reorganising its structure and limiting the number of targeted research programmes. The panel felt that this could further be enhanced by closer alignment of research priorities, research programmes, RCEs and research centres. The Panel felt that the Faculty should examine how the research groups align with the research programmes.

STRENGTHS

- Structured research with four strategic areas (cancer, metabolism, sleep, personalised medicine).
- Host to the national iCAN Precision Medicine Research Flagship.
- Host to six (soon rising to eight) Research Council of Finland Centres of Excellence.
- High research output in terms of publications (2,600–3,100/year), with marked growth in level 3 publications in 2023.
- Furthermore, 61% of publications involve international partners; the highest proportion (33%) of the University's research publications, with 85% open access.
- Fourteen ERC grants (four Starting, four Consolidator, two Advanced).

DEVELOPMENT AREAS

- Development of a coordinated research vision and strategy broadly across the health partners involved in the Helsinki region.
- A coordinated initiative for obtaining external research funding according to the research vision and strategy.

RECOMMENDATIONS

- Develop a clear research vision and strategy that is coordinated between the Faculty of Medicine, clinical partners in HUS and the Children's Hospital, the Helsinki Institute of Life Science (HiLIFE), the Faculty of Pharmacy, the Faculty of Veterinary Medicine, the Faculty of Social Sciences, and other faculties.
- Consider merging some of the research groups and reducing the overall number (currently more than 90).
- Coordinate external research funding initiatives according to the research vision and strategy.
- Specifically, ERC grants in the Consolidator and Advanced categories need focused attention to increase.

2. Societal impact

The Faculty of Medicine's largest societal impact comes from its education of healthcare specialists and experts and from its partnership with HUS.

Target areas, audiences, research questions and goals

The Faculty advances the renewal of research and promotes multi- and interdisciplinary approaches in both research and education. The Faculty further enhances the content, processes, and study paths of doctoral education, and aims to increase the number of doctoral degree completions. The Faculty undertakes a long-term strategy to strengthen research infrastructure.

Regarding patient and public involvement, the activities of the iCAN Flagship have been particularly engaging examples organising patient-researcher meetups, bringing together patients, their family members, and interested citizens to meet and discuss with researchers.

Activities and outcomes

Societal impact is a priority at the Faculty of Medicine, with research aimed at improving patient outcomes and increasing business collaboration through systematic programmes.

It has been highlighted that the Faculty's largest societal impact comes from its education of healthcare specialists and experts, and from its partnership with HUS. Specifically, the Faculty educates 20% of medical doctors, 30% of dentists, 40% of medical specialists, 30% of dental specialists, 28% of psychologists, and 15% of speech therapists in Finland. In addition, the Faculty's students produce 35% of all Finnish doctoral theses in medicine, psychology, and logopaedics. Specialist training is offered in over 50 medical disciplines in collaboration with HUS, with approximately 2,100 specialising physicians and 90 specialising dentists currently in training.

Further, researchers at the Faculty of Medicine are deeply involved in public engagement. Between 2019 and 2023, the Faculty's researchers published 4,214 articles focused on public engagement, demonstrating the profound impact of their work on both science communication and society. Between 2019 and 2023, the Faculty of Medicine had varying numbers of mentions in web news and blog posts, increasing from 8,065 mentions in 2019 to 12,093 mentions in 2022. This upward trend can be partly attributed to heightened public interest during the COVID-19 pandemic.

Collaboration and interdisciplinarity

The Faculty of Medicine's activities demonstrate a strong foundation for addressing societal challenges through interdisciplinary collaboration and sustained public

engagement. The long-standing partnership with HUS and many patient associations supports the integration of research, education, and clinical care.

The Faculty also leads research projects that draw on expertise from multiple disciplines – such as medicine, public health, psychology, social sciences, and data science – to develop new treatment and rehabilitation tools for illnesses with high societal burden. These interdisciplinary efforts are essential in tackling complex societal issues, including obesity, mental health, brain health, and pandemic preparedness.

Potential and renewal

Among its developmental objectives, the Faculty aims to deepen its collaboration with HUS, strengthen partnerships with HiLIFE, the life science faculties at the Viikki campus, and the Faculty of Science at the Kumpula campus. Additionally, the Faculty seeks to revisit its departmental structure and initiate the next phase of strategic research programmes to improve scientific renewal.

Although the social impact of the described initiatives and actions is notable and impressive, a clear translational vision and strategy for social impact in defined areas may add to increase the Faculty's societal importance.

STRENGTHS

- Strong public engagement, well-illustrated during the COVID-19 pandemic.
- Various publicly visible experts.
- Up to 17 public statements to Parliament in recent years.
- Marked contribution to the training of healthcare professionals.
- Clinical research and innovation directly benefiting patients.
- 97 invention disclosures, 45 patent applications, and two spin-offs.
- Host to institutes and databases of national importance.

DEVELOPMENT AREAS

- Inter-faculty and inter-institute collaboration to augment societal impact.
- Strategy to augment societal impact.
- External funding (peak €47.3 million in 2023; moderate level).
- Communication on societal contributions.

RECOMMENDATIONS

- Enhance inter-faculty and inter-institute collaboration.
- Develop a strategy that includes a focus on societal impact.
- Investigate how to increase external funding, even more so given the recent intentions of the Finnish government to increase research funding.
- Consider increasing public engagement through additional tools.
- Persistently communicate societal impact through various channels.

3. Research environment

Operating culture

Among its developmental goals, the Faculty of Medicine plans to strengthen an operating culture that supports sustainability, wellbeing, and overall safety and security. Nevertheless, there is no clear description of how this will be operated, including a plan of how the Faculty will ensure a supportive and innovative research environment or plans/strategies to retain key personnel.

Sustainability of the research base

The Faculty's external funding reached its all-time peak in 2023, totalling in €47.2 million. It has boasted a robust and diverse funding portfolio, with substantial contributions from national, EU, and international sources. Nevertheless, most of the funding comes from the Research Council of Finland and other domestic foundations.

Collaboration and interdisciplinarity

The Faculty plays a significant role in researcher education (30% of the University's total PhDs), with five focused, interdisciplinary doctoral programmes. Psychology and logopaedics were integrated into the Faculty in 2017, adding to the increase in new interdisciplinary openings. The Faculty has improved its internal efforts for staff wellbeing by forming its first Work Wellbeing Group in 2022, with representation from all Faculty of Medicine units and students. The group has drawn up a special code of conduct for how people should encounter each other and behave in the Faculty of Medicine, founded on the University of Helsinki's shared values: truth, *bildung*, freedom and inclusivity.

Potential and renewal

The Faculty aims to foster a dynamic and inclusive research environment by supporting startup ecosystems, enhancing intellectual property (IP) portfolios, and involving students in innovation activities. It is not clear how the Faculty and the University see options to increase the annual investment in equipment and facilities.

STRENGTHS

- The Faculty's ambition is to be one of the world's leading medical faculties by 2030.
- The Faculty is well embedded in international networks and well connected to external partners.
- The campuses are attractive and provide close co-location with relevant partners.
- The Faculty has specified clear developmental goals.
- The Faculty hosts several Research Centres of Excellence.
- The Faculty hosts national databases and a national centre.

DEVELOPMENT AREAS

- As noted above, the Faculty should develop a recognisable and broadly supported research strategy.
- The collaboration between faculties and institutes should be enhanced.
- In doing so, the strategies and research goals of these individual partners should be better aligned.

RECOMMENDATIONS

- The recommendations follow from the points outlined above.

Faculty of Pharmacy

Assessment summary

The Faculty of Pharmacy demonstrates high scientific quality, with multidisciplinary research, top-tier publications, strong citation impact, competitive funding, and successful innovation activities, including patents and spin-offs. Its research has strong societal relevance, contributing to healthcare policy, clinical pharmacy, and sustainable pharmacy, but public engagement could be improved. The Faculty provides a strong research environment, with well-structured doctoral training, good career support for research staff, advanced infrastructure, and a positive, inclusive workplace culture. Future development needs include establishing formal long-term strategies to ensure sustained renewal and focused prioritisation of its strongest research areas. Overall, the Faculty is well-positioned to sustain and further enhance its research, societal, and organisational impact.

STRENGTHS

- The Faculty holds a high international standing within its field.
- It demonstrates substantial scientific output, with publications appearing in leading, high-impact journals.
- It exhibits an outstanding record of innovation and patent generation.
- It benefits from multidisciplinary and international research staff.
- It maintains a broad and interdisciplinary research profile.
- It achieves significant societal impact through active engagement with academic and professional communities.
- It successfully managed a generational change from 2018 to 2023.

DEVELOPMENT AREAS

- The Faculty should formulate a long-term strategic vision for research and societal impact to secure renewal.
- It should develop a coordinated research vision and strategy broadly with its health partners in the Helsinki region.
- It should implement a coordinated initiative to obtain external research funding in line with its research vision and strategy.
- It should take the initiatives and enhance interaction and communication with the public.

RECOMMENDATIONS

- The Faculty should establish an international scientific advisory board.
- It should develop and implement a system to ensure sustained scientific renewal, for example, through new modalities or emerging research areas.
- It should formulate a comprehensive strategy aimed at achieving the goal of positioning the institution among the top ten pharmaceutical research entities in Europe.
- It should maintain a productive balance between academic and industry-oriented research.
- It should develop a coherent vision and research strategy that is coordinated with the Faculty of Medicine, clinical partners at HUS, the Helsinki Institute of Life Science (HiLIFE), the Faculty of Veterinary Medicine, the Faculty of Social Sciences, and other faculties.

Assessment of the Unit

1. Scientific quality

Research profile and its development

Research at the Faculty of Pharmacy is conducted in accordance with the Drug Research Programme (DRP), established in 2015 and has since evolved successfully. The multidisciplinary DRP covers drug discovery and action, delivery and targeting, analysis, safety, efficacy, and clinical use.

The Faculty plays a strong international role through NordicPOP, NordicPharma Train, and the ULLA Consortium, and is a leader in innovation. Between 2020 and 2023, the Faculty of Pharmacy accounted for 12% of the University's innovation disclosures and 15% of its patent applications, ranking it as the University's top innovation unit.

Research is structured into three areas:

Drug Discovery and Action – Produces high-impact publications (Nature Communications, Nature Neuroscience, ACS Nano). Its cancer and neurological disorder research have led to Phase I clinical trials and two spin-offs (Polku Therapeutics, MyNeuroCure). The group attracts strong external funding, including ERC grants and an Academy Research Fellowship. Notable achievements include Professor Jeltsch's development of a sustainable antibody expression system, recognised by SPARK Finland.

Drug Delivery and Targeting – Excels in nanomedicine, vaccine development, and controlled drug release. The section has advanced microfluidic flow reactors, mass spectrometry, and Raman microscopy for drug analysis. It contributes to research on 2D/3D cell models and biopharmaceuticals and publishes in leading journals such as Nature Communications and Journal of Controlled Release. The group has secured substantial competitive funding from diverse sources, including ERC and the Research Council of Finland, and has founded startup companies based on its research.

Drug Therapeutic Outcomes Research – Covers a wide range of research topics including clinical pharmacy, medication safety, toxicology, and green pharmacy. The latter has led to the establishment of the world's first professorship in sustainable pharmacy. The group's research has contributed directly to the development of Finland's Medicines Policy 2020 and has led to a point-of-care paracetamol sensor being developed commercially.

Overall, the unit demonstrates high academic and industrial relevance, excellent records in publication and funding, and notable innovation impact. To achieve its goal of becoming a Top 10 European pharmaceutical research unit, a more focused strategic direction is advisable, including a discussion on whether the Faculty's research is too broad and should be focused on the stronger and most promising research area. The ongoing organisational reforms – including budget adjustments and the appointment of a Vice-Dean for Research Infrastructure – are timely measures expected to enhance coordination and competitiveness.

Scientific impact

The University of Helsinki holds a good-to-high position in various international university rankings. For example, in the QS World University Rankings, the University of Helsinki was ranked 53rd in 2023 in the discipline of Pharmacy and Pharmacology, and 101-150 in the 2024 Shanghai Ranking in Pharmacy and Pharmaceutical Sciences.

The unit publishes in high-impact journals such as Nature Communications, Nature Nanotechnology, ACS Nano, and Cell, as well as in leading subject-specific journals such as the Journal of Controlled Release and the Journal of Medicinal Chemistry.

Senior staff members (levels 3-4) publish an average of 4.5 peer-reviewed articles per year, which is comparable to most other Life Science units, except for the Faculty of Medicine, which has a publication rate of 9.6. In 2023, 41% of the publications were classified in categories 2 and 3, and in

2024, more than half of the publications fell within these top categories, which is acknowledged.

The unit's strong international standing is further demonstrated by the fact that over half of its publications are co-authored with international collaborators. Its publications are also well cited, with a citation impact of 1.36 for 2018-2022, indicating 36% more citations than the global average.

Beyond its strong academic and scientific impact, the Faculty plays a significant role in industry collaboration, a partnership that is highly valued and widely recognised.

Collaboration and interdisciplinarity

Pharmacy and pharmaceutical sciences are inherently interdisciplinary fields that integrate core disciplines such as chemistry, biology, medicine, and social sciences. The unit exemplifies this integration, effectively combining expertise in pharmacology, pharmacotherapy, biotechnology, medicinal chemistry, nanotechnology, and computational science in its approach to pharmaceutical research. The Faculty has an advanced state-of-the-art infrastructure, which profile has the potential to be known more broadly across the university, as well as outside it, by being promoted as core facilities.

The Faculty participates in several national and international research initiatives, including the Research Council of Finland's Flagship Programmes, such as the GeneCellNano Flagship. It is also actively involved in collaborative research and doctoral training initiatives and participates in international networks such as the European University Consortium for Pharmaceutical Sciences (ULLA), the Globalisation of Pharmaceutical Education Network (GPEN), and the Pharmaceutical Solid State Research Cluster (PSSRC), among others.

The Faculty maintains long-term partnerships with national and international health and medicines authorities and healthcare organisations, including the Helsinki University Hospital (HUS) and the HUS Poison Information Centre.

Overall, the Faculty demonstrates a well-established, broad, and interdisciplinary profile although there still seems to be untapped opportunities for strengthening collaboration with other faculties, including the Faculty of Medicine.

Potential and renewal

The Faculty's extensive internal and external collaborations, including partnerships with industry, serve as an important source of inspiration for identifying short- and mid-term trends and challenges that foster innovation and renewal. In the long term, the generation of new ideas remains primarily an academic responsibility, ensuring the continuous development and rejuvenation of the research environment including use of AI. However, it is unclear whether the DRP or the Faculty has formal plans or systems in place to secure sustained renewal over a long-term perspective.

STRENGTHS

- The Faculty holds a high international standing within the disciplines of pharmacy and pharmacology, and pharmacy and pharmaceutical sciences.
- It demonstrates strong scientific productivity, with publications appearing in leading, high-impact international journals.
- It possesses an excellent record of innovation and patent activity.
- It has successfully attracted substantial competitive funding, including prestigious European Research Council (ERC) grants.
- It exhibits citation rates that exceed the global average, indicating high research visibility and influence.

DEVELOPMENT AREAS

- The Faculty should identify the most strategically important new areas for interdisciplinary collaboration.
- It should evaluate how collaboration with the Faculty of Medicine and other faculties nationally and internationally could be further strengthened.
- The Faculty should present its infrastructure more effectively both internally at the University of Helsinki and externally to stakeholders.
- It should implement a coordinated initiative to obtain external research funding in alignment with the research vision and strategy.

RECOMMENDATIONS

- The Faculty should implement targeted actions to achieve the strategic objective of becoming one of the top ten pharmaceutical research institutions in Europe.
- It should ensure sustained renewal of research themes through long-term strategic planning and investment in emerging scientific areas, including a more extensive use of AI.
- It should develop a coherent vision and research strategy that is coordinated with the Faculty of Medicine, clinical partners at HUS, the Helsinki Institute of Life Science (HiLIFE), the Faculty of Veterinary Medicine, the Faculty of Social Sciences, and other faculties.
- It should evaluate whether the Faculty covers too broad a spectrum of research areas.

2. Societal impact

Target areas, audiences, research questions and goals

Building on high-quality and interdisciplinary pharmaceutical research, the Faculty of Pharmacy has clearly defined target areas and stakeholder groups for its societal activities, with a particular focus on the pharmaceutical industry and the healthcare system. Close collaboration with primary stakeholders ensures relevant input on emerging trends and challenges. However, a clear strategy for further developing a fruitful collaboration with external stakeholders would secure the Faculty's role as an important societal player.

Activities and outcomes

The Faculty demonstrates a strong and consistent focus on research valorisation and has actively engaged in several important collaborations aimed at strengthening innovation pipelines, including PROFIs, 4InnoPipe, and AinaPHARMA. Between 2020 and 2023, the Faculty submitted 49 invention disclosures and 25 patent applications to the University of Helsinki, accounting for approximately 15% of all the University's patent applications.

Despite this high level of intellectual property activity, the Faculty did not record any new spinouts between 2020 and 2023. However, according to the self-assessment report, Polku Therapeutics Oy was established at the end of 2023, followed by MyNeuroCure more recently. With previously established startups, these ventures position the Faculty as a valuable contributor to the Finnish startup ecosystem.

The Faculty provides expert input on drug-related research to policymakers and relevant ministries. Research in clinical pharmacy and medication safety has had a substantial impact on Finland's health and social services reform, as well as on national policies – for instance, through contributions to the National Medicines Information Strategy. Staff also collaborate with several national health institutions and organisations, including the Finnish Medicines Agency (Fimea) and the

Finnish Society for Patient and Client Safety, ensuring responsiveness to societal needs and the translation of research into practice.

The faculty has been active in promoting sustainable pharmacy through various research projects for several years. These efforts culminated in the establishment of the world's first professorship in sustainable pharmacy in 2024, in alignment with the University's 2030 sustainability goals.

However, it is noted that the Faculty's public engagement was limited during 2021–2023, with only one to three publications per year intended for the public.

Collaboration and interdisciplinarity

The Faculty maintains well-established collaborations with healthcare institutions, industry, and policymakers in addressing novel trends and challenges across multiple health-related areas. Notably, two professors have strengthened industrial collaboration through Tandem Industry–Academia grants, including a full-time research stay at Bayer for Professor Anne Juppo (2023–2024).

Potential and renewal

Healthcare, including the pharmaceutical sector, plays a critical economic and social role in society. Consequently, there is significant potential to enhance the Faculty's already strong societal impact further through engagement with academic and professional communities. However, the self-evaluation report does not clearly indicate whether the Faculty has a detailed strategy for harnessing this potential. Such a strategy should also include measures to strengthen interaction with the public, thereby broadening the societal reach of the Faculty's activities. During the interview, it was stressed that external collaboration is challenging because of high budget overheads and lengthy agreement processes. This compromises the Faculty's ability to be competitive, attracting collaborative projects.

STRENGTHS

- The Faculty maintains close and productive collaborations with the pharmaceutical industry and the healthcare sector.
- It demonstrates notable success in the valorisation and application of research results.
- It provides expert advice and contributes substantively to policymaking and ministerial initiatives.
- It displays a clear and consistent focus on sustainable pharmacy practices.

DEVELOPMENT AREAS

- The Faculty should develop a coordinated research vision and strategy broadly across its health partners in the Helsinki region.
- Engagement with the public could be strengthened further, for example through targeted outreach activities and accessible dissemination of research findings.

RECOMMENDATIONS

- The Faculty should develop a long-term strategy to strengthen and further expand collaborations with the pharmaceutical industry and the healthcare sector, both nationally and internationally.
- It should evaluate future areas for collaboration with other faculties, including the Faculty of Medicine.
- It should take initiatives to reduce barriers to industrial collaboration that arise from legislation and internal university rules.

3. Research environment

Operating culture

Overall, the Faculty's research and teaching plans are well aligned with the University's priorities, emphasising innovation, sustainability, and multidisciplinary and interdisciplinary research. The Faculty has set ambitious goals, including increasing the number of doctoral degrees completed by students within the target four-year period, strengthening career development, maintaining or increasing investment in infrastructure, establishing a leading position in sustainable pharmacy in Europe, and enhancing Nordic collaboration.

The Faculty monitors its progress annually, which is commendable. It has presented a comprehensive description of its human resources strategy, career development, and recruitment initiatives. Priorities include encouraging international research visits, recruiting internationally recognised scientists, and supporting early-career researchers in securing positions both at the University of Helsinki and abroad.

The Faculty's scientific staff come from diverse academic backgrounds, fostering a multidisciplinary and international environment. International researchers make up approximately 37% of the research community, exceeding the University average. The gender ratio among research staff is close to 50:50, and in 2025, the Faculty ranked highest at the University in supervision satisfaction, inclusion, and workplace culture.

Compared to the average for the University, the Faculty has a slightly lower proportion of permanent teaching and research staff, but a higher share of international employees reflecting its strong focus on internationalisation. However, the proportion of senior staff (career stages 3-4) is notably lower (33.8% compared to the University average of 44.4%).

Doctoral education is coordinated through the University's doctoral programmes, with the Faculty of Pharmacy leading the Doctoral Programme in Drug Research and participating in several interdisciplinary University of Helsinki programmes that promote interdisciplinary research. Doctoral supervision is well organised, with each student supported by a main supervisor, co-supervisor(s), and an external follow-up group.

The recent update to university guidelines – reducing the number of peer-reviewed publications required per dissertation from three to four down to two to three is noted. While this may slightly affect research output, it is expected to have a positive impact on timely completion and postdoctoral career development, especially outside academia.

The Faculty benefits from its strong and versatile research infrastructure including advanced state-of-the-art instrumentation that supports multidisciplinary pharmaceutical research. This capacity is essential for maintaining and strengthening the Faculty's status as an internationally highly recognised academic institution in pharmaceutical sciences.

The Drug Research Programme (DRP) coordinates a comprehensive strategy for acquiring large-scale instruments. This strategy, currently under revision, should be maintained and supported by an active external funding approach to ensure continued renewal and development of the research infrastructure.

Overall, the Faculty's operating culture is considered very strong, contributing to its ability to attract and retain key personnel.

Sustainability of the research base

The Faculty's focus on societally relevant research topics and the consistently high quality of its research outputs provide a strong foundation for future development and sustainability. Research funding increased from €7.20 million in 2019 to €9.61 million in 2022, but decreased to €7.14 million in 2023, primarily due to reduced funding from the Research Council of Finland and Business Finland. While this may reflect natural fluctuations, it could raise concerns about long-term financial sustainability if the trend continues, although the Faculty expects to maintain a stable and sustainable funding portfolio in the future.

From an organisational perspective, it is not clear how responsibilities are divided between the Drug Research Programme and the Faculty's three administrative units that oversee laboratories and supervise teaching and research staff. Clarification of how potential overlaps or conflicts are managed would strengthen transparency and efficiency.

Overall, the Faculty is in a strong position to develop its research profile further and to consolidate its status among the top pharmaceutical academic institutions in Europe.

Collaboration and interdisciplinarity

The Faculty is active in internal collaborations within the University of Helsinki, especially with HiLIFE, the Faculty of Science, and the Faculty of Medicine. In addition, it maintains close collaboration with the Helsinki University Hospital. Well-established collaborations also exist with other Finnish universities – for example, a joint position with Åbo Akademi University funded through PROFI. However, it is not entirely clear how new opportunities for expanding collaboration are identified and implemented.

The Faculty participates in several international networks, including the ULLA and GPEN consortia (focused on doctoral education), as well as NordicPOP and NordicPharmTrain. Its long-term collaboration with industry and strong emphasis on innovation are recognised as cornerstones of its research development strategy.

Given the inherently multidisciplinary nature of pharmaceutical sciences and the Faculty's broad external partnerships, its research activities are rightly considered to be highly interdisciplinary.

Potential and renewal

The Faculty's research environment is considered to be very good and sustainable, providing strong support for career development for doctoral students and research staff through a positive workplace culture. The recruitment strategy aligns with future scientific, educational, and societal needs, ensuring the Faculty's capacity for structured renewal of research and education. However, the self-evaluation report does not clarify whether the Faculty has equally attractive career pathways for scientific support staff and technicians – a group of colleagues essential for maintaining a high-level, experimentally based research institution.

Another issue which might compromise the Faculty's full potential is that innovation activities are not incentivised in the university funding model and thus do not support the Faculty's strong focus on this type of activity.

STRENGTHS

- The Faculty offers an excellent and versatile state-of-the-art research infrastructure.
- It employs scientific staff with diverse academic backgrounds, contributing to a vibrant multidisciplinary and international research environment.
- It maintains robust internal and external collaborative networks.
- It demonstrates a well-articulated strategy for career development, recruitment of academic staff, and the fostering of a strong and inclusive workplace culture.

DEVELOPMENT AREAS

- The delineation of responsibilities between the Drug Research Programme and the Faculty's administrative units should be further clarified.
- Initiatives are required to increase the proportion of permanent teaching and research positions, particularly at senior levels.
- The Faculty should work towards a university funding model that includes credit for innovation and societal interactions.

RECOMMENDATIONS

- The Faculty should develop and implement a long-term strategy for the maintenance and continuous improvement of research infrastructure.
- It should establish systematic follow-up procedures to ensure progress toward achieving the target of doctoral degree completion within the standard four-year timeframe.
- It should further consolidate and advance its leading position in sustainable pharmacy.

Faculty of Veterinary Medicine

Assessment summary

The Faculty of Veterinary Medicine demonstrates a strong alignment between its scientific activities as well as its societal and clinical needs. Its projects effectively translate research outcomes into tangible impacts, including contributions to policy reform, the development of standardised clinical and preventive protocols, and the creation of practical applications that enhance animal health and welfare. Moreover, the unit's work in translational medicine substantially advances the understanding of both animal and human diseases. This disciplinary breadth, combined with a consistent One Health perspective, provides a robust foundation for producing impactful and societally relevant knowledge.

The unit's attractiveness as a research environment was evidenced by the significant number of tenure-track applications received from international candidates. While the unit's strengths are considerable, several areas for development have been identified. These include enhancing the integration of life and social sciences within research methodologies and strengthening interdisciplinary collaborations beyond existing joint professorships with the health and life sciences faculties.

Several key recommendations have been identified to support the unit's strategic development, ensure alignment with the University's overarching strategies, and to enhance interdisciplinarity and societal impact further. Diversification of research funding sources will be essential to secure long-term sustainability and safeguard research autonomy across all departments. Additional efforts are also needed to foster the translation of innovation and ideas into new technologies and solutions. To achieve these goals, specific professional support structures and training programmes should be established. Furthermore, it will be important to ensure close alignment between the Faculty's strategies for enhancing interdisciplinarity and those of the University as a whole. In this context, it will be critical to ensure the role of the Faculty's leadership in defining and implementing the four emerging interdisciplinary top research areas to reflect a One Health perspective.

Finally, the unit's ambitious objective to position the University of Helsinki among the top three global leaders in One Health by 2030 is ambitious and commendable and will need the consolidation of the ongoing efforts.

STRENGTHS

- Research projects have a strong connection to societal needs and clinical practice.
- Research results are translated into new policy reforms, standardised protocols, and practical applications.
- A high level of interest in the Faculty as a research environment is demonstrated by tenure-track calls that have attracted numerous applicants from abroad.

DEVELOPMENT AREAS

- The Faculty should work to better bridge life and social sciences within its research methodologies.
- It should strengthen its efforts toward becoming a leading university in the One Health field, with the goal of reaching a top-three position by 2030.
- Interdisciplinary collaborations with other faculties should be enhanced further, extending beyond shared faculty positions and relevant PROFI initiatives.

RECOMMENDATIONS

- The Faculty should consolidate its efforts to reach the One Health Strategy 2030.
- It should ensure that the leadership of the Faculty of Veterinary Medicine plays a key role in defining strategic priorities and implementation plans that reflect One Health perspectives.
- It should renegotiate administrative affiliations so that when the Faculty of Veterinary Medicine provides substantial co-funding, the corresponding research outputs are visibly credited to the unit.

Assessment of the Unit

1. Scientific quality

Research profile and its development

The research conducted by the Faculty is highly relevant and connected to practice. The research activities are representative of the priority areas of the departments of the unit. In particular, the aim with the translational research carried out by the Department of Equine and Small Animal Medicine is to understand the pathology of animals and humans, with a particular focus on spontaneous pathology. The Department of Food Hygiene and Environmental Health has a focus on health challenges emerging at human / animal environment interfaces using a One Health perspective. The specific aim in refining antibiotic use at farm level therefore contributes to reducing fields of antimicrobial resistance (AMR), including innovative solutions (e.g., Phagi). The Department of Veterinary Biosciences performing research on zoonoses, microbiome, neuroscience, genetic functional genomics and metabolism with discoveries of translational relevance for both animal and human health and wellbeing. The Animal Production Department carries out research projects on animal health and welfare, guiding innovative science-based policies.

It is worth mentioning that the Faculty of Veterinary Medicine is leading in open access publications (91%) showing its commitment in democratising knowledge by making research results available for free to everyone, thus accelerating innovation and discoveries. According to Finnish Publication Forum (JUFO) criteria the percentage of high-level publications (2/3) increased from 21% to 50% in the period from 2020 to 2023. The high quality of research results is also disseminated through professional journals demonstrating the fundamental role that the unit plays in veterinary practice outside the academic sphere. The value of research is also reflected in the development of inventions, one of which has led to technology transfer and granting of a marketing authorisation. Innovative methodologies include

novel methods for surveillance and early detection of micro-organisms circulating at human, animal, and the environment interfaces, including genomic surveillance and monitoring of microbial and chemical risks in food and wastewater. The researchers can access high level infrastructure to carry out research on animal health and welfare, with a particular emphasis on adaptive physiology and disease epidemiology and dynamics. Methodologically, the Faculty is also able to combine field with controlled experimental approaches using both wild and domestic animals. By integrating long-term data series with advanced analytical tools and research infrastructure, the studies will be aimed at elucidating animals' responses and adaptive capacities to environmental stressors. Adaptation to harsh environments can also be studied through genomic prediction.

Scientific impact

Scientific outputs remained stable during the period under review (987 in total), reaching a peak of 224 publications in 2021, followed by a slight decline in 2022–2023. Nonetheless, the overall quality of the output improved, as evidenced by higher JUFO levels. Of the 987 publications, 933 were in English, reflecting researchers' commitment to disseminating the research results internationally. At the same time, publications in Finnish (52) are also noteworthy, as they demonstrate an effort to engage with non-academic audiences and to translate scientific findings into practical solutions within the national context. The journals in which the research results were published include both specialised veterinary titles and more general scientific journals, confirming the importance attributed to communicating research outcomes beyond disciplinary boundaries. The proportion of publications involving international co-authors (58%) and authors from outside the University of Helsinki (54%) attests the strength and value of the Faculty's thematic research networks.

During the site visit, it was clarified that Una Europa is regarded as the most strategic collaboration intended to strengthen and promote the One Health approach within research activities.

Over the review period, the Faculty recorded an increase in European-funded projects, indicating that the five operational units have expanded their networks and engaged with additional international partners. A strategic partnership with the University of Nairobi was also highlighted. This collaboration is designed to support initiatives targeting early-career researchers. To date, the partnership has been primarily centred around activities conducted at a local University of Helsinki research station, which has focused on surveillance of emerging infections. Looking ahead, the station is expected to expand its role to include research related to animal production and antimicrobial use. The largest contribution to the Faculty's total publication outputs during the review period originated from the **Department of Veterinary Biosciences**, which produced 429 publications accounting for nearly 50% of the total – and an average of 4.4 publications per FTE. This department also distinguished itself by the high proportion of international co-authors (62%). This result is slightly above the University's figure (54%). However, a decline in the number of publications was observed in 2022–2023 compared with 2021, consistent with the general trend noted across the Faculty. Despite this decrease, the overall quality of the publications improved. The self-assessment report noted a reduction in personnel. During the site visit, it was clarified that this reduction was primarily due to retirements. It was anticipated that the recruitment of new tenure-track professors will contribute to increase both the number and the quality of research publications. In the period, the **Veterinary Hospital** contributed a smaller total number of publications (91) yet achieved a higher per capita publication rate per FTE (13.1) than the other departments, showing an upward trajectory over the same period. This disparity with the other departments is not surprising, because it reflects

their differing core missions: the Department of Veterinary Biosciences is primarily research-oriented, while the Veterinary Hospital focuses on clinical practice in response to the needs of the local community. Importantly, the Hospital's activities often generate research questions that form the basis for scientific inquiry within other departments.

The joint professorships with the Faculties of Medicine, Pharmacy and Agriculture and Forestry is seen as an excellent opportunity for effective interdisciplinary collaboration. This, together with the Faculty's own spearhead areas, creates a fertile ground for achieving new scientific breakthroughs. On the other hand, the current structure of shared professorships requires review to preserve the Faculty of Veterinary Medicine's academic identity and strategic capacity. Further expansion of such arrangements may weaken disciplinary cohesion. In fact, these staff members are administratively affiliated with other faculties, resulting in research output and academic credit being allocated outside the Faculty despite its financial contribution.

Interdisciplinary collaboration is certainly essential for the operationalisation of a holistic approach to health in line with the Faculty's most ambitious stated goal of becoming one of the three leading institutions in this field worldwide by 2030. During the site visit, more details were collected on the implementation plan for this strategy, which will require more than joint professorship positions.

Collaboration and interdisciplinarity

The self-assessment report identifies several key collaborative actions such as with researchers of Kumpula Campus and City Centre Campus specifically to integrate artificial intelligence (AI) into clinical sciences. Noteworthy collaborations include the European University Alliance Una Europa. In the Alliance, the Faculty of Veterinary Medicine plays a leading role in the fields of One Health, Sustainability, and other key interdisciplinary research areas that will strengthen cross-disciplinary approaches.

During the site visit, more information was collected on the objectives of the collaborations with private partners, such as Evidensia Ltd and Health ETT which are considered crucial to enhance innovation and technology transfer. The transdisciplinary nature of the research is evidenced by the

active participation of the Faculty's researchers and lecturers in ministerial working groups and industry associations, thereby aligning research activities with the priorities identified by non-academic stakeholders. In particular, the influence of these research activities on policy development in the fields of antimicrobial resistance (AMR) and animal welfare is especially significant and well demonstrated. Faculty staff actively contribute to societal discussions and participate in working groups under various Finnish ministries, providing their scientific expertise in activities such as law drafting. An important example is represented by the new animal welfare legislation written in close cooperation with the Faculty's experts. Moreover, the Food Authority's food export programme, supported by the University of Helsinki, has successfully contributed to the opening of rapidly expanding new food markets. The incorporation of research methodologies more typical of the social sciences represents one of the more noteworthy and promising aspects of the Unit's interdisciplinary approach. This reflects a growing openness to collaboration beyond the traditional boundaries of veterinary and biomedical sciences. It was also encouraging to note the availability of funding for initiatives addressing themes such as sustainable transformation and the adoption of frameworks grounded in the values of justice and equality, both of which inherently require cross-disciplinary perspectives. Looking ahead, the Faculty plans to embed further social science methods into MSc and PhD programmes, capitalising on the openness of early-career researchers to adopt and apply innovative interdisciplinary approaches. A more detailed exploration of the specific funding mechanisms and collaborative initiatives showed that the unit brings added value to PROFI initiatives such as Helsinki Inequality Initiative (INEQ) that included multiple fields, including the social sciences, humanities, education, and health research at the University of Helsinki that now continues within the Resilient and Just Systems (RESET) profile building area. The contribution of the Faculty of Veterinary Medicine in advancing a One Health research perspective has been strengthened through the active involvement of social scientists in INEQ initiatives, demonstrating that interdisciplinary research is being effectively operationalised.

Potential and renewal

The Faculty demonstrates a strong foundation for future scientific advancement, underpinned by the high relevance and practical orientation of its research activities. Each department contributes meaningfully to the Faculty's overarching goals through complementary areas of expertise: from translational medicine and zoonotic research to food safety, environmental health, and animal welfare. A key strength of the Faculty lies in its comprehensive collection of data on spontaneous animal pathology. By systematically gathering and analysing naturally occurring diseases in different animal species (mainly companion animals), the Faculty provides an invaluable resource for understanding disease mechanisms that closely mirror those in humans. This robust dataset not only enhances the scientific relevance of its research but also positions the unit as an important contributor to translational medicine, enabling insights that can be directly leveraged to improve human and animal health. Despite its considerable potential, there remains significant opportunity to strengthen collaboration with other research units such as the Faculty of Medicine and HiLIFE in order to fully realise the benefits of shared data and joint efforts in translational medicine. There is a growing need to advance the use of artificial intelligence in analysing patient data to support clinical research and healthcare decision-making. Social science expertise plays a critical role in addressing the ethical and societal challenges associated with these developments. To accelerate progress in this area, enhanced collaboration is required between the Kumpula and City Centre campuses, as well as with international partners. In this light, the development of training programmes can be seen at all educational levels ranging from basic AI literacy to advanced research skills and build a competent workforce capable of implementing and utilising AI in clinical settings.

STRENGTHS

- The Faculty benefits from comprehensive biobank, clinical, and genetic data collections.
- It conducts translational medicine research that bridges basic science and clinical application.
- It applies a holistic approach to research in health and sustainability studies, with strong potential to enrich PROFI initiatives.

DEVELOPMENT AREAS

- The Faculty should incorporate social sciences methodologies and perspectives more systematically into its research.
- It should enhance AI literacy through training and further collaborations.
- Collaborations with the Faculty of Medicine on biobanks and patient data sharing should be optimised to strengthen translational medicine.

RECOMMENDATIONS

- The Faculty should strengthen the support provided to researchers in exploring funding mechanisms and opportunities.
- It should promote a holistic approach to health by actively engaging in university strategies to enhance interdisciplinarity – including emerging top research areas – to reflect a One Health perspective.
- It should promote collaborations with the Kumpula Campus to accelerate the use of AI in research and clinical settings.

2. Societal impact

Target areas, audiences, research questions and goals

The Faculty of Veterinary Medicine demonstrates a strong and proactive approach in identifying and engaging with relevant audiences and stakeholders. An important strength lies in its active role in public discourse, promoting the development of policies grounded in scientific evidence. In fact, researchers from the Faculty actively contribute to societal discussions and participate in working groups under Finnish ministries, providing scientific expertise to inform policymaking, including law-drafting processes. This engagement ensures that the Faculty's research remains closely aligned with national priorities and societal needs. The Faculty has also established effective partnerships with key stakeholders such as the Finnish Food Authority and industry actors in the pharmaceutical, food, and feed sectors. For instance, collaboration with the Finnish Food Authority's food export programme has contributed to the expansion of safe Finnish food markets, promoting economic growth and job creation. These activities show the unit's capacity to identify research questions with both immediate and long-term societal relevance, particularly in areas connected to food safety, animal welfare, and sustainability. Industry co-funding and partnerships facilitate rapid two-way dissemination of information between academia and the private sector, accelerating the translation of research findings into practice. A notable example is the development of **Zenalpha**[®], a veterinary pharmaceutical innovation created in collaboration with Vetcare Ltd. This product, already approved in the EU and USA, showcases the unit's contribution to innovation and commercial application of the scientific knowledge. At the national level, the Faculty's experts have taken leadership roles in national animal welfare committees covering companion and production animals and have played central roles in the drafting of new welfare legislation. During the COVID-19 pandemic, the Faculty of Veterinary Medicine's researchers contributed to national working groups managing the crisis, highlighting the unit's capacity for societal responsiveness and applied expertise in times of emergency. Overall, the unit's

research activities seem to have gained high societal visibility and impact. The Faculty effectively integrates academic excellence with stakeholder engagement, based on the value of excellence and trust, ensuring that its research remains relevant and beneficial to both national and international communities. Its positioning as a trusted partner in scientific advisory processes, policy development, and innovation demonstrates its essential role in advancing One Health objectives and strengthening the interface between science and society.

Activities and outcomes

At the Faculty of Veterinary Medicine, research questions are systematically derived from societal demands and the practical needs of clinical veterinary practice, ensuring high relevance and applicability. This approach facilitates the rapid translation of research outcomes into practice, strengthens stakeholder engagement, extending the societal impact of scientific findings beyond academia. An example is represented by the access to the Finnish Dairy and Pig recording databases allowing the Faculty's researchers to have up to date data on veterinary diagnoses and treatments. This real-life perspective further contributes to the tight connection of the research activities to clinical practice based on mutual trust between representatives of society and academia. Among the non-academic audience and stakeholders, it is worth mentioning that many PIs are actively involved in working groups of national and international institutions such as the Finnish Food Authority, the Arctic Council, the European Food and Safety Authority and the World Health Organization. This engagement ensures that there is awareness on research priorities in order to fill critical knowledge gaps. The priorities identified in these forums allow the formulation of proper research questions that guide the research activities aimed at science-based policymaking. An example is represented by the contribution to a policy brief on the prevention of food fraud for the Ministry of Agriculture and Forestry (Makera-project, 2022). Furthermore, the contributions to guidelines for several animal societies have been reported. Examples include: guidelines for antimicrobial use in Canine and Feline Respiratory Diseases for ISCAID (International Society of Companion

Animal Infectious Diseases); National Canine Vaccination Recommendations on the national interpretation of WSAVA dog vaccination; and the Danish Antibiotic Use Guidelines for Companion Animal Practice. In some cases, the contributions are referenced in papers and show that the contributions of the Faculty's researchers extend beyond Finland. Projects are also carried out in collaboration with societal groups, mainly dog breed societies. Examples include the miniature schnauzers' liver shunt project in collaboration with the Finnish Miniature Schnauzer club and Finnish Kennel Club 2020–2022. A research project on recurrent pneumonia in Irish Wolfhounds in collaboration with Finnish and Swedish Irish Wolfhound Association and a research project on pulmonary oedema occurring in Dreevers during hunting (in collaboration with Finnish and Swedish Dreever Association) are further examples of how the Faculty is serving society. The impact of some of these activities were rewarded with Public prizes, such as the Pro Cane Sano medal by the Finnish Kennel Club and The Most Dog Friendly Community recognition to the research group by the Helsinki Region Kennel Circle in 2024. Metrics show that 12 ideas/inventions were recorded during the period between 2019 and 2023, while no patent applications were submitted. During the site visit, it was clarified that the current situation is partly due to the need for additional administrative support for patenting processes, which is essential for the smooth translation of inventions into technologies and innovative solutions. Furthermore, it was noted that entrepreneurial skills should be integrated into research training programmes to cultivate a new generation of young researchers equipped for innovation. Additionally, the inclusion of inventions and patents in curricula evaluation was identified as an important measure for strengthening technology transfer, alongside traditional publication outputs.

Collaboration and interdisciplinarity

The evidence presented in its self-assessment report indicates that the Faculty of Veterinary Medicine is well positioned and has the capacity to implement collaborative initiatives with significant societal impact in various fields, including animal welfare, the challenges of antimicrobial resistance, and translational medicine. The perspectives of the Faculty's researchers are disseminated through a range

of communication strategies, such as television reality shows, open seminars, thematic days, and “Think Corner” events. The number of online mentions of the Faculty's publications, in news articles and blog posts, has fluctuated over time, but has consistently exceeded 500 mentions annually during the period from 2020 to 2023. Mentions of publications on social media have remained above 3,000 over the same period, underscoring their societal relevance. A significant increase in mentions across all communication channels was observed compared to 2019, suggesting that communication and dissemination strategies have been effective in enhancing the unit's visibility and societal engagement. From the metrics, it has been evidenced that the trend of publications benefiting non-academic professional communities has decreased over time. A different trend was observed for the Department of Food Hygiene and Environmental Health, which returned to almost the same levels as in 2019 (nine publications) in 2023, with seven publications benefiting non-academics.

Potential and renewal

There is a clear need for enhanced training for academics and early-career researchers to ensure they can fully engage in innovation and technology transfer. Innovation activities are currently promoted at the campus level, and integrating a One Health perspective into these initiatives would help overcome existing siloed approaches. Furthermore, patents are not systematically recognised in academic evaluations; their relevance is left to the discretion of individual evaluation committees, and they are not considered within the assessment criteria of the Finnish Research Council. Finally, in alignment with One Health Strategy 2030, the Faculty of Veterinary Medicine should reinforce its commitment to fostering and strengthening an environment that supports researchers engaged in interdisciplinary and transdisciplinary One Health approaches. This includes enhancing connections and collaborations with relevant groups both within and beyond the University of Helsinki. The unit confirmed that knowledge dissemination to non-academic stakeholders is a key priority, but the documentation of these activities will require more consistent and timely recording.

STRENGTHS

- The Faculty adopts a proactive approach in engaging with relevant audiences and stakeholders.
- It contributes actively to societal discussions.
- Its research activities achieve high societal visibility.

DEVELOPMENT AREAS

- The Faculty should maintain a consistent trend and systematic recording of publications that benefit non-academic professional communities.
- It should continue to invest in communication and dissemination strategies to enhance the unit's visibility and societal engagement.
- It should integrate a One Health perspective into its innovation initiatives.

RECOMMENDATIONS

- The Faculty should improve the technology transfer of innovations and ideas with the highest Technology Readiness Levels (TRLs).
- Indicators related to innovation and technology transfer should be included in academic evaluations.
- Training in soft skills related to entrepreneurship should be provided for PhD students and early-career researchers.

3. Research environment

Operating culture

The Faculty's research plans demonstrate a coherent strategic alignment with the University's overarching goals in particular through interdisciplinary research. The Faculty's research strategy is consistent with the University's 2021–2030 Strategic Plan and contributes directly to the thematic priority *"A sustainable and viable future for our globe"*. However, the emerging top research areas had not yet been defined at the time of the Faculty's self-assessment and therefore could not be addressed in that document. This priority may be reflected in one of the four emerging top research areas, "Sustainable Planet," which is not mentioned in the Faculty's self-assessment and for which no detailed information was available to the assessment panel. Based on the limited material accessible during the evaluation, the title of this area does not appear to clearly reflect a One Health approach.

During the site visit, discussions with the Faculty's researchers provided deeper insight into their currently limited contribution to the emerging top research areas. It was nevertheless evident that the Faculty leadership is strongly committed to playing a meaningful role in shaping the themes and activities of these initiatives. The Faculty has already demonstrated its capacity to offer expertise in addressing complex and evolving global sustainability challenges that span both human and non-human dimensions. The INEQ and RESET project serve as a key example of the contribution to enhancing the wellbeing of people, animals, and the environment while promoting equality and justice. These PROFi initiatives were designed to achieve their objectives through innovative inter- and transdisciplinary research that bridges the life and social sciences, fostering collaboration among scientific, governmental, business, and civil society stakeholders.

Sustainability of the research base

The balance between the Faculty's available resources and its strategic goals appear to be generally well-considered and sustainable although certain short-term challenges remain. A recent crisis such as the COVID-19 pandemic and the war

in Ukraine have demonstrated that the Faculty is relatively vulnerable compared to others, given its dependence on a service-oriented infrastructure that is sensitive to societal disruptions. The University is currently undergoing a transition to a new internal funding model that allocates resources on a 50/50 basis between research and education. Within this framework, the Faculty of Veterinary Medicine holds a distinctive position, as it oversees the Veterinary Teaching Hospital, which serves as both a critical piece teaching infrastructure and a key component of the University's One Health research environment. The University provides direct financial support to the Veterinary Teaching Hospital through the Faculty's budget, recognising its dual role in advancing veterinary education and enabling interdisciplinary One Health research. The financial performance and strategic ambitions of the Faculty are therefore closely interlinked with the operational success of the Veterinary Teaching Hospital. Although a period of constrained resources is expected in the near future, the Faculty's plans appear realistic, and its funding base can be regarded as sustainable at least in the medium term. The self-assessment report highlights the importance of external funding and the Faculty's success in securing such resources for PROFi initiatives. This point was reiterated during the site visit in discussions with Faculty representatives and stakeholders involved in the University profile building areas. Nevertheless, it remains essential to strengthen further researchers' capacity to attract external funding, including through enhanced administrative support. The metrics clearly show that the Faculty's funding base relies much more on national sources (both public and private) than on international funding (European or other international sources). However, there are exceptions to this, for example, the Department of Food Hygiene and Environmental Health has demonstrated a capacity to attract international public funding, while the Department of Production Animal Medicine was shown to base its activities more on national funding sources. The Department of Equine and Small Animal Medicine's research fundings increased during the observation period, with large contributes from international corporations, confirming the high level of applicability of research results.

Collaboration and interdisciplinarity

The Faculty demonstrates a strong commitment to promoting interdisciplinary research as a cornerstone of its strategic development. Extensive cross-disciplinary collaboration forms the foundation of its research environment, facilitating the exchange of innovative methodologies and the integration of findings across a wide range of scientific fields. The Faculty's strategic focus on One Health provides a natural platform for convergence between life, environmental, and social sciences, enabling research that addresses complex and interconnected global challenges. What remains to be integrated in relation to the its stated objectives is the level of effective collaboration with research groups operating in the fields of technology, data science, and artificial intelligence. The Faculty's system supporting interdisciplinary collaboration appears both comprehensive and robust. Coordination is being strengthened through the appointment of dedicated theme directors and the recruitment of leading principal investigators, including the new tenure-track professors, who brought complementary expertise and leadership to the research portfolio. Moreover, the inclusion of staff scientists and early-career researchers contributes to sustaining an active and resilient research ecosystem capable of adapting to emerging societal needs. The development and management of biobanks that encompass animal, microbial, and environmental samples further enhances the infrastructure necessary for high-quality, cross-disciplinary research. Collaboration across faculties, particularly with the Faculties of Medicine, Agriculture and Forestry, Pharmacy, and Biological and Environmental Sciences, serves as a key enabler of translational medicine and strengthens the Faculty's adaptability and resilience. PROFi initiatives such as INEQ, RESET, and Systems of Food and Drug Security (fooDrug) are already in place to increasing visibility and awareness of the One Health agenda promoted by the Faculty of Veterinary Medicine.

Potential and renewal

The Faculty seems to work proactively and effectively to renew the preconditions necessary for a well-functioning research environment. Through its coherent strategic alignment and interdisciplinary focus, the Faculty seems to have a robust capacity for maintaining and advancing an

adaptive, and high-quality research ecosystem. Opportunities remain to engage additional research-active units more fully, such as those specialising in artificial intelligence, biobanking, and drug screening that could play a strategic role in strengthening the Faculty's scientific impact and research infrastructure. Enhanced collaborations would also support the successful development of upcoming projects planned under the University's top research areas framework. This dynamic exchange will further foster stakeholders' engagement, enhance societal relevance, and reinforce the Faculty's capacity to respond effectively to evolving global challenges. Strategic development actions, proper governance structures, and resource allocation will be required as they are crucial for the long term sustainability of all the actions needed to reach the Faculty's ambitious goals.

STRENGTHS

- The Faculty shows coherent strategic alignment with the University's overarching goals.
- It engages in collaboration across the Faculties of Medicine, Agriculture and Forestry, Pharmacy, and Biological and Environmental Sciences, as well as with HiLIFE.
- The recruitment of new tenure-track professors highlights the Faculty's attractiveness and brings complementary expertise.

DEVELOPMENT AREAS

- The Faculty should continue promoting interdisciplinary collaborations with the Faculties of Social Sciences and Humanities.
- It should maintain a key role for the Faculty's leadership in defining university-wide research strategies and shaping top research areas.
- A coordinated engagement strategy should be established to involve relevant research groups that are not yet participating in ongoing or future One Health-related initiatives.

RECOMMENDATIONS

- The Faculty should strengthen the professional, administrative, and organisational support it provides to its departments in relation to external funding opportunities.
- The Faculty should diversify its funding sources (national/international, private/public) to enhance long-term sustainability.
- The Faculty should define an appropriate strategy and governance structure for advancing its research priorities.

The Finnish Museum of Natural History

Assessment summary

The Finnish Museum of Natural History (Luomus) is a research unit of **high scientific quality and societal relevance**, with a distinctive national mandate and strong international visibility. Its research is methodologically robust, interdisciplinary, and policy-relevant, supported by nationally and internationally significant collections and unique research infrastructure.

Luomus maintains a coherent research profile focused on systematics and evolution of terrestrial organisms, biodiversity and conservation, and geology and palaeontology, well aligned with its mission and complementary to research elsewhere at the University of Helsinki. Scientific productivity is high relative to staff resources, with a marked improvement in publication quality, increasing representation in top-tier international journals, and a strong commitment to open science. Research is underpinned by advanced methodologies, including long-term field monitoring, genomics and museomics, isotopic and chronological analyses, digital imaging, and emerging AI-based approaches. Nationally unique infrastructure, notably the Finnish Biodiversity Information Facility (FinBIF) and the Laboratory of Chronology, substantially enhance research capacity and impact. Taxonomic research, including monographs and species descriptions, represents a foundational and enduring scholarly contribution.

The scientific impact of Luomus is high nationally and internationally. The unit serves as Finland's leading authority in

biodiversity, conservation, and taxonomy, contributing directly to policymaking and environmental governance. Collaboration is strong within the University of Helsinki and internationally, and research activities are inherently interdisciplinary, integrating biological, environmental, geological, chemical, and archaeological perspectives, with growing engagement across medical, veterinary, and humanities and social science domains.

Its societal impact is a core strength. Through its museums, botanic gardens, and open digital infrastructure, Luomus reaches broad audiences and plays a central role in science communication and citizen science. It provides essential services for biodiversity monitoring, red-listing, and conservation planning, with tools and datasets used both nationally and internationally, positioning Luomus as a key interface between science, policy, and society.

The research environment is well managed, characterised by transparent governance, inclusive leadership, and positive staff wellbeing. Nevertheless, reliance on external funding limits staff retention, long-term research planning, and continuity of key functions. The continued erosion of core funding poses a significant risk, threatening the sustainability of critical infrastructure and forcing trade-offs between digitalisation initiatives and essential collection maintenance.

STRENGTHS

- A major asset for research: world-class natural history collections, including many type specimens, with collections-related data made accessible by digitalisation, a treasure chest for ongoing research and for the future.
- The unit has one of the highest numbers of peer-reviewed publications per FTE staff level 3-4 (9.4).
- The unit's long-term biodiversity monitoring data sets (especially FinBIF) are of high interest for research internationally.
- High societal relevance of research topics, targeted to address real-world problems and in alignment with the University strategy and disseminated efficiently.
- Unique research facilities in Finland (Natural History Collections including the largest in the world for cryptogams; Laboratory of Chronology; FinBIF).
- The unit's research has a high scientific impact: Taxonomy research provides the foundation for research in all disciplines in biology, and earth science provides highly valuable baseline records of past climate. The Museum has an excellent track record in research; its research has sparked great interest internationally, such as the study on the extinction of the woolly mammoth distributed among an impressive 264 million people, and the study about a 19th century solar storm event reaching 177 million people.

DEVELOPMENT AREAS

- The University should pay attention to ensuring that Luomus has equal opportunities to take part in internal proposal development processes. The Museum Head and Chief Curators who are engaged in research should be recognised and integrated within university academic structures in a manner equivalent to other research-active academic staff.
- Teaching activities by staff in university courses should be rewarded by allocating additional funding to the Museum proportional to the number of students and courses taught.

RECOMMENDATIONS

- The unit has suffered disproportionately from chronically inadequate basic budget and at the same time increasing rent costs and statutory duties. They deserve to get suitable amounts of core funding from the University to carry out their valuable work. Digitalisation is one of the fields that would need more investment to ensure a more equitable access to resources also outside the University of Helsinki and attract resources.
- Through exhibitions in the Natural History Museum and through the Botanic Gardens, the Museum provides a unique platform from which to communicate science to a wide audience on various topics related to biology and natural sciences and reach several hundred thousand of people annually. This could be used to foster a science-positive public better and is already used to spark interest in science and research in school children, thereby helping to recruit the next generation of scientists. The University could capitalise on this outreach platform and provide larger research funding in return.

Assessment of the Unit

1. Scientific quality

Research profile and its development

The research topics of Finnish Museum of Natural History Luomus are 1) systematics and evolution of terrestrial organisms, including phylogenetics, museomics, biodiversity, and systematics of insects and cryptogams; 2) biodiversity, biogeography, and conservation, with a focus on monitoring Finland's biodiversity, plant adaptation, and conservation, as well as a focus on East African biodiversity; 3) geology and palaeontology, focusing on environmental changes over large timescales. These research topics are highly relevant to this research unit and its academic disciplines. It is also beneficial that the unit's research is complementary to that of the ecologists of University of Helsinki's Faculty of Biological and Environmental Sciences. The museum engages extensively in citizen science initiatives, which are used for monitoring of biodiversity, for example.

Luomus has a high research output with respect to scientific output per FTE (9.4 articles per year at staff levels 3–4, which is higher than the output by the staff of the Faculty of Biological and Environmental Sciences with 6.6 articles per year) and quantity of internationally co-authored publications, including a high and increasing percentage of JUFO 2–3 level publications. Since the main duty of Luomus staff is to administrate and maintain the natural history collections, this can be considered a very high output. Luomus staff contributes to open science by publishing 70% of publications under open access. Luomus is considered the national expert authority in conservation thanks to its research and biodiversity monitoring. The Unit's research output includes an impressive and internationally used biodiversity monitoring platform, the Finnish Biodiversity Information Facility (FinBIF), a unique piece of infrastructure in Finland of interest to both the scientific community and public. FinBIF provides publicly available biodiversity data from scientific collections

and monitoring activities. Luomus's research on biodiversity and natural history informs policy decisions and sustainable development to mitigate the global crises of biodiversity loss and climate change. Thus, altogether, the unit's research is of a high scientific impact and quality.

Luomus strives to increase their developing focus on Arctic and Northern ecosystems in the future. Arctic research could enable the museum to attract substantial external funding. Finnish research in the Arctic is ever more important since Russia has been suspended from many international climate research collaborations due to its war with Ukraine, opening opportunities for an institution with facilities and study sites located this far in the East and North. The museum might benefit from a collaboration with the Faculty of Biological and Environmental Sciences and the Faculty of Science on climate change research using the University's northern research stations (e.g. Kilpisjärvi and Väriö research stations).

The unit furthermore plans to invest effort into integrative research on human–nature interactions, historical ecology, and environmental humanities, since many of the museum's biodiversity and conservation-related projects also embrace social sciences and policy aspects, an avenue of research to further strengthen interdisciplinarity and produce output of high relevance to solve real-world problems.

It has been suggested previously that the data from nationally relevant scientific tasks such as monitoring and red-listing activities should increasingly be used for high-quality, high-impact publications and investment of low impact papers should be minimised. The unit has implemented this strategy and increased its number of publications in top-tier journals.

In the self-assessment report, it is discussed that if the scope was to broaden the museum's research, potential areas of development include marine ecosystems (Baltic Sea), soil ecology, microbial diversity and biogeochemical cycles, which could be strengthened through strategic hires or collaboration with institutes specialised on these areas. However, engaging

in all these topics will come at the cost of diluting the core research of the institute.

Researchers at Luomus use a diverse set of methodologies including field observations, data on natural history, genomic, elemental, isotopic, chronological, and digital tools to study environmental and nature trends. Traditional methodologies include microscopy, dissections and taxonomic and genomic work with reference collections. The research at the unit is highly interdisciplinary. Field-based observation includes long-term monitoring of vegetation, pollinators, bats and birds. Research in genomics and museomics uses modern and historic DNA from collections. The Unit is using innovative methods to study their natural history treasure chests, including microCT, digital imaging, 3D modelling, and genomics. One recent development is the application of AI to taxonomy and trait data, where machine learning is utilised in an innovative way. They also use AI algorithms to digitise their collection. They moreover developed a valuable platform for biodiversity learning, Pinkka. Luomus furthermore develops methods in conservation, integrating ecological, policy and socio-economic data, and one research output that Luomus has been involved with, “Zonation”, is an internationally used tool for land-use planning. Luomus hosts a nationally unique research infrastructure, including Finland’s only facility for radiocarbon dating, the Laboratory of Chronology. In addition, the unit operates advanced stable isotope analysis systems that support research on past environments, diets, and patterns of mobility. These varied methodological approaches are well aligned with the unit’s research objectives, and their effectiveness is reflected in the unit’s strong and consistent publication record.

Scientific impact

The unit’s research has a high impact on its academic discipline. Firstly, their groundbreaking research has caught the attention of hundreds of millions of people. Secondly, Luomus is the national expert for biodiversity and conservation, and its expertise is also recognised internationally. Thirdly, they have contributed to the University of Helsinki being ranked as 12th in Ecology by the Shanghai list of 2024. Finally, they perform highly important work in alpha and integrative taxonomy, including describing around 100 of

the around 18000 species new to science annually. Taxonomy is a very important discipline because it defines the biological entities that all other biological research and communication is based on. Describing new species should be a high research priority because only a small portion of biodiversity has already been described, with millions of species on the waiting list, especially in speciose and understudied taxa such as arthropods and fungi. The scientific impact of taxonomic research, particularly when presented in the form of monographs, is characteristically long-lasting. Such works continue to be cited for several decades, in contrast to many journal articles, which may experience a relatively short citation lifespan. Floristic and faunistic monographs especially those focusing on previously understudied region similarly generate enduring scholarly value. Although the preparation of these publications is time-consuming, their influence on the discipline is substantially greater than that of most shorter format publications. The production of comprehensive monographs is generally feasible only for permanent staff, as the extended timelines and limited number of outputs are not in line with the career requirements of early-career researchers, who are often evaluated primarily on the basis of frequent journal publications. In light of their sustained scientific significance, the University should recognise the value of monographs and assess them using criteria distinct from those applied to journal articles, reflecting their long-term impact on research.

Altogether, the research conducted at Luomus has a high impact on its academic discipline. Luomus positions itself as the keeper of Finland’s natural history collections and the biodiversity, taxonomic and Earth Science authority in Finland. It hosts a unique asset with its large natural history collections which are being digitised for accessibility. Luomus is the biodiversity and conservation expert of Finland, visible through its various research activities as well as the platform FinBIF, and thereby well visible internationally. Moreover, it has unique research facilities for Earth Sciences with its Laboratory of Chronology. Thanks to these unique assets and research topics, Luomus stands out from the remaining research conducted in Finland.

The museum explores ambitious goals with the potential for paradigm shifts. As a result, researchers from Luomus were

involved in publications that were extremely well received, i.e. a study on woolly mammoths and another on a 19th century solar storm event; each of these has been shared among hundreds of millions of people and their first authors were Luomus researchers. So, Luomus researchers are exploring bold and innovative ideas.

Collaboration and interdisciplinarity

Researchers from Luomus collaborate widely with those from other units of the University of Helsinki, with 34% of publications being joint publications. Between 2019 and 2023, they published jointly first and foremost with Faculty of Biological and Environmental Sciences (20.8% of internal joint publications), followed by Faculty of Science (9.6%) in publication categories A and C. Additional collaboration included other universities and research institutes in Finland. Moreover, researchers from Luomus collaborate widely with researchers from international institutions, often resulting in publications in top-tier journals. As a result, the museum has one of the highest proportional shares of internationally peer-reviewed collaborative publications within the University of Helsinki. (i.e., relative to its overall output).

During the evaluated period, Luomus staff were participating in five international consortia: pollinator monitoring (SPRING, EU-funded), taxonomy initiatives (TETTRIs, SYNTHESYS+), BioMonitor4CAP, SustInAfrica, which should provide the scope for additional collaborative publications in the future. Luomus staff also collaborates with the environmental administration of Finland on conservation-related topics. Luomus Earth Sciences collaborates actively on elemental and isotopic methods with other institutions in the area, including Microprobe and FINTIMS. The unit could engage in the UNA EUROPA network to foster international collaborations and create more opportunities to share digitalised resources. Within the One Health focal area this might also create synergies with the Faculties of Veterinary Medicine and Medicine. Another form of collaboration is in teaching. This collaboration has been established with the Faculty of Biological and Environmental Sciences and Luomus plans to establish additional teaching collaborations also with other faculties in the future. According to self-assessment, Luomus benefits from well-established partnerships with

other universities, research institutions, and the government but they could broaden collaboration with non-governmental organisations, cities, and the private sector.

Research at Luomus is interdisciplinary. They combine geochronological and isotopic data with genomics/museomics to conduct long-term biodiversity and climate studies and utilise approaches from biology ecology, geology, chemistry, physics, archaeology and palaeontology, and research projects often span multiple of these fields. This interdisciplinary research within Luomus and with other institutions has spawned e.g. one publication on the colonial legacy of herbaria which integrated data on human history, culture, and political factors which was published in *Nature Human Behaviour*.

During the site visit, it was clarified that Luomus engages in interdisciplinary research collaborations with the Faculty of Medicine and the Faculty of Veterinary Medicine, particularly in the study of zoonotic diseases and bat-associated diseases (white nose syndrome). These collaborations demonstrate that the unit's interdisciplinary activities extend beyond the environmental and biological sciences into the health and medical domains. Moreover, researchers at Luomus recognised significant potential for further interdisciplinary collaboration with the humanities and social sciences, for example in areas related to human–nature interactions, societal dimensions of biodiversity loss, and the science–policy interface. The museum will benefit from extending these collaborations.

Potential and renewal

The unit has great future potential, and they have identified a strategy for fruitful future development. This strategy includes necessary investments into infrastructure in order to appropriately maintain the collections, on the one hand, and

strategic hires on the other. For example, they want to build on the very successful but small team in Earth Sciences by hiring 1-2 geology/palaeontology collection curators given sufficient funding. Luomus is financing larger institutional development and its research from external sources at present.

Currently, renewal is constrained by insufficient core funding. It is obvious that the development of the basic budget of Luomus has fallen far behind the institution's core operational needs – including increasingly high space and facility costs – while at the same time Luomus has been assigned new statutory responsibilities. Given their role in teaching, research and outreach within the University's faculties, these supportive activities should receive more core funding from the University.

Further investment in the internationalisation of research is recommended in order to strengthen Luomus's visibility and recognition at the international level. Luomus researchers actively seek to expand the museum's international research funding by applying for European Research Council (ERC) grants, while continuing to secure funding from the Research Council of Finland, the largest funding source. However, the funding schemes of the Research Council of Finland are highly disciplinary in nature, which limits opportunities to strengthen interdisciplinary collaboration through this mechanism. Sustained and strategic efforts to obtain ERC funding are therefore particularly important, as the acquisition of such grants would substantially enhance the scope, interdisciplinarity, and overall impact of the Unit's high-level research activities.

The involvement of Luomus researchers in doctoral training and teaching activities is considered of strategic importance for promoting academic networking and strengthening connections across faculties and units within the University.

STRENGTHS

- Major asset for research: world-class natural history collections including many type specimens, including collections-related data made accessible by digitalisation.
- Research of high societal relevance such as biodiversity loss, nature conservation and global climate change, targeted to address real-world problems and in alignment with the University strategy.
- Cutting-edge interdisciplinary collection-based research.
- Valuable long-term biodiversity monitoring data sets made accessible (especially FinBIF)
- Provision of substantial expertise in biodiversity and taxonomy.
- Interdisciplinary research, increasingly in collaboration with other international institutions.
- Valuable Earth Sciences group with a unique, important research facility in Finland (Laboratory of Chronology).
- Increasing number of high-level publications (JUFO 2+3).
- Development of tools for spatial conservation prioritisation which are used internationally
- Participation in international consortia: e.g., SPRING, TETTRIs, SYNTHESYS+, BioMonitor4CAP, SustInAfrica.

DEVELOPMENT AREAS

- Need to expand on collaborations and interdisciplinary external partnerships, e.g. the potential to collaborate more with Faculties of Medicine and Veterinary Medicine.
- Continue to use data from red-listing/biodiversity monitoring for high impact papers.
- Continue to increase the quality and impact of publications even more, minimising investment in low impact papers.
- The Museum needs to become more visible within the University of Helsinki as an institution, and as a research institution within Finland. To increase the Museum's visibility within the University, we recommend that exhibition vernissage announcements and announcements of special events at the Natural History Museum and the Botanic Gardens and Museum be communicated to all university employees by email, on the University's digital announcement boards, and possibly as advertisements on local public transport. Some outreach activities could cover topics related to the four "top research areas" of the University.

RECOMMENDATIONS

- To strengthen Luomus as a research institution, it will be important to invest more time and resources into ERC grant applications. These are highly competitive, but will help attract additional funding that, currently, only university faculties can apply for.
- Increase research in Arctic environments as an opportunity to attract additional funding. Since Russian monitoring stations (Moscow, St. Petersburg) for climatic information and natural history collections are inaccessible due to the Ukraine war, institutions in or near the European Arctic areas have increased responsibility and impact, e.g. for research regarding global climate change.

- A great instrument for facilitating collaboration between institutions are joint positions between the Faculties of Biological and Environmental Sciences and Science and the Museum; more joint professorships should be created.
- Continue to build up and renew scientific expertise by strategic appointments. Hire a geology/palaeontology curator. In taxonomy, consider hiring additional experts in speciose groups like arthropods and fungi who use state-of-the-art methods.
- Increase the visibility of the Museum's research: On their website (Luomus.fi), the Museum sells itself more as a museum and less as a research institution. It would be beneficial if one saw the amazing research they are already conducting prominently on the website's home page. It would also be good to mention their use of AI, supercomputing, and other cutting-edge methods in their research, their national expertise in biodiversity and conservation biology, and perhaps some information on their unique research infrastructure such as the Laboratory of Chronology on the website's home page.
- The museum hosts important natural history collections, including the largest collections worldwide of lichens and bryophytes, which attract systematists from all over the world who use the museum's collections in their research. The international interest in the collections should be communicated on the website since it demonstrates the great value of the collections for research. Perhaps there could be an online guest book or a map populated with dots showing the origins of visiting researchers and recipients of specimen loans.
- Making the most of the UNA EUROPA network to enhance international collaborations and create more opportunities to share digitalised resources.

2. Societal impact

Target areas, audiences, research questions and goals

Societal impact is a core mission and strength of the Museum. Luomus attracts over 400,000 visitors annually who visit its Natural History Museum and the Botanic Gardens, thus substantially promoting public understanding of biodiversity and natural history and operating as a bridge between science and society.

Luomus is an expert authority in nature conservation and is responsible for the FinBIF infrastructure, and plays a significant role in public governance, such as by supporting biodiversity-related decision making, thus it has a high level of societal impact. Some of the tools they develop are used internationally for spatial conservation prioritisation. Luomus has contributed expert input in several cases since 2019, e.g. on species and habitat protection in the 2023 reform of Finland's Nature Conservation Act. It also contributes to the preparation to ecosystem restoration plans and the creation of new protected areas. Staff are involved in the red listing of species and the EU Birds and Habitats Directives. Nationally, they coordinate national biodiversity monitoring programmes, maintain a seed bank of threatened plant species of Finland, and engage in citizen science projects. Luomus produces over 100 publications of relevance to society annually. Thus, the impact of the activities undertaken by Luomus for society is substantial, both nationally and internationally.

Much of Luomus's research and activities are of high immediate interest to society, such as their biodiversity monitoring data, their expertise in conservation, and the environmental governance they provide. Luomus's research is highly relevant and visible to society (e.g. biodiversity monitoring, red listing, nature conservation prioritisation tools) and through engagement with over 400,000 visitors to their facilities annually and open biodiversity data infrastructure.

The unit is extremely important in bridging the gap between science and society with its many research outcomes like FinBIF which are open to the public, its citizen science initiatives etc. The unit is addressing questions of great importance to society, such as biodiversity loss and

conservation prioritisation. In fact, the University of Helsinki could capitalise on Luomus's established outreach activities to make its other biology and environmental sciences-related research units more visible.

Activities and outcomes

Luomus engages in excellent research dissemination and communication initiatives through its natural history exhibits and FinBIF, its biodiversity monitoring infrastructure. The museum is visible in the mainstream media every three to five days on average, in which their narrative revolves around positive issues like restoration, societal response, and collective action. Societal impact is one of the core missions of Luomus. It engages with the public in many meaningful ways.

It was previously suggested that the museum should develop a strong online research profile to increase visibility. Consequently, the museum launched a new website and implemented social media presence. They have an active social media presence with ca. 25,000 followers, and the number of followers suggests that there is room for improvement in social media activities.

The website (<https://www.helsinki.fi/fi/luomus>) could be further improved to increase the visibility of research. On the website, the Museum sells itself more as a museum and less as a research institution. It would be beneficial if one could see the amazing research they are already conducting prominently on the website's home page. It would also be good to mention on the website home page the Museum's main selling points like the use of AI, supercomputing, and other cutting-edge methods in its research, the national expertise in biodiversity and conservation biology, and perhaps some information on the unique research infrastructure such as the Laboratory of Chronology.

Collaboration and interdisciplinarity

Since the unit's research is fundamentally interdisciplinary and collaborative, it should be highly likely for perspectives from a range of disciplines to be incorporated to address societal challenges. According to the self-assessment, they could focus more on collaboration with the social sciences and humanities and with respect to biodiversity, ecology, and nature conservation research, this would be highly meaningful.

Doctoral researchers co-supervised by Luomus researchers may experience limited integration within their home faculties. This may limit opportunities for interaction with fellow doctoral students within the faculties, underscoring the need for more structured engagement and communication between Luomus and faculty-based supervisors, to ensure adequate integration into the broader academic community.

Potential and renewal

To strengthen its societal impact, Luomus is striving to increase societal reach and visibility, but further expansion in this direction is currently hindered by funding issues. Pending an additional small investment, they could also increase the visibility of other areas of the University and thereby the University itself. Collaborations with other areas of the University to provide research outreach may prove fruitful but requires adequate funding.

Science communication is utterly important and with Luomus, the University of Helsinki has a wonderful outreach instrument visited by hundreds of thousands of people annually. However, development in this direction requires the adequate funding of such activities.

Luomus staff have created an attractive new website in the past year, but it is not clear how well this website is received (number of visitors, how long do they stay on the page, where they are from etc.). This information would be essential to evaluate if the website reaches its target audience and what could be improved.

STRENGTHS

- Excellent scientific impact, including outreach activities reaching hundreds of thousands of people.
- Dissemination of research outcomes of high relevance to society and policymaking with involvement in various conservation-related governance initiatives.
- High presence in mainstream media.

DEVELOPMENT AREAS

- Increase societal reach and visibility; improve the website to make research more visible up front.
- More presence in social media to disseminate research outcomes.

RECOMMENDATIONS

- Monitoring of visits to the new website which to help to decide what needs to be changed.
- Collaborate with other areas of the University of Helsinki involved in biology for outreach of research projects.

3. Research environment

Operating culture

Luomus is operated by the Luomus Board chaired by the University's Vice-Rector for Research. Additionally, there are annual performance negotiations with the University's Rector. The unit also participates in strategic development processes, and as a result, they have drawn up a strategic plan for development until 2030. This setup ensures that Luomus pursues the University strategy in the coming years.

Resulting from the development plan for 2030, areas requiring immediate change were identified. As an action, Luomus was reorganised in 2023, creating a Public Engagement Unit. Moreover, they created ten horizontal working groups and doubled the size of the management group to include administrative, HR, and financial experts. They also changed the way they communicate the management group's decisions. Moreover, they implemented a new collaborative discussion platform (Luomus-Teams) which is more bottom-up than the traditional Museoinfo notice board. These examples show that they set goals and take actions to reach those goals.

Operational procedures seem to be appropriate. Transparency has been strengthened by involving the unit leaders more actively in the decision-making on shared matters across units, which in turn facilitates a more inclusive and collaborative organisational culture. Moreover, agendas and minutes from the management group's meetings are accessible to all staff, increasing transparency. They established a more transparent communication within the unit.

The Museum received very high scores in a survey for work wellbeing, transparency of internal communication, and work community culture, with the main challenge being time pressure. The employer recommendation index was almost twice as high as that in the whole university, which was also expressed by staff during the site visit.

The Museum's ability to retain talented researchers is limited because most of its research activities are funded through external grants. However, they were able to retain one very talented researcher through senior-level targeted recruitment. The museum has also been able to recruit

additional professors with joint appointments with the Faculty of Biological and Environmental Sciences, which is an important strategy for achieving more collaboration between these units. Doctoral researchers are recruited through international calls opened by PIs who have external funding.

Sustainability of the research base

Generally, up to the present, the unit has been managed well with respect to finances. However, one also has to emphasise that the unit is highly dependent on the acquisition of external funding (47% of total funding), which introduces uncertainty for the future sustainability of the research base. There are several major financial challenges for the Museum in the future, with predicted negative balances. The unit hosts the FinBIF biodiversity monitoring platform the funding for which will run out, with no plans for the replacement of this funding. This platform received over 3 million online visits in 2024 and the laji.fi website (<https://laji.fi/>) had over 30,000 registered users. The FinBIF platform requires ongoing staffing, maintenance, updates, and renewal of infrastructure. It would be a great loss for science if this important piece of research infrastructure could not be maintained well into the future.

One of the priorities of Luomus is to digitise its outstanding natural history collections, making them accessible to the public. This has also been one of the development goals in the past assessment period. To this end, they collaborated with HiLIFE on the HUBCRI2 project (Helsinki University Biological Collections) and received funding from HiLIFE. However, HiLIFE funding is not sufficient to cover the needs of the digitisation process, which diverts resources from the essential maintenance of the physical collections.

According to self-assessment, the museum receives too little core funding from the University, but it has a high demand, due to the high space-related costs for housing the collections. It is obvious that the development of the basic budget of Luomus has fallen far behind the institution's core operational needs – including increasingly high space and facility costs – while at the same time Luomus has been assigned new statutory responsibilities. Since costs have increased substantially over this time period, this is a worrying trend which severely limits the unit's operations. Limited

financial resources impede organisation development, which makes it difficult for the Museum to develop even higher levels of research quality.

Collaboration and interdisciplinarity

The Museum promotes collaboration and interdisciplinarity in several ways. Luomus research is interdisciplinary; researchers engage in collaborations within the University and with other institutions in Finland and abroad. Joint positions between Luomus and other faculties are used to strengthen collaboration. Luomus currently hosts two joint professorship positions, and an additional position is upcoming (all joint with the Faculty of Biological and Environmental Sciences).

A newly established Research Coordination Group chaired by the director of Luomus is working to develop broad, multidisciplinary research initiatives and enhance grant application efforts, which should result in more collaborative, interdisciplinary research activities. They established a new collaborative discussion platform called Luomus-Teams, enabling research communication within the Museum, which has become popular for disseminating official information and facilitating informal discussions.

Strengthening collaborative Arctic research and research with the humanities and social sciences can increase interdisciplinary research in line with the University strategy and generate outputs of high societal relevance, e.g. for addressing nature conservation, biodiversity, and climate change challenges.

Potential and renewal

Regarding equipment needed in the future, they have an investment plan to prioritise the needs. Infrastructure is kept up to date by regular maintenance and renewal. Collection digitisation equipment is of cutting-edge standard, as is the Earth Sciences Laboratory of Chronology, a unique facility in Finland to do radiocarbon dating and stable isotope analyses, including IRMS.

In order to maintain the unique natural history collections, continuous investment is needed, but at the present time, the Museum needs to divert resources from essential collection maintenance to fund digitisation initiatives, which will not be a sustainable strategy in the future. Collections need appropriate

maintenance for their full potential to be maintained in the future. According to the self-assessment, the geological/paleontological collection particularly requires additional staff.

It is recommended that regular monitoring and evaluation of the quality of the research environment be introduced, including staff / stakeholder feedback, and these data should provide important information on what is needed for future development and continuous improvement of the research base.

STRENGTHS

- Organisation including the Board involving the University's Vice Rector of Research; annual performance negotiations with the University's Rector; and strategic development processes. These operational procedures ensure that the unit will develop in accordance with the University strategy.
- Transparency in internal communications and operations and positive working culture after reorganisation are reflected in high work wellbeing and employee satisfaction.
- The Board sets goals and takes actions to reach those goals, as evidenced with a beneficial outcome in the recent reorganisation.
- Hosting FinBIF, the national biodiversity infrastructure.
- Hosting unique natural history collections and equipment for digitisation and cutting-edge collection-based research.
- The unit has a sustainable research base and has been managed well.

DEVELOPMENT AREAS

- Reliance on external funding (47% of the total budget) introduces uncertainty for the long-term sustainability of the research base.
- Core funding from the University is insufficient for sustainable operations
- The high proportion of researchers on fixed-term positions (46%) poses a risk for the continuity and retention of expertise.
- Engage in interdisciplinary research a) with the humanities / social sciences and b) on Arctic ecosystems to work out solutions for major societal challenges (climate change adaptation, and biodiversity loss).

RECOMMENDATIONS

- Continued diversification of funding sources, with emphasis on EU and international grants.
- Funding for FinBIF, the biodiversity platform (contributing to the top research area "sustainable planet") is uncertain after 2026. This unique research infrastructure in Finland is used widely by Finnish and international researchers and will need to be maintained in the future. Investments by the University into this piece of infrastructure would be necessary, especially if current initiatives to obtain funding from the government fail.
- To improve the financial situation, they could explore any financial gains potentially for teaching e.g. in specific MSc programmes of the University or by outreach for other units.
- Strengthen measures for retention and career development of outstanding early-career researchers to reduce vulnerability.
- Introduce regular monitoring and evaluation of research environment quality, including staff / stakeholder feedback.

The Helsinki Institute of Life Science

Assessment summary

Since its establishment in 2017, the Helsinki Institute of Life Science (HiLIFE) has evolved into a successful, mature, €70 million umbrella institute integrating the Institute of Biotechnology (BI), the Institute for Molecular Medicine Finland (FIMM) and the Neuroscience Centre (NC), alongside the University's Laboratory Animal Centre (LAC). Its mission is to drive European life science excellence by connecting discovery, translation, and societal impact, aligning closely with the University of Helsinki Strategy 2021–2030. HiLIFE's six focus areas span the molecule-to-population continuum, covering structural and molecular biology, cell and developmental biology, neuroscience, human genomics, and precision medicine, food systems, and microbiomes, and biodiversity and sustainability, while it maintains strong participation in national and EU infrastructure and consortia. The three research units deliver high-quality, internationally competitive science, ranging from cryo-EM and multi-omics to AI-driven diagnostics. However, the self-evaluation report reveals that these remain largely parallel agendas rather than a unified institutional life science programme, and the extent of cross-institute synergy and interdisciplinary research lines is unclear.

For example, although FIMM leads in data-driven precision medicine, BI in mechanistic and structural biology, and NC in translational neuroscience, opportunities for integrated research and joint technology development remain underexploited. Societal impact is evident through major translational, policy and innovation initiatives such as FinnGen,

iCAN, EU-SAGE and recognised spin-offs. Valorisation pathways and impact monitoring are implemented primarily through university-wide innovation and performance frameworks, within which HiLIFE contributes actively, while their articulation at the institute level could be further clarified.

Governance and renewal mechanisms are in place: the Director, Management Team, Scientific Council and Implementation Plan 2025–2028 ensure alignment, while the four-year Research Infrastructure Assessment ensures quality and planning. As of 2026, the Director is a member of the University's management group, which improved information flow and strengthened HiLIFE's connection to university-level decision-making. However, a challenge for HiLIFE has been the tension with faculties, which initially perceived HiLIFE as competition for resources. HiLIFE's professionalised tenure track, group-leader and fellowship systems, together with the RI career model, support the attraction and retention of talented staff, though long-term sustainability is challenged by reliance on external funding and the persistent Laboratory Animal Centre deficit.

Overall, HiLIFE's research quality, infrastructure base, and international networks are major strengths, but the Institute would benefit from articulating a unified cross-unit strategy, defining measurable impact indicators, reinforcing valorisation and societal-engagement frameworks, improving financial sustainability, and enhancing succession, mobility, and interdisciplinarity across and beyond the life sciences.

STRENGTHS

- **Research base.** Quality of researchers, national positioning, visibility, and international network.
- **Strong performance metrics.** Significant increase in high-impact (JUFO 3) publications (over 30%) and growth in external funding (66% of budget), demonstrating high research quality and competitiveness.
- **Career development.** Strong staff recruitment and development mechanisms. From technical staff to PhD to postdoc to Tenure Tracks with career options within and outside academia.
- **Infrastructure.** Excellent, state-of-the-art, well organised, research facilities that are widely used by researchers from both HiLIFE and faculties.

DEVELOPMENT AREAS

- **Institutional integration, strategic coherence and vision.** Lack of a truly unified research agenda, inter-institutional research programmes and cohesive vision that draws from individual unit strengths.
- **Internal cohesion.** There appears to be a lack of HiLIFE identity, particularly with younger researchers. This is compounded by the multi-campus structure.
- **Translational challenge.** A need to drive the effective translation from basic science to real clinical and societal impact better.
- **Computational/AI integration.** While units like BI and FIMM are embracing computational and AI-enhanced approaches, continuous investment and recruitment are needed to embed these capabilities fully across all research programmes and maintain a competitive edge.
- **A unified HiLIFE societal engagement and valorisation strategy.** Stakeholder interaction appears largely investigator-driven rather than guided by an overarching institutional framework or coordinated vision.

- **Animal work.** The self-assessment does not provide insight into the use of animals while the costs related to LAC are high. There is an opportunity to focus more on alternatives using such as organ-on-a-chip and iPSC technologies.

RECOMMENDATIONS

- **Strategic coherence:** More strategic integration and coordination; define synergy and joint vision between the three institutes BI, NC and FIMM, for example by defining HiLIFE ‘priority research areas’. Align future infrastructure investments with HiLIFE’s scientific goals. Align with the University’s “top research areas”.
- **Strengthen impact.** Define valorisation pathways and impose a system of impact monitoring. Develop an HiLIFE societal impact strategy and framework.
- **Reassess the Laboratory Animal Centre business model.** The University needs a concerted effort to restructure LAC financing, personnel, and space utilisation, potentially involving consultation with bioethics experts and social scientists to navigate the sensitive transition to alternative models.
- **Governance.** The selection process for the HiLIFE directorship, led by the University of Helsinki leadership, should be a transparent process that involves close discussions with the various unit heads and relevant stakeholders.
- **Teaching.** Continue increasing the involvement of HiLIFE scientists in research-based teaching. Be proactive in securing slots in faculty decision-making bodies concerning teaching responsibilities to streamline integration.
- **Neuroscience unit.** The unit currently lacks critical mass relative to its partner units. HiLIFE could consider developing a strategy for the future that at least includes the other HiLIFE units and the neuroscience research from the medical faculty making it larger, more attractive, more visible, and with potentially higher impact.
- **HiLIFE Identity.** Retreats, seminar series, or similar events to build a stronger sense of shared identity and information exchange. Particularly relevant for younger researchers and researchers working at different campuses.

Assessment of the unit

1. Scientific quality

HiLIFE, established in 2017 at the University of Helsinki, is a strategic life science institute integrating several research units (The Institute of Biotechnology (BI), The Institute for Molecular Medicine Finland (FIMM), and The Neuroscience Centre (NC)), to enhance research, talent, and innovation. Its core vision is to be a driving force in European life science by enabling scientific breakthroughs and connecting disciplines to solve global challenges in health, sustainability, and resilience. Additionally, HiLIFE manages university-wide piece of infrastructure, the Laboratory Animal Centre. Each research unit is led by a director and advised by an international scientific advisory board. The annual budget is around €70 mill. with approximately 650 employees.

HiLIFE has identified six strategic focus areas across its research units that integrate discovery science with translational and societal goals: 1) human genomics and precision medicine, 2) molecular and structural biology, 3) neuroscience and brain health, 4) cell and developmental biology, 5) food systems and microbiomes, and 6) sustainable use of natural resources and biodiversity.

Research profile and its development

HiLIFE’s three research units (BI, FIMM, NC) present well-defined and strategically relevant agendas that together cover the molecular-to-population continuum in life sciences. They contribute to the overarching vision “*to be a driving force in European life science by enabling scientific breakthroughs, empowering talent, and connecting disciplines to solve global challenges*”. Each of the three units has a specific goal: BI’s vision is to become a leading European institute in molecular and cellular biosciences; FIMM’s mission is to improve individual and public health by combining data-driven biology with clinical and translational medicine, while NC aspires to be a globally-recognised research centre in brain science. HiLIFE’s research is highly relevant to the life sciences and to

the University of Helsinki’s Strategy 2021-2030, in particular to its core themes: *meaningful life, human wellbeing and a healthy environment, and a sustainable and viable future for our globe*. It integrates fundamental and translational research across six focus areas that align with global challenges and national strengths, ensuring the potential for both disciplinary depth and interdisciplinary reach. There is also an active role in national and EU consortia and infrastructure.

Each of the HiLIFE institutes has provided its own internal evaluation:

- BI represents a large proportion of discovery scientists within HiLIFE. Research is focussed on molecular mechanisms underlying cellular function. BI states that it has a ‘cross-scale interdisciplinary approach’. Such an interdisciplinary approach is not entirely clear from the descriptions of research activities. It is not clear if this is a result of cross-species comparative approaches, or other activities.
- FIMM integrates high-throughput biotechnologies, biobank resources, artificial intelligence and precision targeting. This leverages Finland’s health and genomic data resources. It provides a strong translation expertise to HiLIFE research driving research in molecular and precision medicine.
- NC integrates cellular and molecular neuroscience with computational models, *in vivo* imaging and clinical collaborations. New tools, diagnostics and therapeutic strategies are the goal. This is a combination of discovery science and translational approaches.

The thematic breadth reflects HiLIFE’s vision to integrate the life sciences across scales and disciplines. However, the self-evaluation sometimes reads as a collection of strong but parallel agendas rather than a unified institutional vision. Integration, collaboration, and synergy across the three HiLIFE

research institutes is not always clear, and the institutes often seem to be relatively autonomous units. Each institute has its own mission and the true potential for interdisciplinary research to solve bold and complex questions, and synergy may not have been optimally implemented. There are aspects of both discovery science and translational science initiatives that could be coordinated to strengthen interdisciplinary approaches. A focus on synergistic missions and cross-appointments could help.

The research at HiLIFE is clearly relevant and tailored to its academic disciplines. Across all units, methodological choices appear technically advanced and well matched to their research aims. In each of the three institutes state-of-the-art approaches are being utilised from volume electron microscopy, cryo-EM and multi-omics to AI and iPSC-based disease modelling. These are clearly appropriate approaches and technologies. However, it is not clear if HiLIFE excels in particular technologies and is regarded worldwide as a “technology leader”. BI describes development of micro-CTY gene expression imaging methods, but it is not clear if there is a push towards technology development, which is something that could be strengthened. It is not clear if there are areas in which more-than-state-of-the-art approaches are being utilised. If so, this could be a focus area of inter-institutional collaboration. It would have been helpful to have seen more focus on this aspect in the reporting.

HiLIFE has demonstrated strong performance as measured by publication metrics with JUFO 3 publications increasing to over 30%. This Finnish publication forum classification of ‘Top level’ appears to be across the three HiLIFE institutes with NC receiving the highest score. An impressive Open Access publication rate of >90% is reported. In terms of research funding, external funding has grown modestly (from 63% to 66%) since 2018.

Stronger inter-institutional collaboration and synergy would help in driving HiLIFE’s mission forward. It is also important to align HiLIFE’s goals in one or more of the University’s top research areas.

Scientific impact

As HiLIFE is a combination of three life sciences institutes, the scientific impact has been individually evaluated for each of the separate entities:

- i. BI has applied state-of-the-art imaging techniques to reach impact and an increase in scientific knowledge across disciplines. National and international investment in HiLIFE’s euro-bioimaging platforms shows its relevance and impact. The level of innovation remains unclear, but the application is impactful across disciplines. Increased impact could be achieved through strong(er) collaboration with partners at NC, for example. Continued investment with a desire to be more-than-state-of-the-art technology development, would be encouraged.
- ii. FIMM has made impactful contributions at the level of data science and AI methodologies as shown by strong output metrics in the fields of cancer, COVID-19, and cardiovascular diseases. This work has included the development and valorisation of computational and AI tools for personalised medicine.
- iii. NC has demonstrated significant academic impact in both basic and translational neuroscience.

HiLIFE shows a strong presence in European and Nordic ecosystems (Nordic EMBL Partnership, EU-LIFE), its extensive global links to major universities (MOUs with Harvard, Stanford, Oxford, Cambridge, Karolinska, EMBL-EBI), and its leadership in large national and EU infrastructure (Biocentre Finland; Instruct-ERIC, Euro-Biolmaging). High rates of international co-authorship indicate that the three research units are globally competitive and have a strong international standing, which often leads to greater research impact and a more competitive position in global science.

Although each of the three institutes perform high-level research as evidenced by the scientific impact (i.e. publications in top-tier journals), its global standing or specialisation in particular topics in which HiLIFE may be a pioneer needs clarification. A more in-depth insight into a potential joint scientific impact resulting from being associated with HiLIFE

is lacking. Strengthening cross-institute synergy could be improved by identifying joint ‘priority research programmes’ that combine and integrate BI’s molecular depth, FIMM’s data strength and NC’s translational scope. It might be good to formalise and highlight a few specific HiLIFE areas across the three institutes that promote transformative research and where a broader impact could be achieved at the scientific, translational and valorisation levels. This could provide a stimulus for further specific investment, for attracting talented staff and to ensure a strong international standing.

Collaboration and interdisciplinarity

HiLIFE has established itself as an institutional connector across the University of Helsinki, with links to the Faculties of Medicine, Science, Biological and Environmental Sciences, Pharmacy, Veterinary Medicine, Agriculture and Forestry, and Social Sciences. The Life Science Research Infrastructure (LSRI) and coordinated programmes such as HiINIT and the HiLIFE Fellows create clear frameworks for collaboration. The joint postdoctoral programme co-supervised by PIs from multiple units is another positive structural feature. Both of these initiatives should be encouraged as they pro-actively stimulate cutting-edge, interdisciplinary collaboration. Specific examples of how this interdisciplinarity have led to frontier research and solving societal challenges are somewhat lacking which makes it more difficult to assess the added value of these initiatives. Collaboration within the same disciplinary domains, for example, across molecular and cellular biology, or across neuroscience groups, appears somewhat implicit rather than explicitly demonstrated. The information provided focuses primarily on institutional mechanisms rather than specific examples of joint projects or shared outputs.

HiLIFE’s interdisciplinary orientation is a clear strategic strength, and examples are provided. Besides the HiINIT and HiLIFE fellows programmes, it is unclear whether there are additional initiatives in place to drive interdisciplinary and transdisciplinary research across the University. This should be a priority in the next phase of HiLIFE growth.

Collaboration across the three HiLIFE institutes would be expected to be strong, but a joint vision leading to integrated research programmes tackling global challenges does not seem to be in place. This is important to create synergy in

tackling societal challenges, drawing from the strengths and diverse approaches of HiLIFE researchers. Given that HiLIFE became fully operational in 2018, it would have been relevant to see a strategic path towards the joint goals. The launch of a joint post-doctoral programme may help to strengthen inter-institutional collaborative research but is certainly not enough.

Potential and renewal

HiLIFE possesses the potential to sustain and expand its leadership across the life sciences. Its three units, BI, FIMM, and NC, have well-defined, complementary scientific trajectories that align with both university and EU strategic priorities. However, realising this potential will require stronger cross-institute strategic alignment from an institutional level and not just investigator-driven. Definition of a cross-institute renewal strategy with priority research programmes across BI, FIMM and NC would be useful.

There is clear long-term alignment with the University of Helsinki's Strategy 2021–2030, emphasising global health, sustainability, and wellbeing. The multi-institutional nature of HiLIFE means that the future potential is difficult to define for HiLIFE as a whole but rather its parts. Each of the partner institutes has a clear focus, some broader than others. The level of funding has remained stable suggesting the potential to renew research plans. There could be additional joint focus using expertise from each of the partner institutes, and a clear definition in HiLIFE of 'priority research areas' which demonstrate interdisciplinary collaboration and synergy across the HiLIFE institutes with additional investment. There is a clear need to maintain balance between breadth and depth as interdisciplinarity grows.

Ongoing Tenure Track and Group Leader programmes ensure regular inflow of new expertise and scientific renewal. These are internationally competitive, attracting high-calibre scientists through transparent, peer-reviewed selection processes.

Potential risks include a heavy dependence on external funding and infrastructure cost pressures.

STRENGTHS

- **High scientific quality and international competitiveness.** Top-tier science with >30% JUFO 3 publications, >90% open access and strong international co-authorship underscoring global standing.
- **Advanced methodological and technological capacity.** State-of-the-art-methods e.g. Cryo-EM, volume-EM, multi-omics, AI, iPSC disease modelling. Participation in EU research ecosystems.
- **Excellent staff and infrastructure.**

DEVELOPMENT AREAS

- **Limited institutional integration and strategic coherence.** BI, FIMM, and NC operate as relatively autonomous units; the lack of a unified research agenda or flagship programmes weaken HiLIFE's collective identity.
- **Breadth versus focus.** Some research themes e.g. plant genomics, salmon evolution, seem to be somewhat disconnected from HiLIFE's core mission in molecular biology, neuroscience, and precision medicine.
- **No clear strategic measures or ambitions for financial growth are mentioned.**
- **Neuroscience.** This unit lacks critical mass compared to its partners and should integrate with related university-wide activities, when possible.

RECOMMENDATIONS

- **Develop a unified HiLIFE-wide scientific strategy.** For example, define shared flagship programmes combining BI's mechanistic depth, FIMM's data-driven medicine and NC's translational (neuroscience) approaches to create institutional coherence.
- **Evaluate how all research activities contribute to HiLIFE's shared vision.**
- **Position HiLIFE as an EU technology leader** by identifying and investing in a few (more-than-state-of-the-art) technology niches.
- **Strengthen interdisciplinary collaboration** by expansion of joint initiatives beyond postdoc programmes. For example, install thematic calls.
- **Neuroscience.** The Neuroscience Centre should be given the time and resources required to consolidate neuroscience activities into a coherent, visible and sustainable university-wide neuroscience framework.

2. Societal impact

Target areas, audiences, research questions and goals

HiLIFE positions itself as a national flagship and coordination hub for life sciences in Finland. Here three key societal challenges are mentioned: agriculture, health, and brain research. BI focuses on therapeutic development and diagnostics, food security, biodiversity and sustainability. FIMM advances data-driven, individualised healthcare. NC participates in national and EU-level policy dialogues.

HiLIFE demonstrates multi-level strategy for stakeholder engagement across academia, healthcare, policy, and industry. Translation is supported through the University's innovation ecosystem with demonstrated valorisation. It supports Open Science and FAIR principles. Research is communicated through academic and non-academic outlets e.g. social media, policy dialogues influencing national policy. There has been a relatively stable number of policy-related publications and mentions in social media posts over the last few years. It is unclear whether there is a structural HiLIFE public engagement programme to connect with stakeholders, or whether this is also bottom-up and investigator-driven.

HiLIFE has demonstrated societal visibility through regular participation in national and EU-level policy discussions, for example, ethical use of genomic and gene editing. Also, the recognition of researchers in national and international leadership roles is evidenced by public awards.

Taken together, it appears that the different HiLIFE institutes engage relevant audiences at different levels. What remains unclear is whether there are any institute-driven processes that underlie this, or whether HiLIFE itself engages in assessing societal issues or collaborating with non-academic partners in these areas. It suggests that this may be driven in a bottom-up investigator-driven manner.

Activities and outcomes

HiLIFE shows potential valorisation capacity, particularly through translational science, innovation programmes, and partnerships with industry and healthcare. However, there is no clear indication of how valorisation is being supported, or more importantly, what the HiLIFE vision to support translation is.

HiLIFE's open-access Life Science Research Infrastructure (LSRIs) enable external academic and industrial users, promoting practical application of advanced technologies (AI diagnostics, genomics, imaging, and model systems).

Contributions to national and EU-level science policy ranges from gene-editing legislation (BI, EU-SAGE network) to health data governance (FIMM) and translation of scientific expertise into regulatory and ethical frameworks. It would have been helpful if some examples of what has been achieved (i.e. the broader impact) had been given.

The iCAN programme is a good example driving societal impact in precision cancer medicine in an interdisciplinary manner combining genomics, digital health and patient engagement.

Some 6% of publications have focused on public engagement while there was a considerable decrease in patent applications between 2020 and 2023.

It is unclear whether in general, there is a real focus on valorisation with key performance indicators within the HiLIFE institutes and how this is supported. In terms of policy papers, HiLIFE institutes appear to be acknowledged suggesting that results have been made available to policy makers.

Collaboration and interdisciplinarity

Each of the HiLIFE institutes appears to focus on specific areas of societal engagement:

- i. For BI, the strength seems to be in policy engagement.
- ii. FIMM focuses on public-private partnerships, for example, with pharma companies.
- iii. NC builds synergies between basic neuroscience and clinical translation.

Through these combined approaches, HiLIFE aims to have tangible impact on society.

HiLIFE coordinates flagship programmes such as iCAN (Digital Precision Cancer Medicine) and iCANDOC (doctoral education pilot), link research with hospitals (HUS), ministries, and industry partners. These programmes directly address healthcare and training challenges, blending academic and applied goals. These are project-based initiatives, and it is unclear whether HiLIFE has a broad vision and structure in place to support socially oriented collaboration. Are there long-term partnership strategies, or institutional support structures for sustaining such societal collaborations beyond flagship projects? While there is collaboration across the life sciences institutes, it is not clear how engagement with other university faculties is stimulated by HiLIFE. This may be essential for addressing more complex societal challenges.

While it is clear that HiLIFE employs initiatives to promote collaboration across its partner institutes e.g. HiINIT, it is unclear whether this is also directed towards societal challenges. Entrepreneurship is stimulated by supporting industry engagement at events, although this does not appear to be frequent. Connection with external stakeholders is stimulated through technology sharing.

Potential and renewal

HiLIFE demonstrates a clear commitment to strengthening its societal impact, though its plans remain largely implicit rather than strategic. It appears that the HiLIFE institutes will continue as before, and no new initiatives are being developed. Whether this will further strengthen its role in society, or just maintain it, is unclear. It would have been relevant to discuss additional opportunities or programmes that could be implemented in the next period.

To this end:

- It is important to reinforce interdisciplinary seed funding mechanisms (HiINIT, HiLIFE Fellows, joint postdoc programme) that promote societally relevant research.
- HiLIFE aims to remain the coordinating body for Finnish life science infrastructure, ensuring alignment between universities, hospitals, and industry.

- Increasing the relevance of valorisation at HiLIFE, with appropriate (university) support, would be important to increase the value of the institutes in the future. A clear valorisation / entrepreneurship pipeline should be developed to aid and train researchers in bench-to-business initiatives
- HiLIFE should formalise long-term impact assessment of stakeholder engagement outcomes developing strategic programmes for public engagement.
- HiLIFE should aim to continue positioning itself as Finland's national node for life science innovation and translation, strengthening its niche in national and EU ecosystems.

STRENGTHS

- **Strong national positioning and visibility.** HiLIFE functions as a national flagship for life sciences, coordinating flagship programmes (e.g., iCAN, ICANDOC) and plays a visible role in Finnish and EU-level policy discussions on genomics, legislation, health data governance, and gene editing.
- **Commitment to Open Science and FAIR principles.** HiLIFE promotes data accessibility and reproducibility through open-access publications and shared Life Science Research Infrastructure (LSRI) that serve external users.
- **Active translation.** Individual research units effectively connect fundamental science with application through translational initiatives in health, agriculture, and neuroscience, supported by collaborations with hospitals, ministries, and industry partners.

DEVELOPMENT AREAS

- **Lack of a unified HiLIFE societal engagement strategy.** Stakeholder interaction appears to be largely investigator-driven rather than guided by an overarching institutional framework or coordinated vision. There does not appear to be a structured programme for systematic public outreach or stakeholder impact assessment.

- **Limited focus on valorisation and entrepreneurship.** While examples exist, there does not appear to be a coherent valorisation strategy, pipeline, or systematic support for translating discoveries into societal or commercial applications.
- **Embed societal impact into the research process** itself and engage stakeholders in co-creating research questions and projects.

RECOMMENDATIONS

- **Develop an HiLIFE societal-impact strategy** with a clear mission and a framework that defines goals, target audiences, and performance indicators for engagement, valorisation and outreach.
- **Create a structured valorisation and entrepreneurship pipeline** to support HiLIFE researchers in bench-to-business activities, including training programmes in business development for staff and students.
- **Strengthen interdisciplinary programmes linked to societal challenges.** Direct seed funding mechanisms for relevant (interdisciplinary) themes that connect life science research with social, environmental and health issues.

3. Research environment

Operating culture

The institute's mission to advance internationally leading life science research and to coordinate university-wide infrastructure and talented staff is directly aligned with the University of Helsinki Strategy 2021–2030, focusing on *Meaningful life, Human wellbeing and a healthy environment, and A sustainable and viable future*.

The unique structure of HiLIFE is driven by strategic leadership from the Director supported by a Scientific Council and Board. This guides long-term development in alignment with the University's Strategy 2021–2030. Strategic priorities are formalised through the HiLIFE Implementation Plan outlining research goals, infrastructure development, staff support, and societal engagement. The leadership structure presented seems well suited to the task of coordinating activities across the HiLIFE institutes as well as making decisions concerning alignment with the University strategy. This ensures that institutional strategy and unit activities remain coordinated, transparent, and responsive to change. From the information provided, the composition and hierarchy of the Management Team and the Extended Management Team is not entirely clear. It is important to understand how the three institutes are represented and where mandate lies in decision making.

There are several important initiatives that are aimed at training and retaining key personnel. For example, the HiLIFE Tenure Track and Group Leader calls to recruit top-tier researchers, the HiLIFE Fellows programme, and the HiNIT and HiPOC programmes for interdisciplinary collaboration. These are excellent initiatives to attract, train and retain (interdisciplinary) talented staff at all levels across the HiLIFE institutes. However, it was unclear to the panel how the embedding of tenure-track scientists is subsequently (financially) ensured.

A sufficient level of reporting appears to be in place, from individual researchers to institute-level. The annual HiLIFE Research Infrastructure Assessment (RIA) is an important review process ensuring that HiLIFE technologies remain relevant and competitive.

HiLIFE has implemented comprehensive talent management mechanisms including international tenure-track recruitment, structured reviews and harmonisation with EMBL standards. The Fellows programme also supports mid-career independence. Infrastructure career models to support retention of technical staff is rare in academia. However, it is not clear how succession management is organised, or if there is staff mobility across BI, FIMM and NC. Recruitment to HiLIFE has two tracks: the tenure track programme and the institute-specific group leaders. What is not clear if there are HiLIFE programmes for mentoring (early, mid-career) researchers. If not, these would be a valuable addition to current talent management mechanisms.

The HiLIFE WELL programme appears to support wellbeing, equality, and inclusion in the workplace which is an important initiative. Additionally, a dedicated career-path model has been developed for technical staff which is an excellent initiative.

HiLIFE institutes all contribute to education and the training of the next generation of Life Sciences professionals. In addition to the more standard programmes, additional initiatives are available including infrastructure careers, and innovation and entrepreneurship. Taken together there is a broad and supportive training environment for students and HiLIFE employees.

Sustainability of the research base

HiLIFE demonstrates a robust but stretched resource base. Its funding, infrastructure portfolio, and personnel are well aligned with its scientific goals, yet the self-assessment acknowledges mounting financial pressures that could affect long-term sustainability. Complexity is added in making strategic choices as BI, FIMM and NC have unit-level infrastructure responsibilities independently of HiLIFE.

There is a heavy dependence on external funding which exposes the Institute to volatility and inflationary risk, especially as core university funding has remained static while operational and infrastructure costs increase. Furthermore, group leaders can only stay for nine years which affects capacity building.

HiLIFE is solely responsible for the Laboratory Animal Centre (LAC) operations and deficit management. LAC

operates at a persistent deficit projected to reach €6 million by 2030, largely due to declining national animal-use demand. There needs to be an evaluation of this business model, and a strategic decision as to whether to continue to invest at this level or focus (instead) on *in vitro* (disease) models. This is particularly so because it is not evident from the self-assessment that laboratory animals are necessary for the current HiLIFE research programmes, although they are certainly needed in research carried out elsewhere in the University.

HiLIFE plays a central role in coordinating and developing life science research infrastructure. Infrastructure maintenance and space costs require continuous optimisation and coordination with faculties to avoid duplication and underutilisation. It is important that the life science research infrastructure (LSRI) is maintained and developed and are strongly aligned to the HiLIFE strategy. However, this may result in strategic choices, or the need for increased funding to support technology development. It is unclear whether there is a strong link between infrastructure strategy and emerging scientific priorities; if not, it is important to realise this.

As discussed above, it is also unclear whether resources are available for embedding of tenure-track HiLIFE scientists, or the future of group leaders.

HiLIFE is clearly aware of the issues of sustainability in its operations, and it states that it is committed to making strategic choices with its advisory boards.

Collaboration and interdisciplinarity

Key initiatives such as HiNIT (seed funding), the HiLIFE Fellows scheme, and joint postdoctoral positions across BI, FIMM, and NC directly target the creation of cross-disciplinary interfaces and renewal of research culture. The institute's participation in the University's profile building areas (PROFI) and its leadership in joint programmes with Helsinki University Hospital (HUS) and Aalto University provide institutional support for interdisciplinary engagement. HiLIFE's various funding initiatives and (recruitment) programmes to support and promote interdisciplinary research should be a continued priority and with sustainable investment. Shared research infrastructure also helps with connecting researchers across units. Governance structures are in place to prioritise and aid

collaboration and interdisciplinarity. As already mentioned, initiatives to broaden collaboration and interdisciplinary research outside of the life sciences could be further developed.

Potential and renewal

The Implementation Plan (2025–2028), informed by internal workshops and external advisory input, provides a clear mechanism for aligning goals and monitoring progress. The Management Team and Scientific Council ensure regular review and adaptation, while the Research Infrastructure Assessment (RIA) introduces an evidence-based renewal cycle for infrastructure. These mechanisms collectively provide a framework for continuous improvement and renewal.

Renewal of the research environment is supported through active recruitment and career-development systems. The tenure-track and group-leader models ensure recruitment of talented staff; the Fellows, HiINIT, and HiPOC programmes stimulate innovation; and the dedicated RI career model drives technical-staff retention. Initiatives such as HiLIFE WELL and the EMBO leadership training foster wellbeing and inclusivity, key prerequisites for long-term performance. Less clear is whether there is structured mobility between the units which would help drive interdisciplinary research.

Sustainability of infrastructure is clearly difficult and there may be the potential to reduce costs or increase efficiency by centralising equipment and personnel.

STRENGTHS

- **Strong mechanisms for the recruitment and development of talented staff.** The tenure track, group leader, and Fellows programmes are internationally competitive and ensure a steady inflow of top-level researchers while promoting career development across stages.
- **Robust infrastructure based and national leadership role.** HiLIFE coordinates key Life Science Research Infrastructure (LSRIs) and operates the Research Infrastructure Assessment (RIA) process, ensuring continuous quality monitoring and alignment with national and European standards.
- **Structured support for interdisciplinarity and renewal.** Programmes such as HiINIT, HiPOC, and joint postdoctoral positions foster cross-disciplinary collaboration and renewal, complemented by the institute's active participation in university's profile building areas (PROFIs).

DEVELOPMENT AREAS

- **Unclear decision-making hierarchy and representation.** The composition and mandate of the management group and the extended management group are unclear, making it difficult to understand how the three institutes are represented in strategic decision processes.
- **Financial vulnerability and infrastructure cost pressures.** Heavy dependence on external funding, static core funding, and growing infrastructure costs. Particularly the €6M projected deficit at the Laboratory Animal Centre (LAC) pose major sustainability risks.
- **Lack of clarity in talent embedding and succession planning.** The long-term career trajectories for group leaders and succession management and mentoring for staff are not clearly defined.

RECOMMENDATIONS

- **Strengthen strategic coherence between infrastructure and research priorities.** Align future infrastructure investments with HiLIFE's scientific goals, explore cost-sharing or centralisation to enhance efficiency, and ensure long-term support for technological innovation.
- **Reassess the Laboratory Animal Centre business model.** Conduct a strategic evaluation of the LAC's future, including potential transition to alternative in vitro or organoid-based disease models, ensuring financial and scientific sustainability.
- **Enhance inter-unit integration, research mobility, and mentoring.** Introduce mechanisms for structured mobility, joint positions, and shared programmes across BI, FIMM, and NC to deepen interdisciplinarity and foster a unified institutional culture. Develop clear pathways linking group leader and tenure-track positions, ensure financial embedding for tenure-track staff, and formalise mentoring and progression schemes for researchers and technical staff.

Science, Technology and Environment

Panel summary report

Science, Technology and Environment

Description of the use of criteria

The panel subgroup focused on research excellence and how well the units are exploiting opportunities for interdisciplinary research, societal engagement and recruitment of new staff members.

The panel subgroup's feedback for the University of Helsinki

Both the Faculty of Agriculture and Forestry and the Faculty of Science have been very successful in obtaining research grants, in innovation, and in disseminating research through peer-reviewed publications and policy documents. There are several shared research platforms and institutes, and both faculties are involved in the University's PROFI actions. Prominent joint research platforms and institutes are mainly in the area of environmental research, including *Resilient and Just Systems* (RESET) and *Interactions of Earth Components* (InterEarth). The Institute for Atmospheric and Earth System Research (INAR) is also a current area of collaboration.

INAR can be considered to be the epitome of a successful interdisciplinary endeavour. It originated from a strong research environment that initially developed as a PROFI action and has since evolved into a research institute. Today, INAR is a joint unit of the Faculty of Agriculture and Forestry and the Faculty of Science, consisting of over 50 staff from the Faculty of Agriculture and Forestry and approximately 200 from the Faculty of Science. INAR plays a significant role in securing competitive external research and infrastructure funding, as well as in advancing high-level scientific research. INAR is part of the Finnish Flagship *Atmosphere and Climate Competence Centre* (ACCC).

The panel found that INAR is acknowledged as an important and visible part of the Faculty of Science, while it is given a much lower profile within the Faculty of Agriculture and Forestry. The faculties also describe the formal status of INAR differently, even though staff from both faculties are highly involved in its activities. This situation creates administrative difficulties and hampers technical matters related to budgeting and personnel, and more seriously affects decision-making concerning succession when senior personnel of the Faculty of Agriculture and Forestry in INAR retire. The panel subgroup was concerned that existing administrative structures may create barriers to efficient cross-faculty research. The panel therefore recommends that the Faculty of Science and Faculty of Agriculture and Forestry clarify these matters in consultation with INAR.

The panel subgroup was presented with several innovation projects, one of which involved collaboration between Food Science in the Faculty of Agriculture and Forestry, and Physics. The panel encourages open discussion across faculty boundaries to identify new areas in which societal challenges can be addressed from strong disciplinary bases through collaborative projects. Joint faculty appointments are a constructive way to bring together disciplines, and there are already examples of this in practice. The University should create incentives for joint positions and ensure that both faculties recognise these as beneficial.

STRENGTHS

- Impressive research with many outstanding strengths across both faculties. Research spanning from disciplinary to interdisciplinary is of very high quality.
- Several of present research areas align extremely well with the University's strategic directions and top research areas.
- Strong AI and data-oriented research that can benefit a broad spectrum of interdisciplinary research.
- The two faculties are jointly invested in the excellent INAR institute.

DEVELOPMENT AREAS

- Ensure that faculty leaders agree on how to secure the long-term strategic growth of joint institutes and platforms.
- Very few common activities were presented. The panel encourages the faculties to pursue new common activities to exploit different strengths.
- More attention should be paid to setting both short-term milestones and longer goals for research, especially regarding interdisciplinary collaborations and societal engagement.
- Actions should be taken to reach the goals, and results should be followed up.

RECOMMENDATIONS

- Promote the development of recruited researchers and work on retaining successful researchers.
- Faculty leadership should work actively with researchers from both faculties on pitching new areas for PROFI actions, Flagships, etc.
- A more cross-cutting discussion at the early stage will favour both faculties' researchers and enhance joint activities.

Faculty of Agriculture and Forestry

Assessment summary

The research and activities of the Faculty of Agriculture and Forestry primarily focus on food and forest systems, guided by the principles of a circular bioeconomy.

The Faculty comprises six departments: Agricultural Sciences (AGRI), Forest Sciences (FOR), Food and Nutrition (FAN), Economics and Management (ECON), Microbiology (MICRO), and the Ruralia Institute (RURALIA). It also has partial administrative, research and educational collaboration with Institute for Atmospheric and Earth System Research (INAR). The Faculty of Agriculture and Forestry at the University of Helsinki is one of only two institutions in Finland that provide education and award degrees (BSc, MSc, and PhD) in Agriculture and Forestry.

The Faculty's core disciplines include food and nutritional sciences, agricultural and forest sciences, economics and management, and microbiology. It has introduced several new and emerging themes, such as novel foods, bio-based materials, sustainable business models, sustainable finance, and innovative policy instruments.

The Faculty includes 514 full-time equivalent (FTE) staff members. A major renewal since the previous evaluation period enabled the recruitment of 62 new members of the Faculty. These new positions were a combination of replacements due to retirements and additions to consolidate newly-introduced topics. The Faculty has implemented a strategy-based approach to the recruitment of new teaching and research staff, with clearly defined thematic priorities for new positions. Approximately 30% of professorships and university lectureships have been redefined in connection with new recruitments, aligning with the recommendations of the previous evaluation period. This influx has revitalised the Faculty's scientific and social output, leading to measurable improvements in research impact, societal engagement, and the acquisition of external funding.

Collaboration with other units at the University of Helsinki has been strengthened through eight shared faculty positions and other activities such as participation in common projects and hubs. The Faculty is actively involved in several interdisciplinary university profile areas (PROFIs) and holds leading roles in both international and national networks.

Overall, the unit has effectively addressed the recommendations from the previous RAUH 2018-19 assessment, achieving significant quantitative and qualitative progress. However, an issue from the previous assessment that remains unresolved is the low number of doctoral researchers. The number of PhD students is still very low compared to the number of staff. The Faculty is aware of this challenge and is discussing possible measures, but no clear plan has yet been established. Despite several ideas and discussions, the issue remains unresolved.

The Faculty has external funding from national and EU research funders. However, funding from companies appears limited. This could be strengthened in the future, given that the unit conducts applied science highly relevant to societal challenges. We believe there is substantial potential for startups but were surprised that none were recorded during the review period, although we learned of an exciting startup initiated shortly afterwards. Nevertheless, there appears to be a healthy number of patent applications, suggesting that additional support for startups could make a significant difference.

The Faculty of Agriculture and Forestry is a relatively small faculty. Despite its small size, it consists of six departments, some of which are very small. The Faculty has maintained its traditional activities but has also taken up new topics such as novel foods and economics. It has acquired a significant amount of external funding, including two ERC grants. This appears to result from proactive initiatives by the Faculty,

particularly the provision of financial and administrative support for large-scale external funding applications and projects.

STRENGTHS

- The Faculty offers a good environment and infrastructure to support research.
- There are excellent opportunities and activities for collaboration.
- The Faculty holds a unique position in Finland in the fields of agriculture and forestry.
- Researchers have demonstrated a good publication record.
- Topics such as bioeconomy and novel foods are highly relevant and attract significant funding opportunities.
- The Faculty has been successful in securing external funding for its research activities.

DEVELOPMENT AREAS

- There is a need for stronger direction of research topics.
- The current structure relies heavily on senior scientists; moving towards a model that includes more junior scientists and students would strengthen capacity and continuity.
- Collaboration with companies should be further developed and strengthened.

RECOMMENDATIONS

- Recruitment should focus on specific fields rather than continuing to advance the same areas.
- Dedicated efforts are needed to attract PhD students.
- The Faculty should be motivated and supported to hire doctoral researchers.

Assessment of the Unit

1. Scientific quality

Research profile and its development

The research profile of the Faculty of Agriculture and Forestry is determined within the departments. Each of the six departments has specific research profiles and topics. The Department of Microbiology, which is the smallest department, contributes to several other departments. Several departments demonstrate interdisciplinarity through PROFI-funded positions, other shared positions, and Strategic Research Council (SRC)-funded projects.

The six departments individually determine their research activities and topics. However, the emerging topics, i.e. novel foods, new bio-based materials, sustainable business models, sustainable finance, and new policy instruments, have been determined at faculty level while they are anchored at the various departments. Publication output varies between departments, ranging from 4.7 publications annually per FTE in Agricultural Sciences to 3.7 publications per FTE in the Department of Economics and Management.

Likewise, significant improvement has been achieved in external funding, which increased by 39% from the beginning of the evaluation period to the end. The Faculty has housed the Centre of Excellence in Antimicrobial Resistance (FIMAR) since 2022, and a Living Lab was established in Hyytiälä Forest Station in 2023 to support research and collaboration using advanced infrastructure. Another important achievement is the project “Legumes for Sustainable Food System and Healthy Life” (Leg4Life), which focuses on sustainable food production and consumption practices. Demonstration of some of these activities was presented to the assessment panel. Some other examples of activity include the project “Decarbonising Suburban and Rural Housing” and, through collaboration with INAR, participation in a climate competence centre. Other projects address life cycle assessment (LCA), social acceptance, and governance.

With respect to PhD students, the number increased to 70 in 2020, but afterwards it fell to below 30. This significant drop in PhD students may affect the Faculty’s research output, as PhD students often conduct a substantial share of research. The increase in 2020 is explained by a policy change, but it remains unclear why the numbers have stayed low in the subsequent years.

Scientific impact

Since the previous RAUH 2018-19 assessment, the Faculty has achieved significant quantitative and qualitative progress in its research, with measurable improvements in research impact and in the acquisition of external funding. The Faculty secures external funding from both national and EU research funders and has acquired a significant amount of external funding, including two ERC grants, supported by proactive financial and administrative support for large-scale external funding applications and projects.

The Faculty of Agriculture and Forestry is one of only two institutions in Finland that provide education and award BSc, MSc, and PhD degrees in agriculture and forestry. The renewal of teaching and research staff, and the introduction of new and emerging themes such as novel foods, bio-based materials, sustainable business models, sustainable finance, and innovative policy instruments, have revitalised the Faculty’s scientific output. In addition, there appears to be a healthy number of patent applications, and there is substantial potential for startups.

Collaboration and interdisciplinarity

Collaboration with other units at the University of Helsinki has been strengthened through eight shared positions and other activities such as participation in common projects and hubs, and there is partial administrative, research, and educational collaboration with INAR. The Faculty is actively involved in several interdisciplinary university profile actions (PROFIs).

The Faculty holds leading roles in both international and national networks, and its research and activities primarily focus on food and forest systems guided by the principles of a circular bioeconomy. Despite being a relatively small faculty consisting of six departments, some of which are very small,

it has maintained its traditional activities while also taking up new topics such as novel foods and economics.

Potential and renewal

There has been a significant improvement in both the quality and quantity of research output since the previous assessment. The Faculty of Agriculture and Forestry has acknowledged the need for more dedicated efforts, as well as targeting new research areas.

This strategy should be maintained and further strengthened, with increased emphasis on key priority areas such as novel foods and climate change, which are currently of high relevance.

A critical area for improvement is the increase in the number of PhD students.

STRENGTHS

- The Faculty benefits from a well-established infrastructure that supports research.
- The research topics are highly popular and attract funding.

DEVELOPMENT AREAS

- There is a need to place greater focus on areas that have high political priority.
- Recruiting experts in the focus areas identified is essential for strengthening research capacity.
- Increasing the recruitment of PhD students is a critical development goal.
- Clear processes and structured study programmes for PhD students should be established.
- Post-training and life-long learning opportunities for scientific staff should be enhanced.

RECOMMENDATIONS

- Research topics that have become outdated should be gradually phased out.
- Researchers with consistently low output should be examined to ensure accountability and improvement.
- Areas that align with the Faculty of Agriculture and Forestry’s novel research priorities should be strengthened.
- Greater emphasis should be placed on doctoral researchers to secure future research capacity.

2. Societal impact

Target areas, audiences, research questions, and goals

Since the Faculty of Agriculture and Forestry is involved in applied research, its societal impact is one of its key strengths. The Faculty contributes to practical solutions for forest- and food-system-related challenges, many of which are closely connected to industries and companies. In this respect the Faculty has initiated the Viikki Wood and Forest Innovation Hub innovation ecosystem. Moreover, it maintains a strong focus on Green Business and on Technologies for the Sustainable Use of Renewable Resources.

The Faculty plays a significant role both nationally and internationally across the agriculture and forestry sectors. It has established two stakeholder forums, the Food Forum and the Forest Forum, and members include representatives from ministries, research organisations, and companies. These forums constitute an important mechanism for engaging citizens, students, and authorities.

Activities and outcomes

Examples of societal impact are the thematic innovation ecosystems on sustainable food systems (the Viikki Food Design Factory) and the Viikki Wood and Forest Innovation Hub.

Besides, the Faculty has 12–20 idea and invention disclosures each year, which represents a notable achievement.

The Faculty places particular emphasis on dissemination, including through social media. They have hired a research coordinator focused on community relations and science communication. They have organised several events, such as “Cows Go to Pasture” attracting general public and families, the Science Summer Camp for schoolchildren, as well as participation in the Night of Science.

The Faculty has hosted the secretariat of the Finnish Climate Change Panel and carried out other similar activities.

Moreover, several partnerships with companies were highlighted.

Collaboration and interdisciplinarity

The Faculty of Agriculture and Forestry has active collaborations with stakeholders, for example through RURALIA. In addition, the Viikki Food Design Factory and the Viikki Wood and Forest Innovation Hub promote engagement between citizens, the Faculty, and companies. The Faculty also has strong participation in several PROFI areas, demonstrating collaboration across the University.

Potential and renewal

A unit supporting intellectual property (IP), startups and maturation of novel ideas could provide added value.

STRENGTHS

- The Faculty maintains good contact with agri-food and forest companies and citizens.
- A dedicated coordinator is responsible for dissemination activities.
- The dedicated hubs effectively promote collaboration and enhance the relevance of the research conducted.

DEVELOPMENT AREAS

- There is a need for strengthened support for startup activities.
- An organisational structure for business development should be established.
- Exchange with European peer institutions should be increased, including the identification and use of best practice cases.

RECOMMENDATIONS

- A unit supporting startups should be established.
- Companies should be involved more actively in the Faculty’s activities.
- Programmes aimed at attracting students should be further developed.
- The Faculty should remain open to becoming a more international research environment.

3. Research environment

Operating culture

The Faculty of Agriculture and Forestry is governed by the Dean and the Faculty Council. The Faculty Management Group includes four Vice-Deans, each responsible for one of the following areas: research and doctoral education; infrastructure and open data; academic affairs and sustainability; and public engagement and innovation. The directors of the six departments also play an active role in guiding the Faculty, contributing to the definition of research themes within their respective departments.

In response to recommendations from the previous assessment period, the Faculty has established a Scientific Advisory Board (SAB). The SAB comprises international participants and advises in respect of leadership. The board meets twice a year to provide strategic guidance, support leadership, and contribute ideas that enrich the Faculty's long-term vision and development.

There is no clear career development organisation for young researchers and PhD students. The PhD studies are not well structured, which results in very long durations of PhD and also in cases in which doctoral researchers fail to complete.

Sustainability of the research base

The Faculty has a good control of its economy, and savings ensuring funding for their permanent staff for some time ahead. Moreover, the Faculty has increased activities for acquiring new funding in order to withstand future budget cuts from the University.

Collaboration and interdisciplinarity

The Faculty of Agriculture and Forestry engages in a wide range of research activities, reflected in its diverse resources and infrastructure. In addition to its established facilities, the Faculty has made several strategic investments to strengthen

its research capacity. Some examples include the Living Lab Research Environment, which focuses, e.g., on climate change impacts; the FOODNUTRI Research Infrastructure, dedicated to food processing, consumption, and consumer behaviour; and the Viikki Food Design Factory, which serves as a demonstration laboratory and innovation hub. Furthermore, the Faculty collaborated with the VATT Institute for Economic Research to establish a Data Room Project supporting data-driven research and policy analysis.

The Faculty also participates actively in various national and international research networks, fostering interdisciplinary collaboration and knowledge exchange.

External research funding has increased by approximately 40% compared with the previous assessment period. To further strengthen funding acquisition, the Faculty has appointed a dedicated grant writer. Its projects are supported by a variety of funding sources, though the majority remain national.

Among other things, the Faculty promotes collaborations through shared professorships. One point which was unclear was the collaboration with INAR. The panel would have liked to have heard more about current initiatives and interdisciplinary collaborations from the dean and the interviewing panel. The low-key style of presentation and response to questions particularly in relation to collaborations such as with INAR left the panel with a concern that the leadership was not engaging constructively or in a supportive way towards these very important parts of the activity of the unit that are most closely aligned with the University interdisciplinary strategy.

Potential and renewal

The panel felt that there is potential for improved collaboration and commitment of the Faculty and the common activities with INAR in the future. Moreover, the Faculty is aware of the challenge of the low number of PhD students and can potentially take actions to improve on this point.

STRENGTHS

- There are common professors shared across units.
- The Faculty benefits from common shared infrastructure that support research.
- The renewal of teaching and research staff has resulted in a visible improvement in research output and quality.

DEVELOPMENT AREAS

- Initiatives that promote visibility and the expertise within the Faculty are needed.
- Stronger commitment to common activities with INAR would enhance collaboration and synergy.

RECOMMENDATIONS

- Common meetings and workshops should be organised to support shared learning and cooperation.
- Common social activities across departments, as well as with other relevant faculties, should be encouraged.
- A shared strategic vision for the Faculty should be created to guide future development.

Faculty of Science

Assessment summary

The Faculty of Science is a high-performing and internationally recognised unit, producing a disproportionately large share of the University's top-tier publications and securing major competitive funding through Flagships, PROFI initiatives, and the research hub in AI and machine learning ELLIS Institute. Its strengths span disciplinary excellence – in mathematics, physics, chemistry, geosciences, computer science – and world-leading interdisciplinary initiatives such as INAR which drive major advances in Earth system science, data-intensive research, and sustainability. The Faculty's scientific impact is substantial, from globally adopted privacy-preserving data-generation methods and Europe's most widely used public online AI course to pioneering work in aerosol physics, quantum technologies, and large-scale Earth and climate research.

With 875 FTEs over six departments, the Faculty is one of the largest at the University of Helsinki, and several departments are comparable or larger than faculties elsewhere in the University. Organisation and coordination of strategic directions is complex and multifaceted, requiring a collective effort to bring researchers on board when new initiatives are discussed. While collaboration is strong across departments, recognition of interdisciplinary work is uneven, and recent changes in the University's doctoral education structures have created uncertainty about how joint PhD pathways will be supported in the future. Industry engagement also requires strengthening. Future potential will rely on long-term strategies addressing recruitment, sustainable planning with respect to funding cycles and infrastructure needs, and continued attention to gender balance. The panel congratulates the Faculty on being exceptionally strong, globally connected, and well positioned for continued research innovation and growth.

STRENGTHS

- The Faculty demonstrates exceptionally high quality and competitiveness in research across all its areas.
- It maintains outstanding research environments in fields that are highly relevant to the strategic directions of the University of Helsinki.
- The Faculty benefits from high-quality infrastructure shared across the two faculties within the Science, Technology and Environment panel subgroup, creating a strong foundation for several excellent knowledge environments.

DEVELOPMENT AREAS

- Strategic alignment for cross-cutting research should be further improved.
- A healthy gender balance across all areas needs to be maintained.
- A more proactive approach is needed across the Faculty in partnering with external stakeholders, including encouraging cooperation outside familiar or established areas.
- The balance between university funding and external funding should be monitored carefully, as shifts in conditions may create vulnerabilities in highly successful areas.

RECOMMENDATIONS

- Mechanisms should be considered for the renewal of instruments and infrastructure.
- Potential new strategic cooperation should be identified, building on existing strengths while also including emerging areas.
- A coordinated strategic exercise focusing on societal impact should be carried out within and between departments.

Assessment of the Unit

1. Scientific quality

Research profile and its development

The Faculty of Science is one of the largest at the University of Helsinki, representing roughly 15% of total FTEs. It performs exceptionally well across scientific breadth, research output, and overall excellence. Its publication profile is particularly strong: the Faculty produces around 24% of all university publications and 37% of those in JUFO level 3 journals – an outstanding achievement that underscores its disciplinary strength.

This strong output is closely tied to success in competitive funding, including Centres of Excellence, PROFI fundings, and national Flagships. Major initiatives such as the Finnish Centre for Artificial Intelligence (FCAI), Atmosphere and Climate Competence Centre (ACCC), Quantum, and Advanced Mathematics for Sensing, Imaging and Modelling (FAME) Flagships, the newly established ELLIS Institute Finland in computer science, and the Helsinki Centre for Data Science (HiDATA), Institute for Atmospheric and Earth System Research (INAR), Interactions of Earth Components (InterEarth), Resilient and Just Systems (RESET), Matter and Materials, and Mind and Matter PROFI centres provide critical resources for new staff, doctoral students, and early-career researchers. These initiatives have fostered interdisciplinary collaboration across departmental and faculty boundaries, though they also highlight a key challenge: ensuring timely and strategic personnel renewal before major funding contracts end, a factor that strongly influences long-term planning and research environments.

Within this broader landscape, several departments demonstrate focused and highly effective research strategies. In mathematics and physics, concentrating on a smaller number of high-quality disciplinary specialties – spanning fundamental to applied research – yields substantial research benefits. This is reflected in strong expertise, high-impact publications, and robust success in both national and

international funding. The project-based model behind the Department of Physics and Helsinki Institute of Physics (HIP) ensures the renewal of research and supports career development. Remarkably, HIP produces 20% of all JUFO 3 level publications in the Faculty, a share that is considerably higher than their proportion of the Faculty's total staff.

INAR is an outstanding example of a successful multidisciplinary research institute. Originating from Physics, it now encompasses researchers from Chemistry and the Faculty of Agriculture and Forestry, functioning as an independent institute while maintaining strong educational ties across multiple units. INAR employs a wide methodological repertoire – covering research and infrastructure development to knowledge transfer, business innovation, and policy dialogue – and is recognised globally for its pioneering work on aerosol research and observational techniques.

Chemistry combines classical sub disciplinary expertise with interdisciplinary approaches targeting major societal and scientific challenges, while Geoscience and Geography (GEO) operates as an essentially multidisciplinary department. GEO has built strong traditions across geosciences, geography, conservation, environmental change research, and urban and regional studies. Its strengths in data analysis, big data, and advanced methods have helped establish it as one of the leading units in its field, both nationally and internationally. Their increase in JUFO level 3 outputs, from 22 in 2019 to 71 in 2023, signals both growth and rising quality.

Because the University's resource allocation model is closely tied to publication output, these metrics will remain important. Future reforms in doctoral education could help further improve quality by shifting focus from meeting quotas to producing fewer, high-quality thesis publications. Despite the Faculty's strong overall performance, developmental priorities vary significantly across departments.

Scientific impact

The Faculty of Science demonstrates a broad range of significant scientific achievements with recognised societal impact. These successes rest on a strong disciplinary foundation. A notable example is the work on “provably privacy-preserving data generation,” which combines theoretical insights with practical solutions for enabling research on private data without compromising confidentiality. This research has been incorporated into Microsoft products and now sets a global standard in the field – an exceptional achievement in an area heavily resourced by industry laboratories.

The Faculty has also produced the go-to AI MOOC, translated into many languages and taken up across the EU. In parallel, researchers are examining the use of AI in education, a rapidly developing and promising field. It is important to keep an open mind on new collaborations and how to spark new directions in other research fields via collaborative endeavours.

Mathematics and Statistics (MATHSTAT) has made substantial contributions through publications in world-leading journals and by supplying high-level expertise to Finland's high-tech industries and research institutes. INAR continues to drive major paradigm shifts through its holistic and integrated approach to Earth system research, with influential discoveries, methodological advances, and increasingly strategic communication and networking that amplify its global reach.

Physics contributes significantly to outreach in quantum science, astronomy, and space weather – areas with high societal relevance, particularly for preparedness planning. Initiatives such as the jointly developed Kumpula Materials Innovation Park, created in collaboration between the Departments of Physics and Chemistry, are likely to strengthen collaboration with industry and strengthen the interface with society. GEO continues to advance cutting-edge research on Earth systems, climate change, biodiversity, sustainable

resources, and urbanisation, linking natural and societal processes across scales.

Despite these strengths, the panel noted limited engagement with industry and enterprise in certain areas, particularly in computer science. There is a perception that university innovation processes are poorly tailored to software-driven start-ups, which rely on non-patentable know-how rather than patents. The panel recommends addressing this gap to ensure appropriate support for potential spin-offs, possibly through interdisciplinary collaborations with departments better positioned to navigate innovation processes.

Collaboration and interdisciplinarity

Interdisciplinary collaboration is strong across the Faculty but not always systematically recognised. Joint appointments help foster new research areas – such as AI applications in agriculture and physics – but are often acknowledged by only one department. This points towards a potential interdisciplinary barrier arising when the strategies of different faculties diverge, making the long-term personnel planning precarious. Joint PhD positions remain an important mechanism for bridging disciplines. Recent changes in the University's doctoral education structures, however, have created uncertainty about how interdisciplinary doctoral training will be supported in the future. The consequences of this change need to be analysed, and the faculty needs to consider a strategy for the future.

Chemistry, particularly atmospheric chemistry, benefits substantially from collaboration with geosciences, though broader outreach is recommended in light of declining student numbers. MATHSTAT is deeply engaged in interdisciplinary and industry-linked activities and maintains active international collaborations. Chemistry is well positioned for interdisciplinary engagement but should improve its use of funding instruments. INAR demonstrates exceptional interdisciplinary integration across natural and social sciences and contributes extensively to national and global research.

Physics/Helsinki Institute of Physics (HIP) similarly participates in strong national and international networks in a variety of different fields. HIP is a strong institute across Finland linking both PhD education, instrument development

and research. HIP creates visibility in the international context through its role as Finland's CERN coordinator. GEO's Institute of Seismology supports major national infrastructure such as the Finnish National Seismic Network, EPOS-Finland, and FINNSIP. The large share of international co-authored publications further illustrates the Faculty's global engagement.

Potential and renewal

Computer Science is successful in strategic research development, research output, funding, and student numbers. However, its achievements in machine learning and AI tend to overshadow other areas, such as bioinformatics, where a second ERC was recently awarded. The department would benefit from clarifying its internal structure and articulating a comprehensive strategy for growth, communication, and engagement. This should be treated as an urgent priority to support recruitment, interdisciplinary collaboration, industrial partnerships, and future spinouts.

GEO has developed significantly since the previous evaluation, particularly in research coherence, international excellence, funding volume, publication output, staff development, and wellbeing. Across the Faculty, the primary mechanism for renewal remains recruitment. MATHSTAT has a clear plan to strengthen its international standing to attract top researchers and has improved its gender balance by hiring two female professors since the previous evaluation; continued progress is encouraged.

INAR's research, applications, and strategic planning continue to exert a transformative influence on global Earth system science, supported by strong observational strategies, open data practices, infrastructure development, and integration of research, education, and innovation. Physics and HIP also demonstrate exceptional success in publication quality, funding acquisition, collaborative activity, and societal impact. Improvements have been made in gender balance since 2018, though the continued low number of female applicants remains a concern and should be prioritised in the next assessment period.

STRENGTHS

- The research staff holds good international and national standing.
- There is excellence in AI and other research areas within the Faculty.
- The Faculty engages in good interdisciplinary collaborations
- High-quality infrastructure underpin and integrally support the Faculty's strong research areas.

DEVELOPMENT AREAS

- Alignment of strategies for cross-cutting research platforms shared by more than one unit should be improved.

RECOMMENDATIONS

- A coherent presentation of departmental research should be developed to reflect all strengths, support communication of achievements and offerings to stakeholders, and enable the creation of broader multidisciplinary applications.
- The Faculty should work with the spinout office to develop an appropriate model for spinouts in computer science, in which patentable assets are often not available.
- Continued efforts are needed to improve the structure of doctoral programmes.
- The Faculty lacks a mechanism for the renewal and maintenance of instrument infrastructure, which form the foundation of much research in the Faculty of Science.
- Strategic cooperations with other departments should be expanded, for example in biobased raw materials, agriculture, or earth system science.

2. Societal impact

Target areas, audiences, research questions and goals

The Computer Science department engages extensively with external stakeholders through interdisciplinary collaborations. However, these efforts appear to be largely *ad hoc* rather than strategically coordinated. Given the substantial societal relevance of its research – especially in AI and machine learning – the department would benefit from making this potential more visible and from developing a deliberate strategy for engaging with stakeholders in areas where impact could be greatest and most beneficial for the department.

The same applies to Chemistry. Although historically affected by a fragmented institutional structure, the department has made progress and is building collaborations in broader thematic areas such as forestry and agriculture, medicine, and Earth sciences. Further systematic development of these relationships would strengthen the department's external profile.

Graduates from MATHSTAT provide high-level expertise vital to Finland's high-tech industry and research institutes. The department is particularly strong in dissemination of mathematical sciences, covering both fundamental and applied topics. Research published in leading outlets such as the *Annals of Mathematics* and *Nature* demonstrates the breadth of its impact, including contributions to areas like climate change and genome sequencing. INAR integrates five major components: research, research infrastructure, capacity building, policy impact, and business impact. Activities in all these areas are substantial, and INAR operates at national, Nordic/Baltic, European, and global levels. The institute's depth, breadth, and quality of engagement – both nationally and internationally – are exceptional. INAR has clearly identified and actively engaged with its audiences and stakeholders. It has raised significant research questions and driven methodological advances, especially in aerosol science, air pollution across scales, climate change, and biogeochemical fluxes between Earth system compartments, including those driven by fossil fuel combustion. INAR holds a prominent position as a source of knowledge and expertise,

supported by strong performance in knowledge transfer, innovation, and science dialogue.

The Department of Physics and HIP delivers high societal impact through its coordination of Finland's CERN mission and through its role in radiation safety via the national Radiation Safety Authority. The department also contributes to innovation through successful spin-offs, for example, Algorithmic, a quantum-computing company focused on quantum algorithms for drug discovery.

The strongest impacts in GEO are made by relating science-based results to the timely societal challenges posed by authorities. Policy briefs, popular publications, open seminars, and round table discussions are noted as common ways of attracting new collaborations. GEO results have shaped national, regional and urban policies. GEO projects have also produced tools for local, regional, and national planners and authorities. GEO developed new analytical and modelling methods to identify critical raw materials required for green transition.

Activities and outcomes

Some areas of the Faculty engage actively with both the private and public sectors. There are many examples of policy related outputs and expert statements to Parliament. This work is also well cited and has garnered attention on social media. MATHSTAT plays an instrumental role in the national mathematics community together with the Finnish Mathematical Society. They hosted the General Assembly in 2022 as well as the in-person opening ceremony of the International Congress of Mathematicians under the auspices of the International Mathematical Union at very short notice. Activities aimed at making results available and suitable for application, dissemination, and communication are advanced at INAR where their strategic direction is well aligned with University goals.

While these activities are generally commendable across the Faculty, the panel encourages all departments to continue to engage with stakeholders, with strategic engagement in sectors where expertise can make great impact.

Collaboration and interdisciplinarity

Where collaborations have developed, they are exciting and have the potential to generate significant societal impact. We encourage Computer Science to foster more active engagement with other disciplines that can provide the greatest impact for their results and methods but also provide the most challenges and interest for methods' development. This requires long-term engagement with other disciplines as exemplified in the bioinformatics and the intelligent farming projects.

MATHSTAT is continuing its solid and well received activities on social and traditional media; they are active in the Research Centre for Ecological Change and the Centre of Excellence in complex disease genetics. MATHSTAT's research also includes aspects of vaccine safety and effectiveness and other areas of relevance to the public. MATHSTAT is organising training sessions for gifted high school students preparing for the International Mathematical Olympiads.

The panel recommends that INAR develop a strategy for combining earth-system oriented research infrastructure (first of all ACTRIS, ICOS and IAGOS, but also research infrastructure with a main focus on other Earth system elements like oceans, fresh water and ecosystems). The HIP CERN connection provides unique opportunities to access CERN's outreach programmes. The individual laboratories also conduct outreach as was demonstrated by a high school visit to the Accelerator Laboratory during the panel visit.

Potential and renewal

This area was not explicitly addressed in the short interviews, but we encourage the departments to develop strategies for encouraging collaborations that have the potential for societal impact, as we believe that the opportunities are legion. Future collaborations must be within the current expertise of the Faculty and both PROF1 initiatives and Flagships provide new avenues for challenge-based research of importance for society. A specific recommendation is that INAR evaluates its role in the international safeguarding of environmental information in view of the effects of the reduction in substantial US contributions, for instance to National Oceanic and Atmospheric Administration (NOAA) in maintaining its key role in global greenhouse gas. There are good examples

of outreach activities across the Faculty and stronger engagement with events such as Researchers' Night might help public awareness.

STRENGTHS

- The Faculty demonstrates excellent disciplinary research, providing a strong foundation for impactful research collaborations and outreach.
- It offers excellent and far-reaching education, exemplified by a high-demand AI course made available to the public.
- There is strong awareness of the societal relevance of the Faculty's research and a clear ability to influence policymaking and international research development.
- The creation of the Kumpula Materials Innovation Park brings together important infrastructures from Chemistry and Physics.

DEVELOPMENT AREAS

- Certain departments need to be more proactive in partnering with external stakeholders.
- Entrepreneurship and support for spin-out companies should be strengthened, potentially in collaboration with other disciplines.
- Greater attention should be paid to the communication of departmental work and achievements. This includes organising research into themes that effectively support stakeholder understanding, communication, and societal visibility. While several excellent examples exist within the Faculty, the level of development varies across departments.
- More cooperation is needed outside the Faculty's established comfort zones.

RECOMMENDATIONS

- The Faculty should coordinate a strategic exercise focusing on societal impact with each department to identify areas in which meaningful impact can be expected. Some departments may already have clear approaches, and best practices can be shared across the Faculty.
- More long-term partnerships should be developed, as incentives for corporate collaboration and commercialisation remain limited. Where university-level support and training exist, they should be applied more systematically.

3. Research environment

Operating culture

A healthy research environment depends on strong disciplinary expertise, high-quality education at all levels, and a strategic approach to both recruitment and interdisciplinarity. When these elements are aligned, they provide a stable foundation for cultivating innovative research and education. In assessing this, the panel considered staffing and recruitment, strategic planning for large external funding opportunities, the balance between external and university funding, gender aspects, long-term planning for research infrastructure, and the quality and impact of collaborations. Cross-cutting research centres can be an effective means of promoting interdisciplinary research to address societal challenges, but centres spanning several departments or faculties may also introduce imbalances and strategic disconnects that place otherwise strong research groups in a vulnerable position.

The panel found limited evidence of strategic planning in the Computer Science department. This may partly stem from its recent success in securing substantial funding in machine learning and AI, which has provided an excellent opportunity but one that could easily fail to be fully exploited. It is now important for the department to establish clear goals and strategies to ensure that its strong position is developed and sustained.

In contrast, MATHSTAT has cultivated an inclusive and active research environment. Most faculty members have external funding, maintaining a dynamic atmosphere and ensuring continuity and the influx of PhD students. Many grants involve collaboration both within the department and with external partners, creating a steady flow of new ideas and research questions. This collaborative approach effectively counterbalances the traditionally solitary nature of research in mathematical sciences.

INAR stands out with an excellent research culture driven by a clear mission, strong leadership, and good working practices. Its research aims represent a generational shift from disciplinary to thematic thinking, cutting across multiple fields. Goal setting, implementation, and follow-up have

improved significantly, supported by transparent operations, well-documented processes, and thoughtful future planning. INAR is highly active in securing external funding and in contributing to scientific dialogue and science policy. The work environment is characterised by openness, participation, and shared responsibility. The panel was particularly impressed by how INAR's representatives presented themselves during the interview, reflecting a vibrant and well-nurtured research community.

GEO also demonstrates a well-functioning research environment with strategically aligned and well-supported goals. The department continuously evolves, fostering excellence through systematic goal setting, follow-up, and notably through the recruitment, retention, and development of international, talented staff.

Sustainability of the research base

The Faculty of Science derives a considerable fraction of its funding from external sources. External grants are also the primary mechanism for recruiting new staff and are strategic per definition. The balance between tenure/tenure track and fixed-term appointments can be precarious and must be monitored continuously. While all departments are successful in obtaining external grants some have excelled to a degree where vulnerability becomes relatively high, and maintaining a level of 70% external funding is challenging.

While the infrastructure at the Faculty appears strong, long-term maintenance of equipment and laboratories, retention of staff, and cofinancing of high-profile grants would need a more solid funding basis. The interview noted the serious challenge of securing funding for the maintenance and long-term operation of existing infrastructure, especially that not on the FIRI roadmap. The sustainability of large infrastructure is a key concern for the future, which needs to be addressed. Laboratory/measurement services may be offered to external users for a fee, contributing to maintenance and outreach. However, that is not enough for long-term sustainability of resources.

Collaboration and interdisciplinarity

Strategic research directions are identified in response to the PROFI, Flagship, and Centre of Excellence calls, and to

a certain degree in Horizon projects. Interdisciplinarity is implicit in many of these broader platforms but should not be seen as a goal in itself. The panel found many examples of shared positions, cross-faculty interlinked research groups and new constellations of researchers in these interdisciplinary platforms. There are many examples of outstanding interdisciplinary environments with facets towards society, industry, and international collaboration. There are also areas of the Faculty with substantial potential for development. Having a strategy in place will guide the development of new interdisciplinary collaborations and encourage a more active approach to securing external funding, human and technical resources. The strategy should outline governance structures which are inclusive and transparent, and there are very good examples in the Faculty. We strongly encourage that such a strategy be put in place to enable the Faculty to take control of its own destiny.

Potential and renewal

The departments are self-aware, and most have set ambitious goals that drive development. The various external grants are the main tool for renewal, which is often done via new recruitment. The Faculty has been exceptionally successful in obtaining external funding and several departments

recruited new academic staff with an impressive improvement in research metrics as a result. Some departments report improvements in gender balance among tenured staff which is commendable: this should be monitored across the Faculty.

While government investments in AI have been successfully exploited, continued development of new areas in the long term is a substantial challenge that requires both a strategy and resource planning. The panel congratulates the Faculty on the impressive level of external funding, but at the same time the potential for an unhealthy balance between the University's funding allocations and external grants is also noted. This is especially visible in the case of INAR. INAR is a primary force in providing strength and content to the matrix structure of the University of Helsinki and in enabling the University to make important contributions with high quality, relevance and impact to complex societal issues. INAR's practice could serve as an example that could have a transformational impact in the University's capability to pursue research and innovation within complex thematic fields involving a range of disciplines. An important challenge is to reduce the tension between the disciplines and the thematic priorities, or said in another way, allow the organisational matrix to function.

STRENGTHS

- The Faculty demonstrates an admirable combination of fundamental research, innovative teaching, applied research, and an open attitude to collaboration and societal relevance.
- It secures substantial external funding across a wide variety of projects and platforms.
- Ambitious goals across the Faculty drive excellence and support the continuous renewal of research projects.

DEVELOPMENT AREAS

- Success in obtaining competitive funding has led to a high proportion of external grants, creating potential vulnerability for individual projects and overall strategies if funding conditions shift.
- Infrastructure funding remains a continuous challenge in many parts of the Faculty, as much of the research depends on both large- and small-scale equipment requiring FIRI funding as well as internal University of Helsinki financing.
- A long-term strategy is needed for attracting and retaining top-level researchers. While the panel identified many excellent researchers and several world-leading research environments, some areas still have room for improvement.

RECOMMENDATIONS

- A long-term strategy for building strong knowledge environments that include personnel, instrumentation and infrastructure, and interdisciplinary research platforms should be developed.
- The strategy should outline governance structures that are inclusive and transparent, and there are already excellent examples within the Faculty.
- The Faculty should work to reduce tensions between disciplinary and thematic priorities and proactively ensure continuity in key research personnel in truly interdisciplinary units such as INAR.

Social Sciences and Humanities

Panel summary report

Social Sciences and Humanities

Description of the use of criteria

The panel subgroup evaluated each Unit of Assessment based on its self-assessment report according to the criteria set out in the RAUH 2025 assessment's detailed assessment criteria. These criteria were applied to the unit as a whole. The subgroup report is based on detailed panel discussions that took place after interviews had concluded. The following document was drafted by the panel chair but reflects the collective views of the entire panel subgroup, all of whom had the opportunity to comment on and/or edit the draft.

The panel subgroup's feedback for the University of Helsinki

Scientific quality

The panel subgroup was pleased to find evidence of high-quality research across the whole of the social sciences and humanities (SSH). This is evidenced by successful applications for external funding, including Centres of Excellence, profile building areas (PROFI), and national and international grants, including ERC fellowships. The amount of external funding has improved since the last assessment, notably in the Faculty of Social Sciences and the Faculty of Law. Numerous high-quality outputs are also being produced and many of the articles published are Gold Open Access. Much of this work has been done in the very difficult circumstances following funding cuts in 2016 and during the COVID-19 pandemic. The way in which units have recovered is extremely commendable.

The panel recognises that funding structures, such as the creation of the PROFIs, may create incentives for interdisciplinary research. However, we are concerned that the University's wish to promote excellence in interdisciplinary research should not detract from a recognition of the undoubted strength of research in single disciplines. We hope

that the University will continue to value research excellence of all types, wherever it is found. It is important that the University views interdisciplinarity as a means of producing high quality research, not as a goal in itself.

We are aware that funding is tied to the number of outputs and to the open access status of journal articles. However, we were concerned that academics therefore felt under pressure to produce quantity over quality, to publish open access whether or not a journal was the best, or most suitable venue for their research, and to privilege articles over monographs. However, in many SSH fields, international reputation is driven by monograph publications, and the kind of high-quality articles which may take some time to produce. It is also important to note that in many of the disciplines within our remit, the Finnish Publication Forum (JUFO) rankings are not always a reliable indicator of internationally recognised research quality. The University should therefore be aware that the results of such incentives may be contrary to its aspiration to be among the best universities in the world by 2030.

We found evidence of wide-ranging interdisciplinary research across the units. SSH units are well represented in the PROFIs and staff collaborate widely across different disciplines in the City Centre Campus. This is supported by the Helsinki Collegium for Advanced Studies (HCAS), which provides a strong basis for collaborative working as well as being a significant motor of international research reputation. HCAS's physical plant is evidently the key to its success. The panel was therefore surprised to find that the University seems not to utilise the full potential of HCAS to support collaborative research and was concerned to hear that it is being moved to different premises, which may not be as well suited to its mission in future.

We noted that, despite the PROFIs, the amount of interdisciplinary collaboration between the City Centre Campus and other university campuses might be improved.

The University might consider the creation of new mechanisms, perhaps including a shared space, to foster inter-campus research. Might HCAS itself be one solution to these challenges?

A major area of concern was the fact that almost nobody to whom the panel subgroup spoke felt that their research was adequately reflected in the University's new top research areas. Science and medicine appeared to be far more prominent in these themes. This seems curious, given that we found strong evidence of a willingness of staff in the SSH faculties to collaborate with others and work across disciplines. This was demonstrated by the creation of the six research communities in the Faculty of Humanities, for example, established as a result of extensive researcher consultation.

Given the strength of research at the City Centre Campus, and the high international esteem in which several disciplines are held, the panel found it regrettable that SSH disciplines have not been given greater visibility within the University's top research areas. We recommend that the University should engage in further consultation about the nature of the top research areas, with a view to ensuring a more prominent role for SSH research excellence, or perhaps the creation of a fifth top research area with a strong SSH focus and opportunities for interdisciplinary collaboration.

Social engagement

The panel commended the SSH units for an impressive amount of social engagement and impact. Numerous staff are in demand in the media, and a wide range of public engagement activities respond to the undoubted interest of the Finnish public in topics within the subgroup's remit, such as history and politics. We also learned that a quarter of the publications produced by the Faculty of Humanities are relevant to social impact.

However, many staff feel that social engagement is not rewarded, especially in terms of financial models, as compared to research intended for academic audiences. This could function as a disincentive to persisting with engagement activities. We also felt that many units could do more to communicate and celebrate the undoubted value of the work that they do in this area, both within and beyond the University. This would contribute positively to their external profile, which in turn may positively affect international rankings.

As the panel noted in the RAUH 2018-19 assessment report there still does not appear to be any strategic oversight of such activities by the University, nor does there seem to be any guidance for researchers about how to prioritise requests for engagement or advice from bodies outside academia. There is therefore a danger of researchers becoming overburdened and feeling they must agree to every request. In the long term this is not a sustainable way of working.

Research environment

In general, we found a positive research environment at the City Centre Campus. Morale has improved noticeably since the RAUH 2018-19 assessment. However, the panel subgroup was concerned about the use of what appeared to be a dual track career structure for academics, comprising both tenure track and an older structure of lecturers and professors, which does not seem to offer earlier career academics the same opportunities for career progression. We would therefore

recommend that the University review its career structures for open-ended posts, with a view to creating a single route to progression.

Recent successes in winning external funding and the creation of the PROFI areas have also created numerous time-limited posts. This seems to have caused significant uncertainty and may limit individuals' ability to produce outstanding research or of institutes to support it (for example, the work of the Institute for Social Science and Humanities is being hampered because of doubts about its long-term future). Little appears to be being done to support researchers on short term contracts, whether in terms of career development at the University of Helsinki, or in helping them to find academic posts elsewhere. Academics on open-ended contracts are also under significant pressure to apply for new research grants, to provide employment for their researchers. The panel was concerned that such activity could detract from their ability to produce high quality research outputs from existing funding.

This speaks to what appears to be a growing culture of overwork. Academics seem to feel pressure to prioritise quantity over quality, whether that applies to research grant capture, research publications or social engagement activities. This is not conducive to a high-quality research environment which fosters outstanding research and publication.

We therefore suggest that consideration be given to the provision of career development support for researchers on short term contracts, especially those early in their careers.

But the University should also take seriously the need to support more senior researchers in managing their workloads, which risk becoming excessive and unsustainable. Not to do so may put in jeopardy the very significant improvements in researcher morale and research productivity which have been seen in this review period.

The panel commends the work the University has been doing to shorten PhD completion times. However, the environment for PhD students remains complex and students seemed unsure of how to find appropriate training courses or support when things go wrong. Supervision arrangements also seemed somewhat uneven across different disciplines. Centres of Excellence, however, provide a model of successful supervision which might be followed elsewhere. Given that many students have only intermittent funding or other jobs, the University could also consider a part-time mode of doctoral study. We recommend that the University should address these issues, with a view to ensuring that doctoral students are better able to contribute to a vibrant research environment and to develop their own research careers.

STRENGTHS

- There is evidence of high-quality research and publication across the units of assessment.
- Increased amounts of external funding have been brought in.
- There is strong evidence of interdisciplinary collaboration within the City Centre Campus and as part of the PROF1 areas.
- PhD completion times are beginning to improve.
- Morale has improved and there is a better research environment as compared to the previous assessment (RAUH 2018-19).
- Social engagement is strong and varied across the campus.

DEVELOPMENT AREAS

- The amount of interdisciplinary collaboration between the City Centre Campus and other parts of the University could be improved.
- University-level top research areas do not adequately reflect or include research excellence in the humanities and social sciences.
- Current domestic funding models for short-form, open access outputs, may be deterring academics from producing the kind of publications which drive international reputation in SSH, such as monographs and high-quality articles which are time-consuming to produce.
- The role of HCAS in supporting interdisciplinary collaboration is unclear but appears significantly undervalued.
- Social engagement activity appears not to be equally esteemed and rewarded as compared to pure research.

- Many units do not publicise the excellence of their social engagement activities sufficiently.
- There appears not to be any strategic oversight of social engagement, which leads to a somewhat disorganised approach to such work, and risks of researchers becoming overburdened with requests.
- There is a growing culture of overwork, which is not sustainable in the long term.
- Despite improvements in completion time, support for PhD students still seems inconsistent, limiting their potential to contribute to a strong research environment.
- Career progression for many colleagues seems to be hampered by the dual career structure and proliferation of short term, externally funded posts.

RECOMMENDATIONS

- All outstanding research should be equally valued, whether it emerges from single disciplines or interdisciplinary collaboration. Interdisciplinarity should be seen as a means of producing excellent research, not a goal in itself.
- The University should consider how to reconcile the incentives produced by current domestic funding model with the need to achieve a strong international reputation. This is especially important in terms of publication types and venues.
- The University should consider how to create mechanisms to support interdisciplinary collaboration across all four campuses. It should consider how HCAS can support this, in future.

- The University should re-think the nature of the top research areas to ensure that the strength of research in SSH is centrally represented within them. SSH should not be seen as secondary to science but take a leading part in at least one top research area.
- The University should consider how to reward social impact activities adequately.
- The University should encourage and support SSH disciplines in communicating their successes in social impact more effectively.
- As was previously recommended in 2018, the University needs to take seriously the amount of work involved in social engagement activity and consider creating some guidance for researchers as to how best to engage beyond academia, while protecting time for primary research.
- The University should create a single career structure and consider how to support the career development of early-career researchers and those on short term contracts better.
- The University should guard against a general culture of overwork and mitigate the risks, both personal and institutional that are inherent in a culture that appears to prioritise quantity over quality.
- The University should simplify and streamline processes to support and govern PhD study and consider creating a part time route to PhD completion. This will ensure that PhD students can better contribute to a flourishing research environment.

Faculty of Educational Sciences

Assessment summary

The Faculty of Educational Sciences has a strong and diversified research profile addressing education, learning and instruction, educational policy, and the challenges of educational systems in contemporary society. The Faculty increased its external funding by slightly less than 30% between 2019 and 2023. In addition, the funding sources are diverse. A key strength of the current situation is the diversified nature of the research infrastructure, which provide a productive platform for future work. The Faculty is well connected with a broad range of agencies in the education sector and has a long tradition of collaborating in interventions at all levels, from preschool to university and in the workforce. The self-evaluation gives an informative overview over the work that is carried out in the Research Communities (RCs), the publications produced, and the research infrastructure.

Strengths

- The Faculty is well known in the international community for its contribution to research in education, both in terms of theory and empirical research.
- The Faculty has a central position in Finnish education and educational research and documents a long tradition of collaborating with central societal actors such as schools, municipalities, ministries, and evaluation organisations in the educational area.
- The research profile of the Faculty includes extensive engagement in developmental work and interventions in educational settings. The Faculty is interdisciplinary in its orientation.

Development areas

- The Faculty has a gender imbalance with more than 75% of its staff being female. Although this reflects a general pattern in education, this imbalance needs attention since it has implications for the nature of research problems identified. The persistence of such imbalances seems to require increased attention in research as well.
- The Faculty, in relative terms, has a low percentage of international staff. This partially reflects the teaching responsibilities of the Faculty but should still be considered in the attempts to strengthen the areas in which research needs to be stimulated.
- The panel notes the societal impact of the research of the Faculty in Finnish society, while the international impact in this respect is less clearly visible.

Recommendations

- As is the case with other faculties, the Faculty of Educational Sciences seems to have problems with the funding of doctoral researchers and young scholars. In spite of the attractiveness of the PhD programmes, completion times of the doctoral candidates are not satisfactory. The attempts to handle these problems, in which the responsibilities of the triad of candidate, supervisor, and department are in focus, have to be followed up to avoid the impression that delays are normal.
- The Faculty is productive in terms of the outcomes produced but should still consider its publishing strategies. It seems as if only a relatively small section of the international established journals available for publishing are made use of.
- In the documentation, the Faculty points to significant challenges and development areas for education and for the Finnish society in general. These challenges concern basic values of democracy, equity, diversity, sustainability, and in general, the capacity of education to contribute to promoting the values of a democratic social order among new generations in an increasingly globalised era. The challenges identified fit well into those that guide the University as a whole, and the panel finds that the areas pointed to are central to forming new research programmes at the intersection between academic interests and societal relevance.

Assessment of the Unit

1. Scientific quality

Research profile and its development

The Faculty consists of two departments, The Department of Education and the Teacher Training Schools. The departments are linked in their scholarly interests and have complementary responsibilities within the University. Both departments conduct research, but the Department of Education is clearly dominant. The research profile of the Faculty is broad and includes topics which concern learning, development, wellbeing, digitalisation and schooling, assessment, and teaching generally as well as in specific subject areas. The scope of the research activities covers the lifespan, from early childhood development/care to adult education, higher education and professional learning. The research documented also refers to the systemic level including educational policy and the structure of educational systems in national and international perspectives. Much of the work carried out is inter- and multidisciplinary. With a teaching and research staff of about 275 FTEs (2023) with 49 grant funded researchers, the Faculty is big in a Nordic perspective.

The Faculty has gone through several changes in recent years and attempted to build a collegial working culture supporting research and researchers. The restructuring of the Faculty a few years ago seems to have resulted in a cohesive environment with a focus on the responsibilities and challenges of the educational system in a broad sense. The organisational innovation to meet challenges experienced includes the creation of Research Communities (RCs), each with a specific and coherent, though rather broad, research profile. During the past few years, four strategic initiatives have been launched at the faculty level: Strengthening research ethos and research communities, Academic staff career paths, scientific publications and research projects, and Research infrastructure. From 2026, there will be a new integrated PhD programme replacing the two programmes which have been in operation up to the present.

At a general level, the topics and areas of research as they appear in the list of RCs are appropriate for a faculty of education of this size. The outputs of the work are published in a broad range of international and national journals and other fora (books, book series). The outputs are also visible in extensive collaboration with governmental committees in the education area and in public outreach activities. Many of the publications address issues of teacher training and development of schooling. In terms of methodological skills and theoretical perspectives, the Faculty is versatile. The research documented is of a classical analytic and curiosity driven nature, on the one hand, and, on the other hand, it involves extensive engagement in interventions in education, organisational development, and similar activities. The multidisciplinary nature of the Faculty's work is evident in research projects and collaborations which span issues from historical and institutional analyses of educational institutions via studies of learning/teaching/schooling and wellbeing to studies of biological correlates of cognitive development in children using neuroscience perspectives. The general goals of the Faculty align with those of the University of Helsinki in providing leading scholarly work and education. These goals are further guided by the University's stated values of truth, *Bildung*, freedom and inclusivity.

Scientific impact

The Faculty of Educational Sciences is well-known in the international scholarly community and has several research profiles which are considered leading. The nine RCs, which define the current research organisation, build on previous strength areas. This testifies to the continuity of the research, while at the same time presenting a comprehensive and informative picture of research issues that can be found in similar faculties across the world. The RCs also align with several of the goals for research articulated by the University of Helsinki.

At the Faculty level, the academic output during the period was 3090 peer-reviewed articles in journals in education (but also in some other areas) (average 4.0 per FTE at levels 3 to 4). These articles are predominantly in English (80%) and Finnish (18%), which implies that the scholars at the Faculty are well-integrated into the international research community. The number of articles published increased during the period, but it seems as if only a rather limited spectrum of the broad range of the international and established journals for educational research available are used for scholarly communication. Many of these journals focus on educational psychology, early childhood research, and to some extent, teaching and teacher education. However, considering the breadth of academic scholarship, other journals would also be relevant. Another indicator of impact is the ability to attract external funding. Here a positive trend appears with an increase from €7 million to almost €9 million during the period. This pattern is the result of an increase from all the funding sources available, including donations. The Faculty hosts a Centre of Excellence on Music, Mind, Body, and Brain and is host to the EDUCA flagship (running until 2028) analysing central challenges in education and the Helsinki Education Hub (HEH). It is also involved in international centres of research and coordinates the Finnish Teacher Education Forum.

Collaboration and interdisciplinarity

As pointed out above, the expertise of the scholars covers a broad spectrum of research fields in education. The multi- and interdisciplinarity nature of backgrounds among the staff paves the way for collaborative research both within the Faculty and the University and with other faculties in Finland and internationally. Many of the scholarly networks that are operating have existed for a long time. The intensity of these collaborations is visible in the documentation provided. More than a third of the peer-reviewed articles published during the period have been co-authored with international partners, and

38% with national partners. This testifies to the claim in the self-evaluation report of the central position of the Faculty in research in education both nationally and internationally.

Potential and renewal

The current structure with RCs is the result of a combined bottom-up and top-down process through which researchers have been actively involved in developing a new structure for their work. This process seems to have been successful and well received by all parties. All researchers now belong to a research group, which provides continuity and support for various phases of the research process, including the formulation of new projects and applications. The RCs play a decisive role for PhD students and junior scholars by providing a continuous learning environment in which research issues are handled realistically and where scholarly practices are cultivated.

STRENGTHS

- The Faculty has a long history of successful research and occupies a central position in the Finnish academic landscape in research on education and the wider role of education in society. This represents an important form of capital, which holds promise for the future.
- The Faculty has demonstrated its capacity to increase external funding and publishing during the period. This indicates that the current organisational structure with RCs as working units works well.
- The research profile is broad and covers issues all the way from the systemic level to issues of how learning and instructional practices are changing in contemporary circumstances with challenges such as digitalisation, diversity, and other factors.
- The Faculty has a strong and well diversified infrastructure for empirical research well suited for various kinds of research (field studies, register studies, laboratory studies of psychological processes etc.)

DEVELOPMENT AREAS

- When it comes to publishing, the Faculty should consider the current pattern. In view of the wide range of international and established journals available, the panel thinks it would be wise to discuss these issues strategically within the departments and the RCs with the aim of contributing to a broader spectrum of leading journals.
- The Faculty reports problems with completion times for PhD students. To a large extent these problems seem to apply to other faculties as well. Delays in completion times are negative for students but also for the supervisors and the Faculty in the sense that in many areas, PhD students are involved in a substantive proportion of the research.
- A similar problem seems to exist with postdocs and junior scholars, whose employment situation after graduation seems uncertain. In the absence of increasing internal funding, this issue has to be discussed in the context of the budget and the application for external funding.

RECOMMENDATIONS

- The committee finds that the reorganisation with RCs as operational units for research seems to have worked well. It is recommended that this structure is maintained, and there does not seem to be a need for major reorganisations of the daily practices of doing research in the immediate future.
- University of Helsinki is actively promoting interdisciplinary scholarship. The research and competence of the Faculty fit well into these ambitions, especially within the top research area referred to as 'Learning and evolving societies'. The topic is addressed in much of the Faculty's research, and in addition, the Faculty has a documented tradition of engaging in interventions in education and the workforce relevant to this topic.
- The PhD training in the Faculty attracts many applicants. In spite of this competitiveness, there are delays in the time for completion for many students. The Faculty is attempting to raise the awareness of supervisors of this structural problem. The panel agrees with this policy of creating a work modus where the responsibility for following the study plan is shared between supervisors, PhD candidates and the department.

2. Societal impact

Target areas, audiences, research questions and goals

In addition to pursuing their research agenda, the Faculty has a long tradition of collaborating with a broad range of stakeholders: schools, municipalities/cities and professional organisations. The researchers also contribute extensively to public inquiries, policy and reform work in the education sector. Some of these activities are also international. Research-practice partnerships are pursued in many areas, and the development of teacher education is a vital part of the activities. This dimension of the activities is documented through Strategic Research Council projects, the EDUCA consortium, and through long-standing collaborations and innovation activities with the city of Helsinki. The Faculty provides in-service training for teachers, school principals, and other groups in the education sector. PhD graduates from the Faculty are employed as experts in public agencies, ministries and other organisations.

Activities and outcomes

In addition to the central role of the Faculty in teacher training and other responsibilities in the education sector, the Faculty has contributed to society in a number of high-stakes projects and initiatives for the government, for parliamentary committees, and for leading evaluation agencies. Faculty scholars have played an active role in expert groups for the Ministry of Education and Culture and the National Agency for Education in matters that concern teacher education, curriculum development, and the future of the Finnish comprehensive school. A large number of expert reports have been produced, and there are many publications on matters of public engagement during the period (1342). About 30% of all publications from the Faculty are of this kind, and they are addressed both to the public and to professional communities, including policymakers and the Finnish teacher organisations. Faculty scholars participate in hearings and contribute to media on issues that concern schooling.

Collaboration and interdisciplinarity

The Faculty is inter- and multidisciplinary in its teaching and research and in its staff. Teacher training implies having staff members from most academic areas, all the way from the humanities to natural science and technology. Digitalisation of educational activities is another development that calls for collaboration across disciplines both at policy level and in terms of providing support for developmental work in schools, higher education and in-service training. This is also true of initiatives that concern the increasingly pressing issues surrounding young people and wellbeing. The Faculty collaborates with central agencies such as The Association for Finnish Cities and Municipalities, The Trade Union of Education, the Student Union of Finland and the Regional State Administrative Agency. A central actor in the education sector which the Faculty maintains close contacts with is the Finnish Education Evaluation Centre.

Potential and renewal

The Faculty has an extensive and diverse range of activities that concern societal impact. Judging from the documentation, the central position of the Faculty in Finnish society generates productive contacts with public agencies, municipalities and educational institutions/organisations all the way from preschool to higher education and professional learning. An interesting question is the extent to which these activities are converted into research projects with academic outcomes that contribute to increasing the research qualifications of the staff. The documentation mentions several challenging issues that will require innovation in research and collaboration with society. One such area is diversity and problems of racism and discrimination among young people affecting the social climate and life in schools and producing inequalities. General issues of the relationship between schooling and wellbeing among students are also important to research in contemporary circumstances. Addressing such complex issues requires varied research approaches and carefully designed interventions that can serve as models. The multidisciplinary staff of the Faculty, and the extensive experiences of involvement in school development should serve as a strong foundation for such work.

STRENGTHS

- The Faculty has an obvious impact on society through its diverse collaborations with many agencies within the education system, from the national level via municipalities to schools/preschools and other providers of instruction.
- The interdisciplinarity of the Faculty and its research is a productive response to the complexities of the far-reaching responsibilities of education in contemporary society, where young people spend a long period of their life, from preschool to higher education, in educational institutions. This implies that the research and the developmental activities must extend beyond traditional measurements of school performance to include such factors as wellbeing, motivation for continuous learning and development of a democratic mindset. This awareness is recognised in the account of research carried out, and these interests align with the UNESCO chairs at the Faculty.
- The Faculty is aware of the challenges to societal development that have to do with inequities and diversity in increasingly complex societies, and it seeks to respond to these issues through research and collaborations with educational institutions.

DEVELOPMENT AREAS

- The extensive engagement with many actors and institutions raises important issues about the role that participation in outreach and public engagement plays for the careers of scholars, and especially of young scholars, who may not be in a tenure track position. Clarifying how such engagement contributes to careers of scholars is important given the Faculty's strategy.
- The panel has the impression that the Faculty's research is of high quality and of societal relevance, but that the investments in communicating research results are not very extensive. The effectiveness of communication strategies in the valorisation of research should be attended to.
- The documentation points to several important societal challenges whereby research and development work have to be intensified, such as diversity, racism and student wellbeing. Even though such areas are challenging for research and implementation work, the panel thinks it is important for the Faculty to pay even greater attention to

the issues identified. The educational system is an important resource for addressing such contemporary challenges.

RECOMMENDATIONS

- The Faculty should encourage staff, especially early-career scholars, to maintain and cultivate collaborations with all the important agencies in the education sector that the Faculty already has long-standing working relationships with. These networks represent an important capital for the future.
- The Faculty should intensify its research and development work in the areas which it identifies as current societal challenges, including diversity, racism, wellbeing and others.
- The Faculty should intensify its attempts to valorise its important research and research findings by developing its communicative strategies.

3. Research environment

Operating culture

The Faculty is led by the Dean and Vice-Deans, and there is a Faculty Council with 18 members. There is a steering group which includes the Head of Administration, the heads of the two departments and other staff supporting the Dean in the running of the Faculty. There are also other steering groups and committees with specialised responsibilities in teaching, research, public engagement and other areas. The panel is of the opinion that the leadership has worked well during the reorganisation of the Faculty, and the split from psychology.

Sustainability of the research base

The Faculty has invested in career guidance and development, especially for early-career scholars. There is system for promotion from early-career positions to mid-career (the university lecturer level), which involves mentoring and financial support. Professorships seem to be advertised publicly, but this is not entirely clear from the documentation. The Faculty currently has responsibility for two international research schools and the funding for PhD training comes from research grants and from the University of Helsinki Doctoral School. There are also other initiatives, such as the EDUCA (Education for the Future), which has added to the number of PhD students in the Faculty. In 2023, the Faculty had 331 doctoral researchers, although not all were studying full-time. At any rate, this is a substantial number of students, which represents a large commitment on the part of the Faculty, but also provides options to have a dynamic and rich context for PhD training. The PhD programmes which have been in existence attract a large number of applicants from Finland and from abroad. The Faculty has invested heavily in equipment, research tools, software, and other facilities to support the inter- and multidisciplinary research

that is conducted in the Faculty. Much of the research goes on in school settings, and the Teacher Training schools are important for this field-based research. The methodologies for generating data vary from laboratory settings to research in schools, regular classrooms and other settings. This breadth of research approaches requires up-to-date resources of various kinds and a high level of awareness of research ethics.

In terms of funding, the Faculty has a strong position and a diversified body of research funding sources, including substantive donations for projects and teaching within the Swedish speaking sector. The Faculty has been successful in increasing the research funding during the period.

Collaboration and interdisciplinarity

The Faculty is interdisciplinary in its orientation, and the research staff come into educational research from a range of backgrounds. The documentation provided shows that the Faculty's leadership is well aware of this situation and it builds its activities on this platform. There are long-lasting structures such as the Playful Learning Centre and the Minerva Plaza concept, both intended for collaborating and evaluating innovative approaches to learning. The Faculty is also involved with national research infrastructure such as databases which may be deployed for educational research.

Potential and renewal

It is obvious that the Faculty's leaders are responsive to and support the attempts of the University to collaborate across faculties and to increase interdisciplinarity within the areas pointed to by the University of Helsinki. The financial implications of participation in such organisational development activities with restructuring of current activities and new goals do not seem entirely clear at present.

STRENGTHS

- The research environment is robust, and the Research Communities are comprehensive and provide a strong framework for research and for inducting PhDs into the daily practices of research work.
- The Faculty has a strong and diverse research infrastructure both in terms of research competencies (methodological skills, theoretical orientations, experiences of interventions etc.) and in terms of resources (lab equipment, access to databases etc.)
- The general scholarly profile of the Faculty emphasising inter- and multidisciplinary and collaboration with external agencies and stakeholders fits well into the University's framework for research and collaboration with society.

DEVELOPMENT AREAS

- The situation for PhDs during their training and for early-career scholars seems suboptimal at present. This is a structural problem, but it still needs addressing at the local level. In a wider and Nordic perspective, it does not seem feasible that these groups should face challenges of insecure and unpredictable funding during their formative years as scholars.
- The Faculty has a broad basis of funding agencies and has been successful in attracting funding, but it seems obvious that this work has to be intensified even further if the present research base is to be maintained and developed.
- The Faculty has a relatively low proportion of internationally recruited scholars. To some extent this is understandable given the teaching duties in teacher programmes, but it still seems too important to consider this issue in critical areas, for instance those that concern international and comparative education research interests.

RECOMMENDATIONS

- The work on improving the situation for early-career scholars has to continue in collaboration with other faculties.
- The Faculty has an obvious problem with gender balance. Even though this pattern reflects the educational system in a broader sense, attention has to be given to this matter in the daily activities as well as in recruitment. It would also seem wise to increase research into matters of gender imbalance in the education sector.
- The orientation to interdisciplinarity is in line with current university policies, but the Faculty still has to consider the need to have a high level of research competence within the areas which are foundational for educational research.

Faculty of Law Assessment summary

The single discipline Faculty of Law has accomplished much during the current assessment period, following the previous research assessment conducted in 2018–2019. Notably, the Faculty has aligned its research activities with the University's objectives to advance collaborative and interdisciplinary work, achieve greater international recognition and capture more external funding; and it has substantially improved the scale and ambition of its research portfolio, the reach and extent of its societal impact, and the quality of its research environment despite the financially constrained context in which its researchers were working. During the site visit, the Faculty's leadership impressed the panel with their responsiveness to the previous assessment, their understanding of the challenges and opportunities for the discipline, their recognition of the importance of enabling a nurturing research environment and their openness to ideas about how further to enrich the Faculty's own research culture. The Faculty contributes particularly strongly to the University's work on public engagement and societal impact through its research contributions to and collaborations with governments and policy makers, legal professionals, NGOs and multiple industries in Finland, the EU and beyond. This type of knowledge exchange work is a significant aspect of university research in most countries. Considering the role that recognition outside the academy plays in many ranking systems, it likely would advance the University of Helsinki's international profile if its research leadership found more effective ways to support and make visible the knowledge exchange research produced by this Faculty and others in the social sciences and humanities.

STRENGTHS

- Successful alignment of research infrastructure, planning and delivery with the University of Helsinki's objectives to increase interdisciplinarity, collaboration, and international recognition and improve sustainability.
- Exceptional achievement in growing external research funding.
- Outstanding contribution to the University's knowledge exchange activities, especially in public policy.
- Impressive record of growth in collaborative research.
- Striking growth in the proportion of peer-reviewed publications accessible to international (English-speaking) readers.
- Exemplary use of research planning processes as a foundation for initiatives to ensure a facilitative, enabling and inclusive research environment that inspires and engages staff.

DEVELOPMENT AREAS

- The Faculty leadership has established a functional schema of research priority setting and infrastructure development. It could be further developed by setting out strategic choices and considerations more explicitly and by regular review and evaluation of the outcomes of its choices and investments.
- Consideration of whether the Faculty's international research profile would benefit from more investment in another high-profile centre of research excellence.
- The Faculty, in conjunction with the University, should consider incorporating into its research planning explicit expectations regarding the Faculty's investment of time and research capacity in serving domestic and Nordic local cultures, economies, and societal needs.
- Integration of the Faculty's research expertise into collaborative interdisciplinary projects led by other university research units.

RECOMMENDATIONS

- The University should recognise the multiple, complex demands on the Faculty to service local and regional legal and policy-development industries as well as to advance international and interdisciplinary scholarly debates and work with the Faculty to ensure its funding model supports an appropriate mix of local/regional and international/interdisciplinary research without overburdening staff.
- The Faculty should regularly review its model of comprehensive support for knowledge exchange, public engagement, and social impact research activity and consider whether it would be beneficial (in terms of external profile, resource allocation or other Faculty priority) to adopt a more strategic targeted model that concentrates support on a narrower range of topics or activities with more depth and focus.
- Recognising the Faculty's progressive embrace of research collaboration during the assessment period and understanding that integration of its expertise at earlier stages of collaborative project development can contribute powerfully to the framing of problems, methods, mappings, and, crucially, improve the quality of the research questions and proposed work packages. Therefore, the Faculty and relevant university services and strategic units should develop a focused plan to encourage researchers in other disciplines to engage with the Faculty from the earliest stages of project development.
- The Faculty should work with other smaller research units and the University to ensure that university criteria for the viability of doctoral programmes are sufficiently flexible to recognise the opportunity set and context of smaller research units so that the University continues to offer a robust doctoral programme in law.
- The University should work with all research units to ensure it has adequate safeguarding measures in place to protect individual researchers and groups whose research exposes them to hostile, violent or overwhelming responses from users and audiences.

Assessment of the Unit

1. Scientific quality

Research profile and its development

This unit is (historically) a single-discipline Faculty of Law. According to its self-assessment report, it conceptualises legal research “as a tool of societal planning and design, responding to the challenges that affect society, the living environment and markets and relating to various societal trends and local and global changes”. This conceptualisation, which is typical of ambitious law faculties internationally, tends to prioritise research questions pertaining to social policy and planning, legal reform and problem solving, and, as such, it maps out a strong pathway to social engagement and impact. But the Faculty also has longstanding strengths in curiosity-driven research such as the pioneering critical, historical, and theoretical work on international law associated with the Erik Castrén Institute, and there are several other areas of established excellence in fundamental research associated with researchers who publish in English, especially in European law, comparative law, private law, procedural law, legal history/history of laws, and equalities among others. As is typical of the discipline of law across the world, much of the Faculty’s output is derived from desk-based research and deploys conceptual, historical or doctrinal methods, although there is evidence of interest in empirical and mixed method research, especially among the unit’s socio-legal, feminist, and critical scholars. It is likely that further development of interesting methodologies for law is emerging or will emerge through the unit’s intellectual engagements with transdisciplinary research themes such as sustainability and AI.

The self-assessment reports a mixed model of ascertaining research priorities, topics and themes. There is a grass roots or “bottom up” aspect, whereby individual researchers and research groups draw on their expertise and existing networks to select “societally relevant” research topics in their fields; and a “top down” dimension by which the Faculty’s leadership identifies “new emerging research topics” and broader

common themes in research conducted across the unit. This model has the benefits of maintaining maximal freedom for researchers and giving equal recognition to everyone’s research activities. As such, it likely bolsters the researchers’ morale and confidence, which are foundational to research excellence. However, the model also raises questions about the institutional significance of the research priorities that the unit leadership identifies. For example, it is unclear if the recognition of the six research focus areas listed in the self-assessment report serves essentially as a taxonomy of existing research interests and perhaps a convenient way to present their research to the University and others outside the Faculty, or if it also unlocks material ways for the Faculty to support research, e.g., through appointments, allocation of project seed money, incentives to pursue funding opportunities, access to employed doctoral students, and so on. If the role of the recognition is more taxonomic and it does not shape decisions about resourcing research, then the mechanisms by which that work is done should be clarified (as should the purpose of identifying focus areas).

The panel visit confirmed the evidence of the output data and the self-assessment narrative that the Faculty’s expertise is broad in scope with strengths across the main subdivisions of Finnish and Nordic doctrinal law, some excellent comparative, interdisciplinary, theoretical and critical research, and a growing profile in topical and emerging legal fields including aspects of sustainability and AI law. It is evident from the documentation, and the panel visit that in addition to nurturing policy and fundamental research in established and emerging areas of law, members of the Faculty remain significantly engaged in “domestic legal research” and policy making that services Finnish society and its legal profession. Because of the University of Helsinki’s status and the quality of research for which its Faculty of Law is known, this aspect of the unit’s research profile is in high demand (as is particularly well-evidenced through the reporting of societal impact and public engagement) but may not contribute significantly to

the global recognition (or potentially the interdisciplinarity) that the University prioritises.

This tension between servicing local and regional legal and policy-development industries and contributing to international and interdisciplinary scholarly debates is to be expected of a successful law faculty in a university that is dominant within its own jurisdiction. There is room to pursue these different types of legal research in most law faculties, including that of the University of Helsinki. But it is important to recognise that: (1) the multiple, complex and sometimes competing demands of policy, industry-facing and applied legal research versus more conceptual, theoretical or critical ways of contributing to interdisciplinary modes of knowledge creation, will, at times, create challenges for the setting and delivery of the Faculty’s research priorities and for their alignment with the objectives of its university; and (2) without active and careful research support, the burdens these competing demands impose on the capacity of research staff and research leadership will become unmanageable. Discussion during the panel visit suggests that members of the Faculty are very much aware of the tensions and the burdens, but it is unclear whether its leadership has the necessary tools (particularly funding) to address them without additional University support.

Scientific impact

The Faculty is the pre-eminent centre of legal research in Finland, one the strongest law faculties in the Nordic countries, and known internationally for the quality of the research it produces. Aspiring to a ranking among the leading (top 50) law faculties in the world, the unit in 2025 is ranked 63 on the THE World University Rankings by Subject for Law, about 40 places above the University of Helsinki as a whole. On other key international rankings (Shanghai and QS) the Faculty sits among the top 100–150 in law, which is the same bracket as the University.

This faculty has increased and diversified its research funding to a remarkable extent over the review period. The self-assessment reports that the unit leadership strongly supported the development of culture of seeking external funding during the review period through measures such as direct encouragement, target discussions, and accessing university support for training, funding research assistance and so on. These measures have produced noteworthy success in that the Faculty has almost doubled the amount of external funding captured over the review period, with most of that increase coming from EU sources and “other international” sources (RAUH Metric Data, Faculty of Law); and the unit has also had some success with philanthropy. The Faculty’s leadership should be congratulated on a funding record that is very impressive, especially for the discipline of law, which has almost no history of grant capture, and in which research is largely desk-based. Its funding trajectory over the assessment period would be envied by ambitious, successful law schools in most countries.

Publication volume has recovered from the worst effects of the COVID-19 pandemic, with the total number of outputs in 2023 and the number of peer-reviewed outputs restored to levels reported in 2019. The number of peer-reviewed outputs (4.2 per FTE at levels 3 and 4) over the 2019-2023 period is about what would be expected of a high quality research unit in law, a discipline that typically combines very heavy teaching loads with a tradition of single authorship publication practice; and, frequently, as is the case for this research unit, substantial engagement with its local professional and policy audiences. Most (approx. 75%) of the Faculty’s peer-reviewed research outputs are published in English – as are about 50% of the Faculty’s doctoral theses – and in European or international journals (RAUH Metric Data for the Faculty of Law), and more than half are published open access. These indicators of potential reach into research communities that work in English have substantially increased since 2018-19, suggesting that the quality of research produced by the Faculty is known internationally and that it has an excellent foundation on which to build further international recognition and influence.

As noted above, the output data and the self-assessment narrative indicate that the Faculty’s expertise is comprehensive in the sense that research outputs range across the established

fields and sub-fields of law at different local and regional scales (i.e. within Finland, across the Nordic countries, through Europe, and internationally). The self-assessment reports that the unit has selected six focus areas, some of which articulate with intellectual interests that the discipline of law has fostered over the past 30 years or so (e.g., “transnational and globalising law”, “rule of law” and “business and market regulation”), while others (such as the AI theme and research on digitalisation and technological developments, animal law and ecological, social and economic sustainability) respond to recent presentations of urgent societal challenges.

For reasons outlined above it is unclear to what extent the identification of these areas of research focus strengthens the scientific impact or the visibility of the Faculty’s research. It is true that the emerging areas potentially offer opportunities for a law faculty in a small jurisdiction to build centres of research excellence that have significant scientific reach and impact internationally. The University of Helsinki’s Faculty of Law already has the experience of creating a globally renowned legal research centre (the Erik Castrén Institute) and the research leadership of the Faculty could extrapolate key lessons from that experience. However, it is improbable that such a research hub could be established on several fronts (such as the six “research focus areas” listed on the self-assessment report) and to set up even one additional centre would require substantial additional investment. This point reinforces the desirability of clarifying the purpose of the research focus areas and the role they play in the Faculty’s research planning (a theme to which this report returns in the section on Potential and Renewal below).

Collaboration and interdisciplinarity

The Faculty strongly supports collaboration with other legal research units within Finland and with researchers in other Nordic countries, particularly Sweden. There are also good collaborative links with important interdisciplinary research entities in Europe, notably the European University Institute and Germany’s Max Planck Institutes, and several faculty members have collaborative engagements with US or UK universities. The Erik Castrén Institute is a well-established home of collaborative (and interdisciplinary) research within the Faculty and newer centres featured on the Faculty of

Law website such as the Helsinki Animal Law Centre, the Finnish China Law Centre and the University of Helsinki Legal Tech Lab also support disciplinary and interdisciplinary and transdisciplinary collaborations and networks (particularly in the case of the Legal Tech Lab). The self-assessment reports that members of the Faculty are involved in interdisciplinary and transdisciplinary collaborations fostered by the University, including the Helsinki Institute of Sustainability Science, the Helsinki Inequality Initiative, and the Helsinki Centre for Digital Humanities and the Institute of Criminology and Legal Policy (KRIMO) and notes in particular the strength of the latter collaboration. These links and networks nourish a good volume of collaborative research within the discipline of law and offer a strong base for further developing the unit’s interdisciplinary and cross or trans-disciplinary collaborations.

Collaboration was a significant topic of discussion during the panel visit. There is a strong sense that the unit’s research portfolio has been greatly strengthened by the increasing role of collaborative research. In the self-assessment report and during the panel visit it was evident that the Faculty welcomes this expansion of collaborative research and is rightly proud of its growth. The panel agrees that the increase of collaborative research during the assessment period is impressive and would simply note two points. The simpler one is within the Faculty’s control, the more complex point is not entirely. To begin with the latter, which concerns the integration of legal research expertise into collaborative interdisciplinary projects: the unit leadership and other members express understandable frustration that collaborations with researchers in other units at the University of Helsinki often request legal research at late stages of project development or limit the legal research task to providing a basic brief of the law pertaining the matter under investigation. The Faculty observed that integration of legal expertise at earlier stages of collaborative project development would enable its researchers to contribute more powerfully to the framing of problems, methods, mappings, and crucially, improve the quality of the research questions and proposed work packages of interdisciplinary projects. We agree with this observation and would urge the University’s Research Services to work with the Faculty on ways to showcase its expertise more effectively across the University and to encourage researchers

in other disciplines to engage with the Faculty from the earliest stages of project development.

The simple point concerns what more the Faculty could do to showcase and promote its interdisciplinary collaborative research activities as core elements of its research portfolio. It is interesting to note, for example, that just a subset of the Faculty's collaborative links and projects appear prominently on its research web page. While the website makes clear that the list is partial, if the Faculty were to give greater prominence in its researcher and public-facing communications to the multiple ways in which legal expertise can contribute to defining and framing collaborative projects, it might help researchers in other disciplines to understand the benefits of integrating law at early stages of project development.

Potential and renewal

It is evident that the Faculty has worked hard to develop systematic processes of research planning. The self-assessment report and panel interview indicate that the Faculty closely aligns its own research goals to the University of Helsinki's general objectives to increase the quality and internationality of research, promote interdisciplinarity, and strengthen researchers' capacity and readiness to respond to acute societal problems within Finland and beyond. As noted above, the Faculty has identified six "focus areas" of research, all of which it considers "equally important". These are: (1) Transnational and globalising law, (2) Finnish law's articulations with Nordic and European legal systems, (3) regulating the tensions among security, welfare and privacy, (4) digitalisation and technological developments, (5) ecological, social and economic sustainability, and (6) business and market regulation. The self-assessment report highlights support for emerging sub-fields within those focus areas. With the possible exception of (2), which likely privileges research within the ontologies of law, these focus areas and

sub-fields lend themselves to increased internationality, transdisciplinarity, and interdisciplinarity, and readiness to respond to emerging societal problems. In terms of potential and renewal it would be useful for the Faculty's research leadership generally to articulate more clearly how different elements of its research planning relate to key decisions on priorities, strategic choices and resource allocation and specifically to make more explicit its internal processes for identifying and reviewing its research 'focus areas', their lifecycles and the work that the categorisation is intended to do, including the consequences that follow for research that falls within them (and that which does not).

STRENGTHS

- Excellent volume, range, and breadth of research activity for a small research unit that also delivers a heavy teaching load.
- Impressive record of growth in collaborative research.
- Striking growth in the proportion of peer-reviewed publications accessible to international (English-speaking) readers.

DEVELOPMENT AREAS

- Be attentive to opportunities for nurturing the development of emergent methodologies arising from the unit's intellectual engagements with transdisciplinary research themes.
- Better integration of the Faculty's research expertise into collaborative interdisciplinary projects led by other university research units.
- Consider whether the Faculty's international research profile would benefit from more investment in a high-profile centre of research excellence and if so, develop a focused plan and programme of work to secure the necessary investment.

RECOMMENDATIONS

- The Faculty should review the content and communication strategy underpinning its research website and consider what more could be done to showcase collaborative and interdisciplinary research.
- Consider building into Faculty research plans explicit expectations or commitments for the investment of the unit's time and research capacity in research servicing domestic and Nordic local cultures, economies, and social needs.
- Recognising the Faculty's progressive embrace of research collaboration during the assessment period and understanding that integration of its expertise at earlier stages of collaborative project development could contribute powerfully to the framing of problems, methods, mappings, and crucially, improve the quality of the research questions and proposed work packages. The Faculty should work with the University's relevant services and strategic units on a focused plan to encourage researchers in other disciplines to engage with the unit from the earliest stages of project development.

2. Societal impact

Target areas, audiences, research questions and goals

The Faculty has an excellent record of engaging key audiences and stakeholders within lawmaking and advising, and policy fields, especially in Finland, other Nordic countries, and the EU, with more than half (55%) of its publications during the review period (2019-23) being directed at stakeholder and public engagement. As the home of Finland's pre-eminent law faculty, the expertise of members of the unit is sought by lawyers, courts, NGOs, charities, private corporations, and Parliament. Indeed, during 2022 and 2023, the most recent years for which metrics are available, employing about 2.2% of the University's researchers, this faculty is reported to have provided some 21% of the University's expert statements to Parliament (RAUH Metric Data). In addition to its mainstream knowledge exchange and advisory work, the Faculty also offers continuing professional development education for legal professionals, has created courses under the Open University's MOOC brand, and recently received funding to pilot a micro-credentials course related to its AI law research.

Activities and outcomes

The unit supports a variety of knowledge exchange and societal engagement activities, including expert briefs to industry, legal and policy professionals, parliamentary statements and reports, professional and open access education, and so on. This work draws on the comprehensive range of the Faculty's expertise, and the unit's approach is to support researchers to respond to individual opportunities as they arise. The Faculty clearly has success with this approach but in terms of future research planning, it might be useful for it to consider whether it would be beneficial to adopt at more strategic and targeted approach to societal impact, which concentrates support on a narrower range of topics or activities with more depth and focus.

While there is evidence of very high levels of knowledge exchange and engagement activity by the Faculty through expert reports, drafting and professional educational initiatives

etc, there is less evidence of activity directed at engaging members of the public. The unit is not alone in this as the societal engagement data across the University of Helsinki shows similar patterns of knowledge exchange and societal engagement activity directed at specialist and expert audiences (RAUH Metric Data). We encourage the Faculty (and the University) to consider developing more inclusive practices of public engagement in the future.

Collaboration and interdisciplinarity

The Faculty's collaborative networks also contribute significantly to its societal impact. Its partnerships with national and Nordic legal research units, as well as leading interdisciplinary institutes such as the Helsinki Institute of Sustainability Science, the Helsinki Inequality Initiative, the Helsinki Centre for Digital Humanities, and the Institute of Criminology and Legal Policy (KRIMO), create channels through which legal research informs public policy, governance, and societal debate. The work of specialised centres such as the Erik Castrén Institute, the Helsinki Animal Law Centre, the Finnish China Law Centre, and the Legal Tech Lab demonstrates how collaboration across disciplinary boundaries supports the development of legal frameworks in response to emerging societal challenges.

During the panel visit, it was evident that these interdisciplinary collaborations enable legal scholars to contribute to problem-framing and to the development of research questions relevant to wider societal needs. At the same time, earlier integration of legal expertise into interdisciplinary projects would further enhance the Faculty's capacity to shape policy discussions and societal outcomes. Improved visibility of its collaborative work – both internally and externally – would help strengthen understanding of the societal value of legal scholarship and expand opportunities for early engagement in cross-sector research initiatives.

Potential and renewal

There is concern that the Faculty's work in knowledge exchange, public engagement and social impact is not always sufficiently visible to the University or recognised in the unit's research funding. It is important for this concern

to be resolved, whether by better communication about the valorisation and recognition or societal impact work, or the University revisiting how such work is prioritised in the funding of research activity.

STRENGTHS

- Excellent volume, range, and breadth of societal impact and knowledge exchange activity.
- Outstanding contribution to the University's record of and reputation for societal impact and knowledge exchange, especially in public policy.

DEVELOPMENT AREAS

- Consider how the Faculty's knowledge exchange activities can be extended to incorporate greater engagement with the public.

RECOMMENDATIONS

- The Faculty should regularly review its model of comprehensive support for knowledge exchange, public engagement and social impact research activity and consider whether it would be beneficial (in terms of external profile, resource allocation or other unit priority) to adopt at more strategic targeted model that concentrates support on a narrower range of topics or activities with more depth and focus.
- The University's research leadership should engage the Faculty in focused discussions about the support required to sustain its rigorous, high-level knowledge exchange and social impact research. This includes research oriented towards Finnish societies, economies, policies, and communities, as well as its significant contribution to international and interdisciplinary scholarly debates.
- The Faculty should work with other research units to ensure the University has adequate safeguarding measures in place to protect individual researchers and groups whose knowledge exchange research exposes them to hostile, violent or overwhelming responses from users and audiences.

3. Research environment

Operating culture

It is evident from the self-assessment report, and the panel visit that the unit's approach to development of its research environment is facilitative, enabling and inclusive, with the aim of "creat[ing] an effective, supportive and innovative research environment that inspires and engages staff". The self-assessment references several measures that have been adopted to achieve this aim, including (1) staff induction, (2) new team structures, (3) modest funding support for major European grant applications, (4) promoting international mobility, (5) training opportunities, (6) monitoring and supporting wellbeing; (7) encouraging collaborative research; (8) mentoring and so on. These measures exemplify good practice in researcher support, and the Unit is to be commended for using its research planning to identify and respond to researcher development needs.

Since many of these environmental measures seem to be new or substantially revised initiatives, it will be important for the Faculty to review them regularly to assess levels of researcher engagement, with attention to the possibility of differences in engagement between different groups, and whether modifications are required.

Sustainability of the research base

The measures introduced to improve the Faculty's research environment will contribute to the sustainability of its research base, by building researchers' skills, confidence, and motivation, and by signalling the priority the Faculty attributes to entrepreneurial research activity such as fostering networks, developing collaborations, and the pursuit of funding that advances individual and institutional reputations within academia. However, it needs to be recognised that the unit, as a law faculty, is subject to internal and external pressures, expectations, and obligations to support the needs of Finnish legal, NGO, industry, and policy-making communities. Such research contributes greatly to the University's reputation for knowledge exchange, public engagement, and societal impact but it requires secure funding that international research grants will not deliver. The unit would benefit from focused

discussions with the University's research leadership about how to ensure the sustainability of this core type of legal and social impact research.

The self-assessment references "turbulence in doctoral education" that "impacted the Faculty" and questions about the future position of the LL.D. programme; and the topic came up during the site visit. The panel recognises that the funding, positioning and viability of doctoral programmes are complex topics that require a deep understanding of local contexts and constraints. However, from an external perspective, it can be said that if the pre-eminent law faculty in Finland is to develop (or even just to maintain) its reputation as an ambitious, successful incubator and producer of quality research, the unit will require the University to support a robust, sustainable doctoral programme in law.

Collaboration and interdisciplinarity

The Faculty operates within a supportive collaborative environment, benefiting from national partnerships and participation on university-level interdisciplinary platforms such as Helsinki Institute of Sustainability Science (HELSUS), the Helsinki Inequality Initiative (INEQ), Helsinki Institute for Social Sciences and Humanities (HSSH), and Institute of Criminology and Legal Policy (Krimo). These structures create opportunities for researchers to engage with interdisciplinary and transdisciplinary work. Internally, centres such as the Erik Castrén Institute provide a stable foundation for collaboration. Strengthening communication about available expertise would further enhance the Faculty's integration into cross-university research initiatives.

Potential and renewal

The Faculty demonstrates clear potential for renewal through recent investments in researcher development, mentoring and mobility schemes, and support structures for grant applications. Continued development of a sustainable doctoral training environment will be essential for long-term renewal. The Faculty's engagement in interdisciplinary platforms also positions it well to adapt to emerging research themes and evolving societal needs.

STRENGTHS

- Exceptional achievement in growing external research funding.
- Exemplary use of research planning processes as a foundation for initiatives to ensure a facilitative, enabling, and inclusive research environment that inspires and engages staff.

DEVELOPMENT AREAS

- The Faculty might consider building into its research plans explicit expectations or commitments for the investment of the unit's time and research capacity in research servicing domestic and Nordic local cultures, economies and social needs.
- The Faculty should remain attentive to the need to provide active support to researchers who make funding applications and be alert to additional measures that might be useful.

RECOMMENDATIONS

- The Faculty should identify more clearly the purpose of its research focus areas, their relationship with other key elements of research planning and developments in their implications for research support sustainability and resource allocation, e.g., through appointments, project seed money, and other incentives. The Faculty might consider adopting a tier system, with incubator areas that grow into priorities, or some other mechanism to signal how it prioritises and incentivises the various areas of research.
- The Faculty should work with other smaller research units and the University to ensure that university criteria for the viability of doctoral programmes are sufficiently flexible to recognise the opportunity set and context of smaller research units, so that the University continues to offer a robust doctoral programme in law.
- The Faculty should work with the University and other units with substantial programmes of local and regional research and knowledge exchange to secure a robust funding model that encompasses policy and (local) societal research as well as interdisciplinary and international-facing work.

Faculty of Social Sciences

Assessment summary

The Faculty of Social Sciences has demonstrated significant progress during the 2019–2023 assessment period. External research funding increased by 53%, reaching €19.7 million, and the Faculty secured nine ERC grants, four Centres of Excellence, and one Academy Professor. Publication output rose by 35%, with a notable 99% increase in JUFO 3 publications, reflecting a strong emphasis on high-quality research. The Faculty of Social Sciences has been able to create a research friendly culture, which supports applying for funding, doing innovative research, and producing high quality publications. This culture also promotes a remarkable degree of trust and collaboration, both within the Faculty, within the University of Helsinki, and with external partners in Finland and internationally. It has also been able to maintain, to further develop, and to create new strong research profiles internally at the same time as it has successfully collaborated with other faculties to develop university-wide profiles, e.g., through the PROF1 initiatives. The opportunities to use registry data is a unique advantage for empirical studies in Finland and other Nordic countries. These large datasets will become even more important when new methods utilising machine learning and AI develop further. Furthermore, there is an interest in exploring the potentials of combining the use of registry data with a variety of other methodologies.

Despite these achievements, development has not been uniform across all disciplines. The factors behind the lesser development in some parts of the Faculty are not clear, they could be due to certain internal or external factors, or they might be due to normal variations. Presenting its work in social engagement and the societal impacts its research has had are not among the Faculty's strengths. When presenting these engagement activities and the impacts that these have, activities and impacts are often mixed. It is good that the Faculty is benchmarking itself against similar faculties abroad, but this practice has not yet been fully and systematically developed.

STRENGTHS

- Significant increase in external funding (+53%) and success in securing nine ERC grants, four Centres of Excellence, and one Academy Professor.
- Strong growth in publication output, especially in JUFO 3 (+99%), and improved productivity per FTE.
- Development of a research-friendly culture that fosters innovation, collaboration, and high-quality outputs.
- Formation of stronger research groups and active participation in interdisciplinary initiatives, including PROF1 areas.
- Unique advantage of access to registry data for empirical research and potential for advanced methodological applications.

DEVELOPMENT AREAS

- Uneven development across disciplines; some of them show less growth in funding and publications.
- Limited and unclear presentation of societal engagement and research impact; activities and impacts are often mixed.
- Benchmarking practices with international peers are not yet systematic.
- Need to ensure faculty strengths are fully recognised in university-level strategic planning and the University's top research areas.

RECOMMENDATIONS

- The Faculty should assess the factors behind the lower levels of development in some of its disciplines and units and decide whether special measures are needed or if it is just a consequence of normal variations. If special measures should be taken, they could either include measures to transfer good practices, changed recruitment practices, increased collaboration across departments and units or they could include merging departments or discontinuing activities in some areas.
- The Faculty needs to be much better in presenting its work in social engagement and the societal impacts its research has had. In doing this the Faculty needs to separate its engagement activities (e.g., a statement to the Parliament) from the impacts that these (might) have (e.g., a change in the legislation adopted).
- The Faculty should work with the leadership of the University of Helsinki and other Finnish universities to build a functioning infrastructure around national registry data which enhance utilising their full potential in research.
- The Faculty needs to become better in presenting and communicating what it does and where it is excellent to the leadership of the University of Helsinki, because at the moment, the strengths of the Faculty are not fully recognised in the documents and the planned top research areas of the University.
- The Faculty should further articulate the principles behind its benchmarking and the usefulness of a more systematic choice of institutions to involve in these activities.
- The Faculty should use the recommendations of this evaluation as systematically as they used the recommendations in the previous research assessment.

Assessment of the Unit

1. Scientific quality

There has been a positive development of the research quality at the Faculty of Social Sciences during the evaluation period. This is seen in the ability for the Faculty to obtain external funding, in the innovative research approaches and topics as well as in the publications by the Faculty's researchers.

During the assessment period 2019-2023, the amount of external funding increased by 53%, from €12.85 million in 2019 to €19.7 million in 2023. Competitive funding from Research Council of Finland, the EU and other international funding sources has increased substantially. The funding from the Research Council of Finland has come from many different instruments. During the period, the Faculty obtained nine ERC grants, four Centres of Excellence and one Academy Professor.

The emphasis on high-quality research is also manifested in a growth of the number of articles published in high-quality journals by researchers at the Faculty of Social Sciences. This was also one of the recommendations of the 2018 evaluation. In 2023, 986 publications were published in publications recognised by the Finnish Publication Forum (JUFO). This is a 35% increase compared to the 730 publications in 2019. The number of publications has increased in all JUFO categories, but it has been highest in the JUFO 3 category, which represents the highest quality publications. The number of publications in JUFO 3 increased by +99%. In 2023, 239 publications were in JUFO 3, which is 24% of all JUFO publications by the Faculty's researchers.

The self-assessment and the interviews stress several reasons for the positive development including recruitment, increased research funding, stronger research groups, and a changed culture, which now is more research friendly. These factors have jointly worked in a way that strengthens both the efforts of the individual researchers and the research communities and give them a strong position to collaborate with others within the University and beyond.

While the metric data, the self-evaluation and the interview showed a very strong development in the quality of both research funding and publications it is not clear that this is the case across the whole faculty. Based on the metrics provided one can see: a strong development of external funding for Sociology, the Centre for European Studies, the Institute of Criminology and Legal Policy, and Helsinki Institute for Demography and Population Studies. ERCs and Centres of Excellence have been granted to Social and Cultural Anthropology, Sociology, Economics, Social and Public Policy, the Centre for European Studies and Helsinki Institute for Demography and Population Studies. But at the same time there are some disciplines with falling external funding. For example, Global Development Studies and Social and Cultural Anthropology. For Economic and Social History, the annual volume of external funding is low and has not increased. Also, for these disciplines, the number of publications has been stable. There are also huge differences in the number of publications per FTE at staff levels 3 and 4: from 8.1 in the Helsinki Institute for Demography and Population Health, 7.1 in Political history and 7.0 in Sociology to 2.1 in Social and Cultural Anthropology and 1.3 in Economics. The factors behind the lower levels of development in some parts of the Faculty are not clear; they could be due to certain internal or external factors, or they might be due to normal variations.

Research profile and its development

During the evaluation period the Faculty of Social Sciences has developed stronger research groups, a new matrix organisation and an increased focus on methods.

During its oral presentation, the Faculty put forward four areas of emphasis, which were further developed from what had been presented in the written self-evaluation. These were:

- Environmental and population health
- Inequality and participation in ageing and diversifying societies
- Democracy, governance, and security in a changing world
- Data-driven analysis of society

The research focuses in the Faculty of Social Sciences combine new innovative ideas and approaches with a long legacy in

the Faculty and the traditions built by scholars who worked there. The tradition that the University of Helsinki is famous for is built on links between empirical studies of society and theoretical approaches, links to philosophy and law, but also a combination of quantitative studies and interpretive analyses. In all these areas, the University and its Faculty of Social Sciences have been remarkably successful not only in preserving the core of these traditions but also in significantly advancing these areas of strength of relevance for most social science disciplines.

The consolidation of stronger and larger research groups has been a process combining bottom-up initiatives with incentives and facilitation from the Faculty's leadership. Based on the interview, both the process and the proposed areas of emphasis were seen by the staff as legitimate, but we spoke to only a small subset of them. In a research culture with a positive amount of peer pressure, the researchers who do not currently belong to the areas of emphasis are proud of them, while also working to make their own area stronger. It is to the credit of the University and the Faculty that such a mutually supportive and encouraging research culture seems to persist across the entire Faculty.

One of the strengths of the Faculty of Social Sciences is the utilisation of large datasets in empirical analysis. These large datasets include the registry data provided by Statistics Finland. Although these datasets have been huge assets for the Faculty and some dedicated infrastructure resources have been obtained from the Research Council of Finland, making full use these datasets could be further enhanced. This would require changing the way that individual researchers and research projects have to pay for access to data from Statistics Finland (for example), and such a change may demand a change in the legislation and financing of Statistics Finland. Since this is a crucial factor, the Faculty and the University need to give it a high priority and need to work with other Finnish universities and stakeholders to resolve the obstacles and build the unique registry datasets into a piece of the professional research infrastructure. Such infrastructure should also contain, or be linked to, adequate support and tools for analysis.

Scientific impact

The information available in the metrics supplied, the self-evaluation, and in interviews tells us little about the scientific impact of the research. The publication metrics give us information on the numbers of publications in the various JUFO categories. But we have no quantitative measures about the impacts on citations, for example. Neither do we have qualitative information on key publications and the contribution they have made to advance our understanding.

However, the self-evaluation as well as the oral presentation highlighted several bold research ideas that have been evaluated as promising in peer review processes to obtain funding. These include PROFI initiatives (e.g., Diversity in Society and Life (DIVSOL), Helsinki Institute for Social Sciences and Humanities (HSSH) and Helsinki Inequality Initiative (INEQ)), Centres of Excellence (e.g., the EuroStorie, AgeCare and Tax System Research Centres of Excellence), ERC projects, large projects funded by the Strategic Research Council as well as the Max Planck Institute for Demographic Research in Rostock – University of Helsinki Centre for Social Inequalities in Population Health (MaxHel).

It is good news that the Faculty of Social Sciences is benchmarking itself internationally, for example, against the London School of Economics. However, it is not clear how this benchmarking is being done and how (or if) it is used to enhance the quality and impact of the research undertaken in the Faculty.

Collaboration and interdisciplinarity

The Faculty of Social Sciences showed an increased amount of collaboration between disciplines and units which can be seen in the work included in the four proposed areas of emphasis presented during the interview.

The Faculty has also participated extensively in cross-faculty initiatives, especially through the PROFI initiatives. Both the Faculty's self-assessment report and the panel's interviews with representatives of the Faculty, the profile building areas (PROFI) and the University of Helsinki Research Council clearly showed that the Faculty of Social Sciences saw these initiatives as important for both renewal and cross-faculty interdisciplinary research. It was thus surprising to observe that neither the Faculty nor the panel saw the

Faculty's strong areas of social science research reflected or utilised in the process or in the proposed University of Helsinki top research areas.

Collaborations with researchers outside the University of Helsinki were also clearly exemplified in many large projects funded by the Strategic Research Council, The Helsinki Graduate School of Economics, which is a joint effort with Aalto University and Hanken School of Economics. International collaboration was clearly shown in the Max Planck (MPI for Demographic Research) – University of Helsinki Centre for Social Inequalities in Population Health and in the increased number of projects financed through Pillar II in Horizon Europe.

Apparently, the strategy of the Faculty has been to promote bottom-up development of interdisciplinary research and then to support promising initiatives. For some of the larger efforts, such as applying for funding from the EU, from PROFI, or from the Strategic Research Council, the researchers also received support from the University's Research Services. This support was greatly appreciated, and the quality of the support was seen as high.

The panel's assessment is that the Faculty of Social Sciences has increased its collaborations and interdisciplinary research efforts considerably in the evaluation period. This concerns research in the Faculty, with other faculties at the University, other Finnish universities and research institutes, and international partners. We expect that this will result in an even higher share of international co-authored publications in the future, among other things.

Potential and renewal

During the evaluation period the Faculty of Social Sciences has shown great renewal in both topics and research culture. This has resulted in a large increase in external funding and in many new collaborations. These will be important assets in the future when it is likely that research funding at Finnish universities will be even more dependent on competitive external funding and a larger share of that funding is likely to be directed to larger research groups and consortia.

STRENGTHS

- A strong increase in external funding to the Faculty and a high number of ERC grants and Centres of Excellence.
- A large increase in numbers of publications, especially in the highest JUFO category 3. Both the total number of publications and the number of publications per FTE have increased.
- Much stronger research groups than previously have developed in the Faculty.
- An increased willingness to collaborate and to do interdisciplinary research, both within the Faculty, with other faculties at the University of Helsinki, with other Finnish universities and research institutes and international partners.
- A more positive research culture has developed within the Faculty.

DEVELOPMENT AREAS

- The Faculty should continue to nurture its positive research culture and, in the future, should also be open for collaborations.
- The strong development of the Faculty is also seen in the development of many disciplines and units, but not in all of them. The factors behind the lower levels of development, in obtaining external funding and publishing in some parts of the Faculty are not clear. They could be due to internal or external factors, or they might be due to normal variations.
- The researchers and the leadership of the Faculty are too modest; they could be prouder of their achievements.

RECOMMENDATIONS

- The Faculty should continue to nurture its positive research culture and, in the future, should also be open for collaborations.
- The Faculty should assess the factors behind the lower levels of development in some of its disciplines and units and decide whether any special measures are needed or if this is just a consequence of normal variations or differences in the nature of the disciplines. If special measures should be taken, they could either include measures to transfer good practices, changed recruitment practices, increased collaboration across departments and units, or they could include merging departments or discontinuing activities in some areas.

2. Societal impact

Target areas, audiences, research questions and goals

The self-assessment report and the oral presentations provided limited information on how the Faculty works to enhance the use of its research and to have societal impacts. This could be due to the lack of such activities or because these activities are so self-evident to the Faculty that they are not mentioned. During the interview it became evident that the Faculty's researchers have extensive engagement with societal stakeholders and are very involved in the drafting of new legislation, for example. Many researchers are involved in experts' committees, for example the Economic Policy Council, which is currently chaired by a professor from the Faculty, was mentioned.

The close links that exist between researchers at the Faculty of Social Sciences and societal institutions, notably Parliament, political parties, government commissions, trade unions, and business associations but also some of the major media, are quite exceptional in international comparison.

A wide range of mechanisms link research at the University of Helsinki to societal institutions and stakeholders. They range from the legally prescribed role of the Institute of Criminology and Legal Policy (Krimo) in the process of drafting and adopting laws, over long-established contacts between research centres and government agencies, to direct links between researchers and organised stakeholders and social movements. Research at the Faculty of Social

Sciences exhibits a range of patterns of interaction across this spectrum. As stated, the extent of such contacts is extraordinary by international standards but perhaps also taken for granted by researchers to some extent. The Faculty should articulate the trade-offs inherent in such interactions more explicitly. This should also lead to the formulation of guidelines that safeguard a reasonable workload for research leaders and the core academic leadership.

Thus, the Faculty of Social Sciences is engaged in extensive and successful processes of valorisation. However, despite the long history of such activities and the proximity between researchers and societal stakeholders and governmental institutions, there is a need for an assessment of optimal forms of these processes in the contemporary context of the University of Helsinki.

Activities and outcomes

The Faculty has researchers with excellent contacts in authorities, ministries, the Parliament, and many other societal actors. Through its engagement in projects financed by the Strategic Research Council, researchers have acquired skills to develop and implement processes and actions for co-creating knowledge with stakeholders. At the same time, the Faculty is poor at presenting its work in social engagement and the societal impacts its research has had, and it often mixes engagement activities with the impacts of these activities unclearly. The Faculty should develop its ability to present its social engagement and the impacts these engagements have in society.

Collaboration and interdisciplinarity

Many of the examples given by the Faculty of Social Sciences of deep engagement with a variety of societal actors are from large consortia. Many of these have been funded by the Strategic Research Council. These projects and winning them against stiff competition shows that the Faculty can collaborate with academic as well as societal actors to produce knowledge of societal relevance. These projects also demonstrate their ability to engage in multi-, inter- and even transdisciplinary research.

Potential and renewal

While the Faculty of Social Sciences gave many examples of successful coproduction of knowledge with societal stakeholders there was a range of views on how to develop these processes further. In particular, this concerned large projects funded by the Strategic Research Council. Some took the view that the expertise of organising the processes of coproduction and involving stakeholders has been done successfully by specialist bodies such as Demos. They argued that it would be good to continue in the same way. Others argued that it would be beneficial to have this expertise in-house, i.e. within the Faculty. However, if the Faculty of Social Sciences were to develop all the practical expertise required for advanced coproduction processes in-house, it would also have to deal with questions of how to value and assess the merits of organising coproduction processes in relation to research and education. It is therefore important for the Faculty to continue the discussion on this topic to try to reach a common position.

STRENGTHS

- The Faculty has researchers with excellent contacts in authorities, ministries, the Parliament and many other societal actors.
- Through its engagement in projects financed by the Strategic Research Council, researchers at the Faculty of Social Sciences have acquired skills to develop and implement processes and actions for cocreating knowledge together with stakeholders, which can be important for both research quality and societal impact.

DEVELOPMENT AREAS

- The Faculty is poor at presenting its work in social engagement and the societal impacts its research has had.
- The Faculty is not making it clear when they present engagement activities and when they present the impacts that these activities have; these are often mixed in an unclear way.

RECOMMENDATIONS

- The Faculty should develop its ability to present its social engagement and the impacts that these engagements have in society.

3. Research environment

Operating culture

In the self-assessment of the Faculty of Social Sciences it is stated that “The Faculty fosters a research-friendly work culture by encouraging all staff to see themselves as researchers and teachers, regardless of their title and job description.” This is very important. The Faculty also mentions “a research-friendly culture” as one of the main factors behind the successful development of the research quality, the increased external funding and the renewal of the research. The panel sees it as important that the changed culture is maintained and that the Faculty ensures that this development involves all parts of the Faculty.

Sustainability of the research base

The Faculty struggles with the balance between external funding and core funding. On one hand, the Faculty has been successful in obtaining more external funding, but at the same time, there is concern that external funding might not be available to the same extent in the future. Based on both international experiences and recent national developments, it is clear that core funding is also uncertain. The panel thinks that the funding base would be less uncertain if funding was derived from several sources, including international ones. It could also be an advantage for the Faculty to have a broader perspective on the uncertainties related to different funding streams, including core funding from the state.

In particular, it is important to address the situation of doctoral researchers. The fact that only 21% of the doctoral students have finished studying after a period of five years, indicates a need for additional support for this category during their period of training. At the very least, the situation should be noted and considered. As for the other three categories of researchers, Finland does have programmes, not least the Academy of Finland, that are designed to promote their conditions, including positions as Academy Fellows and Academy Professors. Even so, there may be a need for Finland to consider whether it wants to create a programme for sustained enhancement of some of the more promising scholars at career levels 2 and 3. There are

two ambitious programmes of this type in neighbouring Sweden: the so-called Wallenberg Academy Fellows, and the Pro Futura Scientia programmes. Without replicating any of these programmes, arguably, the University of Helsinki would be the ideal site for a programme in Finland with the aim of promoting young scholars in the critical second and third stages of their careers.

Collaboration and interdisciplinarity

It is clear from both the self-assessment and the interviews that the willingness to collaborate and the interest in collaboration and undertaking interdisciplinary research has increased at the Faculty of Social Sciences. This concerns collaborations between disciplines within the Faculty, collaborations with other faculties at the University of Helsinki, and with other universities and research institutions in Finland and internationally. The preparedness to collaborate and to be engaged in interdisciplinary research has resulted in the formulation of four common proposed areas of emphasis, in many large externally funded collaborative projects and in coauthored publications.

Potential and renewal

Any renewal of the preconditions of successful research in a university depends on access to meaningful indicators of scholarly developments and achievements. The prevailing analysis of scholarly publications in the social sciences focusses on monographs, but to an increasing and dominant extent, to articles in various types of scholarly journals. At many universities, over the course of the last half-century there has also been a drift in the direction of forms of publication required for a PhD, namely a shift away from monographs and towards a collection of articles. This is a natural and perhaps even inevitable development. However, in those fields in which monographs still constitute a prominent form of publication, there may be a need to consider ways of preserving their usefulness for the wider scholarly community. For the academic world at large in the areas of the social and human sciences, high-quality edited volumes play a significant role, both for stocktaking previous achievements and charting areas of further scholarly advances. This role cannot easily be replaced by the writing of articles, even if published in

high-quality journals. Therefore, there is a need to identify alternative methods to enhance this crucial role.

This role is even more significant in a situation of rapid scholarly advances, because it is a means to enable renewal and a process of reorientation. An excellent university should encourage an open and well-informed discussion about the potential of reorientations across scholarly domains.

STRENGTHS

- The Faculty has created a research environment without traditional departments, but with twelve disciplines and five multidisciplinary research units. This structure has supported the Faculty in developing a new research culture and in engaging in interdisciplinary collaborations.
- The Faculty has been able to renew its research focuses at the same time as it has been building and nurturing its traditional strengths.

DEVELOPMENT AREAS

- The Faculty could still develop how it sees the risks related to various sources of funding, including core funding from the state.
- The Faculty could further develop how it handles a portfolio of research projects in a way in which applying for funding becomes a more integrated part of the research process rather than something extra.

RECOMMENDATIONS

- The Faculty should continue to nurture its research-friendly culture.
- The Faculty should continue to be open to collaborations between disciplines at the Faculty, with other faculties and with other universities.
- The Faculty should continue to increase its external funding and thus become less dependent of the uncertain research funding from the state. The Faculty could be leading more large consortia applications.

Faculty of Theology

Assessment summary

Based on the metrics, the self-assessment report, and the on-site interview, the performance of the Faculty of Theology with its outstanding achievements is clear. Its research output (in top international journals and series, as well as national ones), its belonging to the University of Helsinki's top 5 units (taking into account their FTE), its Centres of Excellence (six in the recent past, one currently shared with the Faculty of Humanities, one just approved), its personnel structure and numbers (44% permanent vs 56% fixed term), its collaboration with the Faculty of Humanities and the Faculty of Social Sciences, its relatively large number of doctoral students (162, of whom 32 are funded by external grants and 18 by the University of Helsinki), demonstrate its outstanding scholarly quality.

Their vision for a bright future has been clearly formulated (see their scientific profile and goals as well as the Teovisio 2035-plan). Its current ranking in the subject QS ranking is excellent; its goal of moving up in the international ranking systems (QS subject ranking 2022: 20; 2025: 45, a slight dip) is realistic.

The scholarly profile of the Faculty of Theology for 2021-2030, is stated using five key phrases:

- Bringing together a wide variety of expertise with multi-disciplinarity and ambition in innovative methodology in theology and religious studies as its characteristics.
- Religious interaction in various cultural contexts, focusing on identities, conflicts, dialogue and peaceful interaction.
- Theological, religious and belief-based ideas and conceptual systems: their emergence, historical development and societal and cultural impact.
- Religious diversity in global and local contexts.
- The relevance of religions, beliefs, and values to wellbeing and sustainable development.

In summary, the Faculty of Theology has a track record of discipline-specific expertise, with many international collaborations and partnerships. It has started to transcend its historical boundaries and has flexibly reinvented itself. The Faculty has already proven to be an esteemed international scientific partner, with multi- (and cross-) disciplinary expertise and extensive field specific expertise, which enables not only the University of Helsinki but also the global world to generate sufficient understanding in order to solve problems.

There is room to improve: whereas the Faculty of Theology belongs to the top of its field, perhaps due to its humble attitude, it has not yet translated in the University of Helsinki's Faculty of Theology being put in the top 5 of the QS subject ranking. The Faculty needs to remind their international colleagues of its excellence. Moreover, although it most likely thinks it already does, it still needs to align itself more effectively with the top research areas of the University of Helsinki at large. It needs to make its contribution to the top research areas more visible.

STRENGTHS

- The Faculty of Theology has an outstanding standing in the academic field and is one of the world's leaders in the field.
- The Faculty is able to attract outstanding PhD students.
- The Faculty has demonstrated that it can be flexible and adapt to new contexts and new societal complexities; it has already reinvented itself by adding new subfields.
- The various subfields, both the traditional and newly emerging ones, are already engaging in cross fertilisation and intensively working together, so that the distinction between traditional and new is already started to fade away.
- The Faculty has a track record of obtaining major grants and projects and its output is ranked very highly.
- From its very early days, the Faculty has been interdisciplinary (working across languages, linguistics, history, archaeology, philosophy, ethics, sociology, etc.); moreover, in recent years, it has developed many collaborations with other faculties in projects, PROFI initiatives, publications, etc.
- In many of the subfields of theology, the Faculty has set the standard for the field.
- The Faculty of Theology seems to have created a perfect paradisaical environment for both core and fixed term staff.

DEVELOPMENT AREAS

- The Faculty of Theology may want to engage in a faculty-wide discussion about its own formulated five scientific goals in combination with the directions as proposed in Teovisio 2035.
- The Faculty needs support in developing a plan to assist its large number of excellent post-doctoral researchers.
- Whereas there is a lot of buy-in from the Faculty of Theology into the PROF1 initiatives and to a much lesser extent in the University of Helsinki's top research areas, there needs to be a more bottom-up discussion in the University in which the Faculty of Theology is much more involved.

RECOMMENDATIONS

- Although most peers in the various subfields know that the Faculty is among the top, it has not yet reached the top five of field-specific rankings. It is therefore recommended that the Faculty of Theology receive support and develop a strategy to market itself and demonstrate its excellence globally.
- The Faculty may need to develop a process or establish dialogue rounds to ensure that it achieves its self-determined goals.
- The Faculty needs to position itself more effectively in university-wide policies and discussions about, e.g., the top research areas and profile building areas of the University of Helsinki at large.
- The Faculty needs to prepare for its 400th anniversary (possibly in collaboration with the Faculties of Law, Medicine, and Humanities).
- The Faculty may benefit from training on how to work with social media.
- (Minor: The Faculty of Theology ought to increase the visibility and accessibility of its existing list of PhDs awarded since 1640).

Assessment of the Unit

1. Scientific quality

The Faculty of Theology's academic profile can be summarised with the following phrases:

- Bringing together a wide variety of expertise,
- Study religious interaction in various cultural contexts,
- Research theological, religious and belief-based ideas and concept systems,
- Study religious diversity in global and local contexts,
- Map the relevance of religion, beliefs and values to well-being and sustainable development.

In the description of the above formulated identity, one can observe a dual track: classical expertise and emerging fields. The Faculty of Theology has demonstrated its expertise in the traditional disciplines but has already started with an innovation and renewing process, by including and fostering new areas of research, especially in the field of religious studies. In its emerging fields, the Faculty is already demonstrating the same level of excellence as in its traditional fields.

During the interview, it was noted that the traditional and emerging fields are engaged in a fruitful interaction.

Moreover, the Faculty has a proven track record of interdisciplinary and interfaculty cooperation and collaboration.

Through its publications, conference papers, and Centre of Excellence-related conferences, the Faculty is recognised for leading innovation in the field of theology and the study of religions.

Its ultimate goal is twofold: it wants to be counted among the best in at least Europe and to contribute to the needs of the Finnish and global society at large (for the latter, see impact).

Research profile and its development

The Faculty of Theology has a track record of top-quality research in its various subfields (see above for ranking). The contexts, contents, and output of the subfields are more than appropriate. Moreover, the Faculty actually has many high achievers: all subfields have a high level of output, contribute to their respective fields through papers, seminars and contributions to conferences. Staff members in all subfields are major players in peer-reviewed series and journals. The quantity and quality of the research is top, with the majority of the Faculty publishing and contributing more and higher quality than many of their European peers.

The methodologies as used in the subfields are diverse, as the range of studies is large (from Ancient Near East to contemporary problems, from textual studies to practical influence in hospital settings; from languages to empirical data and digital analysis), but they are finely formulated and in tune with the methodologies as used in the related and cognate fields. The Faculty of Theology is even formulating the standards for the research in the international world (see, e.g., Nissinen and Jokiranta, 2024).

The Faculty is also known for its interdisciplinary model of working both internally within the Faculty and its different subfields as well as with other faculties within the University of Helsinki (see below).

Moreover, on its own initiative, it developed its own vision for the future, entitled Teovisio 2035, in which it outlines how the classical disciplines and the newly emerging fields are working together to address the important issues of life and society.

Scientific impact

Whereas the Faculty of Theology has developed a world leading expertise in the traditional fields of theology, it has also engaged in developing new approaches, in an interfaculty and interdisciplinary context.

In their Centres of Excellence, for instance, the Faculty has taken the opportunity to doing real interdisciplinary research seriously by testing out how interdisciplinary research can optimally be structured, with the exercises resulting in not just many articles co-authored with people from other faculties, but these articles demonstrating how true interdisciplinary work ought to take place. Much appreciated are articles and book chapters produced by teams of juniors and seniors from different fields within Theology as well as in cooperation with the members of the Faculty of Humanities. The output of the Centres of Excellence has also led to discussions in the subfields of the Faculty of Theology about merging versus distinguishing of previously formulated methods, and thus, the Faculty has newly defined methods and even fields. The result of this methodological discussion has been published and is now one of the trend-setting volumes on methods in the field. A parallel volume on methods (which hitherto does not exist) in Ancient Near Eastern Studies is currently in planning (see Saana Svärd, Centre of Excellence ANEE). Note the impact of the Centres of Excellence on the Faculty of Theology and the field at large.

Moreover, the Faculty of Theology is establishing new directions of research and is thereby again putting theology at the University of Helsinki at the forefront of theological education, including the study of religions.

Collaboration and interdisciplinarity

Within the Faculty of Theology, its projects and Centres of Excellence, there is a strong practice of collaborating across the fields and faculties, such as (data taken from the self-assessment report and the interview about the University of Helsinki profile building areas):

- Visible in its collaboration through CODICUM (ERC Synergy),
- Visible in its collaboration through CHARM (Research Council of Finland)
- Visible in its collaboration through RESTORY (EU Horizon Europe)
- Visible in its collaboration through Prof. Pessi's CoCo project (Research Council of Finland)
- Visible in its collaboration through "To Donate or Not To Donate"-Project (Blood Service Research Fund)

- Visible in Prof. Silverman's project WORK-IT (ERC Advanced Grant) housed in the Faculty of Theology, with links to the Faculty of Humanities,
- With the Faculty of Theology being a co-host for the Helsinki Research Hub on Religion, Media and Social Change (Heremes), an interfaculty initiative involving the Faculties of Humanities, Social Sciences and Theology,
- With the Faculty of Education, through the joint professorship in Sustainable Futures in Education (Hohti),
- Through DIVSOL, PROFI 8,
- Through RESET, PROFI 7.

It needs to be noted that interdisciplinary research also takes place at the level of PhD supervision (Theology, Humanities).

The interdisciplinary and interfaculty cooperation happens at all levels of research, from doctoral researchers and postdocs to full professors.

Potential and renewal

The Faculty of Theology truly has the potential to become *the* leading institution in theology and religious studies, at least in Europe. To achieve this goal, in addition to its officially established academic goals and vision (see above), the Faculty has recently formulated an all-encompassing visionary programme called Teovisio 2035, entitled "Understanding Humanity and Religion – for the World." This programmatic vision is the result of a faculty-wide discussion with other stakeholders in the traditional fields as well as in the newly emerging contexts and groups. This strategic plan was evaluated by an international panel. It demonstrates how aside from continuing to keep up its academic excellence in the already established fields, the Faculty of Theology is also adding strength in newer fields, such as the study of religions.

The Faculty is on track to become a world leader in theology and the study of religions.

It was noted during the interview, that the different subfields, traditional and newly emerging, are already engaging in cross-fertilisation and intensively working together, so that the distinction between traditional and new is already begun to fade.

The Faculty of Theology also noted the beneficial relation with the Helsinki Collegium of Advanced Studies (HCAS) –

particularly regarding incoming top fellows and winter schools. The interdisciplinary nature of HCAS fits well with that of the Faculty of Theology.

The Faculty also remarked on its intention to continue to write grant proposals to the Research Council of Finland, the ERC, and many other institutions.

However, in order to achieve the goals as well as set these goals better within the landscape, priorities and top research areas of the University of Helsinki, several steps need to be taken, such as:

- The development of a process to map out how the scientific goals formulated by the Faculty will be implemented,
- An ongoing dialogue about Teovisio 2035 in order to see how it functions in the research profile of the Faculty of Theology,
- The development of interaction with the top research areas as formulated by the University of Helsinki as well as further buttressing the contribution of the Faculty of Theology to the profile building areas of the University at large (such as PROFI 7 RESET; and PROFI 8 DIVSOL; the link to sustainable futures and earth needs should also be better articulated),
- (Possibly) the creation of a milestone plan for applications to the Research Council of Finland, ERC, etc. for both the traditional fields as well as the new emerging fields.

STRENGTHS

- The Faculty is world-renowned for its strong and internationally acclaimed discipline-based approach to renewing the field.
- The Faculty has taken the initiative to establish emerging fields and has integrated them effectively within the Faculty.
- The Faculty has, in addition to formulating its academic profile, initiated a dialogue to envision future (Teovisio 2035: Understanding Humanity and Religion – for the World), including how it sees interdisciplinary research.
- The Faculty has a track record of obtaining Centres of Excellence, ERC grants, and Research Council of Finland projects, and it actively engages in interdisciplinary collaboration with other faculties.
- In relation to the academic FTE, the Faculty is among the top 5 units of the University of Helsinki in terms of publication output.
- The Faculty is moving towards publishing articles (already many open access), although monographs continue to hold high standing.
- The Faculty has an excellent doctoral programme (TRES), which must be kept independent within the University of Helsinki Doctoral School.

DEVELOPMENT AREAS

- Whereas the Faculty of Theology has close to 60% of its staff on grant and project money, it may benefit from more academics funded through the core budget of the University, which would in turn result in more fixed-term contracts within Centres of Excellence or projects.
- The Faculty in its personnel structure (ratio core versus project) resembles that of the natural sciences.
- The Faculty wants to continue to benefit from the interdisciplinary research and winter schools offered by the Helsinki Collegium for Advanced Studies (HCAS).

RECOMMENDATIONS

- The Faculty of Theology needs to develop a process urgently to implement the academic goals it has defined.
- The Faculty needs to set up a faculty-wide conversation to determine how the academic profile as formulated by the Faculty aligns with the newly formulated blueprint entitled Teovisio 2035.
- The Faculty absolutely needs to make its excellence more visible, so that its top value can be reflected in rankings such as QS.
- The University may help the Faculty to market its top expertise more strongly and make it more visible.
- The Faculty needs to position itself more effectively within the university context and university politics, lest it disappear from the central radar (especially regarding its contribution to the top research areas of the University).
- The Faculty may need to develop critical mass by strategically collaborating more with the Faculty of Humanities and other faculties.
- To the University of Helsinki: Keep TRES, the doctoral programme in Theology and Religious Studies in operation. The Faculty appreciates the flexible application of the number of doctoral researchers as required to accommodate doctoral programme (especially given that the entire staff consists of 70-80 research staff and approximately 30 grant researchers) and should be given the same flexibility in the future (thus please no strict application of the 20 PhD doctoral researchers rule).
- Would it be a stretch for the Faculty of Theology to start planning its 400th anniversary by becoming number one in the world? (Royal Academy of Turku/Åbo, 1540; see University Museum Flame).

2. Societal impact

As the Faculty of Theology is the main hub for several degree programmes, offering multiple study tracks (a generalist track, which includes about 50% of the students; a track leading to qualification as a subject teacher; a track for the formation of the ministry in parishes and churches; and most recently, Islamic theology). The latter is actively forming the present and future of religious education in a variety of educational settings as well as delivering knowledgeable and highly trained personal for many communities of faith, including the Muslim community. Moreover, it has a series of media contacts and web portals (Teologia.fi and Katsomukset.fi) that are used intensively.

The Faculty has also gained strong public visibility through major prizes awarded to its scholars, such as the Lauri Jäntti prize, and through a nomination for the Finlandia non-fiction award (Mäkipelto and Huotari 2024).

Target areas, audiences, research questions and goals

The Faculty is successful in engaging relevant audiences and stakeholders. This is most obvious because they developed their strategic plan, Teovisio 2035, in consultation with not only the members of the Faculty, other faculties, but all the major stakeholders from the church and state.

Moreover:

- By its teaching, it reaches the children of Finland,
- By its delivering for ministers of all communities of faith, it reaches those people who identify as religious and engage in institutional practice,
- By starting a programme in Islamic Theology, it now also engages with the newest members of the Finnish society.

Given the fact that the Faculty of Theology has developed world-renowned expertise in most of the fields, all its teaching is research led and thus, its impact is of a high quality. Its goal is also to deliver top expertise in Islamic Theology is within its prerogative and capabilities. (The guidebook developed for

how to deal with Muslim patients in medical/hospital settings is an excellent output).

Activities and outcomes

Most staff members engage with the wider audiences (teachers, ministers, including imams) indirectly through their research-led teaching and directly through direct engagement with the multiple stakeholders using a range of media.

Especially important are the series of very intensively used platforms, created and upheld by the Faculty of Theology, such as teologia.fi.

Collaboration and interdisciplinarity

The Faculty of Theology has a track-record of collaboration across the fields and across the disciplines. Whereas the University of Helsinki defines itself as an example of interdisciplinary collaboration, it is important to note that through their Centres of Excellence, it engaged in figuring out what precisely interdisciplinary research meant for the field at large. For instance, out of the interdisciplinary research of the Centre of Excellence in Ancient Near Eastern Empires (ANEE) grew an ERC Advanced Grant application, which was then awarded, and subsequently housed in the Faculty of Theology (note that this ERC project is internationally well known). Also, out of the Centre of Excellence in Changes in

Sacred Texts and Traditions (CSTT), a new Centre grew: the ANEE Centre of Excellence.

Potential and renewal

Whereas the Faculty of Theology has engaged with society at large (see above), it has also developed Teovisio 2035. In that strategic document, it is stressed that Theology (at large) aims to address major global and local needs of humanity, contribute to society, and promote the well-being of individuals within their respective societies, belief systems, and contexts.

As the Faculty has four tracks in teaching and many subfields, it may be useful to show its diverse image to the society at large. Moreover, not just the scientific goals (see above), but also the seven roles of theology, must be broader communicated:

- The role of theological research in advancing ethics, compassion, and humanity
- Research fostering hope and optimism.
- Understanding the context behind meanings
- Understanding the diversity of religions and belief systems
- Emphasising humans as holistic beings
- Research on individualism, inclusivity, and planetary wellbeing
- Social and public policy (impact) research.

Whereas the Faculty of Theology already has plenty of societal impact, it would be helpful for the Faculty's staff to have more training on how to deal with social media, such as the sessions offered by the Finnish Academy of Science and Letters for junior researchers.

It is noted that the Faculty of Theology is a small faculty, and not many of the staff have experience with communication, publicity and marketing, and may consider making media training part of doctoral training (which could be done across the University). It may also be beneficial for the Faculty to offer training on impact measurement, as this is an area where further clarification and support could be helpful.

The Faculty has actively taken part in initiatives discussing the infrastructure of the University at large. In order to do better, the panel was wondering whether it would not be beneficial for the Faculty of Theology to team up with other faculties to improve its perform in strategically planning how to engage with the larger society as well as prepping faculty members to perform better in engagement with society and amplifying their impact.

STRENGTHS

- The Faculty has an impact on society at large – its staff research (and teach) critical themes such as meaning for humans, death, suffering, safety, and crises. It also offers an in-depth understanding of history and culture, as well as outlining and conceptualising a vision for a sustainable world and a future for humanity. It also delivers meaningful instruments and concepts with which to handle interaction, dialogue, and conflict. It also coaches the future generation of Finns who must deal with a globally and religiously diverse population.

DEVELOPMENT AREAS

- It would be useful for the Faculty's staff to have more training on how to deal with social media, such as the sessions offered by the Finnish Society of Science and Letters for junior researchers.
- It is noted that the Faculty of Theology is a small faculty, one in which not many have experience with communication, publicity and marketing, and may consider making media training part of doctoral training (which could be done on a university level).

RECOMMENDATIONS

- Whereas the formulation of the academic profile of the Faculty and the development of Teovisio 2035 as a sort of blue book for the renewal of the Faculty, which seeks to keep the potential and the already established excellence of the already established disciplines as well as the instalment and elaborating of the new emerging fields, a practical implementation plan is urgently needed.
- The Faculty also needs a marketing plan to make both its academic profile, with its key academic profile and goals, and the Teovisio 2035 blueprint visible.

3. Research environment

Given the Faculty's structure (tenured positions versus positions resulting from grants and projects), staff numbers (academics, other staff and doctoral researchers), its experiences in highly successful Centres of Excellence, its experience in interdisciplinary and interfaculty research (on the level of research and teaching), its research output, its very good number of grants, Academy Professors, and Centres of Excellence, its international recognition, with its leading faculty members being member of European Academies, the Faculty of Theology seems to have created a perfect research environment for both core and fixed-term staff.

Operating culture

Regarding the juniors:

With 44% of staff being permanent and 56% being fixed term (and having a total of 77 faculty members), most of the fixed-term staff spend considerable time writing grants to secure future positions. Whereas this probably induces stress, the junior researchers appear to have accepted this typical academic condition and seem to be coping well with the situation (without complaint).

The successful Centres of Excellence and projects have resulted in a surfeit of top postdoctoral researchers, who are in constant competition for the handful of core appointments within the Faculty of Theology. This is most likely stressful.

The Faculty of Theology, following the Faculty of Humanities, may want to set up research communities for their junior colleagues (for grant writing, for interdisciplinary research, for simply collegial support). Within the Faculty, there is a tradition of sharing best practices to help juniors with their grant writing. The Faculty actively engages in a Finland-wide network aimed at organising events for doctoral researchers.

The Faculty of Theology would appreciate additional core appointments, which would in turn lead to even more applications and projects; this is especially important for retaining successful top scholars.

The Faculty would appreciate more help from the University to keep top doctoral scholars connected to the

Faculty of Theology, as well as retaining excellent postdoctoral researchers (the case of Prof. Silverman being retained as a professor after being awarded an ERC Advanced Grant, as well as the promotion of Saana Svård after being awarded a Centre of Excellence, is to be applauded).

Senior staff have started to train doctoral students and postdoctoral researchers for positions outside academia, thus further contributing to Finland's overall very high level of education. The Faculty's core staff members are worried about the new criteria set out by the Research Council of Finland (applications can no longer be submitted immediately after completing a doctoral programme).

Regarding the core staff:

The Faculty seems to have a good balance between research, teaching and administration, and seems to have developed a shared culture of applying for projects, funds, etc.

The Faculty would appreciate being involved in university-wide discussions about application processes for the titles of docent, etc.

Sustainability of the research base

The Faculty would appreciate a good budget for online resources and databases. It would appreciate it if the University or other City Centre Campus faculties could organise more workshops on data management as well as having more research methods workshops across the various fields.

Collaboration and interdisciplinarity

The Faculty of Theology has been involved in many of the University of Helsinki profile building areas (PROFI) as well as in interdisciplinary projects. For instance, PROF1 actions such as INEQ, HELSUS, and HSSH in which the Faculty participates, and more impressive, in the creation of a joint professorship in Sustainable Futures in Education and Ethics with the Faculty of Educational Sciences, and its involvement in DIVSOL (Diversity in Society and Life, PROF1 8) in 2025, with central role played by Urban Theology and Islamic Theology.

Through its own research, the Faculty of Theology has developed a habit and encourages staff to continue to work in an interdisciplinary way, especially in its Centre of Excellence

and larger projects, and as inscribed and sealed into its academic profile. In the unit interview and in the meeting with the University of Helsinki Research Council, the panel remarked that interdisciplinarity is also a process of trial and error – with some Centres of Excellence specifically testing out alternative work models of interdisciplinary research.

The panel noted that the University is very active, through its Research Council (TINE), for the actions and constant boosting of interdisciplinary research, with the goal of having excellent research.

Potential and renewal

The Faculty of Theology actively and intensively engages in the constant renewal of the preconditions for well-functioning research. There are no real tensions within the Faculty; the staff members have clearly signed on to the five themes that define their academic profile and goals (see part 1). The Faculty has also been involved in the recent development of Teovisio 2035 (see above). More dialogue will be necessary to work out how to move towards fulfilling the academic goals and, if so wished, towards developing and implementing (parts) of Teovisio 2035 as developed.

Whereas the Faculty seems to need help to market itself better (within the University as well as the international academic world), it functions at a very high level and is constantly reinventing itself in order to ensure an even better future.

The Faculty, with its typical requirements and traditional tracks, as well as its newer tracks which were set up to function within and contribute to an ever-evolving society, seems to be best doing this on its own, albeit that it is in constant dialogue and collaboration with other faculties.

Finally, its capacity to renew itself should encourage it to prepare for a 400-year anniversary in which its success story, with its internationally acclaimed top research as well as its local and global impact, which will hopefully result in a first place in the rankings, will be celebrated.

In summary: the Faculty of Theology delivers top research and knows that it delivers power of knowledge for the world.

STRENGTHS

- The Faculty seems to have created a perfect research environment for both core and fixed term academic staff.
- Within the Faculty, there is a tradition of sharing best practices in order to help juniors with their grant writing.
- The Faculty has through its own research, especially in its Centres of Excellence and larger projects, and as inscribed and sealed into its academic profile, developed a second nature and encourages faculty to continue to work in an interdisciplinary way.
- The Faculty has upheld its high level of quality for the completion of doctoral degrees.

DEVELOPMENT AREAS

- The Faculty appreciates a flexible and continued interpretation of the minimum number of doctoral students required to sustain TRES (thus not necessarily 20 PhD students).
- The Faculty would like to be more involved in the process of defining what precisely may constitute a doctoral portfolio (how many pieces, published where, etc.), especially given the newly emerging context in which monographs are slowly becoming less preferred and (two or three) open access published articles in top journals have become the new trend (the transition to open access articles has already taken place).

- The Faculty would appreciate a clearer formulation of the criteria used for the application to the University's internal boost funding.
- Given the past, present and future Centres of Excellence and projects, the Faculty of Theology has a massive overproduction of doctoral students and especially postdoctoral researchers and would appreciate help from the University to create a plan to support especially postdocs in their search for jobs in international contexts.

RECOMMENDATIONS

- The University of Helsinki may start developing a plan to help top postdoctoral researchers from projects and Centres of Excellence find jobs outside the University of Helsinki, including internationally.
- The University needs to continue retaining successful ERC grantees and other top researchers.

Helsinki Collegium for Advanced Studies

Assessment summary

The Helsinki Collegium for Advanced Studies (HCAS) is a magnet for talented international scholars, providing a fertile breeding ground for research that crosses disciplinary boundaries and playing a vital role in developing careers of researchers with European Research Council projects, including fostering interdisciplinary skills. These core functions are supported and enabled by HCAS's central location on the City Centre Campus, close to the Faculties of Humanities and Social Sciences and the Think Corner which facilitates connections with the public. HCAS provides its fellows with a unique experience, which has been characterised as 'the best year of their life'. The current facilities of HCAS are important because they are facilitating offices for thinking in isolation and a common room interaction to stimulate collaboration with other fellows, faculties of the University of Helsinki, and beyond.

The international prestige of HCAS is illustrated by the high volume of applications (with a success rate of only 4%), which requires a well-functioning selection process and an organisation that combines preparation of upcoming cohorts with guidance of current fellows, while sustaining a clear vision for HCAS and its unique research environment. HCAS benefits from strong leadership, which shows good teamwork and enduring relations with the Faculty of Humanities and relevant international networks of Institutes of Advanced Studies, including the new NordIAS, a Nordic network for Institutes of Advanced Studies.

Given the ambition of the University of Helsinki to stimulate interdisciplinary work, we see opportunities to build on the experiences of HCAS and its role as a motor for interactions across disciplines and career stages. While supporting HCAS's explicit focus on SSH fields, we see

opportunities to further strengthen relations with faculties and the Swedish School of Social Science (Soc&Kom), and further build on existing efforts to expand interactions, in terms of disciplinary cover (e.g., with the sciences and medicine), internationally (e.g., with the Global South), and in terms of career stages (e.g., with doctoral researchers). Moreover, strengthening alumni engagement will further develop the (inter)national networks of HCAS and increase insights into their long-term impact on knowledge development and individual careers. To enable these developments, it is crucial that the management of HCAS is appropriately resourced, in terms of the human resources required to fulfil their important role in the knowledge ecology of the University of Helsinki.

STRENGTHS

- International competitive Institute of Advanced Studies which provides an academic home to researchers allowing them to pursue their own interests which results in work of high scientific quality and significant impact.
- HCAS benefits from strong leadership which harbours academic freedom and stimulates multi- and interdisciplinary interaction in SSH fields and beyond.
- HCAS provides a unique working environment, centrally located and designed to enhance productivity, interactions, and provide access to infrastructure.
- Strong alignment with the University of Helsinki's strategic goals, particularly in interdisciplinarity and internationalisation.

DEVELOPMENT AREAS

- Connections with faculties are already well established but can be strengthened further across SSH and beyond.
- Connections with doctoral students are successfully developed through the Winter School and could be further expanded, e.g., stimulating relations between visiting fellows and students working on similar topics to enhance mentoring of PhD students in SSH.
- Building on experiences with the Global South fellowship there are opportunities to diversify recruitment beyond Europe to stimulate more global orientated academic conversations.

RECOMMENDATIONS

- Within a university that aims to become more interdisciplinary, it is important to keep valuing and supporting HCAS and the central role it has been playing to stimulate interaction across disciplines and nurturing interdisciplinary sensitivity for a long time.
- Continuation of the unique interdisciplinary research environment of HCAS in its current location is strongly recommended, to maintain alignment of its mission with the design of the current premises, and to provide fellows and alumni with a familiar academic home at the University of Helsinki.
- A more structured alumni network could provide more effective support for former fellows, foster mentorship opportunities, and strengthen the visibility of the long-term scientific and societal impact of the Collegium.

Assessment of the Unit

1. Scientific quality

Research profile and its development

The Helsinki Collegium for Advanced Studies (HCAS) is an independent research institute within the University of Helsinki, operating under the international Institute for Advanced Study (IAS) model. Established in 2001, HCAS is the oldest IAS in Finland and the only one that meets the membership criteria of the European IAS network (NetIAS). The unit promotes researcher-driven, multidisciplinary research in the social sciences and humanities, and has hosted over 500 scholars at various career stages.

The HCAS is guided by principles of scientific excellence and bottom-up research, without predefined thematic areas beyond its focus on the social sciences and humanities. Fellows are selected through international calls, and their research agendas reflect individual interests. Their interests often align with disciplines in which the University of Helsinki has internationally recognised strengths – such as philosophy, theology, history, and linguistics – which are consistently well represented among top applicants. Research related to Russia is also prominently featured, spanning political science, history, media studies, and literature. This is supported by unique resources like the Slavonic Library at the National Library of Finland.

One of the key reasons for supporting bottom-up research agendas is the concern that strategic, top-down funding calls may narrow the academic knowledge base. The HCAS provides researchers with the freedom to pursue their own research interests.

The broad disciplinary representation among fellows enables the HCAS to observe and facilitate methodological cross-pollination and renewal. Structural barriers between content experts and methodological specialists are addressed through active matchmaking.

Scientific impact

The most significant research outputs of the HCAS are academic publications. During the assessment period, fellows produced approximately 400 peer-reviewed publications across 47 disciplines, demonstrating the breadth and depth of the unit's scholarly activity. This disciplinary diversity reflects the HCAS's commitment to high-quality, wide-ranging research in the SSH fields.

According to bibliometric analysis, the HCAS produced 383 peer-reviewed publications between 2019 and 2023. Approximately 50% of these were rated at levels 2 and 3 – the highest quality tiers. The total number of publications declined during the assessment period, attributed to the COVID-19 pandemic and Russia's invasion of Ukraine.

Many researchers have had the opportunity to focus on writing a monograph, which is nowadays rare in the academic world, but still the main sort of output in theology and the humanities. This has also resulted in award-winning publications.

Notably, 72% of peer-reviewed publications were open access, enhancing their reach and impact. Around 90% were published in English, followed by Finnish, with only a few in other languages.

As the character of the Institute of Advanced Studies means that researchers are only there temporarily and often have multiple affiliations, it would be good to develop more systematic ways of tracing publication outputs having resulted or been influenced by the stay on a more long-term basis. This is a common issue across IAS's so this could be part of collaborative work in networks of Institutes of Advanced Studies.

Collaboration and interdisciplinarity

The HCAS is inherently multidisciplinary and actively promotes collaboration across disciplines without compromising academic freedom. During the annual recruitment process, thematic and methodological overlaps between fellows'

projects are considered to foster intellectual exchange. While academic excellence remains a core criterion, the unit aims to curate cohorts with intersecting interests to encourage collaboration.

The HCAS organises various events, such as weekly seminars, to strengthen connections between researchers and across fields. A notable example of its interdisciplinary potential is the newly launched project *Interdisciplinary Approaches to Intelligence*, a joint initiative with the Neuroscience Centre of HiLIFE and the Department of Computer Science.

Approximately 40% of co-authored peer-reviewed publications involve internal collaboration within the University of Helsinki, 21% are national, and 40% are international. This evidences strong collaboration with SSH faculties within the University of Helsinki and across Finland, while also highlighting the unit's strong global engagement. Membership in NetIAS, UbiAS, and NordIAS strengthens the HCAS's global positioning and influence.

The HCAS is an important motor in facilitating cross-disciplinary interactions in the University of Helsinki and beyond. In line with figure 3 of the self-assessment report, which showcases connections between disciplines, it is possible to further develop the use of scientometric methodologies to visualise the increase of multi-disciplinary connections through analysis of publications and career trajectories.

Potential and renewal

The HCAS has strong potential to serve as an incubator for theoretical innovation and the revision of existing models. It is renewed annually through the recruitment of new fellows, ensuring a continuous influx of fresh ideas and perspectives.

The unit conducts robust multidisciplinary research and plays a vital role within the University of Helsinki, contributing complementary funding, impactful research results, and fostering cross-disciplinary collaboration, particularly in SSH.

The research environment at the HCAS supports the emergence of new ideas and fields. Overall, the scientific level of research conducted at the HCAS is high and impactful.

During the assessment period, fellows and recent alumni secured a total of €9.9 million in external funding. However, externally competed funding is now administered at the faculty level, marking a shift from previous practice. This change may hinder the unit's strategic development and renewal.

Additionally, once a fellow's term ends, the faculty or university is not obligated to continue the employment relationship – even if the fellow has secured significant supplementary funding. This approach may limit both the development of the HCAS and the career progression of individual researchers and their integration in other parts of the University.

According to the self-assessment report, 70 professors from universities in Finland's SSH faculties have been part of the Collegium at some point in their careers, which shows that HCAS plays an important role in the development of scientific careers across Finland. Moreover, and by integrating scholars from outside of Finland, the HCAS plays an important role in internationalisation of the University of Helsinki and Finnish SSH field more broadly.

STRENGTHS

- The HCAS has a highly competitive selection process (4% acceptance rate), ensuring a consistently high level of scholarly quality.
- The HCAS's commitment to researcher-driven inquiry fosters originality, long-term impact, and intellectual freedom.
- The HCAS actively promotes methodological development through events and matchmaking between scholars.
- Membership in NetIAS, UbiAS, and NordIAS strengthens the HCAS's global positioning and influence.

DEVELOPMENT AREAS

- Structural Support for Innovation: Continued attention is needed to overcome institutional barriers that may hinder deeper methodological integration.
- Strategic Thematic Development: Although bottom-up research is central, identifying emerging thematic clusters could enhance strategic visibility and coherence.

RECOMMENDATIONS

- Strengthen Interdisciplinary Platforms: Expand initiatives like *Interdisciplinary Approaches to Intelligence* to foster deeper integration across SSH and other fields.
- Monitor Emerging Research Themes: Without compromising academic freedom, consider tracking and supporting organically emerging thematic areas to guide future strategic development.
- Leverage International Networks: Continue to use global IAS networks to promote fellow mobility, joint projects, and visibility of HCAS research.

2. Societal impact

Target areas, audiences, research questions and goals

The Helsinki Collegium for Advanced Studies articulates a clear and well-founded vision for its societal role. Its model of intellectually driven scholarship provides a robust framework for generating meaningful impact in the social sciences and humanities.

The HCAS positions itself as a defender of academic freedom and critical thinking – particularly vital in times of political pressure and increasing emphasis on the immediate utility of research. It rightly views its role as offering space for deep, independent research that contributes to society over the long term.

The report demonstrates that scientific autonomy and societal impact are not mutually exclusive.

The HCAS promotes bottom-up basic research, empowering fellows to pursue intellectually compelling questions rather than externally imposed agendas. This approach fosters long-term relevance, even when immediate applicability is not always readily apparent. Its commitment to academic freedom establishes the HCAS as a critical voice in a global context where democratic values are under threat.

Activities and outcomes

The HCAS employs a strategic approach to identifying and engaging relevant audiences, including Finnish academia, policymakers, and the public. Its visibility is enhanced through media contributions, public events and panels, collaborations with think tanks, and other outreach activities.

The HCAS hosts a diverse and often changing group of fellows whose expertise enables it to respond to various societal challenges. The Collegium's rich disciplinary diversity and the varied academic backgrounds of its fellows enable agile responses to pressing societal issues, such as Russia's war on Ukraine and Finland's NATO membership.

Quantitative evidence presented in the report indicates that fellows produce an average of 1.3 publications aimed at general audiences per year. However, the report does not specify the metrics used to evaluate the impact of public events and media contributions.

Collaboration and interdisciplinarity

The report states that "The HCAS [...] provides help for international fellows to contribute to this 'third task' of the university". However, it remains unclear whether international fellows receive sufficient support to understand and engage with Finnish societal contexts.

The HCAS acknowledges that both disciplinary depth and interdisciplinary openness are essential for societal impact. It demonstrates strong collaborative capacity through public events that integrate multiple disciplinary perspectives.

Potential and renewal

The HCAS shows a mature awareness of both the strengths and limitations of interdisciplinary work. The HCAS wants to respect the fellows' research time, which may limit deeper collaborative projects. The HCAS prioritises academic excellence and long-term societal impact over short-term responsiveness, reflecting strategic clarity. However, this may limit its agility in addressing urgent societal challenges. The rotating fellowship model may also limit the unit's ability to mobilise quickly around urgent societal challenges. Renewal is likely to stem more from the diversity of incoming fellows than from structural changes.

STRENGTHS

- The HCAS serves as a strong advocate for academic integrity and a hub for critical intellectual engagement.
- Its diverse range of events offers accessible insights into current research and fosters meaningful dialogue between academia and society.
- The HCAS maintains consistent engagement with policy-relevant issues, contributing to public discourse and decision-making.
- It thoughtfully balances opportunities for collaboration with the protection of fellows' time for focused, independent research.

DEVELOPMENT AREAS

- Engaging fellows and the broader community: A key challenge lies in ensuring consistent participation from all fellows in public-facing events, as well as in attracting interest from the surrounding community in the diverse research conducted at the HCAS.
- Individual over-coordinated societal interventions: Societal contributions often stem from individual disciplinary expertise rather than from coordinated interdisciplinary initiatives, suggesting room for more structured collaborative efforts.

RECOMMENDATIONS

- Strengthen the HCAS's role as a socially engaged academic institution by continuing to prioritise intellectual freedom and long-term societal relevance. This will ensure its continued contribution to both academic excellence and democratic resilience.
- Maintain and reinforce the commitment to curiosity-driven basic research as a sustainable foundation for societal relevance, while remaining open to evolving expectations and emerging challenges.
- Clarify the HCAS's strategic positioning within a changing media and policy landscape. A forward-looking vision is needed to assess whether the current model of curiosity-driven research remains sufficient to meet future societal demands.

3. Research environment

Operating culture

The Helsinki Collegium for Advanced Studies fosters a supportive environment through purpose-built facilities that encourage both formal and informal interaction. The Common Room serves as a central hub for fellows and alumni, promoting community and collaboration.

While fellowships are temporary, the HCAS strives to maintain strong alumni relations. It offers visibility and networking opportunities that support long-term academic careers.

Doctoral researchers are not a primary focus of the HCAS, but it conducts a popular Winter School that creates connections between fellows and doctoral researchers. Moreover, the unit supports the broader academic community through events that are open to the University and the public.

The multi-stage recruitment process is rigorous, transparent, and internationally benchmarked. It balances academic excellence with diversity in discipline, geography, and career stage. The first stage of the selection process involves the various faculties, which guarantees integration of fellows in faculties, but might limit the openness to disciplines, subjects or geographic areas not already represented in the faculties. For instance, most fellows are from European countries. This is already noted and addressed through the Global South fellowship, but there might be opportunities to broaden the reach in terms of (inter-)disciplinary, geographic and social economic background.

The HCAS provides a high-quality environment for postdoctoral researchers, particularly those unable to pursue international mobility. While it avoids formal mentoring to preserve its egalitarian culture, organic peer support and informal mentoring are encouraged. The Winter School for doctoral students is a standout initiative, fostering interdisciplinary engagement and contributing to the University of Helsinki's doctoral education. However, the absence of doctoral students within the HCAS itself limits its direct role in researcher training.

Sustainability of the research base

Although the HCAS enjoys a strong international reputation, its future depends on university-level decisions regarding premises and resources. These are critical for maintaining its status as an Institute for Advanced Study and for attracting top talent.

The limited administrative capacity – only two person-years compared to peer IASs – poses a challenge to operational sustainability. The recent decision to make the Research Coordinator position permanent is a positive development, but further investment in permanent support roles (e.g., Project Planner) is needed to maintain institutional memory and reduce workload stress.

The HCAS operates with a modest but adequate annual budget of approximately €2.5 million, enabling it to host 35–40 fellows. However, the 43% drop in core funding since 2005 is a cause of concern.

The HCAS's central location within the University's City Centre Campus, and its proximity to key faculties and libraries, enhances collaboration and access to resources. Fellows benefit from national infrastructure such as FIN-CLARIAH and the Slavonic Library, which strengthen Finland's appeal as a research destination. However, the threat of reduced physical space poses a strategic risk that could undermine the HCAS's reputation and its ability to recruit top scholars.

Collaboration and interdisciplinarity

The Helsinki Collegium for Advanced Studies aligns closely with the University of Helsinki's strategic vision to become an internationally leading academic institution by 2030. It supports this goal by prioritising disciplinary renewal and interdisciplinary innovation in the social sciences and humanities, and by enhancing the University of Helsinki's international visibility through global networks and fellowships. The HCAS effectively supports the University's strategy by recruiting high-calibre international fellows, hosting events that connect academic and public spheres, and launching initiatives like the Global South Fellowship.

Positioning itself as a strategic asset – particularly in the SSH fields – the HCAS has taken firm steps to implement recommendations from previous research assessments, demonstrating both responsiveness and adaptability.

Potential and renewal

The HCAS has taken steps to implement recommendations from previous research assessments, demonstrating responsiveness and adaptability. Although the HCAS enjoys a strong international reputation, its future depends on university-level decisions regarding premises and resources. The recent decision to make the Research Coordinator position permanent is a positive development, but further investment in permanent support roles is needed. The threat of reduced physical space poses a strategic risk that could undermine the HCAS's reputation and its ability to recruit top scholars.

STRENGTHS

- Strong alignment with the University of Helsinki's strategic goals, particularly in interdisciplinarity and internationalisation.
- Rigorous and transparent recruitment process, featuring international peer review and strategic cohort selection.
- High-quality research environment, supported by central location and access to national infrastructure.

DEVELOPMENT AREAS

- Institutional Continuity: The temporary nature of leadership and staff positions poses a risk to institutional memory and long-term strategic consistency.
- Mentoring Structures: The absence of formal mentoring frameworks may limit structured support for early-career researchers, particularly postdoctoral fellows.
- Doctoral Engagement: The HCAS has limited direct involvement with doctoral students beyond the Winter School and minimal teaching responsibilities, which reduces its impact on researcher training.

RECOMMENDATIONS

- Secure and expand permanent administrative roles to reduce workload and preserve institutional memory.
- Develop sustainable funding strategies to address the decline in core funding.
- Strength integration with doctoral education through expanded teaching, supervision, and collaborative initiatives.
- Maintain high-quality, dedicated research space to attract top-tier scholars and to preserve the unit's international reputation and operational effectiveness.

Swedish School of Social Science

Assessment summary

While The Swedish School of Social Science (Soc&Kom) has raised its profile in relation to peer-reviewed publications, it has not been able to reach its anticipated level of development in the period since the previous review. The COVID-19 pandemic has been a challenge, and more so in a small unit, but there have also been a number of changes in the leadership structure, and the pressure of teaching is mentioned in the self-assessment report, as is the lack of PhD students. If teaching loads are impacting significantly on time for research, relative to other cognate areas in the University, then this needs to be looked into, as it is important to ensure that there are incentives for the development of funding applications and that time is appropriately allocated when these are successful. Soc&Kom is clearly stronger in the area of social engagement, most especially with the Swedish-speaking community and its related institutions in Finland, both in terms of networks and professional and publicly oriented publications.

However, greater clarity with regard to the relationship between these activities and the more scientific endeavours would be helpful, as would the development of a robust methodology for assessing the impact of this undoubtedly useful work. A review of the research environment is underway, and this, with the attendant decision to move away from the five research networks and to engage the whole unit in discussion of appropriate themes for the next phase, is very much to be welcomed. Soc&Kom's inherent interdisciplinarity is a strength, but it may be that the focus across six disciplines is spreading both discipline-based and interdisciplinary research too thinly. We consider that while small size can be a strength, as well as a challenge, too much autonomy may be creating problems which could be ameliorated by greater collaboration, especially with the Faculty of Social Sciences. While we can appreciate that having more PhD students associated with the unit would

support the research environment, and potentially increase the pipeline of researchers, it is not feasible for Soc&Kom to award higher degrees as this is a role for the University. However, the opportunity of more involvement in supervision should be explored and when this occurs, appropriate credit should be apportioned. Clearly Soc&Kom is able to produce research of an international standard, and we consider that there is greater potential than has been fully realised in this review period. This being the case, and given that the University's expectations are increasing, we recommend a more in-depth review of the Swedish School of Social Science as a whole, preferably with external involvement, in order to support the development of a fully integrated strategy and to ensure that research can flourish in the future.

The Swedish School of Social Science (Soc&Kom) was founded as private college in 1943, to provide scientific and professional education in the social sciences, especially in public administration, journalism, and social work, and to conduct scientific research in these fields for the benefit of the Swedish community in Finland. Soc&Kom was integrated into the University of Helsinki in 1984, while retaining a large measure of autonomy. The University of Helsinki increasingly requires all academic units to produce research which can be judged by international standards and meet them, and in recent years Soc&Kom has endeavoured to develop a research profile which meets these evolving expectations. However, the self-assessment report shows developments since the last review as only adequate, and while some of the momentum will undoubtedly have been lost during the COVID-19 pandemic, there are clearly other challenges and changes in leadership are likely to have figured here. Soc&Kom has around 50 academic staff and while only two have 'teaching only' contracts the level of research engagement across the staff group is variable with some focusing more on social engagement than on research. Soc&Kom clearly does conduct

some excellent internationally recognised research and CEREN, in particular, stands out in this regard. While the level of peer reviewed publications has increased slightly since the last review the amount of research income has fallen, despite some notable successes, and hovers around €1 million per year which will be enhanced by €210,000 per year of PROFI 8 funding for the next five years. Small size is clearly an issue, and supporting six plus disciplines means that there is a lack of critical mass overall in relation to research themes, and that the contribution of any one discipline to the interdisciplinary research profile is somewhat limited. Research policy and funding in Finland and internationally, make the lack of critical mass an increasing challenge. The self-assessment makes the case that not having the power to award doctoral degrees presents a problem in relation to research outputs and the pipeline of researchers. However, staff do supervise (often jointly with colleagues in the Faculty of Social Sciences) and PhD students are attached to research projects in Soc&Kom, but numbers are small.

Soc&Kom is clearly very committed to engaging with the Swedish-speaking community and its institutions in Finland and is building on existing networks to facilitate societal impact further. A relatively high percentage of outputs are aimed at professional and public audiences. We would have liked more clarity about how much of the social engagement activity stems directly from research undertaken within the unit and a better sense of how impact has developed from engagement. With regard to the research environment, it is hoped that Soc&Kom is now in a more stable phase and can continue to develop its plans and set clear strategic priorities for the future. In this regard, a positive decision has been made to move away from having five research networks to focusing on the whole research community as one group while enabling themes to emerge and utilising seed money to support research planning.

STRENGTHS

- Soc&Kom is producing some research of an international standard.
- Soc&Kom has a commitment to improving research outputs and quality.
- Soc&Kom is uniquely placed to both research and support the Swedish-speaking community and its institutions.
- Interdisciplinarity is central to the research.

DEVELOPMENT AREAS

- Researchers at Soc&Kom have not been able to increase external funding during the evaluation period when other units have done so.
- The peer reviewed publication levels of Soc&Kom are below those of comparable faculties.
- The small size of Soc&Kom is a challenge to its research capacity and is likely to become an even bigger challenge in the future.
- Soc&Kom is not only small, but it is also spread across more than six disciplines and should consider whether this breadth can be managed effectively while safeguarding its statutory mission to provide high-quality Swedish-language education and research.

RECOMMENDATIONS

- Too much autonomy may be making Soc&Kom weaker in the context of the wider university and more collaboration in relation to research and with University Services (and perhaps even in teaching) could mitigate this.
- We think that it would be wise to have a close look at the overall research profile and direction of Soc&Kom – perhaps with external support in order to ascertain where time and energy is best focused, while ensuring that its statutory mission to provide Swedish-language education and research remains fully protected.
- While we commend Soc&Kom's decision to move away from five Research Networks, we think that it may be beneficial to go further and to consolidate research into a small number of key areas, provided that this does not compromise its statutory responsibility for Swedish-language education and research.
- Mentoring or other forms of support could be put in place to help to increase the quality of publications and the number of (successful) funding applications.
- Soc&Kom needs to ensure that there is an appropriate teaching reduction/time allocation for staff who have research funding with a staff time allocation and/ or overheads as this provides an incentive to make applications, and it also ensures that research is written up and published. It may be

that teaching programmes need to be restructured to enable this to happen, but the pane does not have access to this information.

- In order to mitigate some of the challenges related to the small size of Soc&Kom, we recommend that it explores the possibility of joint appointments with some faculties. This could help enable those in small subjects, e.g., Faculty of Law, to be involved in broader research communities.
- Soc&Kom needs to explore ways to be involved in one of the new Graduate Schools and to ensure that there is appropriate recognition where members of Soc&Kom are involved in supervision.
- It is beyond our remit to make recommendations about teaching, but we suggest that it might be a good idea to review the number of programmes offered and to ascertain whether these could be consolidated or teaching shared to a greater extent, including teaching collaborations with Swedish-speaking colleagues in other faculties, as long as the statutory obligation to maintain Swedish-language education is fully respected. If this were possible, then more capacity for research would be created.

Assessment of the unit

1. Scientific quality

Research profile and its development

Soc&Kom was established, and continued until relatively recently primarily as a teaching unit. However, while it continues to have a high degree of autonomy in relation to the University of Helsinki, there is an expectation of increased research engagement. As reported in the self-assessment report, Soc&Kom has been able to sustain the level of output attained towards the end of the previous research assessment, which was a significant development at the time, but it has not continued to develop in relation to research as was envisaged and the self-assessment describes the situation as 'adequate'.

Scientific impact

Soc&Kom's research outputs are at around the same level as at the previous review. In the review period Soc&Kom produced 337 peer reviewed publications, representing 2.5 per FTE (at career stages 3 and 4) which is on the low side in the social sciences. Of these articles, the vast majority are in English (272) with 50 in Finnish and only 11 in Swedish. While this may seem surprising given the orientation of Soc&Kom, it does indicate a strong move towards producing outputs aimed at an international academic audience. However, while there has been some increase in publications at the Finnish Publication Forum JUFO levels 2 and 3, there remains a high proportion of level 1 publications, and a number of outputs are in handbooks which, by international standards, would not be considered to be research. The unit has taken advantage of its small size and limited disciplinary range to focus its research in key areas where strong interdisciplinary research can be produced, such as continuing research in the fields of ethnic relations, migration, and racism as well as in expert knowledge (for example as this relates to social work) and particular focus on the Nordic welfare state.

The Centre for Ethnic Relations and Nationalism (CEREN) is the most obviously high-profile aspect of Soc&Kom's research. It is well established and continues to thrive and to have a well-developed international network as well as attracting early-career researchers from within the University. While wider international connections are mentioned it is less clear precisely how these map onto research within Soc&Kom beyond joint explorations of the Nordic Welfare State. There are plans to develop work internationally in relation to minority groups and minority languages.

Collaboration and interdisciplinarity

Soc&Kom is interdisciplinary and is only really able to produce research capacity via internal cross disciplinary themes and projects. Over the review period the following have been prominent: ethnic relations, migration, and race (CEREN), gender and identity, and group relations. The self-assessment report lists several networks in the University of Helsinki in which Soc&Kom staff are involved and in particular, Helsinki Institute in Social Sciences and Humanities (HSSH) and Diversity in Society and Life (DIVSOL) (a collaboration between seven faculties) are mentioned. In the University's call for interdisciplinary research openings, a proposal led by Soc&Kom is being developed into a Horizon bid focusing on mental health interventions relating to parenting and child development and involving psychology, sociology, genomics, education, and social work. Clearly there are collaborations with other Nordic and Scandic Universities and contacts and networks in Africa, Canada, Brazil, and the USA. Of the peer reviewed publications 21% are with national partners and 28% with at least one international partner which is positive, but below the share of international coauthored publications in the Faculty of Social Sciences.

Potential and renewal

In both the self-assessment and the interview there was some indication that Soc&Kom continues to be dominated by teaching despite a commitment to the development of research. However, the panel was not given any evidence that teaching loads are higher in the Swedish School of Social Science than in other cognate areas of the University. It does seem to be the case that some teaching and research

staff are focusing primarily on publications aimed at public/professional engagement rather than producing peer reviewed research-based outputs which means that research capacity may be even less than at first appears to be the case.

During the review period, research activity within Soc&Kom has been organised into five thematic cross disciplinary units, however during 2025 a strategic review of its current organisation, decision-making procedures and distribution of internal funding. The stated aims were to: appraise the performance and fitness of the thematic network structure and to improve the visibility of the unit's research. This is laudable as it seems likely that five networks were too many and insufficiently focused and strategic in such a small unit. The outcome of this process has been to focus on one research environment to foster research initiatives which can be supported via seed money, to encourage the development of new themes. Increasing the visibility and impact of the Soc&Kom's research is also important but not at the expense of outputs and funding applications.

STRENGTHS

- An increase in peer reviewed publications in high quality journals.
- An increase in publications aimed at an international audience.
- A high level of open access publications.
- Strong interdisciplinarity.

DEVELOPMENT AREAS

- Further increase high quality peer reviewed publications.
- Pursue funding opportunities – using seed money strategically to facilitate this.
- Develop more strategic alliances and collaborations internally and externally.

RECOMMENDATIONS

- Ensure that staff have time for writing and applications.
- Explore ways of supervising more doctoral students and ensure that resources flow from this.
- Develop or utilise a mentoring programme to support research.
- Focus research on a small number of key themes.

2. Societal impact

Target areas, audiences, research questions and goals

As a result of its national responsibilities in the fields of journalism, social work, and public administration, and in addition in the fields on communication, law, and political science, Soc&Kom has established links with the Swedish-speaking population and Swedish-language institutions in Finland. Relationships with stakeholders in these fields have been cultivated over many years. In addition, research on migration and ethnic relations aims to reach immigrants and ethnic minorities as well as the relevant related organisations. Thus, much of Soc&Kom's research is of direct relevance to NGOs, vulnerable groups and professionals. The intention is not simply to inform but to integrate stakeholders into research activities. These aims and activities are important, and Soc&Kom is clearly strongly committed to their achievement, but the actual impact is difficult to evaluate on the basis of the information available. During the period of the review, 260 publications were produced which are focused on public engagement of which 105 were aimed at the general public and 65 at professional communities. This is impressive, but it would be interesting for Soc&Kom to explore the links between these publications and specific areas of research undertaken within the unit and also to develop an understanding of the way in which the authorship of such publications is spread across the staff group.

Activities and outcomes

The self-assessment identifies undergraduate students as key stakeholders in relation to societal impact. However, while research-led teaching is important within the University, it was not clear that it was intended to include students or that fact that Soc&Kom fulfils the University's statutory responsibility

for teaching in Swedish under the heading of societal impact. The unit clearly has a strong commitment to social engagement and produces a high volume of publications aimed at professionals and the public, but without access to the publications, it is very difficult to evaluate their relationship to Soc&Kom's research. Giving the benefit of the doubt here, then Soc&Kom is quite successful in the dissemination of social scientific knowledge to a wide range of audiences.

Collaboration and interdisciplinarity

It is clear that Soc&Kom operates as an interdisciplinary unit and indeed some of the disciplines that it is made up of are themselves multi-disciplinary. One of the unit's key aims is to bring its mix of social insight to bear on a range of societal issues and problems.

Potential and renewal

Soc&Kom is clearly committed to outreach and has a great deal more potential in this area. The Unit is committed to its role as a provider of useful knowledge, particularly to the Swedish community and Swedish institutions and organisations in Finland. With the aim of increasing its visibility, the unit has recently established a network of 20 key stakeholders to facilitate dialogue about current and future challenges in Swedish-speaking Finland. The unit has identified advancing the contribution of research in social science in relation to infrastructure as an overarching goal for the next period and is seeking new opportunities for Nordic cooperation in relation to infrastructural development. Continuing to increase the visibility of research in Soc&Kom has been identified as a key development area and a working group has been set up bringing together members of the research and outreach committees. However, it will be important for the unit to develop fully the means to evaluate the actual impact of its research and social engagement on its key stakeholders.

STRENGTHS

- A strong commitment to outreach and social engagement.
- A well-developed professional and public network across the Swedish community in Finland.

DEVELOPMENT AREAS

- A stronger focus on impact beyond engagement.
- More clarity about the relationship between specific areas of research and social engagement activities.
- Explore the extent to which some staff focus on publications focused on social engagement rather than those which are peer reviewed.

RECOMMENDATIONS

- Some development work may be useful with regard to assessing the impact of Soc&Kom's research in specific contexts over time.

3. Research environment

Operating culture

Soc&Kom has a Vice Rector (Research), one of three vice rectors who make up the unit's board alongside the Rector. There is also a research committee, chaired by the Vice Rector (Research), and until recently there were five thematic networks and the network leaders sat on the research committee. Other members are delegates from disciplines not represented in the network leadership, (which seems to defy the logic of interdisciplinary networks). In addition, there are two representatives affiliated with the unit and an external member from the Faculty of Social Sciences. The committee is responsible for the strategic development of research activities and their profiles, and for coordination of the networks. The committee coordinates with the University of Helsinki in relation to research and research networks and makes decisions about internal School funds for research. This committee structure will now need to be re considered in the context of the move away from the five networks. While wide representation is a laudable aim It is hoped that

in the future, members will be chosen for strategic reasons. In the past, research goals formulated by the committee have been discussed with the wider staff group and this should continue to be the case. Recently established working groups are currently preparing a more detailed proposal for future research organisation.

Soc&Kom is clearly committed to trying to meet the challenges set by the University in relation to research. It is involved in a PROFI 8 project (DIVSOL), has participated in HSSH, and received a catalyst grant. Soc&Kom considers that its research could fit well into the University of Helsinki's top research area Learning and Evolving Societies but wish that the process had been more transparent and that SSH fields had been granted greater weight.

The self-assessment reports 42 FTE teaching and research staff in 2023, around 50% of whom have permanent contracts, plus 10 grant-funded researchers. In addition, in 2023 Soc&Kom had three doctoral researchers with University employment contracts. Of the permanent staff, six were professors and one was a tenure-track associate professor at the time of writing the self-assessment report. There is a strong desire to have more doctoral students, but this seems

achievable only by increasing grant income and through shared supervision with other faculties.

Sustainability of the research base

The stable group of researchers is rather small, and it is not clear how growth would occur, other than via researchers attached to grants. In the self-assessment, it is stated that Soc&Kom does not have the right to grant doctoral degrees, because these are granted by the faculties. However, this does not mean that PhD students cannot be supervised within Soc&Kom. More doctoral researchers would certainly support the future pipeline for research in Soc&Kom, but it would also increase the pressure to increase funding to support them as post-doctoral researchers. Members of Soc&Kom are competing for the same funding sources as colleagues in the Faculty of Social Sciences which makes strategic alliances very important.

Soc&Kom reports good support from the University Library, IT and Research Services but reports challenges in relation to the availability of Swedish-language support and infrastructure, the threats of loss of premises, and the pressure to increase student numbers, but the panel is not in a position to comment on these latter points.

Collaboration and interdisciplinarity

Soc&Kom is committed to and has been successful in promoting an internal interdisciplinary research culture and indeed this is essential to its survival. All the unit's structures and strategies would appear to be aimed at sustaining this situation. Of course, disciplinary research is also important but the numbers in any one discipline are so small that none could/should dominate. In order to undertake high quality discipline-based research, collaborations outside Soc&Kom would be necessary. The small numbers do mean that Soc&Kom is vulnerable in relation to staff losses in any given field and this may need to be addressed. Developing high quality interdisciplinary research knowledge and skills and building external collaborations is, and should be, the aim.

Potential and renewal

As has been set out above, Soc&Kom is currently undergoing a process of renewal in relation to its research environment, structures and themes, and some external support in this regard may be helpful.

STRENGTHS

- Small size offers good potential for collegiality and collaboration.
- A number of disciplines in one unit ensures an interdisciplinary focus.
- An appetite for improving the research environment and developing a more strategic approach.
- Initiating major strategic review.
- Involvement of staff in the research vision.
- Move to more active collaboration within the City Centre Campus.
- Taking steps to strengthen research communication strategies.
- Proximity to the Faculty of Social Sciences.

DEVELOPMENT AREAS

- Ensure stability of leadership and support for research.
- Reform the research committee in the context of the new research environment strategy.
- Ensure that the working groups and the decision-making process in relation to the future form of the research environment do not take up too much time and therefore potentially hinder research developments.
- Ensure that the new research structure is fully accepted and functional.
- Support all staff to be engaged in research.
- Establish clear incentives for research.
- Fully integrate the Soc&Kom library into the University of Helsinki Library.

RECOMMENDATIONS

- Ensure that planning and discussing future research directions does not get in the way of being fleet of foot in relation to research opportunities.
- Take a strategic view of teaching programmes and teaching loads with a view to creating some more time for research.
- Ensure that the Vice Rector (research) and support staff have time to focus on key areas for development and support.
- Ensure that staff are given reduced teaching loads in order to develop funding applications (using seed money) and to engage fully with the research when successful (using overheads).
- If there are staff who are not research active, then consider a teaching and outreach focus for them in order to free research time for others.

Faculty of Humanities

Assessment summary

The Faculty of Humanities at the University of Helsinki is a high-performing research unit with a strong record both in terms of international reputation and academic interdisciplinarity. It is a complex academic community divided into many sub-disciplines and succeeds in protecting the individuality of those sub-disciplines while at the same time articulating a coherent overall research strategy. Overall, we were extremely impressed by the Faculty's ability to articulate a powerful vision of a vibrant and egalitarian research environment, and we commend the Faculty for being able to balance the demands of a research grant driven culture with a concern for career development at all stages of the academic hierarchy so effectively. The Faculty is a major contributor to the University of Helsinki's societal impact agenda, and we urge the University to recognise this without imposing quantificational metrics that might well inhibit the Faculty's capacity to engage the wider Finnish community with its research. We commend the Faculty's commitment to curiosity-driven research and its ability to cultivate research success without the imposition of an overly top-down management structure. We encourage the University to recognise the strength of its arts and humanities research community by giving it a more clearly defined role in the new top research areas initiative.

STRENGTHS

- The Faculty is a very diverse faculty, with an international profile and reputation, recognised by the most recent THE rankings (42), and QS rankings (85).
- The Faculty is highly interdisciplinary, evidenced by its interdisciplinary staff and thematic work within and across departments and faculties, including repeated success in PROFI funding.
- The Faculty is a major contributor to the University's impact mission, producing 25% of the University's public engagement publications, evidencing broad experience and the valuing of societal impact among staff.

DEVELOPMENT AREAS

- Ensuring career development across a range staff profiles, including implementing route from lecturer to professor and develop mentoring schemes for early-career researchers.
- Continuing to develop and maintain a disciplinary knowledge base across the diversity of disciplines in the Faculty of Humanities.
- Securing maintenance of the national SSH research infrastructure and their connection to European infrastructure.

RECOMMENDATIONS

- Maintain the current healthy balance between disciplinary and interdisciplinary research as well as between bottom-up and top-down initiatives for research development.
- Consider the implications of an apparent emphasis on quantity (as regards publications, grant applications, PhD students, etc) at the expense of quality to ensure the continuation and enhancement of international reputation and staff wellbeing.
- Make sure that the University's interdisciplinary top research areas initiative includes and strengthens the interdisciplinary research experience of the Faculty of Humanities, e.g., by leading a top research area.

Assessment of the Unit

1. Scientific quality

Research profile and its development

The Faculty of Humanities houses a diverse range of disciplines across the humanities. The Department of Cultures covers many disciplines that come together in specific research themes including architecture, art history, archaeology, Nordic studies, and environmental humanities. Linguistics and languages form a central pillar. The Department of Finnish, Finno-Ugrian and Scandinavian Studies is the largest in the world and exists next to the Department of Languages that has a broader orientation. Support for minority languages (Swedish, Sámi, Roma) is essential, and the Faculty produces a substantial number of Finland's teachers in the Finnish language. The Department of History, Philosophy and Arts Studies creates connections around current research trends, including ecocriticism, feminism, activism etc. The Aleksanteri Institute focuses on Central and Eastern Europe and Post-Soviet countries and is the largest institute outside the area which is proving central in current geopolitical developments and debates. The Department of Digital Humanities is driving data-driven innovation in the humanities and is key in the development and maintenance of research infrastructure. All departments contribute to the Faculty's extremely rich research profile, which houses both disciplinary and interdisciplinary work.

Judging by the evidence provided, we want to emphasise that we have no concerns about the scientific quality of the research produced. All the key indicators show that the Faculty is performing at a very high level. We draw attention in particular to the fact that the Faculty is ranked at 42 in the most recent THE rankings, and at 85 in QS rankings. During the assessment period the Faculty produced 9 642 publications, 5 730 of which were peer reviewed (= an average of approximately five publications per researcher per year of which 3 were peer-reviewed). In 2023 alone the Faculty published 552 articles or chapters in JUFO levels 2 and 3.

In addition, the Faculty of Humanities is producing books and edited volumes, which are a main way to communicate research.

The quality of the research performed at the Faculty is substantiated by our qualitative assessment. We were extremely impressed by the variety of research performed, as well as the sense of ambition and sheer energy displayed by the Faculty in both its self-assessment report and in the onsite interview. Moreover, in terms of attracting funding, the Faculty is performing well. Between 2019 and 2023, it hosted 13 ERC grants and two Research Council of Finland's Centres of Excellence. On the other hand, we were also impressed by a realistic sense of the price of success in grant applications, with respect to the administrative burden created by large numbers of funded projects, and also the work involved in trying to secure positions for researchers when grants come to an end.

Scientific impact

The Faculty of Humanities has a strong international profile, partly because key areas of study, including languages and geographical areas etc., require an international orientation. The Faculty has the highest international staff rates of the SSH faculties at the University of Helsinki, which brings language diversity and contributes to impact. The strong connections with the Helsinki Collegium for Advanced Studies (HCAS) are extending the Faculty's international reputation while also playing an important role in attracting international talent from different career stages, including ERCs.

The Faculty's core research focus areas are (1) cultural, regional and linguistic diversity and change, (2) interaction, communication and formation of meaning, and (3) knowledge, mind and interpretation. The Faculty also has an important role in the national education landscape, fulfilling national responsibilities regarding training of qualified education specialists in the various fields of the humanities. Moreover, the Faculty of Humanities plays an important role in the

development and maintenance of (inter)national databases, including Fin-CLARIAH, the Finnish research infrastructure for Social Sciences and Humanities (SSH) and its international connections.

In connection with the large volume of publications, we were slightly concerned that there might be a tendency in the Faculty – perhaps stemming from the way research is measured by the University and the Finnish government – to focus on sheer *quantity* of research over quality. During the assessment period each member of the Faculty produced, on average, around five published pieces of research *per year*, around three of which were in peer assessed venues. This strikes us as an extraordinarily high number. It raises two kinds of concern. One has to do with a possible culture of over-work in the research environment more generally, and we will return to this in section three below. The other has to do with a potential tension between a demand for volume of publications and a desire to increase the Faculty's (and, by extension, the University's) and international reputation. International rankings like the QS are all about how researchers are perceived by their peers across the world, and peer approval will not be increased by huge numbers of publications in national journals and volumes which are less internationally known. In that sense we would like to emphasise that quantity does not equal quality, and that it is important to provide time for the development of high quality and high impact publications to further increase international reputation. This is also in line with the Faculty of Humanities' self-determined area of improvement for international co-publications.

Collaboration and interdisciplinarity

The Faculty of Humanities thinks flexibly and creatively about the nature of interdisciplinarity. It already has a high level of interdisciplinary work, as evidenced by the research profile and by thematic work taking place within and across departments. We believe that the Faculty is correct to emphasise that, given

the highly diverse nature of the research conducted *within* the Faculty, meaningful interdisciplinarity exists in collaborative relationships between members and groups of the Faculty itself. An example of this is the internationally outstanding work in intellectual history, which combines research in history, philosophy, theology, digital humanities, and other disciplines as well. The Faculty has developed what it calls ‘research communities’ to foster such interdisciplinarity, each of which has at least 15 members, involving at least two of the Faculty’s six departments and at least three disciplines. There are five such research communities, each of which is currently funded (by the Faculty itself) for two years. As the self-assessment document reports, the aim of this funding is “to consolidate informal networks and their expansion beyond disciplinary boundaries”. This looks to us a very promising way of establishing potential starting points for larger interdisciplinary projects. Moreover, the Faculty’s ability to work across disciplines also translates to collaborations with other faculties, including social sciences but also sciences and medicine, e.g., the Faculty has had notable success with the PROFI funding instrument.

On the other hand, there does seem to be proper recognition within the Faculty of the fact that not all good research is interdisciplinary research. Few individual

researchers begin their careers working in an interdisciplinary way, and every discipline needs to be continuously renewed by focused and intensive work in small sub-fields. Moreover, not every senior researcher does work that has an interdisciplinary dimension, and there needs to be room for traditional single-discipline work even in a larger culture of interdisciplinarity. Our sense was that the need for disciplinary knowledge is acknowledged in the Faculty, also in order to sustain more interdisciplinary efforts. The overarching point here, of course, is that interdisciplinarity is a means to an end, not a goal in itself.

The Faculty estimates that more than 50% of its researchers have an interdisciplinary profile. We recommend that the Faculty be allowed to pursue interdisciplinarity in ways that suit its academic disciplines, and that interdisciplinarity not be defined in ways that do not recognise those ways of understanding it. Research done in the world-leading Department of Digital Humanities (for example) clearly does reach across humanities and sciences, connecting the University’s various campuses, and so do the Mind and Matter and DIVSOL PROFI areas. But not everything done in the Faculty can conform to that kind of model and disciplinary knowledge and development needs to be sustained and valued too.

Potential and renewal

We have no doubt that the Faculty will maintain the quality of its research in the near to medium future. The Faculty is strongly supportive of the basic curiosity-driven research which is the lifeblood of any successful university research unit and is rightly sceptical about the value of too much top-down direction of research in its departments and sub-disciplines.

That said, the onsite interviews suggested to us that the Faculty is unsure where its research fits with respect to the University’s new top research areas initiative. On the evidence we were presented with during our week in Helsinki, we feel that the Faculty has reason to be concerned about this. We encourage those taking forward this initiative to make it clearer how work in the arts/humanities – which is clearly extremely well regarded both nationally and internationally – will be part of the University’s future research agenda. In terms of the capacity to develop interdisciplinarity work there is much to learn from the Faculty’s long-term experience with doing interdisciplinary work, both within the Faculty and across the University with social sciences, sciences and medicine. At the same time, we encourage the Faculty to be confident that it has a great deal to contribute to this initiative.

STRENGTHS

- The Faculty has a strong international profile, with the highest international staff rates of the University of Helsinki, which brings language diversity and contributes to impact.
- The Faculty is highly interdisciplinary, as evidenced by more than 50% of its researchers having an interdisciplinary profile, and thematic work taking place within and across departments.
- The Faculty has been successful in securing and leading interdisciplinary funding, also with sciences and medicine.

DEVELOPMENT AREAS

- Continuing to develop and maintain a disciplinary knowledge base across the diversity of disciplines in the Faculty of Humanities.
- Continuing to think flexibly and creatively about the nature of interdisciplinarity, both within an across departments and faculties.
- Continuing to develop ‘research communities’ across the Faculty in order to stimulate the development of interdisciplinary research.

RECOMMENDATIONS

- Keep paying attention to the balance between discipline-specific and interdisciplinary research.
- Continue to support basic curiosity-driven research and shield researchers from too much top-down direction.
- Make sure that the University’s top research areas initiative includes and strengthens research of the Faculty of Humanities.

2. Societal impact

Target areas, audiences, research questions and goals

The Faculty is a major contributor to the University's impact mission. It produces a full 25% of the University's public engagement publications – 4462 in total in the period 2019-2023. It does more impact work than any other faculty in the University. According to the RAUH 2025 metric data, approximately 44% of the Faculty's staff publications are aimed at societal impact. To a large extent this focus on societal impact seems to be a product of the “national tasks” identified and funded by the Ministry of Education and Culture: (i) teaching and researching in rare languages and cultures, (ii) promotion of research and teaching related to Russia and Eastern Europe (via the Aleksanteri Institute), and (iii) responsibility for teaching in Finnish for international students and staff. More generally, there appears to be a strong sense of responsibility to the wider Finnish public as regards such things as the provision of objective information to help with the discussion of controversial topics (Russia in Ukraine, Israel, and Gaza, etc.), and an intention to do what is possible to maintain a high level of national debate on such topics. Furthermore, the Faculty plays a significant role in the writing of school textbooks but also engages with the school system in a number of other ways. This is just a small sample of the wide variety of impact-related activity undertaken by the Faculty.

Activities and outcomes

The Faculty has developed a relatively sophisticated understanding of the nature of societal impact, in the first instance through the recognition of the distinctions between three different kinds of impact, termed “understanding the world”, “changing the world”, and “producing new knowledge”.

There seems to be some frustration in the Faculty concerning university processes for the recording of impact work. We were told that the TUHAT system is clunky and that it takes too much time for each piece of impact activity to be logged. This might well mean that some, maybe a lot, of this

kind of work is currently invisible to the University, because it goes unreported. As such the Faculty and the University of Helsinki would benefit from an easier way to register these impact activities in the TUHAT system so that they become visible.

We think that it would be unwise for either the Faculty or the University to go further and try to find ways of measuring and quantifying impact, e.g., in the manner of the UK REF. It seems to us a strength of the Faculty's – and maybe also the University's – approach to impact that it does not seek to differentiate between *impact* on the one hand and *engagement* on the other. The will to engage with wider society is what matters here, whether or not hard evidence can be provided of the effects (or, impact) of that engagement.

Collaboration and interdisciplinarity

To create societal impact, it is key to interact with a variety of audiences, and to work with actors across society. The Faculty of Humanities presented a range of projects in which it showcases such collaborations. Examples are a future-oriented collaborative project with the Finnish Environment Institute which reflects on Innovation Policy and Growth in changing geopolitical environments and the Faculty's involvement in Urbaria, the multidisciplinary urban research institute, which connects to the cities in the Helsinki metropolitan area. More specifically, the Faculty has created a strategy that encourages researchers to make connections with relevant media representatives and organisations, including government ministries, while also encouraging membership of societal orientated advisory boards and committees, private foundations and cultural heritage organisations. It also actively works with its alumni and the organisations they work for, to further expand stakeholder engagement while also adapting curricula to better suit working life needs. Moreover, attention is paid to strengthening connections with businesses, e.g., through Business Finland grants and the Finnish Innovation Fund. The Faculty aims to enhance researchers' innovation focused competences, allowing them to succeed in funding schemes focused on global issues and social innovation, including peace, equality, inclusion and sustainability.

Potential and renewal

In the self-assessment report, it is stated that around 45% of staff take part in impact activity, but it was not clear to us what lies behind this figure, and why more staff are not involved in societal impact. We would like to have been reassured that junior colleagues are involved and trained in impact work – and that they are not disproportionately burdened with this kind of work because it is assumed that they are better with social media. The self-assessment mentions training in ways of engaging with the public, but not much information about that is provided. It was also unclear to us how impact work is innovated and rewarded. There was no indication, for example, that serious time spent on impact work allows for a reduction in teaching load or other tasks. We were worried that there might be an expectation that impact work is something done in the researcher's spare time, over and above a full workload of teaching, administrative activities, and research. We hope that this is not the case and that the strength of impact of the Faculty of Humanities is sustained and valued across the University. We were impressed by the fact that the Faculty has established an annual societal impact award to highlight impact work done by members of the Faculty and this could be taken up more broadly across the University.

STRENGTHS

- The Faculty is a major contributor to the University's impact mission, producing 25% of the University's public engagement publications – 4462 in total in the period 2019–2023.
- The Faculty's excellence in societal impact builds on broad experience and the valuing of societal impact among staff.
- The Faculty has developed a sophisticated understanding of the nature of societal impact, distinguishing between “understanding the world”, “changing the world”, and “producing new knowledge”.

DEVELOPMENT AREAS

- Further developing the societal impact work across the Faculty staff including early-career researchers.
- Supporting the valuation of societal impact across the Faculty and university more broadly.
- Securing the inclusion of the time involved societal impact work in workload management.

RECOMMENDATIONS

- Make impact activities visible, e.g., by streamlining registration in TUHAT.
- Further develop training and mentoring in public engagement.
- Build on the current strength and experience in societal impact by attending explicitly to methodological innovation in public engagement.
- Award across the University as a whole. Extend expertise in societal impact and the societal.

3. Research environment**Operating culture**

Diversity is the most striking feature of the Faculty from an outsider's perspective. It brings a wide variety of academic disciplines, from Finno-Ugrian studies to theoretical philosophy, from Digital Humanities to Art Studies, under one academic roof. While in 2010 it comprised 16 departments and two institutes, it now comprises six departments, which together encompass around fifty disciplines. This variety in itself creates a significant challenge as regards management of the Faculty and the creation of a productive research environment. The evidence with which we were provided for this assessment exercise suggests that the challenge of managing the complexity of the Faculty is being met, and that it works well as a single academic unit, largely thanks to strong and effective leadership. That said, we are not in a position to know for sure that every single element of the Faculty feels properly represented and supported at the faculty level. To be certain of that, we would have needed to speak to a larger number of researchers across the departments and disciplinary units. In this connection, we were concerned to learn that 66% of disciplines in the Faculty have either just one professor or no professor at all. It is not clear to us how decisions are made concerning the allocation of professorial positions and hence concerning the standing and strength of disciplines within the Faculty. It might be worthwhile to consider more actively the maintenance of strength in crucial disciplinary areas, instead of relying on grant success for career development. That said, the strategies and policies developed at faculty level seem to support the success of individual departments, and efforts are obviously being made to ensure cross-faculty connections and further develop common research themes, especially in the form of "research communities".

Sustainability of the research base

One of the Faculty's strategic goals is "to train new generations of humanists", and an important part of realising such a goal will be to continue to also support the single-discipline research which is essential to renewing all parts of the arts and humanities. We do not think that a single

substantial and top-down strategy for managing the research environment is necessary to this end, and we were glad to learn that the Faculty's management has a healthy respect for the autonomy and independence of its researchers and their disciplinary identities and cultures. It is clear that things in general are working well in the Faculty as it currently functions, and while it would be unwise to be complacent, to a certain extent what is necessary for continuing success is to leave researchers free to do the work which they want to do. We welcome the fact that the Faculty acknowledges and accepts a certain amount of fluctuation over time in the strengths of different departments, and that what matters most is long-term viability of the Faculty as a whole, rather than equal success at every moment for every department.

The Faculty of Humanities is a key actor in the creation, coordination and maintenance of national and international research infrastructure in the social sciences and humanities: namely the national FIN-CLARIN (Common Language Resource and Technology Infrastructure in Finland) and DARIAH-FI, and their international nodes CLARIN ERIC and DARIAH ERIC. Maintenance is only partly covered by existing funding, which requires a more long-term strategy for sustainability of this crucial research infrastructure which also connect Finland into European infrastructure development. The Faculty of Humanities has indicated that they are currently involved in the development of a university wide strategy for research infrastructure and with the Library, which is already playing an important role in data infrastructure, e.g., in open science.

Collaboration and interdisciplinarity

The Faculty of Humanities has long-term experience in developing connections within and across its own departments and has excellent ability and skills to develop interdisciplinary work. The current leadership of the Faculty has not only introduced research communities but also played an important role in strategising and forming interdisciplinary funding proposals, programmes and centres. Surprisingly, however, the University's new top research areas are not building on this experience by the Faculty, and the current themes are not leaving the Faculty room to take leadership in shaping these top research areas, as they can only contribute

to currently selected themes. These risks being a missed opportunity in terms of appreciating the importance of the research in the Faculty and their ability to create and lead impactful interdisciplinary programmes. We therefore suggest considering adding a fifth top research area that is led by the Faculty of Humanities. Various possible themes come to mind, e.g., work that builds on the current strategic profile building area Diversity in Society and Life (DIVSOL) or Cultural Heritage, which connect to the existing interdisciplinary hub of the European University Alliance Una Europa.

Potential and renewal

The Faculty of Humanities has a strongly international profile, with international students accounting for 8% and staff 26% of the total, the latter being the highest in the SSH faculties at the University of Helsinki. The 200 permanent members of staff include 64 professors, 130 lecturers, and 18 tenure track professors. The gender distribution is 57-43% (female-male) but it is not clear how this is divided over career stages. Next to permanent staff, the Faculty hosts 217 externally funded grant researchers and 659 doctoral researchers (81 with an employment contract). While there has been a decrease in staff FTEs from 504 in 2019 to 441 in 2023, we were told that more recently there has been an increase in staff levels again.

In the context of these numbers and observations, we spent quite a lot of the onsite interview discussing career

progression. Our sense is that there is a general need in the Faculty, and in the University generally, to think more about crucial career transition points: the move from PhD student to postdoctoral researcher, the move from short-term contracts to a permanent position, and also the move from lecturer/docent level to professor. We were glad to learn that there is now a route from lecturer to senior lecturer, but we worry about the difficulty of promotion to professorial level. The new tenure track system appears to be quite limited in its application across the Faculty: there are only 12 such positions in the Faculty as a whole. We understand that this is to a significant extent simply a feature of how the academic system works in Finland, because of the nature of laws governing the universities, but we encourage continuing thought about how to ensure that hard work and research success among lecturers is properly rewarded. As mentioned above, we think that a focus on the autonomy and independence of researchers is important, but this should not come at the expense of reliable mechanisms for reward and promotion. In this connection, we would like to see greater importance attached to mentoring of junior researchers. We would also like to see reflection on the disparity in teaching loads between lecturers and professors.

It is clearly a matter of concern for the Faculty that 85% of PhD researchers take between 5.5 and 9 years to finish their dissertations. Of course, this is largely due to the fact

that many PhD students in the arts and humanities are either self-funded or reliant on occasional grants. We wondered, though, whether it might also have something to do with misguided expectations as to what a PhD dissertation is meant to achieve. We encourage the idea that a dissertation is an “apprenticeship” that can be completed in a fixed timeframe (say 4 to 5 years), rather than being the last word on its subject. We also had some concern that PhD researchers working outside larger disciplinary groupings might easily get lost, so to speak, and might suffer from a sense of isolation and lack of support.

Generally, we worried about the impact of what appears to be a relentless emphasis on quantity – more publications, more grant applications, more interdisciplinary initiatives, more impact work, more PhD students – on the quality of life and indeed mental health of researchers in the Faculty, especially for those on temporary contracts.

STRENGTHS

- A strong ability to develop and lead interdisciplinary research, within the Faculty and with social science, sciences and medicine.
- A leadership style that fits the complexity of managing such a diverse faculty, allowing for variation of disciplinary and research cultures.
- Long term perspective on development of research areas in the Faculty, including contextualisation of funding success.

DEVELOPMENT AREAS

- Continuing to reflect on the management of diversity across the Faculty, protecting the sustainability and autonomy of smaller disciplines.
- Supporting a shift from emphasis on quantity to emphasis on quality to further enhance reputation and protect wellbeing of staff.
- Continuing to create an environment which enhances the supervision of doctoral students from both student and staff perspective and to enhance completion rates.

RECOMMENDATIONS

- Create career trajectories that allow for progression from senior lecturer positions to professorships and develop mentorship of staff.
- Build on the interdisciplinary capacity in the Faculty by creating a top research area that is led by the Faculty of Humanities.
- Develop a plan to secure maintenance of the national SSH research infrastructure and their connection to European infrastructure.

Appendices

Appendix I

Assessment plan

The research of the University of Helsinki (UH) is assessed at regular intervals. The upcoming assessment will take place in 2025; previous assessments were executed in 1999, 2005, 2012, and 2018. The assessment will focus on the quality and impact of the research conducted at the University units as well as their future potential, opportunities and plans to develop operations. The assessment covers all research performed at the University. Unit-level results will be available by the end of 2025, and the University-level report will be available in spring 2026.

The purpose of the Research Assessment of the University of Helsinki (RAUH) is to reveal and confirm the quality and impact of research, to identify emerging and strong research areas, and to support renewal.

The aim of the assessment is to produce information that can be used for enhancing quality and supporting strategic decision-making at the University of Helsinki on unit, faculty, and university levels. In line with the University's operational plan priorities 2025-2028, the assessment aims to advance multi- and interdisciplinary approaches in research conducted at the University of Helsinki. It will also provide insights for the strategy process 2028-2030. The assessment will serve as a continuation, not only of the previous research assessments, but also of the University's Roadmaps for Implementing Research Themes.

The assessment focuses on overall research activities in *Units of Assessment* (Unit), not on the performance of individual researchers.

The University of Helsinki joined the Coalition for Advancing Research Assessment (CoARA) in 2022. According

to CoARA's vision, the assessment of research, researchers and research organisations recognises the diverse outputs, practices and activities that maximise the quality and impact of research. University of Helsinki has committed to base research assessment primarily on qualitative evaluation for which peer review is central, supported by responsible use of indicators. Updating the RAUH framework for the 2025 assessment round is one of the actions in the University of Helsinki's CoARA implementation plan.

The assessment will be carried out by an international peer review panel. The assessment process is managed by Research Assessment Office (RAO) and led by the Steering Group.

ASSESSMENT CRITERIA

The assessment criteria are:

1. Scientific Quality
2. Societal Impact
3. Research Environment

The subject of the assessment is the Unit's overall research activities, including the management and leadership by the Unit in promoting the high quality and impact of research.

Scientific Quality will be approached by looking at the past performance between 2019 and 2023, based on the scientific outputs of the Units of Assessment. Societal Impact refers to the interaction between the Unit and wider societal audiences and the quality of these operations. The Research Environment criterion considers the future prospects and operating culture of the Unit, with the aim of supporting development and renewal. The cross-cutting theme in the assessment is collaboration and interdisciplinarity of research conducted at the University, when appropriate, both within and outside the University.

Scientific Quality

The assessment of the scientific quality of the Unit's research is based on the quality of the outputs during the assessment period (2019-2023). The detailed criteria for assessing the scientific quality are *research profile* and *scientific impact*.

Research profile entails the strategic choices of the Unit during the assessment period, and the added value and synergies that have emerged as a result of these

choices. Therefore, research profile and its development are assessed based on the relevance of the contexts, contents, and methodologies of the research conducted at the Unit. Scientific impact implies the influence of research conducted at the Unit on an academic field or application. Collaboration and interdisciplinarity are considered as important aspects in the assessment of scientific quality, when appropriate.

A variety of outputs, including producing and developing new concepts, methodologies, research infrastructures, and other contributions to the research community will also be considered.

The panel will explain within its report how it has applied the criteria.

Societal Impact

Research can make contributions and have many different kinds of effects and impact depending on the discipline. The expectations of society concerning the contributions of science are also different for different disciplines. The point is to assess contributions and their quality in areas that the Unit has itself designated as target areas.

The panel will assess *how the Unit positions its research vis-à-vis broader issues*, extending also beyond academia: whether potential stakeholders and audiences have been identified, and which research questions or results are immediately relevant or could be relevant later. Other detailed criteria, with different meanings in different disciplines, are the Unit's *activities on valorisation* (activities aimed at making results available and suitable for application) and *dissemination and communication* (activities aimed at making results widely known or providing stakeholders and different actors in civil society a window to current research and novel results). The Unit's approach to supporting and enabling the impact of its activities will also be considered. Special emphasis will be put on the Unit's capabilities in identifying collaborative and interdisciplinary societal actions.

Research Environment

The assessment criterion Research Environment is approached here as a combination of the *operating culture* and the *sustainability of the research base*. The panel assesses how the Unit intends to pursue the University strategy in the years

ahead and the extent to which it is estimated to be capable of meeting its targets in research and society during this period. Strategic development actions that promote interdisciplinary research will also be assessed.

The assessment considers the Unit's goal setting, the actions taken to reach the goals and the follow-up measures. The sustainability of the research base refers to the analysis of the balance between the resources available and the goals and the strategies in the Unit. The assessment provides information on the renewal potential of the research carried out in the Unit.

PROCESS AND TIMETABLE

The assessment will be carried out during 2025. The Research Assessment Office (RAO) schedules and manages the process and gathers metric data. Unit-level results will be available by the end of 2025. The final report will be published in spring 2026.

ASSESSMENT MATERIAL

Metric data

Background data will be provided on the Unit's funding, personnel, publications, and doctoral education. Those data will contribute to all assessment criteria. The metric data will be compiled by the RAO and checked and completed

in collaboration with the Unit before being submitted to the panel.

The performance of the Unit is measured against the mission and goals set by the Unit. Metric data and indicators are used to support Unit's self-assessment and qualitative expert assessment. For each set of metric data, the value, limitations, and the context of use are recognised. This approach is in line with the Leiden Manifesto for research metrics.

Self-assessment

Self-assessment refers to the Unit's own assessment of its operations and development work. The Unit is asked open questions to guide them to reflect upon the research environment. The Units will carry out the self-assessment by completing the self-assessment report in a template provided by RAO.

The self-assessment entails questions on the Unit's research profile and goals for scientific and societal impact. The Unit is also asked to describe its goal-setting procedures and follow-up measures, as well as actions that promote interdisciplinary research.

Recognising the Unit's own strengths and areas in need of development is a part of the self-assessment process. Following the enhancement-led philosophy, the Unit's capability of critical self-reflection will also be taken into account in the assessment carried out by the panel.

Site visit

The panel will conduct a site visit to the University of Helsinki, including an orientation, Unit interviews and a wrap-up meeting.

UNITS OF ASSESSMENT

Units of Assessment (Unit) are deemed to be the faculties of the University of Helsinki and the research-focused independent institutes (15 units). The results of the assessment should serve future decision-making in the current organisation, and the organisational structure of today is used as the base for assessment.

The Units will cover all research fields and activities in the University of Helsinki.

USE OF THE RESULTS

The Units and the University's leadership will review the reports and recommendations. After this, the Units will discuss development plans with the University's leadership. Further actions will be agreed on the basis of these discussions. Follow-up measures are recommended to acquire feedback on the implementation of the assessment and its impact.

WHAT?	WHO?	WHEN?
Metric data gathered from university databases (e.g., TUHAT, RAPO)	RAO	12/2024–2/2025
Analysis of data	RAO	12/2024–2/2025
Data provided with a self-assessment template to the Units of Assessment	RAO	3/2025
Quality control of data	Unit & RAO	4–9/2025
Completion of the self-assessment	Unit	3–6/2025
Metric data and self-assessment reports delivered to the panel	RAO	9/2025
Consideration of assessment material, panel meeting and site visit, report drafts written	Panel	9–12/2025
Assessment reports and recommendations compiled (Unit level, UH level)	RAO	10/2025–1/2026
Strategic planning and decision-making, development work	Unit/University	2/2026–

MANAGEMENT OF THE ASSESSMENT PROJECT

Steering group and its mandate

The rector appointed the Steering Group on 18 June 2024 and assigned it to draw up the assessment plan and monitor the implementation of the assessment. The Steering Group decides on the assessment questions, the assessment material and its use, the international peer review panel, and the Units of Assessment. The term of the Steering Group ends on 28 February 2026.

The Steering Group members:

Chair, Vice-Rector, Professor Anne Portaankorva

Professor Johanna Mappes

Director, Professor Juha Huiskonen

Professor Saana Svärd

Professor Pauli Puolakkainen

Professor Ilpo Vattulainen

Vice-chair, Chief Development Officer Ritva Dammert

Research Assessment Office

The Research Assessment Office (RAO) operates under University Services' Research Services and consists of Project Manager Aura Kivilaakso and Senior Advisor Henna Moore. The Project Manager reports to the Vice-Rector for Research.

Appendix II

Terms of reference

The Steering Group of Research Assessment 2025, University of Helsinki (RAUH) hereby issues the following terms of reference to the assessment panel.

1 Background

The University of Helsinki, established in 1640 under the patronage of Queen Christina of Sweden, is Finland's largest, oldest and internationally most esteemed research university. Consistently ranked among the world's top 100 universities, it holds notable positions in global rankings such as 99th in the Shanghai Rankings (2024), 107th in the Taiwan Rankings (2023), and 107th in the Times Higher Education Rankings (2024). Renowned as one of the leading multidisciplinary universities in the Nordic region, it frequently ranks as the top 5 in its category. With a vibrant international academic community of over 40,000 members, the University of Helsinki is a proud founding member of the League of European Research Universities (LERU).

The University of Helsinki's prominent role within the national university system is visibly emphasised in the 2023 analysis of the Research Council of Finland (RCF); University of Helsinki received 23–30% of all competitive RCF's Academy project funding in 2020–2023. The University of Helsinki's scientific excellence is corroborated by its success in the most prestigious national calls, leading seven of the 12 Centres of Excellence selected by the Research Council of Finland for 2018–2025 and four of the 11 centres of excellence selected for 2022–2029. In addition, the University is a partner in five Centres of Excellence coordinated elsewhere. In 2024 the University of Helsinki had 12 Academy Professors, or 60% of all Academy Professors appointed. Its scientific quality and impact are further evidenced with total more than 100 ERC

grants, which is nearly half of all the ERC funding granted to Finland.

The University of Helsinki has 11 faculties, several research-focused institutes as well as units attending to the duties of a national authority. Our annual budget is approximately €770 million, 60% of which is core funding. University's researchers support law drafting and actively contribute to public discussion. The University of Helsinki receives roughly 24,000 international and 14,000 domestic media hits per year. It drives innovation with over 100 invention disclosures annually, and its research-based startups have generated over €400 million in value and created more than 250 jobs. Additionally, the university's incubators have supported the creation of 65 businesses and enhanced entrepreneurial skills in over 700 individuals. Helsinki University Hospital (HUS) contributes significantly with 1–2 clinical innovations weekly. Business collaboration at the university reached a value of nearly €26 million in 2023. Notable University of Helsinki alumni include Linus Torvalds, creator of the Linux operating system, and Bengt Holmström, recipient of the 2016 Nobel Prize in Economics.

The research at the University of Helsinki is assessed at regular intervals. The current assessment will take place in 2025, and previous assessments were executed in 2018–2019, 2012, 2005 and 1999. The assessment will focus on the academic quality and impact potential of research performed at the University, as well as their future potential and opportunities to develop operations. The assessment covers all research activities in the University. Self-assessments will be available in autumn 2025, and the final results by the end of 2025.

According to the goal set in the Strategic Plan of the University of Helsinki 2021–2030, *“In 2030, the University will enjoy an increasingly established international standing as a scientific partner, especially thanks to its ground-breaking discipline-specific expertise as well as its multidisciplinary and cross-disciplinary research.”* In line with this goal, the University's strategic planning for research activities is guided by Roadmaps for Implementing Research Themes. The roadmaps serve as a tool for strategic management and development of research activities, primarily aimed at individuals responsible for research development within

academic units. The roadmaps are integral to the research assessment process, featuring prominently in both unit-level and university-level self-assessment reports. The assessment aims to ensure that the strategic goals are being met and provide a structured approach to identifying strengths and areas for improvement within the University's research activities.

2 Purpose and aim of the assessment

The purpose of the Research Assessment of the University of Helsinki (RAUH) is to reveal and confirm the quality and impact of research activities, to identify emerging and strong research areas, and to support renewal.

The aim of the assessment is to produce information that can be used for enhancing quality and supporting strategic decision-making at the University of Helsinki on unit, faculty, and university levels. In line with the University's operational plan priorities 2025–2028, the assessment aims to advance multi- and interdisciplinary approaches in research conducted at the University of Helsinki. It will also provide insights for the strategy process 2028–2030.

The assessment will serve as a continuation, not only of the previous research assessments, but also of the University's Roadmaps for Implementing Research Themes.

3 Organisation of the assessment

The assessment is carried out by an international peer review panel. The assessment process is managed by the Research Assessment Office and led by a Steering Group.

3.1 Steering Group

The Rector of the University appointed the Steering Group and assigned it to draw up the assessment plan and to monitor the implementation of the assessment. The Steering Group decides on the assessment questions, the assessment material and its use, the panel, the Units of Assessment, and their allocation to the panel. The term of the Steering Group ends on 28 February 2026.

The Steering Group members are the following:

Vice-Rector, Professor	Anne Portaankorva, Chair
Professor	Johanna Mappes
Director, Professor	Juha Huiskonen
Professor	Saana Svård
Professor	Pauli Puolakkainen
Professor	Ilpo Vattulainen
Chief Development Officer	Ritva Dammert, Vice-Chair

3.2 Research Assessment Office

The Research Assessment Office operates under University Services' Research Services and is responsible for carrying out the assessment project. The Research Assessment Office consists of Project Manager Aura Kivilaakso and Senior Advisor Henna Moore. The Project Manager reports to the Vice-Rector for Research.

3.3 Units of Assessment

The assessment focuses on overall research activities in the Units of Assessment (Units). The Steering Group has defined and decided on the Units. The Units cover all research fields and activities in the University of Helsinki. Altogether there are 15 Units divided into assessment panel's three subgroups.

The Units of Assessment are the faculties of the University of Helsinki and the research-focused independent institutes (15 Units).

The results of the assessment should serve future decision-making in the current organisation, and the organisational structure of today is used as the base for assessment. The Units cover all research fields and activities in the University of Helsinki and vary in size.

3.4 Review Panel

Each of the three subgroups of the assessment panel consists of highly regarded international experts who assess the Units' research during a five-day panel meeting and site visit in Helsinki. Each subgroup has an international chair and depending on the number of the units assessed, a group of 6-10 experts. Each subgroup will also include one representative familiar with the Finnish higher education sector who can assist in matters that require context-specific

knowledge and insight. A local "panel guide" will support the panel in practical matters during the visit.

The subgroups of the panel represent the areas of assessment:

- Health and Life Sciences
- Science, Technology and Environment
- Social Sciences and Humanities

The allocation of the Units to the three subgroups of the panel is described in Appendix IV.

4 Carrying out the assessment

As a member of the expert panel, you will be asked to assess the quality and impact of the research conducted by the Unit as well as its goals and the extent to which the Unit is equipped to achieve them. You should do so by judging the Unit's performance according to the three assessment criteria listed below. In your analysis, please consider the profile and goals of the Unit, current international trends, and developments in science at large and in the field(s) you are assessing specifically, as well as in society beyond academia.

4.1 Assessment criteria

The three criteria for the assessment:

1. Scientific quality

Scientific quality is approached by looking at the past performance based on the self-assessment and scientific outputs of the Unit.

2. Societal impact

Societal impact refers to the interaction between the Unit and the wider societal audiences and its impact.

3. Research environment

Research environment considers the future prospects and operating culture of the Unit and how they support development and renewal.

For each criterion, the Unit will be assessed based on detailed qualitative assessment criteria focusing on strengths and

development needs of the Unit of Assessment. The detailed descriptions are outlined in Appendix III.

The subject of the assessment is the Unit's overall research activities, including the role of the management and leadership of the Unit in promoting the high quality and impact of research.

4.2 The role of the panel

The panel members will serve as experts, and as such will:

- Review the assessment material,
- Take part in panel meetings including the site visit,
- Write the assessment reports concerning the Units assigned to the panel subgroup, and
- Write the assessment report concerning interdisciplinarity of research conducted at the University.

Please provide a written assessment on each of the three criteria and give feedback focusing on strengths and areas for development of the Units of Assessment and the University. Evaluative, concise comments are more valuable than descriptive phrases. Please also provide recommendations for improvement. In this assessment, research outputs such as new or improved instruments, methodologies or new infrastructure developed by the Unit contribute to the quality of research. The assessment will be written on a report template provided with instructions by the Research Assessment Office.

4.3 Method of assessment

The necessary documentation will be available on a secure online folder no less than ten weeks prior to the site visit. The documents will include at least the following:

- The Unit's self-assessment with annexes (see the Self-assessment template in Appendix V)
- Background information and metric data on the Unit of Assessment
- Self-assessment report on interdisciplinarity on research conducted at the University of Helsinki
- Background information on the University of Helsinki

The background information and metric data have served as a basis for the Unit's self-assessment, which aims for constructive, critical self-reflection. Please note that the performance of the Unit is assessed in the context of the profile and goals set in the Unit. Metric data and indicators are used to support qualitative expert assessment, as per the principles described in the Leiden Manifesto.¹ For each set of metric data, the value, limitations, and the context of use are recognised. The RAUH enhancement-led approach to research assessment is aligned with responsible research assessment (e.g., CoARA).²

The panel is expected to submit a final evaluation report by 31 December 2025. Prior to this, the panel will provide written preliminary feedback and tentative questions for the site visit. The final report should consist of feedback from the panel subgroups for each Unit of Assessment. Additionally, the panel is expected to provide collectively formulated university-level feedback as well as feedback on interdisciplinarity on research conducted at the University of Helsinki.

4.4 Panel meeting and site visits

The panel meeting and site visits at the University of Helsinki will take place on 24-28 November 2025. We will contact you about practical matters no later than 15 September 2025.

4.5 Operating principles

The panel must comply with the following operating principles and ethical guidelines in its work:

- *Impartiality and objectivity:* Panel members must take an impartial and objective approach towards the Unit, as well as recognise their position of power and the responsibility related to it.
- *Transparent and evidence-based assessment:* The assessment must be based on Research Assessment 2025, University of Helsinki criteria as well as on material collected in connection with the assessment.
- *Confidentiality:* All the information acquired during the process, except for that published in the final report, is confidential.
- *Interaction:* The assessment is carried out through good cooperation and interaction with the Unit.

Before embarking on your assessment work, you will be asked to sign a statement of impartiality/confidentiality agreement. In this statement, you declare any direct relationship or connection with the University of Helsinki.

5 Assessment report

We will ask you to report your findings on three levels: 1) the Unit report for each Unit and 2) a panel subgroup summary combining and reviewing results from all Units within a subgroup (see Appendix IV for the allocation of the Units to each subgroup). Please include also 3) university-level strategic recommendations.

The reports are to be drawn up in accordance with the Research Assessment 2025, University of Helsinki criteria and assessment report format. The reports for each Unit are a result of the collective work of the subgroup. Each panellist will take part in writing and commenting on a Unit report as well as contributing to the panel subgroup summary led by the chair. In addition, the panel will provide collective university-level feedback, which considers the university-level self-assessment focusing on interdisciplinarity.

You should send the complete draft reports to the University of Helsinki Research Assessment Office by 31 December 2025. The reports will be checked for factual inaccuracies; if such inaccuracies are detected, you will be asked to revise the report.

6 Use of the results

The results and recommendations of the Research Assessment are based on the reports of the external review assessing the quality and impact of research. The assessment uses metric data, self-assessment reports, and site visits. The self-assessment consists of two parts: the Units' self-evaluations and a university-level self-assessment focusing on interdisciplinarity.

The Units and the University's leadership will review the reports and recommendations. After this, the faculties and independent institutes will discuss development plans with the University's leadership. Further actions will be agreed on the basis of these discussions. We aim to provide feedback to the panellists of the results of the assessment.

¹ Hicks, Wouters, Waltman, de Rijcke, Rafols (2015). The Leiden Manifesto for Research Metrics, *Nature*, April 23, 2015.

² The Coalition for Advancing Research Assessment CoARA (2022). <https://coara.eu/>

Appendix III

Assessment criteria

Scientific quality

Research profile and its development:

Are the contexts (topics) of research conducted in the Unit relevant to the Unit and to the Unit's academic discipline(s)? To what extent are the contents (outputs) of research conducted in the Unit considered as high quality? Estimate the appropriateness of the methodologies used in the Unit for the research questions of the Unit? To what extent does the Unit develop new methods or apply them in a novel and innovative manner?

Scientific impact:

Evaluate the influence of the research conducted at the Unit on the academic discipline(s). Evaluate how the Unit positions itself internationally in its research field/discipline. Evaluate the Unit's views on exploring ambitious, bold, and innovative ideas with potential for paradigm shifts? To what extent does the Unit have a track record of discoveries, creative findings of conceptual openings?

Collaboration & interdisciplinarity:

Evaluate the Unit's collaborative actions with others within and beyond the university in the same discipline. To what extent does the Unit collaborate with researchers outside their own discipline? How does the Unit utilise approaches and methods from different disciplines in its research?

Potential & renewal:

Evaluate the future potential of the Unit in relation to its scientific goals. Describe the potential of the Unit to renew its research.

Societal impact

Target areas, audiences, research questions and goals:

Evaluate how the Unit identifies and engages relevant audiences and stakeholders. How has the Unit succeeded in identifying research questions that are relevant immediately or later? Consider the societal relevance and visibility of research conducted in the Unit. Evaluate the role and positioning of the Unit's research in society?

Activities and outcomes:

Evaluate the Unit's activities on valorisation (activities aimed at making results available and suitable for application), and dissemination and communication (activities aimed at making results widely known or providing stakeholders and different actors in civil society a window to current research and novel results). Evaluate whether the outcomes provide convincing evidence. Evaluate the Unit's approaches in supporting and enabling the impact of its activities?

Collaboration & interdisciplinarity:

Evaluate the Unit's capabilities in implementing collaborative actions influencing society. Assess the Unit's maturity to incorporate perspectives from various disciplines to address societal challenges.

Potential & renewal:

Evaluate the Unit's plans to further strengthen its societal impact? How does the Unit see its role in society in the future? Evaluate the capabilities of the Unit to renew its approaches to engage with society.

Research environment

Operating culture:

Evaluate the Unit's plans regarding strategic alignment of research goals.

How does the Unit intend to pursue the university strategy in the coming years? Assess the Unit's efforts in goal setting, actions taken to reach the goals, and follow-up measures. Evaluate the quality of the Unit's operational procedures, transparency, and future position. How does the Unit ensure that a supportive and innovative research environment is cultivated and fostered? Evaluate the Unit's plans/strategies to retain key personnel. How does the Unit manage its academic community (including doctoral researchers)? How are various and unconventional careers paths acknowledged in the Unit?

Sustainability of the research base:

Estimate the balance between the resources available (including research infrastructures and funding) and the goals and strategies in the Unit. Are the plans realistic and is the funding base sustainable?

Collaboration & interdisciplinarity:

Evaluate the strategic development actions that promote interdisciplinary research in the Unit. Assess the robustness of the supporting system of the Unit regarding interdisciplinary collaboration (including funding, resources, governance structures). How does the Unit promote collaboration across different fields to enhance its adaptability and resilience?

Potential & renewal:

To what extent does the Unit work to continuously renew the preconditions needed for well-functioning research environment.

Appendix IV

Panel structure and composition

Health & Life Sciences

Units of assessment:

- Faculty of Biological and Environmental Sciences
- Faculty of Medicine
- Faculty of Pharmacy
- Faculty of Veterinary Medicine
- Finnish Museum of Natural History (LUOMUS)
- Helsinki Institute of Life Science (HiLIFE)

Panellists:

- John Seddon, Imperial College London (Chair)
- Silke Werth, Ludwig-Maximilians-Universität München
- Paul Coffey, UMC Utrecht
- Alessandra Scagliarini, University of Bologna
- Ernst Kuipers, Nanyang Technological University in Singapore
- Cisca Wijmenga, University of Groningen
- Sven Frøkjær, University of Copenhagen
- Antti Poso, University of Eastern Finland
- Lars Vedel Kessing, Psychiatric Center Copenhagen and University of Copenhagen

Science, Technology & Environment

Units of assessment:

- Faculty of Agriculture and Forestry
- Faculty of Science

Panellists:

- Stacey Ristinmaa Sörensen, Lund University (Chair)
- Mikko Karttunen, University of Western Ontario and University of Eastern Finland
- Markus Antonietti, University of Potsdam
- Helge Holden, Norwegian University of Science and Technology
- Øystein Hov, Norwegian Meteorological Institute
- Martin Jones, University of Staffordshire
- Irini Angelidaki, Technical University of Denmark
- John Shawe-Taylor, University College London

Social Sciences & Humanities

Units of assessment:

- Faculty of Arts
- Faculty of Educational Sciences
- Faculty of Law
- Faculty of Social Sciences
- Faculty of Theology
- Helsinki Collegium for Advanced Studies
- Swedish School of Social Science

Panellists:

- Claire Warwick, Durham University (Chair)
- Björn Wittrock, Uppsala University
- Per Mickwitz, Lund University
- Sue Scott, Newcastle University
- Roger Säljö, University of Gothenburg
- Niki Vermeulen, University of Edinburgh
- James Harris, University of St Andrews
- Toni Williams, Cambridge University
- Paula Rossi, University of Oulu
- Kristin De Troyer, Paris Lodron Universität Salzburg

Appendix V

Self-assessment report template

Instructions

The purpose of the Research Assessment of the University of Helsinki (RAUH) is to reveal and confirm the quality and impact of research, to identify emerging and strong research areas, and to support renewal.

The aim of the assessment is to produce information that can be used for enhancing quality and supporting strategic decision-making at the University of Helsinki on unit, faculty, and university levels. In line with the University's operational plan priorities 2025–2028, the assessment aims to advance multi- and interdisciplinary approaches in research conducted at the University of Helsinki. It will also provide insights for the strategy process 2028–2030. **The assessment will serve as a continuation, not only of the previous research assessments, but also of the University's Roadmaps for Implementing Research Themes. Therefore, the Units are asked to reflect on the outcomes of the previous research assessment and its follow-up, as well as the roadmaps, in the self-assessment.**

The assessment focuses on overall research activities in Units of Assessment (Unit), not on the performance of individual researchers.

Self-assessment is the Unit's own assessment of its operations and development work. The Unit is asked open questions to guide them to reflect upon the research environment. The Units will carry out the self-assessment by completing the self-assessment report in a template.

The self-assessment entails questions on the Unit's research profile and goals for scientific and societal impact. The Unit is also asked to describe its goal-setting procedures and follow-up measures, as well as actions that promote interdisciplinary research. The Unit is asked to ensure that all the subunits (departments, scientific disciplines etc.) are taken into consideration throughout the self-assessment.

Identifying the Unit's own strengths and areas in need of development is a part of the self-assessment process. Following the enhancement-led philosophy, the Unit's capability of critical self-reflection will also be taken into consideration in the

assessment. The assessment will be carried out by an external international panel.

The suggested length of the self-assessment report is approximately 15(–20) pages, depending on the complexity of the Unit, including the number of subunits. NB! Excluding pictures and Part I (Basic information).

*The self-assessment period will be from 3 March to 2 June 2025. Please return the completed self-assessment report in Word-format to the RAUH 2025 SharePoint folder **no later than 2 June at 16:00**. Instructions are written in grey colour, and they serve as guiding questions and reflect the detailed assessment criteria. **Please delete the instructions before returning the self-assessment report.***

I Basic information (1–2 pages)

Organisation and profile

- Outline the scientific profile of the Unit. What are the main contents and focus areas of the research carried out in the Unit? What is the rationale behind the choices?
- Provide a concise description of the Unit's organisation and composition (departments, divisions, subunits, disciplines/sub disciplines, research centres, the Research Council of Finland's Centres of Excellence etc.). Please ensure that all the subunits (departments, scientific disciplines etc.) are taken into consideration throughout the self-assessment.
- Specify any specific (national) tasks, roles or responsibilities that the Unit has, or which have an effect, e.g., on its priorities for research targets or resource allocation.
- Provide a short summary of the history of the Unit.

Key figures and achievements

Provide a self-reflection on the key indicator information provided by Research Assessment Office on the PowerBI platform. You can use the data in the PowerBI link as a source but also list achievements that are not indicated by metric data.

Vision and goals of the Unit

Describe the future potential of the Unit in relation to its scientific goals. Describe the potential of the Unit to renew its research.

Describe the Unit's plans to further strengthen its societal impact? How does the Unit see its role in society in the future? Describe the capabilities of the Unit to renew its approaches to engage with society.

To what extent does the Unit work to continuously renew the preconditions needed for well-functioning research environment.

II Self-assessment (approximately 15 pages)

Describe and self-assess the Unit's activities in the three assessment criteria: scientific quality, societal impact, and research environment. The descriptions and reflections on strengths and development needs will provide a base for the external assessment carried out by the external panellists.

It is important to give a realistic view of the activities or development plans for the external panellists to facilitate useful feedback for future development. This applies to all self-assessment criteria.

1. Scientific quality

1.1. Research goals

a) What are the current research goals in the Unit? Where does the Unit aspire to be in 5–10 years' time with its research? Take also into consideration the University of Helsinki Strategy 2021–2030 in the current goal description. b) Please explain the rationale for the selection of the goals, in terms of contribution to the scientific body of knowledge.

Reflect the contexts (topics) of research conducted in the Unit and their relevance to the Unit and to the Unit's academic discipline(s). To what extent are the contents (outputs) of research conducted in the Unit considered as high quality? Estimate the appropriateness of the methodologies used in the Unit for the research questions of the Unit? To what extent does the Unit develop new methods or apply them in a novel and innovative manner?

1.2. Research results

Name and describe some of the most important results of the research carried out in the Unit during the assessment period and provide relevant justifications on why those have been selected.

1.3. Scientific impact

Describe the influence of the research conducted at the Unit on the academic field/discipline(s). Describe how the Unit positions itself internationally in its research field/discipline. What are the Unit's views on exploring ambitious, bold, and innovative ideas with potential for paradigm shifts? To what extent does the Unit have a track record of discoveries, creative findings of conceptual openings?

1.4. Collaboration & interdisciplinarity

Describe the Unit's collaborative actions with others within and beyond the University in the same discipline? To what extent does the Unit collaborate with researchers outside their own discipline? How does the Unit utilise approaches and methods from different disciplines in its research?

2. Societal impact

2.1. Target areas, audiences, research questions and goals

Describe how the Unit identifies and engages relevant audiences and stakeholders. How has the Unit succeeded in identifying research questions that are relevant immediately or later? Consider the societal relevance and visibility of research conducted in the Unit. Describe the role and positioning of the Unit's research in society?

2.2. Activities and outcomes

Describe the Unit's activities on valorisation (activities aimed at making results available and suitable for application), and dissemination and communication (activities aimed at making results widely known or providing stakeholders and different actors in civil society a window to current research and novel results). Reflect on whether the outcomes provide convincing evidence. What are the Unit's approaches to supporting and enabling the impact of its activities?

See the list of examples of the outputs, outcomes, and marks of recognition at the end of this document. *

2.3. Collaboration & interdisciplinarity

Describe the Unit's capability in identifying collaborative and interdisciplinary societal actions. Describe how the Unit incorporates perspectives from various disciplines to address societal challenges.

3. Research environment

3.1. Strategy and leadership of the Unit

In sections 3.1.1–3.1.3, describe the Unit's plans regarding strategic alignment of research goals. How does the Unit intend to pursue the University strategy in the coming years?

3.1.1 Leadership, goal setting and follow-up

Describe the Unit's efforts in goal setting, actions taken to reach the goals, and follow-up measures.

3.1.2 Human resources, careers, and recruitment

Describe the quality of Unit's operational procedures, transparency, and future position. How does the Unit ensure that a supportive and innovative research environment is cultivated and fostered? Describe the Unit's plans/strategies to retain key personnel, including an evaluation of the effectiveness of these plans.

3.1.3 Researcher education

How does the Unit manage its academic community (including doctoral researchers)? How are various and unconventional career paths acknowledged in the Unit?

3.2. Research infrastructure and resources

Estimate the balance between the resources available (other than funding) and the goals and strategies in the Unit. Are the plans realistic and sustainable?

3.3. Funding

Estimate the balance between the financial resources available and the goals and strategies in the Unit. Are the plans realistic and is the funding base sustainable?

3.4. Collaboration & interdisciplinarity

Describe the strategic development actions that promote interdisciplinary research in the Unit. Assess the robustness of the supporting system of the Unit regarding interdisciplinary collaboration (including funding, resources, governance structures). How does the Unit promote collaboration across different fields to enhance its adaptability and resilience?

III Description of the self-assessment process

Describe briefly how the self-assessment was conducted in the Unit and how the members of the Unit were involved in the process.

IV Other matters

Describe any circumstances that might have influenced the Unit during the assessment period 2019–2023.

V Summary

Write a short summary of the self-assessment and include a brief analysis on the benefits of the assessment to the Unit.

** Examples of outputs, outcomes, and marks of recognition:*

Outputs

- Reports (for example for policymaking)
- Articles in professional journals for non-academic readers
- Other outputs: instruments, infrastructure, datasets, software tools or designs developed in the Unit made available for a societal target group or groups
- Outreach activities, for example lectures for general audiences and exhibitions
- Appearances in hearings for policy preparation
- Patents and/or licenses, invention disclosures, registered literary or artistic works, design rights and equivalent IPRs

Outcomes: Use of research results, products and outputs by stakeholders/groups beyond academia

- References to research results/outputs in policy documents
- References to Current Care Guidelines
- Utilisation of patents, licenses and/or other IPR (see examples of IPR above)
- Spin-off companies or other knowledge transfer activities (including commercialization)
- Use of research facilities by societal groups
- Projects in cooperation with societal groups
- Contract research

Marks of recognition by societal groups

- Public prizes
- Funding received for developing results and outputs further, towards utilization beyond academia
- Appointments/positions paid for by societal groups
- Membership of civil society advisory bodies

Appendix VI

Assessment report templates

Assessment report template (unit-level)

Panel subgroup:

Unit of assessment:

Instructions

This is the unit-level assessment report template for the Research Assessment 2025 at the University of Helsinki. Please use the following structure in reporting the findings and recommendations for the Unit.

The structure of the report template follows the main headings of the self-assessment report (Appendix V) and aligns with the detailed assessment criteria (Appendix III). Please see also the Terms of Reference (Appendix II) for more detailed instructions on carrying out the assessment.

The assessment work starts with reading and analysing the assessment material of the Unit. The first draft of the report is written based on the assessment material no later than 1 November 2025 on this template, and it is to be sent both to the Chair and to the Research Assessment Office. The initial findings of the report draft are confirmed and reassessed during the site-visit on 24–28 November 2025. Please analyse and reflect the topics based on the assessment material and site-visit.

The final report should be completed no later than five weeks after the site-visit, by 22 December 2025 on this template.

The suggested length of the report is approximately in total 5–10 pages.

Instructions are written in grey colour, and they serve as guiding questions and reflect the detailed assessment criteria.

Please delete the instructions before returning the self-assessment report.

Summary

Assessment summary

A short and concise summary of the assessment of the Unit in general. The summary should be based on the three assessment criteria (Scientific Quality, Societal Impact, and Research Environment) and conclude the main remarks of each criterion.

*The summary should include the **key strengths** and **areas of development** of the Unit. Please provide also a set of **recommendations** for the Unit, how to improve its research activities, enhance quality and support renewal.*

STRENGTHS

- ...
- ...
- ...

DEVELOPMENT AREAS

- ...
- ...
- ...

RECOMMENDATIONS

- ...
- ...
- ...

Assessment of the Unit

1. Scientific quality

Scientific quality is approached by looking at the past performance based on the self-assessment and scientific outputs of the Unit.

Research profile and its development

Are the contexts (topics) of research conducted in the Unit relevant to the Unit and to the Unit's academic discipline(s)? To what extent are the contents (outputs) of research conducted in the Unit considered as high quality? Estimate the appropriateness of the methodologies used in the Unit for the research questions of the Unit. To what extent does the Unit develop new methods or apply them in a novel and innovative manner?

Scientific impact

Evaluate the influence of the research conducted at the Unit on the academic discipline(s). Evaluate how the Unit positions itself internationally in its research field/discipline. Evaluate the Unit's views on exploring ambitious, bold, and innovative ideas with potential for paradigm shifts. To what extent does the Unit have a track record of discoveries, creative findings of conceptual openings?

Collaboration & interdisciplinarity

Evaluate the Unit's collaborative actions with others within and beyond the University in the same discipline. To what extent does the Unit collaborate with researchers outside their own discipline? How does the Unit utilise approaches and methods from different disciplines in its research?

Potential & renewal

Evaluate the future potential of the Unit in relation to its scientific goals. Describe the potential of the Unit to renew its research.

STRENGTHS

- ...
- ...
- ...

DEVELOPMENT AREAS

- ...
- ...
- ...

RECOMMENDATIONS

- ...
- ...
- ...

2. Societal impact

Societal impact refers to the interaction between the Unit and the wider societal audiences and its impact.

Target areas, audiences, research questions and goals

Evaluate how the Unit identifies and engages relevant audiences and stakeholders. How has the Unit succeeded in identifying research questions that are relevant immediately or later? Consider the societal relevance and visibility of research conducted in the Unit. Evaluate the role and positioning of the Unit's research in society.

Activities and outcomes

Evaluate the Unit's activities on valorisation (activities aimed at making results available and suitable for application), and dissemination and communication (activities aimed at making results widely known or providing stakeholders and different actors in civil society a window to current research and novel results). Evaluate whether the outcomes provide convincing evidence. Evaluate the Unit's approaches in supporting and enabling the impact of its activities.

Collaboration & interdisciplinarity

Evaluate the Unit's capabilities in implementing collaborative actions influencing the society. Assess the Unit's maturity to incorporate perspectives from various disciplines to address societal challenges.

Potential & renewal

Evaluate the Unit's plans to further strengthen its societal impact. How does the Unit see its role in society in the future? Evaluate the capabilities of the Unit to renew its approaches to engage with society.

STRENGTHS

- ...
- ...
- ...

DEVELOPMENT AREAS

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RECOMMENDATIONS

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3. Research environment

The research environment considers the future prospects and operating culture of the Unit and how they support development and renewal.

Operating culture

Evaluate the Unit's plans regarding strategic alignment of research goals. How does the Unit intend to pursue the University strategy in the coming years? Assess the Unit's efforts in goal setting, actions taken to reach the goals, and follow-up measures. Evaluate the quality of the Unit's operational procedures, transparency, and future position. How does the Unit ensure that a supportive and innovative research environment is cultivated and fostered? Evaluate the Unit's plans/strategies to retain key personnel. How does the Unit manage its academic community (including doctoral researchers)? How are various and unconventional career paths acknowledged in the Unit?

Sustainability of the research base

Estimate the balance between the resources available (including research infrastructures and funding) and the goals and strategies of the Unit. Are the plans realistic and is the funding base sustainable?

Collaboration & interdisciplinarity

Evaluate the strategic development actions that promote interdisciplinary research in the Unit. Assess the robustness of the supporting system of the Unit regarding interdisciplinary collaboration (including funding, resources, governance structures). How does the Unit promote collaboration across different fields to enhance its adaptability and resilience?

Potential & renewal

To what extent does the Unit work to continuously renew the preconditions needed for a well-functioning research environment?

STRENGTHS

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DEVELOPMENT AREAS

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RECOMMENDATIONS

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Assessment report template (subgroup-level)

Panel subgroup:

Instructions

This is the **panel subgroup-level** assessment report template for the Research Assessment 2025 at the University of Helsinki. The subgroup-level feedback provides domain-specific insights that support the identification of **strengths** and **development needs** across interdisciplinary research areas involving multiple faculties and units.

The panel subgroup has the freedom to determine which aspects to emphasize in their subgroup-level feedback. All three criteria (Scientific Quality, Societal Impact, Research Environment) can be considered, where applicable.

The subgroup-level assessment report will be presented following the panel's site visit, together with the unit-level assessment reports. Initial comments will be provided at the conclusion of the visit.

Please analyse and reflect on the topics based on the unit-level self-assessment reports and the site visit. The suggested length of the report is approximately 1–3 pages in total.

The final report should be completed no later than five weeks after the site-visit, by 22nd of December 2025.

Instructions are written in grey colour, and they serve as guiding questions and reflect the detailed assessment criteria.

Please delete the instructions before returning the self-assessment report.

Description of the use of criteria

Please describe how the assessment criteria (see Appendix III) has been interpreted and used in the panel subgroup.

Panel subgroup's feedback for the University of Helsinki

Provide brief and concise feedback on the panel subgroup's units of assessment as a domain, with a focus on the interdisciplinary research area (Health & Life Sciences, Science, Technology and Environment, or Social Sciences and Humanities) involving multiple faculties. **Please use any subheadings you find suitable to effectively organize your response.**

The summary should highlight the key **strengths and areas for development** within the interdisciplinary domain. In addition, please provide a set of **recommendations** for the University on how to improve research activities, enhance quality, and support renewal at the domain level.

STRENGTHS

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DEVELOPMENT AREAS

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RECOMMENDATIONS

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Assessment report template (university-level)

Instructions

This is the **university-level** assessment report template for the Research Assessment 2025 at the University of Helsinki. The university-level assessment is primarily based on the university-level self-assessment with a focus on interdisciplinarity.

For the university-level self-assessment with a focus on interdisciplinary research, the structure and style of the assessment report are flexible. Unlike unit-level reports, this assessment does not follow a fixed format, nor can it cover all areas of the assessment criteria in detail. The panel has the freedom to determine which aspects to emphasize in their university-level feedback, with a particular focus recommended on the criterion of the **Research Environment**.

The university-level assessment report will be presented following the panel's site visit. Initial comments will be provided at the conclusion of the site-visit, and the preliminary findings of the report draft will be confirmed during the site-visit scheduled for 24–28 November 2025.

Please analyze and reflect on the topics based on the university-level self-assessment report and the site-visit. The suggested length of the report is approximately 4–8 pages in total.

The final report should be completed no later than five weeks after the site-visit, by 22 December 2025.

Instructions are written in grey colour, and they serve as guiding questions and reflect the detailed assessment criteria.

Please delete the instructions before returning the self-assessment report.

Description of the use of criteria

Please describe how the assessment criteria has been interpreted and used in evaluating university-level self-assessment with a focus on interdisciplinary research.

Panel feedback for the University of Helsinki

Provide a brief and concise summary of the university-level assessment, with a primary focus on the criterion of Research Environment. **Please utilize any subheadings you find suitable to effectively organize your response.**

The summary should include the **key strengths** and **areas of development** of the University. Please provide also a set of **recommendations** for the University, how to improve research activities, enhance quality and support renewal.

STRENGTHS

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DEVELOPMENT AREAS

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RECOMMENDATIONS

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Appendix VII

Assessment guidelines

1. Purpose and aim of the assessment

The purpose of the Research Assessment of the University of Helsinki (RAUH) is to reveal and confirm the quality and impact of research activities, to identify emerging and strong research areas, and to support renewal.

The aim of the assessment is to produce information that can be used for enhancing quality and supporting strategic decision-making at the University of Helsinki (UH) on unit, faculty, and university levels. The results will be used both at the unit level to support local development and at the university level to inform broader strategic planning. In line with the UH's operational plan priorities 2025–2028, the assessment aims to advance multi- and interdisciplinary approaches in research conducted at UH. It will also provide insights for the strategy process 2028–2030.

There is a follow-up procedure in place to ensure that the assessment results lead to concrete actions. Units are expected to reflect on the feedback and incorporate it into their development plans, while the university leadership will use the findings to guide institutional-level decisions. The assessment will serve as a continuation, not only of the previous research assessments, but also of the University's Roadmaps for Implementing Research Themes.

The Units of Assessment (Units) are the faculties and the research-focused independent institutes of the University of Helsinki (15 Units). The assessment focuses on overall research activities in the Units. The Units cover all research fields and activities in UH. Units are divided into assessment panel's three subgroups.

Background, purpose and aim, organisation and carrying out the assessment are described in detail in Terms of Reference and its appendices (see Appendix II).

As a member of the expert panel, you will be asked to assess the quality and impact of the research conducted by the Unit as well as its goals and the extent to which the Unit is equipped to achieve them. In addition, the assessment will include a university-level assessment with a focus on interdisciplinarity. The three criteria for the assessment are scientific quality, societal impact and research environment.

2. Assessment material

List of the material

As a member of the expert panel, you will be asked to carefully read all assessment material for each Unit you assess.

The assessment material for each Unit includes:

- Unit self-assessment report (SAR)
- Metric data

In addition, all panel members are expected to read the “I Background” section of the university-level self-assessment report. This section provides essential information about the University of Helsinki's organisational structure and the broader Finnish higher education context.

Panel subgroup Chairs are expected to carefully read the entire university-level self-assessment report, which includes:

- University-level self-assessment with a focus on interdisciplinarity (see the definition of the term interdisciplinarity in Appendix VIII)
- Metric data

You will also receive additional material that you can utilize at your own discretion. This material, provided primarily as a list of websites, is integrated within the self-assessment materials.

Unit self-assessment report

The Units were instructed to use the self-assessment report template (See Appendix V) and to follow the guidelines given in it. The Research Assessment Office (RAO) provided metric data and checked that all parts had been covered. Small variations in the structure were allowed. Units are fully responsible for the content of their report text.

Since small variations in structure were allowed within the self-assessment reports, some Units have included figures, lists, or tables within their reports. Figures and tables specifically provided by the Unit are included in the Unit SAR.

Metric data

The assessment period extends from 2019 to 2023. Statistics on publications, societal impact, staff, grant-funded researchers, doctoral degrees and funding have been produced for this period. The source of the data was UH databases and external databases.

Institutional Research and Analysis Unit and Helsinki University Library (HULib) were responsible for compiling the metric data. HULib processed citation indicators for publications and Institutional Research and Analysis Unit put together the other data. The aim was to produce metric data to support the future-looking orientation of the assessment. Ideally, data for the assessment period should be reliable, uniform and equal for all units. This was the aim of the RAUH 2025 metric data as well.

The data are presented in a PowerBI view. Explanatory information for the figures and data sources can be found on the 'Info' tab in the PowerBI view. If you are unable to access the PowerBI database, the same metric data are available in Teams channel under respective Unit folders.

Please note that the PowerBI view includes separate sections for **unit-level and university-level data**, which can be switched between using the left sidebar. Unit-specific data can

be browsed and changed using the menu in the top bar on the unit-level section. The figures for each faculty and department as well as university level are divided into three content tabs: **scientific quality, societal impact and research environment.**

Publication statistics. Publication statistics are based on publication data for 2019–2023. As an exception, for citation indicators publications for 2018–2022 were used. Publications are calculated for the unit, if the unit is mentioned in the publication metadata in UH research information system.

Staff categories. UH uses a four-level academic career model. The staff statistics are based on work contracts and full-time equivalents.

Grant funded researchers. Grant-funded researchers refer to researchers who are not UH employees but have a written agreement with the faculty/unit. The agreement allows researchers e.g. to use university facilities and library services. The statistics on grant funded researchers are less comprehensive than the figures of employees.

International staff. Other nationalities but Finnish were categorized as international staff. Staff members who currently have Finnish or double nationality but previously have had other nationality than Finnish are categorized as Finnish in this context.

Funding. The figures on funding are based on UH accounting data and on expenses instead of funders' data on the funding decisions.

Academy professors, ERC grants and Research Council of Finland Centres of Excellence are regarded among the most prestigious funding instruments. Therefore, these projects were selected as subjects of review in RAUH 2025 metric data.

Degrees and study rights to pursue doctoral degree. At UH, faculties grant doctoral degrees and the study rights for doctoral researchers. Therefore, these statistics are provided at faculty level and for faculties only. All students who have the right to complete doctoral degree are referred to as doctoral researchers at UH regardless of whether they have a doctoral researcher's work contract at UH.

For more detailed information on the metric data please see Info tab on the PowerBI view.

University of Helsinki material

Self-assessment report

At the university level, the assessment material consists of a university-level self-assessment report with a focus on interdisciplinarity. This report also includes basic information about the University and the Finnish higher education context. All panel members are encouraged to read the Background section of this report, as it provides essential context for the assessment.

The university-level self-assessment report was compiled by the UH Research Council, the Vice-Rector responsible for research, sustainable development, and doctoral education, and the Research Assessment Office.

Metric data

University-level metric data are available on the same PowerBI site as the unit-level metric data. The view can be switched using the left sidebar.

3. Writing the assessment report

General remarks

The assessment will be implemented as an enhancement-led evaluation, and no grades are given in the assessment. The assessment framework is based on the idea of continuous development and quality enhancement.

Enhancement-led evaluation focuses on the development and improvement of activities and practices. The subject under review is assessed from multiple perspectives, identifying strengths and areas for improvement. Goals are set for development, actions are agreed upon, and the achievement of goals is monitored. **Enhancement-led research assessment aims to produce an overview of the quality and impact of the research conducted at the University of Helsinki, to help identify future research opportunities and support the renewal of research.** The assessment is based on self-assessment reports, highlighting research strengths

and areas for development, and metric data that support self-assessments.

The panel will provide their feedback in written form by using the assessment report templates (see the examples in Appendix VI; actual working templates are in the Teams workspace). The assessment report templates contain detailed assessment questions.

RAUH 2025 includes three levels of assessment reports: unit-level, panel subgroup-level, and university-level. Each template is designed to support a structured and coherent evaluation process, while allowing flexibility where appropriate.

Unit-level reports provide detailed assessments of individual Units. These reports follow a structured format aligned with the self-assessment report and the assessment criteria. They are based on the Unit's submitted materials and the site visit and are expected to be 5–10 pages in length. The assessment is primarily based on the Unit's self-assessment report (SAR), which provides an overview of the Unit's research activities, goals, and environment. However, specific examples of research may also be discussed to illustrate or support the evaluation of the Unit's strengths and development areas. The assessment report is structured as follows:

Summary:

- Description of the use of criteria: written after the site-visit, explaining the internal calibration of the use of the criteria within the panel.
- Assessment summary: the key strengths and development areas of the Unit as well as recommendations.

Assessment of the Unit:

- The assessment of the Unit based on the three assessment themes: scientific quality, societal impact and research environment

Panel subgroup-level reports offer domain-specific insights across interdisciplinary areas involving multiple Units. These reports are more flexible in structure and focus and typically span 1–3 pages. They are informed by unit-level reports and site visit observations.

University-level report focuses on the university-wide perspective, particularly on interdisciplinarity and the research environment. This report does not follow a fixed format and allows the panel to emphasize aspects they find most relevant. The suggested length is 4–8 pages.

Reviewers are expected to save their draft reports to Teams by 1 November 2025. Draft report includes first observations based on the self-assessment materials and further questions for the site-visit.

Preliminary findings of the draft report will be confirmed during the site-visit scheduled for 24–28 November 2025.

All reports should be finalized within five weeks after the site visit (by 31 December 2025).

How to interpret scientific quality, societal impact, and research environment

The focus of the assessment is on the future prospects of the Unit within the three assessment criteria: Scientific Quality, Societal Impact and Research Environment. This emphasis should be considered when writing the assessment report. Guiding questions for assessing each criterion are provided in the Detailed Assessment Criteria document (Appendix III).

Past performance is an important underpinning factor for future success, especially in Scientific Quality. On the other hand, in Societal Impact and Research Environment, past outcomes, practices, and metric data provide supporting evidence when assessing the Unit's potential for future success. Qualitative feedback is the most valuable outcome of the assessment for the Unit.

Scientific quality

The scientific quality of the Unit should be assessed against the goals set by the Unit by looking at the research questions, activities, results and outputs of the Unit, and how the Unit positions itself internationally in its research field/discipline(s). Results and outputs should be considered based on both quality and quantity (metrics).

At UH, we are committed to the responsible use of metric data in research assessment, following the principles described in the Leiden Manifesto (see Appendix II for full reference). The bibliometric data (where applicable) reflects the scientific impact of the research in the Unit and it is a good proxy for

the scientific impact of earlier work. However, the metric data and indicators are meant to be used to support qualitative expert assessment. The indicators should not overly dominate the assessment of scientific quality.

Societal impact

Societal impact in RAUH emphasizes the capacity and potential within the Unit to be a source of societal impact in the future. The potential for societal impact strongly depends on the field of research, and in the long term, unexpected impact in an unpredictable and unforeseeable direction may be observed. The point is to assess contributions in areas that the Unit has itself designated as target areas and focus on factors that the Unit's academic community has control over.

Societal impact stems from the core research areas and competences within the Unit. Through identifying those areas and competences, the Unit can position its research into a broader context and consider its potential relevance to non-academic audiences.

In the assessment, you should also consider the potential for identifying the relevant target areas and audiences.

Research environment

In this theme, the core of the assessment is the question of how well the Unit is positioned for the future. The starting point for the assessment is the description and self-reflection provided by the Unit. In SAR, the Unit assesses their own goal-setting procedures, leadership and management practices and resources. Metric data, such as information on staff and funding, is provided in PowerBI at the unit level, and in some cases, at the department level.

The Research Environment criterion is strongly linked with the two other assessment criteria, especially with the goal setting in Scientific Quality and Societal Impact. Here, you should assess the alignment of the plans, goals, and the Unit's capability to follow and develop its own activities in a meaningful way.

The Units have a varying history and positioning in the University structure. The activities described in SAR can be something the Unit already has had for a long time or plans to have in place in the future. The emphasis of the assessment should be on the reflection of such activities including

the Unit's capability to recognise their own strengths and development areas.

4. Panel and reviewer tasks

Panel subgroups

- The assessment work is carried out in three panel subgroups covering the UH research areas:
 - » Health and Life Sciences
 - » Science, Technology and Environment
 - » Social Sciences and Humanities
- Each panel subgroup is responsible for assessing a set of allocated Units (see Appendix IV for the specific allocation)
- Each Unit is assessed individually and receives an individual report
- RAO assigns the panellists to act as a primary and supporting reviewer of Units
- Each panellist will act as a primary reviewer to one or two Units
- Each panellist will act as a supporting reviewer to one or two other Units

Primary and supporting reviewers' tasks

The primary reviewer is responsible for

- preparing an assessment draft report before the site-visit, by 1 November 2025
- delivering a completed assessment draft report by the end of the site-visit, by 28 November 2025
- finalising the assessment report after the site-visit.

The supporting reviewer is responsible for

- assisting the primary reviewer in the assessment by reading the assessment draft report before the site-visit, by 1 November 2025
- contributing with comments during the site-visit,
- collaborating in writing the final assessment report with the primary reviewer.

All reviewers

- are responsible for participating in the panel meetings
- are welcome to participate and contribute to the interviews according to their own interest and expertise.

Panel Chairs' tasks

The panel Chairs are responsible for coordinating the panel subgroups' work, including

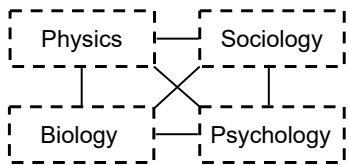
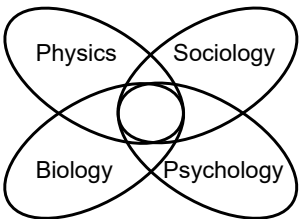
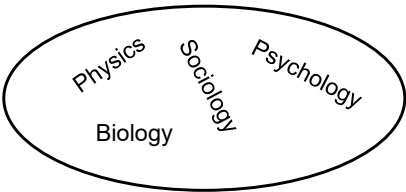
- reading the pre-visit assessment draft reports
- chairing the panel subgroup meetings and interviews
- overseeing the finalising phase of the Unit assessment reports after the site-visit
- preparing a university-level assessment draft report before the site-visit, by 1 November 2025
- delivering a completed university-level assessment draft report by the end of the site-visit, by 28 November 2025
- providing initial feedback on 28 November 2025 for the UH Rectorate on behalf of the whole panel
- compiling the panel assessment report after the site-visit by 31 December 2025.

RAO and UH Research Services staff support

- RAO guides and coordinates the process and practicalities of the assessment
- UH Research Services experts act as secretaries in the panel subgroup interviews and
 - » make notes during the Unit interviews and Unit interview breaks
 - » provide ad hoc help with contextual questions during the Unit interview breaks
 - » do not contribute to writing assessment reports.

Appendix VIII

Definition of the term interdisciplinarity

INTERDISCIPLINARITY		
<p>The term "interdisciplinarity" is used as an umbrella term to describe research that is multidisciplinary, interdisciplinary, or transdisciplinary. <i>"Interdisciplinarity can take different forms depending on several parameters of researchers, institutions, and scientific context. ... For example, interdisciplinarity can take place both within closely related disciplines (so-called 'narrow' interdisciplinarity) and disciplines that are more detached from one another (so-called 'broad' interdisciplinarity)."</i>¹</p>		
Multidisciplinarity (MD)	Interdisciplinarity (ID)	Transdisciplinarity (TD)
Involves bodies of knowledge derived from more than one discipline	Involves bodies of knowledge derived from more than one discipline	Intends to transgress boundaries between disciplinary knowledge
Juxtaposes separate disciplinary approaches around a common interest; researchers from each discipline work in a self-contained manner with little cross-fertilization among disciplines or synergy in research outcomes.	Aims to integrate knowledge across disciplines, at least to some extent. Builds on strong disciplinary expertise – the purpose is to facilitate the collision of different perspectives to generate so-called 'landscapes of knowledge'. ²	Tends to imply active co-creation of knowledge between academic and societal partners. Transdisciplinary research almost completely merges the boundaries between disciplines to create a new, problem-oriented approach. ¹
Visualisation with example disciplines ³		
		

SHAPE-ID Toolkit – Shaping interdisciplinary practices in Europe

¹ Wernli, D. & Ohlmeyer, J. 2023. Implementing interdisciplinarity in research-intensive universities: good practices and challenges. Advice paper no. 30 – March 2023. League of European Research Universities LERU. Retrieved on 20 December 2024. Available at https://www.leru.org/files/Publications/Implementing-interdisciplinarity-in-research-intensive-universities-good-practices-and-challenges_Full-paper.pdf

² Huutoniemi, K., Klein, J.T., Bruun, H. & Hukkinen, J. 2010. Analyzing interdisciplinarity: typology and indicators. Research Policy, 39 (1), 79–88. Retrieved on 20 December 2024. Available at <https://doi.org/10.1016/j.respol.2009.09.011>

³ Willamo, R., Erkkola, M., Kettunen, H., Rekola, M., Salmesvuori, P. & Virtala, A.-M., 2022. Tieteidenvälisillä poluilla: Kokemuksia tieteidenvälisten tutkijamien ohjauksesta ja arvioinnista. Helsingin yliopisto. Retrieved 4 February 2025. Available at <https://doi.org/10.31885/9789529465736>



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