

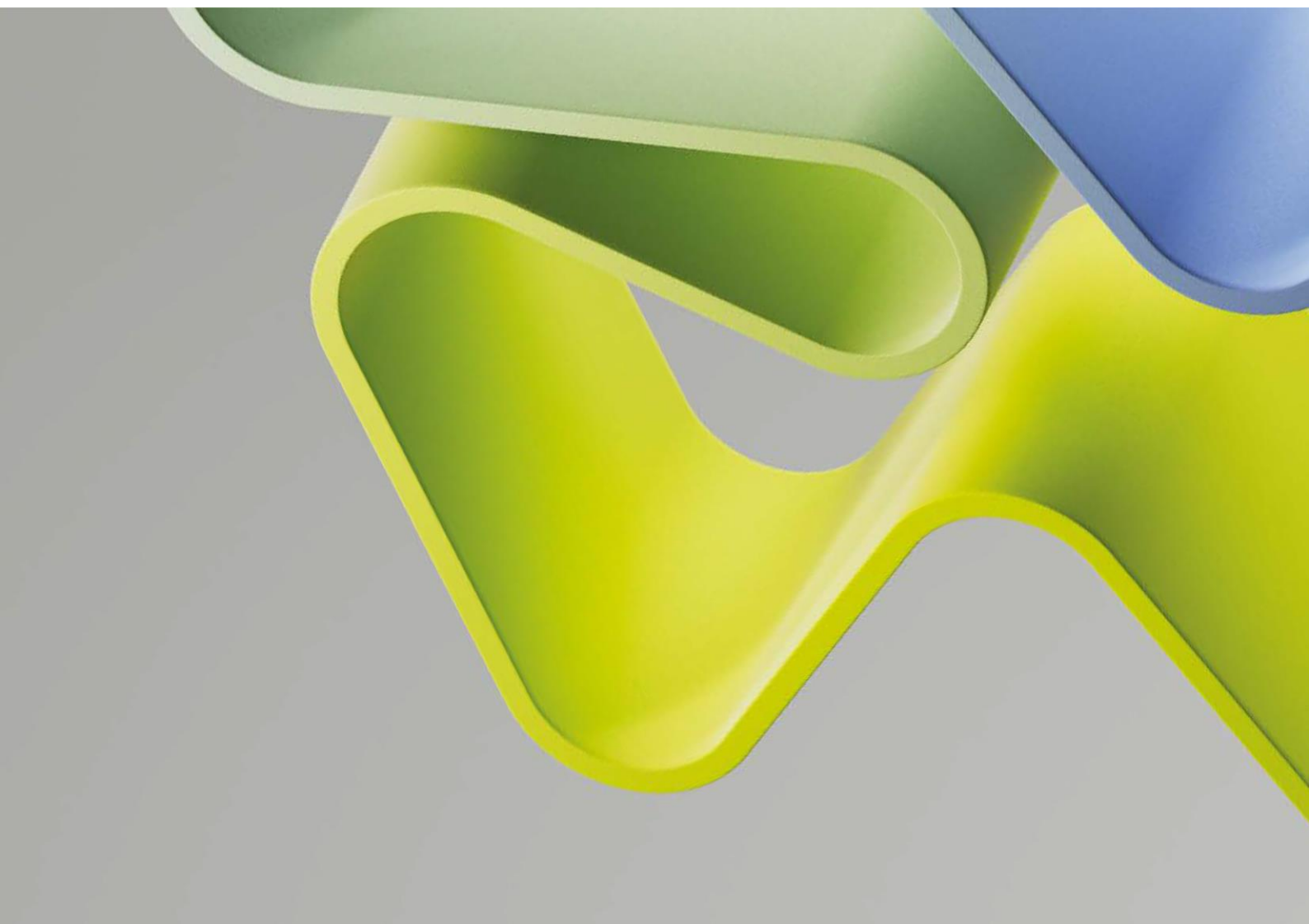
Evaluation of Life Sciences 2022-2024

Evaluation of medicine and health 2023-2024

Evaluation report

ADMIN UNIT: Department of Biomedicine

INSTITUTION: University of Bergen (UiB)



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Statement from Evaluation Committee Higher Education Institutions 3

This report is from Evaluation Committee Higher Education Institutions 3 which evaluated the following administrative units representing the higher education sector in the Evaluation of medicine and health 2023-2024:

- Department of Clinical medicine, UiT Arctic University of Norway
- Department of Pharmacy, UiT Arctic University of Norway
- Department of Biomedicine, University of Bergen (UiB)
- Department of Clinical Science I, University of Bergen (UiB)
- Department of Clinical Science II, University of Bergen (UiB)
- Department of Pharmacy, University of Oslo (UiO)
- Institute of Basic Medical Sciences, University of Oslo (UiO)
- Centre for Molecular Medicine Norway (NCMM), University of Oslo (UiO)

The conclusions and recommendations in this report are based on information from the administrative units (self-assessment), digital meetings with representatives from the administrative units, bibliometric analysis and personnel statistics from the Nordic Institute for Studies of Innovation, Research, and Education (NIFU) and Statistics Norway (SSB), and selected data from Studiebarometeret (NOKUT). The digital interviews took place in Autumn 2024.

This report is the consensus view from Committee Higher Education Institutions 3. All members of the committee agree with the assessments, conclusions and recommendations presented here.

Evaluation Committee Higher Education Institutions 3 consisted of the following members:

Professor Søren Brunak (Chair)

Novo Nordisk Foundation Center for Protein Research, University of Copenhagen

Professor Jouni Hirvonen

University of Helsinki

Professor Ruth Palmer

University of Gothenburg

Professor Lea Sistonen

Åbo Akademi University

Associate Professor Simona Lodato

Humanitas University

Professor Ron Heeren

Maastricht University / Maastricht Multimodal Molecular Imaging Institute

Anoushka Dave, Technopolis Group, was the Committee Secretary.

Oslo, December 2024

Profile of the administrative unit

The research staff at the Department of Biomedicine (IBM) are currently organised into five research units, Basic and translational neuroscience, Structural biology and drug discovery, Translational cancer and vascular research, Metabolism and cancer, and Systems biology and translational cell signalling. Each research unit is led by a unit leader and deputy leader, with 4-6 faculty members and extensive technical support. Within these units, there are 21 research groups that manage their own funding, promoting collaboration and resource optimisation among researchers and technicians to enhance overall research efficiency. The department consists of 33 professors (including two adjunct professors), four associate professors, 21 PhD students, and 13 postdoctoral researchers. Additionally, there are 15 researchers affiliated with externally funded research projects. 51,6% of PhD students are women, while men are a majority in the other categories.

The main strategic research goal is to maintain and develop internationally leading research environments and produce scientific output with a high value for society. The Department expects to be international leaders in its prioritised research fields, which are related to fundamental human medical, biomedical and biological research questions. The research should form foundations for more optimised, personalised patient treatment, including faster and more accurate diagnosis, and aid in developing new treatments, therapies, and medical technologies. The Department contributes to the discovery and design of innovative drugs that can improve patient care, extend lifespans, and enhance the quality of life for individuals suffering from various diseases and medical conditions.

IBM researchers collaborate with other researchers, both internally at the faculty/university, and with other institutions, universities, and medical centres within Norway and internationally. These collaborations often involve joint research projects, data sharing, and the exchange of expertise. The administrative unit is also involved in several national and international research consortia focused on specific biomedical topics or technology. These collaborations often involve multiple universities and research institutions and are essential to secure funding for expensive infrastructure as well as for sharing expertise and methodology within advanced technology. The administrative unit collaborates with hospitals and healthcare institutions as their research often requires access to clinical data and patient samples. Collaboration with biotechnology companies further facilitates transnational research and the development of new medical technologies and therapies.

According to its self-assessment, in the future, the administrative unit may take advantage of its highly qualified staff, state-of-the-art research infrastructure, robust core facilities, reputable track record, effective internal and external collaborations, and efficient administration. Future challenges mentioned include the difficulty of recruiting and retaining staff due to the need to balance a broad teaching portfolio with limited funding, non-competitive salaries, and a significant number of retirements, which collectively threaten the research quality and infrastructure. Additionally, changes in government regulations or policies, and increased focus on IT security can impact research practices and add administrative burdens. Other challenges mentioned include insufficient core funding for equipment and infrastructure at IBM, potential reductions in national grants and university funding, and inadequate external funding for some faculty. There is, however, a potential to increase the focus on EU funding, thematic calls, and larger private and public sector calls. Increased collaborations could also enhance chances for larger funding applications and competitive consortia. Partnerships also create opportunities for translational research, clinical trials, technology transfer, and commercialisation of research findings, which can be further developed in the administrative unit.

Overall evaluation

The evaluation committee considered the Terms of Reference, self-assessment, and an oral interview provided by the Department of Biomedicine (IBM) at the University of Bergen (UiB), together with background documents provided by the Research Council of Norway (RCN) and evaluation reports of the research groups within this administrative unit for the assessment made in this report. The committee was overall positively impressed by the attitude of the Department of Biomedicine at the UiB. The committee acknowledges the significant efforts undertaken by the administrative unit to address recent challenges stemming from reduction in staff and resource constraints. The restructuring now in place from 2024 reflects a proactive approach to optimising available resources to sustain high-quality research and teaching. The administrative unit's strong research groups and unique scientific infrastructures remain core strengths, and its ability to maintain scientific excellence despite financial challenges is commendable. Its educational contributions, particularly to master's and PhD programmes, are substantial and integral to its mission.

However, the administrative unit faces several ongoing challenges. The prioritisation of teaching over research has constrained recruitment flexibility, while the discontinuation of competitive funding packages limits the ability to attract and retain top researchers. Rising infrastructure costs, compounded by reliance on ad hoc funding through university or RCN applications, place a significant strain on resources. The lack of a national safety net for top-tier grant applicants, including European Research Council (ERC) Starting Grant recipients with "A" rankings, is particularly concerning. Additionally, the RCN's no-deadline funding model risks delaying grant submissions and complicating project planning.

Increasing student numbers, while generating additional income, has also strained the administrative unit's physical capacity and teaching resources. The growing workload for academic staff and early-career researchers (ECRs) could ultimately impact productivity and grant competitiveness.

To address these issues and ensure long-term sustainability, the administrative unit needs to establish sustainable funding models, engaging both private and public sectors, to cover infrastructure costs and reduce reliance on competitive self-funding. Instruments and facilities should remain state-of-the-art and well-maintained, and it is critical that the area of Bergen remains attractive for excellent science and advanced technology. Competitive recruitment packages, including starting grants with reduced teaching loads, should be reinstated or modelled after successful international initiatives to attract top talent. Reducing teaching loads for ECRs would allow more time for grant applications and research development, supporting the establishment of strong research groups. Strengthening national mobility programmes would also help to stimulate researcher movement within Norway. Efforts to achieve gender balance and increase diversity should be intensified to foster an inclusive academic environment.

Overall, the committee considers the administrative unit well-managed, with a collegial and productive research culture. However, to ensure future growth, a greater focus on ECR recruitment, strategic investment in infrastructure, and a rebalancing of research and teaching priorities is essential. These steps will enable the administrative unit to continue nurturing the next generation of Norway's scientific community while maintaining its scientific and educational excellence.

Recommendations

- Consider investing in improving recruiting strategies to improve critical mass to face the recent decline in number of faculty and near approaching retirements in the administrative unit.
- Increase competitive international funding by proposing large projects in international calls e.g. Horizon Europe and take a leading role in them rather than only participating. Consider hiring scientific staff with experience in drafting and executing such international projects (besides their competence according to the needs of a programme). Consider incentivising applications from younger people while providing mentoring and training for grants.
- For national funding, consider establishing novel strategies to increase applications for research funding where there are no grant application deadlines.
- For infrastructure, make a clear, sustainable plan for keeping the facilities updated and invest in newer and more advanced technologies based on the common ground and interests of nearby departments/units. Also consider teaming up with the private sector to make it more sustainable. An example is Cryo-Electron Microscopy (Cryo-EM), currently missing at IBM but essential for the survival of some of the critical activities run in this administrative unit.
- Given the recent downsizing and restructuring, consider enhancing the interactions with other departments in Bergen, especially clinically oriented units, to promote innovative translational research.
- Increase efforts to recruit externally at the early independent career stage considering this as an investment for a dynamic future research environment, and securing research protected time with a teaching 'light' strategy to allow incoming researchers to establish groups and increase attractiveness of positions for outside applicants.
- Consider mechanisms to compensate efforts for highly ranked (but not funded) ERC grants.
- The committee commends the administrative unit's effective data management and accessibility, which are supported by a dedicated database and personnel, and recommend that these efforts be sustained and further developed.

1. Strategy, resources and organisation of research

1.1 Research strategy

The strategic vision of the IBM administrative unit at the Faculty of Medicine, UiB, relies on teaching and research in the basic biomedical disciplines. The main strategic goals, reported in their self-assessment document and in their strategy document 2024 with a yearly update, focus on maintaining and further developing a high-quality and international research environment with high-impact scientific production. They plan on continuing developing the scientific focus areas (neuroscience, cancer, structural biology, drug discovery, disease mechanisms and metabolism), while investing in structuring bioinformatics and AI for both research and teaching purposes.

Critical for the IBM administrative unit is the recent restructuring process (2023), which was owing to a drastic downsizing in research and teaching personnel, and core funding support. With a net loss in full professors and technicians since 2022, and with no replacements yet, the administrative unit opted for optimisation of resources and fusion of smaller groups with converging interests and complementary skills into larger and more dynamic groups.

It is a clear ambition of this administrative unit to continue investing in the education and formation of the newer generations of international leaders, including medical doctors, dentists, pharmacists and nutritionists, and other professions in academia and the health sector. It is an objective of their strategic plan to maintain a robust and stable teaching setting, while also focusing on efficiency. They aim to offering high standard teaching and basic research in the fields of focus and the administrative unit identifies essentially as a preclinical department of the Faculty of Medicine where basic science has a very important role in providing the foundation for every aspect of biomedical knowledge and clinical advancement that could eventually be beneficial for Norwegian society as whole. While international mobility programmes exist, it is IBM's ambition to improve student exchanges and secure sabbatical time for strengthening international collaboration and participation in international consortia/networks. It is therefore clearly stated in IBM's self-assessment that, while primed to extending their interest to innovation and clinical collaborations at both national and international level, a clear ambition of the administrative unit is to remain centrally focused on basic research in the future.

Strongly engaged in the preclinical teaching of the Bergen Medical School, the faculty members of the IBM administrative unit bear a substantial teaching responsibility, which creates a high workload that challenges a good work-life balance. Both established professors and ECRs are involved in the teaching duties, with only limited personnel fully dedicated to research. Since covering all the teaching obligations is important, teaching is also a critical aspect in the recruitment strategy, which in turn, might complicate the organisation of the research.

The administrative unit's research portfolio has progressively extended to having a more translational and clinical focus, with an innovative potential, as discussed in the self-assessment report and confirmed by the presence of spin-offs on campus and some of the selected cases. However, it is evident that the strategy is oriented towards a more diversified basic research profile, both experimental and theoretical, with the intention of attracting more international/European external and local funding. However, financial incentives to apply for external funding, such as rewards for example for high scoring but non-funded ERC applications are lacking.

Stimulating innovation and commercialisation remains an objective for IBM; however, the key is defining how to foster new initiatives beyond those that have proven to be valuable in the past. Scientific interactions with the clinical ecosystem in Bergen could boost the translation potential of the administrative unit's research and support novel opportunities for funding and innovation. The research includes cancer, physiology, neuroscience, drug discovery, metabolism, disease mechanisms, proteomics, biomarkers, cardiovascular research, molecular structural biology, and extracellular matrix biology and strongly relies

on institutional infrastructures and state-of-the art equipment organised within core facilities, requiring significant maintenance and updating. These facilities play a critical role in ensuring the quality of the research outputs and training: it is pivotal to find strategies to make the facilities sustainable and competitive both at the national and international level. While in the last few years no new recruitment was done, this scenario is fast changing. New strategic priorities are discussed in the department leadership group (appointed by the head of the department to represent all the pillars of the administrative unit such as research, innovation and teaching), and the administrative unit – with its new structure – is evaluating the addition of new group leaders/professors.

The committee's evaluation

The UiB Department of Biomedicine is a basic research administrative unit where the research is strongly rooted in basic science. Within its new organisational structure, it has highly qualified and experienced faculty members, committed to both excellence in research and teaching in the biomedical field. The teaching activities are significant given the extensive population of students served by IBM and the extensive teaching portfolio required. With the recent reduction in the faculty numbers paired with lack of recruitment policies, which are not explicitly defined and are bureaucratically challenging, and insufficient internal and external funding, especially for infrastructure and basic research, the administrative unit faces severe challenges to maintain and further develop its performance in the future. The administrative unit, however, is very productive as demonstrated by a remarkable publication output. Despite the progressive funding cuts, reduced personnel and teaching load, scientific production has remained high-quality and consistent. The committee praises the administrative unit's efforts in driving excellence in science in all the different biomedical disciplines, which ensures high standard and visibility.

While no strategic priorities are defined in the present assessment of the administrative unit, it remains evident that maintaining a diverse research portfolio is critical for IBM to broaden its funding opportunities and attract a more robust funding portfolio, especially after the progressive reduction in institutional funding. Implementing specific hiring policies, with attractive starting offers and clear follow-up evaluations for career progression, is pivotal for maintaining the administrative unit's competitiveness, while sustaining the overall Bergen biomedical area.

The committee's recommendation

Considering the recent reorganization, the administrative unit should develop a detailed institutional strategy to implement their vision and/or a roadmap to identify scientific priorities for research, recruitment and teaching. While consistently striving for scientific excellence, setting a specific strategy for basic and applied research will encourage greater involvement and ambition from top-class researchers in the administrative unit. This would also include strong and active efforts towards increased external research funding (e.g. ERC) and collaboration (e.g. networks and consortia), both nationally and internationally.

Give rewards, for example for high scoring but non-funded ERC applications, as part of the career development strategy for younger and early career scientists, thus helping retain talents to IMB. In addition, this can incentivise external funding applications while building a new positive and proactive attitude to face internal funding restrictions.

Consider nominating a scientific advisory board (SAB) to ensure the coherent direction of the administrative unit and to periodically monitor the activities.

Establish local programmes to stimulate collaboration across the administrative unit around specific topics, potentially fostering clinical and preclinical interactions. The committee is hopeful that the recent restructuring will promote synergies between basic and clinical scientists to foster a more dynamic and vibrant environment. This will not only generate a new framework for innovation but could provide new attractive scenarios for talent recruitment and retainment. The cooperation between clinical administrative units within

UiB's Faculty of Medicine could be improved to increase impact of the unique Bergen ecosystem, while ensuring that Bergen remains a competitive Norwegian scientific centre.

To ensure further development of the restructured administrative unit, think about making recruitment as a fundamental priority, especially in those areas where numerous members of the faculty are closer to retirement in the next few years.

1.2 Organisation of research

IBM is one of five departments at the Faculty of Medicine in Bergen and research activities are led by Professors and Associate Professors who run research groups. Until the beginning of 2024, IBM was comprised of 10 research groups. Due to a decline in the number of department employees and funding limitations, the administrative unit underwent a substantial reorganisation which now involves five research units, each with one leader and one deputy leader. The research units involve multiple principal investigators (PIs; 4-6 professor/associate professors) who share common research interests as well as complementary activities. Technicians, originally allocated to individual group leaders, are now assigned to the research unit and are under the supervision of the leader/deputy leader, promoting more effective use of the resources and constant growth of the technical personnel (21 technicians). Limited numbers of PhD students and early career scientists (i.e. postdocs) participate in the research activities. While IBM exploits the UiB career centre 'Ferd' and the Momentum Programme for early career scientists to support career development and competence, no detailed plans for talent retention or recruitment at the different career stages are in place. The leader/deputy is expected to support the development of the research unit and ensure the resources are optimised for its activities. In addition to the scientific personnel, each research unit also relies on the interaction with administrative officer for economy, contracts and personnel.

The Research portfolio spans across multiple fields of basic science such as neuroscience, cancer, structural biology, drug discovery, disease mechanisms and metabolism. Individual groups hold solid to excellent publication records, and the administrative unit as a whole, publishes regularly in highly respected journals. PIs are committed to both research and teaching. They spend up to 50% of time on teaching across the board. There are no 100% teaching roles and only a few 100% research roles. The teaching load is distributed by the Deputy Head of Education among PIs, postdocs and PhD students. According to a tacit policy, faculty members with less funding and research activities are encouraged (and do) to take on more teaching and administrative work. No structured plan is in place to coordinate the teaching distribution. Academics are entitled to sabbatical leave every 6 years, which is considered a protected time to focus on research and their teaching duties are covered by other colleagues within the same teaching field. While there is testimony of the great collegial spirit of IBM, this arrangement has proven to be challenging at times, like the present, when a reduction in the faculty size is significant, leaving no opportunity for sabbatical leave. In addition, the institutional financial support for sabbaticals for professors and associate professors has ceased given the current financial situation, and sabbaticals now depend on external funding sources. Mobility programmes are in place for the doctoral and postdoctoral candidates through UiB. However, both international hiring as well as staff exchanges are described as challenging and time consuming due to export regulation policies. This aspect detrimentally impacts on the research organisation and limits potential collaborations and exchanges.

The committee's evaluation

The committee praises the effort of the administrative unit to restructure itself with the goal of providing a new, more effective and dynamic set-up and research framework. Despite the many challenges faced, the atmosphere is collegial and supportive, which provides the necessary flexibility to address increasing teaching requirements due to the reduction of professors and the lack of recruitment. However, at the moment, the overall composition is

skewed toward the most senior scientists and attracting early career talents and PhD candidates, especially from the international community, seems difficult. Enhancing the diversity of academic roles and fostering closer collaboration among staff at different career stages could significantly improve the appeal of and opportunities in academic careers. Such efforts could, for instance, support and inspire junior researchers and associate professors, accelerating their progression into leadership positions. Also, scouting for mobility grants (i.e. Marie Curie, EMBO) at the junior levels could improve the exchange conditions and create broader visibility for the administrative unit.

The committee's recommendations

The committee suggests establishing a leadership programme where junior and senior staff collaboratively share responsibility for various organisational tasks, including organisation of mobility programmes and internal activities to promote IMB exposure, with the necessary administrative support.

1.3 Research funding

The overall budget for the Department of Biomedicine at the University of Bergen is 225 MNOK coming mainly from the Ministry of Education and Research (150 MNOK) and competitive grants (around 75 MNOK). In addition, the Faculty of Medicine provides a basic grant of 60-70 MNOK per year, which largely covers salaries of permanent staff and running costs associated with teaching and research. This amount remained constant (around 66 MNK/year) until 2021 despite the progressive increase in expenses related to general wages and price increases in that time period. In addition, a 10% reduction was applied in 2022, which has not been compensated for in the following years. This led to a drastic reduction in employees, including PhD and postdocs. Approximately 175 MNOK is allocated to research every year. This drastic reduction in basic funding poses important challenges to the future growth of the administrative unit. Competitive national and international funding including RCN and EU funding has been secured, but external funding also decreased in 2022, probably reflecting the difficulties faced by the administrative unit before the reorganisation.

The committee's evaluation

The committee recognises that current basic funding is not sufficient to cover all the costs for teaching and administrative personnel, as well as technical and research staff. Until 2022, the administrative unit successfully secured external national and international funding. EU funding was maintained until 2022 despite the difficulties faced. This is a commendable achievement for the administrative unit and highlights a commitment to attract international funding. However, infrastructural funding lacks a structural component to make it sustainable for the future and it is heavily dependent on soft funding, especially for infrastructures. This is a potential threat to the sustainability of the infrastructures administered by the administrative unit.

While the downsizing potentially will optimise the usage of resources and alleviate some of the difficulties faced in the previous years, budget constraints remain a critical challenge to the sustainability of the administrative unit and its competitiveness at both the local and international level, especially in terms of infrastructures and advanced technologies.

The committee's recommendations

Maintain investment in international funding calls with talent-driven personal funding schemes while offering grant writing support to young investigators, enabling them to pursue competitive applications even in the early stages of their careers. Additionally, it would be valuable to acknowledge and reward ERC applicants who receive high-quality evaluations, but are not funded.

Establish a more sustainable, long-term funding strategy for research infrastructure in close collaboration with faculty and other administrative units in the local territory to exploit shared technology platforms and enhance efficiency and accessibility.

1.4 Use of infrastructures

The IBM research infrastructure is primarily consolidated around core facilities that service several departments. The administrative unit has three core facilities, the Proteomics (PROBE), the Molecular Imaging Centre (MIC) and Biophysics, Structural Biology and Screening (BiSS), with highly qualified personnel that are made available widely to the research community as well as to private sector users. They serve the larger UiB community but also represent a valuable platform for the regional and national landscape. The administrative unit, including both the core facilities and the different research groups, also participates as a partner in six national infrastructures. The MIC participates in the NALMIN network for advanced light microscopy and the NORMOLIN, the national network for small animal imaging.

The Neuroscience group is a partner in NorBrain, a large-scale national infrastructure for basic neuroscience research. PROBE is a partner in the national network of advanced proteomics, and BiSS is a partner in NORCRYST, a Norwegian consortium of macromolecular crystallography. BiSS, however, does not have Cryo-EM technology which presents challenges in the administrative unit's efforts to maintain excellence in the field of structural biology. IBM also participates in two large ESFRI (European Strategy Forum on Research Infrastructures) infrastructures, namely NOR-Openscreen (for discovering biologically active substances) and the Euro BioImaging, respectively involving the BiSS and the MIC. The Faculty of Medicine has developed a strategy for research infrastructure and its own roadmap for research infrastructure in line with the Norwegian Roadmap.

The committee's evaluation

The three core facilities and infrastructures play a pivotal role in supporting the administrative unit's outstanding research output. Additionally, researchers within this administrative unit benefit from access to other core facilities at the Faculty of Medicine, all of which are critical for advancing high-impact research. However, challenges persist in securing sustainable funding to future-proof the infrastructure and maintain the technological edge needed in the region, particularly in relation to Cryo-EM. Despite these challenges, the administrative unit remains motivated and committed to actively seeking funding opportunities to acquire new instrumentation, while ensuring the maintenance and periodic upgrading of existing equipment. This is commendable.

A structured access programme and economical plan for infrastructures/core facilities is currently lacking, posing a risk for its sustainability in light of the reduced core funding. The administrative unit adheres to the university's guidelines, which promote open access to research data and the implementation of FAIR principles in national and international networks and collaborations. Data Management Plans (DMPs) are utilised to ensure good data handling practices throughout the research data life cycle, encompassing the management of ethical considerations and sensitive data.

The committee's recommendations

The committee strongly advises developing a long-term strategy to invest in infrastructural innovation programmes, prioritising the upgrading and maintenance of equipment in existing core facilities, with particular attention to instrument updates and training and development of operational staff.

1.5 Collaboration

The administrative unit actively fosters collaborations at local, regional, national, and international levels, recognising their essential role in advancing modern medical and biomedical research. Their strategic goal is to expand and enhance collaborative projects across all these categories. The self-assessment highlights partnerships with prestigious biomedical institutions in the U.S., such as Harvard Medical School and Massachusetts General Hospital (MGH). Additionally, significant and long-lasting collaborations are established with European and Asian institutions, including Radboud University Medical Centre Nijmegen, VIB, Qilu Hospital of Shandong, and the Luxembourg Institute of Health. In Norway, the main collaborators are found with other administrative units of UiB and Haukeland University Hospital as well as the universities and university hospitals in Oslo and Stavanger, the University of Oslo and Norwegian University of Science and Technology. Strong partnerships with Nordic research institutions, such as Karolinska Institute, are also a cornerstone of the administrative unit's collaborative efforts. These collaborations have been instrumental in producing numerous high-impact publications and have significantly contributed to securing external research funding through successful grant applications.

The committee's evaluation

The administrative unit demonstrates a solid record of collaboration, both in scope and scale, with national and international partners, contributing to research output that highlights the multi- and interdisciplinary nature of its fields. The combination of national and international partnerships provides a strong foundation for advancing high-quality research.

However, collaborations with private companies appear to be limited and could be expanded to further enhance scientific impact within and beyond academia.

The committee's recommendations

The committee recognises the significant role of the administrative unit's long-term and extensive collaborations in driving its research success. Sustaining this approach is strongly recommended for the future. To further enhance impact, the committee suggests developing an internal strategy aimed at increasing collaborations with industry and other (international) private partners, particularly in medical technologies and clinical settings. A more centralised approach to these efforts could enhance the scale, influence, and visibility of such partnerships, which would, in turn, positively impact the ability to attract and retain talent.

1.6 Research staff

The administrative unit comprises 96 staff members from 31 countries, reflecting its commitment to fostering a positive and culturally diverse environment. Research groups independently manage their funding, encouraging collaboration and resource optimisation among researchers and technicians to boost overall research efficiency. The unit includes 33 professors (two of whom are adjunct), four associate professors, 21 PhD students, 13 postdoctoral researchers, and 15 researchers exclusively affiliated with externally funded projects. Gender balance is evident among PhD students (51.6% women); however, senior positions, such as postdoctoral researchers, associate professors, and full professors, remain predominantly male. The limited number of postdoctoral researchers (13) highlights challenges in attracting experienced researchers to the administrative unit for career development. This poses risks for sustaining research activities and retaining talent. The department's broad teaching portfolio requires nearly all positions to include teaching responsibilities, with PhD students dedicating their fourth year to teaching. Consequently, the research personnel possess a wide range of expertise, spanning fields such as

bioinformatics, medicine, molecular biology, and dentistry. While this interdisciplinary breadth promotes cross-disciplinary collaboration within the administrative unit, the limited number of researchers could hinder effective communication and interaction across disciplines, potentially affecting research cohesion.

The committee's evaluation

The composition of the research staff largely supports a competitive basic research environment, though the limited number of postdoctoral positions is a concern. However, the teaching load is heavy on some academic staff, which limits the time devoted to research and supervision. The underrepresentation of women in senior positions is also noteworthy, with no apparent active initiatives to encourage female colleagues to apply for these roles. The committee observes that the 25% teaching commitment for PhD students, while valuable for their training, could negatively impact on the research environment. It may be advisable to reduce this load for junior profiles in future recruitment plans to better balance training, teaching, and research responsibilities.

The committee's recommendations

Strive to maintain a well-balanced staff composition, prioritising improvements in gender balance within senior roles.

Reducing teaching commitments for all staff, particularly PhD students, could be beneficial as external recruitment alleviates workload pressures and provides more time for research activities.

Further develop initiatives aimed at recruiting postdoctoral fellows by actively participating in international competitive grants for ECRs. Emphasising that postdoctoral fellows can fully dedicate themselves to their research projects without teaching or administrative responsibilities could make these positions more attractive.

1.7 Open Science

By adhering to the principles established by the EU, RCN and Norwegian government, UiB's policy for Open Science describes and encourages activities from publication in open access (OA) journals to open access to research data and educational resources. UiB also supports OA publishing by participating in OA publishing agreements and covers publishing costs through the Open Access Publication Fund. Researchers are encouraged to publish in OA journals whenever possible and they are trained by the UiB Library on OA publication and access to research data.

The committee's evaluation

IBM is effectively adhering to Open Science policies, since a large part (about 90%) of research papers from the unit are published in OA journals (approximately 100-120 per year). In addition, the administrative unit has created specialised databases to share data produced at IBM for open public use, such as the CSF-PR database, and has contributed to the generation of user interfaces and tools to store raw data in public repositories and to reanalyse published data, like the PRIDE Converter and the PeptideShaker.

The committee's recommendations

Uphold and further advance Open Science practices, ensuring that shared databases remain easily accessible to the public in a user-friendly manner. Additionally, expand the Open Science policy by incorporating open innovation strategies, by increasing, for example, funding opportunities through innovative public-private partnerships.

2. Research production, quality and integrity

The IBM administrative unit embeds a broad research portfolio across the medical sciences. Demonstrating its commitment to research excellence, the administrative unit has an impressive publication record in top-tier journals spanning various fields. The percentage of highly cited papers is above national average, reflecting the high impact of its clinical and fundamental research. Overall, the administrative unit's productivity and research quality can match internationally renowned institutions in the field. Ethical policies adhere to both national and international research ethics guidelines, supplemented by additional training initiatives, which include seminars on research ethics for PhD supervisors, courses for PhD candidates in Research Ethics, Laboratory Animal Science, and Good Clinical Practice. Preventive measures are in place to address and mitigate scientific misconduct, aligning with faculty and institutional guidelines to promote good research practices.

Overall, the administrative unit has made significant contributions to its research areas while effectively managing ethical training and oversight.

2.1 Research quality and integrity

This section presents the overall assessment of each research group that the administrative unit has entered in the evaluation. Each overall assessment has been written by one of the 18 expert panels that were responsible for evaluating the research groups entered in EVALMEDHELSE. The evaluation committee had no involvement in the evaluation of the research group(s).

Research group: Basic and Translational Neuroscience

The future of the group lies in its cohesion and the development of a unified strategy, but these aspects are only superficially described in the self-assessment report. Individually, the constitutive group members have a number of achievements to their credit over the past period, among which substantial infrastructure investments within the NORBRAIN-3 framework. In spite of that, the group reports structural difficulties of recruitment from PhD to PI level and a rising teaching load. The publication output is in high-ranking neuroscience journals. The group shows a certain international reach, with spin-offs in terms of the organisation of scientific events and participation in international projects. Most of the group's contribution is nevertheless built on its strong involvement in training activities. The group is also active in the industrial sector and has carried out a noteworthy initiative for the general public. It also has some links with patient organisations and clinics.

Research group: Cardiovascular Research Group (CVRG)

The Cardiovascular research group produces high quality, primarily preclinical, research related to cardiovascular health. Their research is of a high national and international standard. The group has a very good track record in receiving national funding but would benefit from a more even distribution of funds among the PI's. The contribution to teaching of medical- and other health related educations is excellent. As a whole, the group contributes very well to the aims and strategies of the host institution. Challenges of the group include an extensive teaching- and administrative load as well as maintaining and further improving the magnitude of external funding. The PIs of the group may benefit from expansion of collaborations to also increase expertise and methodological breadth and thereby enhance the possibility for funding.

Research group: Metabolism and Cancer Unit (MCU)

The group's strength is in its diverse expertise, enabling multidisciplinary approaches and synergistic resource utilisation. Strong international collaborations and industry connections

offer valuable translational research opportunities. Current challenges, such as restrictive hiring policies and the absence of a tenure-track system, may impact the group's future ability to recruit and retain staff.

Research group: Structural biology and drug discovery (SBD)

The panel agrees with the SBD's self-assessment on its position in the national landscape: "SBD aims to be a leading national environment in structural biology and drug design; in many aspects, this is already true." A major strength of the unit is its competence in structural biology and biophysics, which is unique at UiB, and is creating added value for the host institution as a technology service provider, in research collaborations and in teaching. SBD also maintains active connections to national research infrastructure networks and has taken a leading coordinating role in a funding application for a national Cryo-EM infrastructure. SBD is dependent on external funding and shows a track record of successful external funding applications. SBD regularly leads international, translational and crossdisciplinary collaborations and an SBD initiated start-up company is associated with the department. The track record of SBD shows solid research published in very good international journals of high reputation. Again, the panel agrees with the wording "SBD performs cutting-edge research in structural biology, which is leading at the national level and, in specific focus areas, at a high level internationally". In conclusion, SBD is a very strong unit with unique expertise and vision for development.

Research group: Systems Biology and Translational Cell Signalling (STC)

STC is an outstanding organisational environment that has been formed very recently (2023). Shared resources, common technical staff and research funding to provide all PIs with opportunities for research activity is an enormous asset. The academic reputation of the new STC unit is very good. Senior researchers have large networks and are internationally known and respected. The department acts as a patient/sample reference centre for real world data. Furthermore, it is the leader of several EU-based projects. Collaborations are multi-disciplinary and combine technology with care in an efficient manner. The group manages to attract continuous competitive external international (EU), national and local regional funding for its research activities. It is a strength that research is extremely focused on N-acetyltransferase, however it's also an extremely small niche which can be a risk for the long term.

Research group: Translational Cancer Research (TCR)

The research group's organisation and composition are adequate for conducting its research activities. The research findings from TCR align with strategic research of the institution and experimental results have been translated to large national and international phase I and II clinical trials. TCR has succeeded in obtaining substantial funding in the last 10 years, but the research group is not very successful in attracting external research funding. TCR was mainly funded by the institution, by the Research Council of Norway (RCN) and by other national sources. International and industry funding was very limited.

3. Diversity and equality

In 1973, UiB was the first to launch a committee dedicated to ensuring equal opportunities. Thanks to the work of this committee over the years, the “Action Plan for diversity, inclusion and equality” is being implemented during the period 2023-2025. In addition, an ongoing “Policy for bullying, harassment and conflict” has been applied in the university to provide ethical guidelines for respectful and professional relations between supervisors and students. Following UiB’s example, a “Diversity, inclusion and gender equality action plan” is being implemented at the Faculty of Medicine in the period 2023-2025. IBM, which has employees from over 30 different countries, is ensuring these same principles are implemented. UiB’s “Health, Safety and Environment Action Plan for 2023–2026” also focuses on diversity, openness, and inclusion as essential strategies to cultivate a culture that prioritises health, safety, environmental responsibility, and emergency preparedness as preventive and health-promoting measures.

The committee’s evaluation

Diversity and equality issues do not appear to be a concern as the administrative unit effectively adheres to institutional policies, even though no administrative unit-specific measures are in place. However, gender diversity in leadership positions requires ongoing attention and should be addressed whenever imbalances are observed.

The committee’s recommendations

Assess the IBM employees’ awareness of these policies by conducting surveys or organising focused town hall meetings within the administrative unit. This will provide valuable insights into their understanding of diversity and equality initiatives, ensuring that all employees are well-informed and engaged. Such evaluations can also help identify any gaps in knowledge and offer an opportunity to reinforce the importance of these policies in fostering an inclusive and equitable work environment.

Given the low number of students, it may be beneficial to consider implementing specific recruitment measures aimed at further enhancing diversity and gender balance.

Additionally, ensure that all documents are consistently translated into English to promote inclusivity and accessibility.

4. Relevance to institutional and sectorial purposes

IBM is dedicated to advancing research-based knowledge within its defined focus areas as highlighted in the self-assessment. This mission is pursued through high-quality research and teaching, with a strong emphasis on basic science, innovation, and education. IBM's contributions to training biomedical professionals and exposing students to cutting-edge research hold the potential to yield innovative and cost-effective healthcare solutions, ultimately improving healthcare quality while reducing financial strain on the system. IBM's research consistently maintains high standards across multiple fundamental disciplines as evidenced by high-impact publications. This level of excellence has been sustained over the years despite a reduction in faculty numbers, enabling the unit to remain competitive in securing international funding. The quality of research also highlights the quality of teaching, as the IBM faculty plays a central role in delivering first- and second-year courses for medical and dental students, thereby contributing significantly to the long-term development of biomedical professionals. Although the master's and PhD programmes for IBM students are centrally managed by the UiB board, the administrative unit actively supports students with experimental methods and infrastructure to ensure high-quality research outputs. The administrative unit also places a strong emphasis on research ethics, fostering an environment that minimises bias in scientific analyses. The administrative unit actively promotes innovation, having appointed an innovation leader who is part of the leadership team and the Innovation Leader Forum. IBM also benefits from the expertise of two dedicated innovation advisors at the Faculty of Medicine and additional innovation and legal advisors at UiB's Central Division of Research and Innovation who provide guidance on intellectual property rights (IPR) and early commercialisation phases. Students and researchers at IBM can further access innovation funding through dedicated UiB programmes such as UiB Idé and UiB Early Idea, which support the development of innovative concepts and early-stage projects. Despite its clear commitment to biomedical innovation, clinical translation, and development, the IBM self-assessment highlights challenges in navigating the commercialisation process. These difficulties stem from the complexity of regulations and the time-consuming nature of such endeavours. While the administrative unit's basic science research has successfully generated innovation opportunities as evidenced by two recent biotech startups mentioned in the impact cases, balancing the demands of scientific discovery with the commercialisation journey remains a significant challenge.

The committee's evaluation

Although the administrative unit offers support for innovation and commercialisation to translate research findings, greater emphasis on these efforts could better align with the goals outlined in the self-assessment. Enhancing collaboration with clinical groups as well as private organisations, both nationally and internationally, would amplify the economic impact of these activities. This could boost the administrative unit's visibility and attractiveness, facilitating broader recruitment and funding opportunities.

The committee's recommendations

Broaden economic impact by engaging more actively with the private sector, both within the local geographical region and on a broader national and international scale.

Fostering stronger collaborations with translational and clinical research groups to drive advancements that are both of high scientific calibre and of significant societal relevance. These partnerships have the potential to address pressing healthcare challenges, thereby capturing the attention of investors and stakeholders globally. Strengthening these efforts would not only amplify the administrative unit's visibility but also position it as a key player in translating cutting-edge research into real-world applications.

4.1 Higher education institutions

The administrative unit has a strong and long-standing commitment to educating UiB students at the master's and PhD levels. Group leaders and dedicated teaching staff within IBM play an active role in teaching, contributing significantly to the education of students in Medicine and Dentistry. Beyond traditional coursework, the administrative unit provides statistical education and advisory services tailored to the needs of PhD students and researchers.

To encourage student involvement in research, the administrative unit offers several programmes, including the Medical Student Research Track programme, which enrolls 15 students annually. This programme allows students to extend their studies by an additional year and dedicate themselves to full-time lab research, fostering collaboration across departments and local units. This programme encourages students to pursue PhD studies. By 2022, the programme had successfully enrolled and supported 22 students.

The administrative unit also provides summer scholarships to offer medical students hands-on research experience, further enhancing their academic and professional development. Additionally, the Medical Student Research Programme supports students in designing and executing independent research projects. The department's ability to offer high-quality master's projects is closely tied to the size and activity levels of its various research groups. However, the evident reduction in permanent academic staff has increasingly shifted the responsibility of training and supporting master's students to postdoctoral researchers, PhD students, and technicians. This dependency on group size means that not all research groups are equally positioned to host master's students, which may limit opportunities for students and constrain the department's overall capacity to deliver consistent academic experiences. Moreover, this arrangement can place additional strain on the workload of ECRs and technical staff, potentially impacting their productivity and ability to secure funding.

The committee's evaluation

The administrative unit has a diverse and comprehensive educational mission, encompassing undergraduate programmes, specialised master's degrees and PhD courses. The administrative unit makes a significant contribution to the medical and dentistry programmes, while also producing a strong cohort of graduates at the master's and PhD levels. The number of students pursuing these advanced degrees is commendable, particularly given the administrative unit's size and structure. Additionally, the administrative unit plays a critical role in statistical education, providing essential training and advisory services to PhD students and other researchers. This contribution not only enhances the quality of individual research projects but also strengthens the administrative unit's overall impact on the academic and scientific community.

The committee's recommendations

Address the issue of the distribution of students across IBM in order to maintain the department's academic standards and foster a sustainable research and teaching environment.

5. Relevance to society

Aligned with the Norwegian Long-term plan for research and higher education, the administrative unit is making significant contributions to various areas of health, including neuroscience, cancer, cardiovascular diseases, and metabolic disorders. These contributions are realised through research, interdisciplinary and international collaborations, the development of novel therapeutic approaches, education and training initiatives, and the management of three core facilities equipped with advanced biomedical infrastructure.

IBM also contributes to the UN Sustainable Development Goals (SDG) by advancing global health through innovative research (SDG 3), providing high-quality education to foster skilled healthcare professionals (SDG 4), promoting gender equality in all programmes (SDG 5), and driving innovation with advanced facilities that support sustainable industrialisation (SDG 9). Collaborative efforts further strengthen global partnerships, reflecting a commitment to sustainability and progress (SDG 17).

Comments on impact case 1: *Startup Pluvia Biotech (Pluvia)*

Phenylketonuria (PKU) is a rare metabolic disorder affecting approximately 1 in 10,000 individuals, typically identified through newborn screening. It is caused by a deficiency in the enzyme phenylalanine hydroxylase, leading to toxic accumulation of phenylalanine in the blood, which can cause severe neurological damage if untreated. Treatment involves a lifelong, strict protein-free diet, replacing high-protein foods with specialised medical products to prevent cognitive impairment. Early detection and adherence to dietary guidelines are essential for normal development and quality of life. In 2016, a startup company – Pluvia Biotech – was founded based on the results and expertise gained from research projects on pharmacological chaperones (PCs) conducted by the group of Prof. Aurora Martinez at IBM. Pluvia started to develop oral PCs to restore enzymatic activity as a novel therapy for PKU. Since the foundation, the company has obtained a 4-year project grant from RCN, which was matched with Investor funds from Sarsia Seed. Oral administration and safety have been proven in *in vitro* and *in vivo* assays so far, while the first clinical trial is planned to start in 2025. While promising, the impact on PKU patients is yet to be evaluated.

Comments on impact case 2: *Intratumoral cyPep-1 for the treatment of patients with advanced solid tumours*

The Translational Cancer Research Group (TCR) at IBM is conducting basic, translational, and clinical research on malignant brain tumours. The group has developed an engineered synthetic peptide with oncolytic properties (CyPep-1) that led to the establishment of the biotech company Cytovation ASA. Since 2018, CyPep-1 has gone through a comprehensive preclinical development pipeline, leading to Phase I clinical trials at international centres, which have now been completed. Following positive therapeutic outcomes observed in several end-stage patients, the company is now preparing to initiate Phase II clinical trials. Preclinical studies in mice with B16-F10 melanoma tumours also showed a significant reduction in both primary and contralateral tumour volumes, where the primary tumours were injected with CyPep-1. This reduction was enhanced when CyPep-1 was administered in combination with anti-PD-1 antibody. These promising results highlight the potential of this treatment to improve the quality of life and offer new hope to individuals with advanced conditions who have limited treatment options. This research has led to four patents.

Comments on impact case 3: *Expanding the knowledge and providing new targets of intervention for neurodevelopmental disorders*

Increased scientific knowledge on psychiatric disorders, including the attention deficit hyperactivity disorder (ADHD), is important for prevention, correct identification and

improved treatment as well as to reduce stigma. In this context, research performed at IBM on ADHD has been important for developing new treatment guidelines in Norway and internationally. As an example, Haavik and coworkers published 94 PubMed listed articles (during 2012-2022) related to the genetics, brain imaging, and clinical aspects of ADHD. Among others, the results showed that ADHD has a strong genetic component. Small but reproducible differences in brain structures have been also demonstrated. Pre- and perinatal risk factors and prenatal dietary risk factors have been discovered, and new treatment targets have been identified. Together, this information provided important scientific background data for the Norwegian clinical guidelines published in 2014 and updated in 2021.

Appendices

Evaluation of Medicine and health 2023-2024

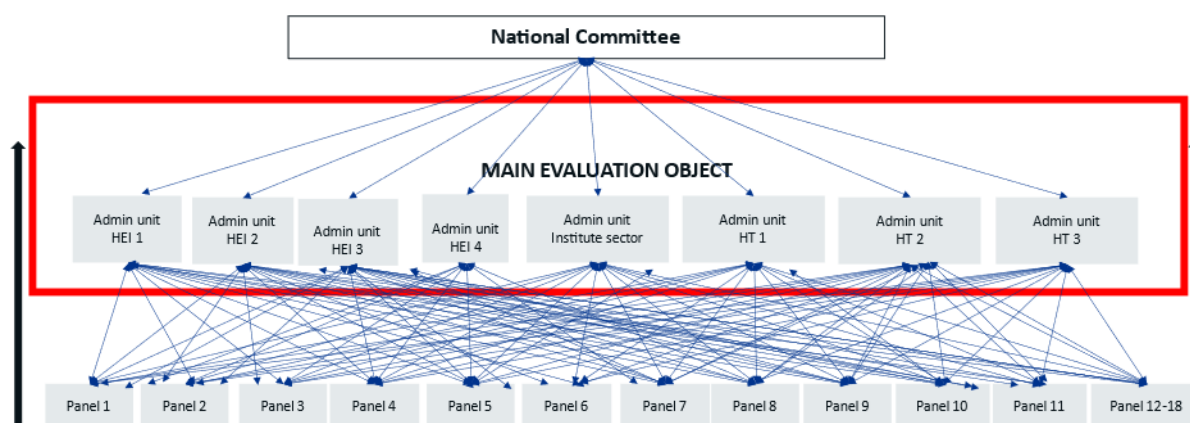
By evaluating Norwegian research and higher education we aim to enhance the quality, relevance, and efficiency. In accordance with the statutes of the Research Council of Norway (RCN), the RCN evaluates Norwegian professional environments to create a solid and up-to-date knowledge base about Norwegian research and higher education in an international perspective.

The evaluation of life sciences is conducted in 2022-2024. The evaluation of medicine takes place in 2023-2024. The evaluation of biosciences was carried out in 2022-2023. The primary aim of the evaluation of life sciences is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), the institute sector and the health trusts. The evaluation shall result in recommendations to the institutions, the RCN and the ministries.

Evaluation of medicine and health (EVALMEDHELSE) 2023-2024

The evaluation of medicine and health includes sixty-eight administrative units (e.g., faculty, department, institution, center, division) which are assessed by evaluation committees according to sectorial affiliation and other relevant similarities between the units. The administrative units enrolled their research groups (315) to eighteen expert panels organised by research subjects or themes and assessed across institutions and sectors.

Organisation of evaluation of medicine and health 2023-2024



The institutions have been allowed to adapt the evaluation mandate (Terms of Reference) to their own strategic goals. This is to ensure that the results of the evaluation will be useful for the institution's own strategic development. The administrative unit together with the research group(s) selects an appropriate benchmark for each of the research group(s).

The Research Council of Norway has commissioned an external evaluation secretariat at Technopolis Group for the implementation of the evaluation process.

Each institution/administrative unit is responsible for following up the recommendations that apply to their own institution/administrative unit. The Research Council will use the results from the evaluation in the development of funding instruments and as a basis for advice to the Government.

The web page for the evaluation of medicine and health 2023-2024: [Evaluation of medicine and health sciences \(forskingsradet.no\)](https://forskingsradet.no)

Se vedlagte adresseliste

Vår saksbehandler / tlf.	Vår ref.	Deres ref.	Sted
Hilde G. Nielsen/40922260	23/3056	[Ref.]	Lysaker 28.4.2023

Invitasjon til å delta i fagevaluering av medisin og helsefag (EVALMEDHELSE) 2023-2024

Vi viser til varsel om oppstart av nye evalueringer sendt institusjonenes ledelse 9. november 2021 (vedlegg 2).

Porteføljestyret for livsvitenskap har vedtatt å gjennomføre fagevaluering av livsvitenskap 2022-2024 som to evalueringer:

- Evaluering av biovitenskap (EVALBIOVIT) (2022-2023)
- Evaluering av medisin og helsefag (EVALMEDHELSE) (2023-2024)

Hovedmålet med fagevalueringen av livsvitenskap 2022-2024 er å vurdere kvalitet og rammebetingelser for livsvitenskapelig forskning i Norge, samt forskningens relevans for sentrale samfunnsområder. Evalueringen skal resultere i anbefalinger til institusjonene, til Forskningsrådet og til departementene. Den forrige fagevalueringen av biologi, medisin og helsefag ble gjennomført i 2010/2011 (vedlegg 3).

Fagevaluering av livsvitenskap retter seg mot UH-sektor, helseforetak og instituttsektor (vedlegg 4). Forskningsrådet forventer at aktuelle forskningsmiljøer deltar i evalueringene, selv om beslutning om deltagelse gjøres ved den enkelte institusjon. Videre ber vi om at deltakende institusjoner setter av tilstrekkelig med ressurser til å delta i evalueringsprosessen, og at institusjonen oppnevner minst én representant som kontaktperson for Forskningsrådet.

Invitasjon til å delta i fagevaluering av medisin og helsefag (2023-2024)

Fagevaluering av medisin og helsefag er organisert over to nivåer (vedlegg 4, side 11). Internasjonale ekspertpaneler vil evaluere forskergrupper på tvers av fag, disiplin og forskningssektorer (UH, institutt og helseforetak) etter kriteriene beskrevet i kapittel 2 i evalueringsprotokollen (vedlegg 4).

Panelrapporten(e) for forskergruppene vil inngå i bakgrunnsdokumentasjonen til forskergruppen(e)s administrative enhet (hovedevalueringsobjektet i evaluering), og som vil bli evaluert i internasjonale

sektorspesifikke evalueringskomiteer. Evalueringskriteriene for administrative enheter er beskrevet i kapittel 2 i evalueringsprotokollen (vedlegg 4).

Innmelding av administrative enheter og forskergrupper – frist 6. juni 2023

Administrative enheter (hovedevalueringssubjektet i evalueringen) – skjema 1

Forskningsrådet inviterer institusjonene til å melde inn sine administrative enhet/er ved å fylle ut skjema 1. Definisjonen av en administrativ enhet i denne evalueringen er å finne på side 3 (kap 1.1) i evalueringsprotokollen (vedlegg 4). Ved innmelding av administrativ/e enhet/er anbefaler Forskningsrådet institusjonene til å se innmelding av administrativ enhet/er i sammenheng med tilpasning av mandat for den administrative enheten (Appendix A i evalueringsprotokollen).

Forskergrupper – skjema 2

Forskningsrådet ber de administrative enheter om å melde inn forskergrupper i tråd med forskergruppedefinisjonen (kap 1.1) og minimumskravene beskrevet i kapittel 1.2 i evalueringsprotokollen. Hver administrative enhet melder inn sin/e forskergruppe/r ved å fylle ut Skjema 2. Vi ber også om at forskergruppene innplasseres i den tentative fagpanelinndelingen for EVALMEDHELSE (vedlegg 5).

Forskningsrådet vil ferdigstille panelstruktur og avgjøre den endelige fordelingen av forskergruppene på fagpaneler etter at alle forskergrupper er meldt inn. Mer informasjon vil bli sendt i slutten av juni 2023.

Invitasjon til å foreslå eksperter – skjema 3

Forskningsrådet inviterer administrative enheter og forskergrupper til å spille inn forslag til eksperter som kan inngå i evalueringskomitéene og i ekspertpanelene. Hver evalueringskomité vil bestå av 7-9 komitémedlemmer, mens hvert ekspertpanel vil bestå av 5-7 eksperter.

Obs. Det er to faner i regnearket:

- FANE 1 – forslag til medlemmer til evalueringskomitéene. Medlemmene i evalueringskomitéene skal inneha bred vitenskapelig kompetanse, både faglig kompetanse og andre kvalifikasjoner som erfaring med ledelse, strategi- og evalueringsarbeid og kunnskapsutveksling.
- FANE 2 – forslag til medlemmer til ekspertpanelene. Medlemmene i ekspertpanelene skal være internasjonalt ledende eksperter innen medisin og helsefaglig forskning og innovasjon.

Utfylte skjemaer (3 stk):

- innmelding av administrative enhet/er (skjema 1)
- innmelding av forskergruppe/er (skjema 2)
- forslag til eksperter (skjema 3)

sendes på epost til evalmedhelse@forskningsradet.no **innen 6. juni 2023.**

Tilpasning av mandat – frist 30. september 2023

Forskningsrådet ber med dette administrative enheter om å tilpasse mandatet (vedlegg 4) ved å opplyse om egne strategiske mål og andre lokale forhold som er relevant for evalueringen.

Tilpasningen gjøres ved å fylle inn de åpne punktene i malen (Appendix A). Utfylt skjema sendes på epost til evalmedhelse@forskningssradet.no innen 30. september 2023.

Digitalt informasjonsmøte 15. mai 2023, kl. 14.00-15.00.

Forskningssrådet arrangerer et digitalt informasjonsmøte for alle som ønsker å delta i EVALMEDHELSE.

Påmelding til informasjonsmøtet gjøres her: [Fagevaluering av medisin og helsefag \(EVALMEDHELSE\) - Digitalt informasjonsmøte \(pameldingssystem.no\)](#) .

Nettsider

Forskningssrådet vil opprette en nettside på www.forskningssradet.no for EVALMEDHELSE hvor informasjon vil bli publisert fortløpende. [Her](#) kan dere lese om Fagevaluering av biovitenskap (EVALBIOVIT) 2022-2023. Fagevaluering av medisin og helsefag vil bli gjennomført etter samme modell.

Spørsmål vedrørende fagevaluering av medisin og helsefag kan rettes til Hilde G. Nielsen, hgn@forskningssradet.no eller mobil 40 92 22 60.

Med vennlig hilsen
Norges forskningsråd

Ole Johan Borge
avdelingsdirektør
Helse

Hilde G. Nielsen
spesialrådgiver
Helse

Dokumentet er elektronisk godkjent og signert og har derfor ikke håndskrevne signaturer.

Kopi

Helse- og omsorgsdepartementet
Kunnskapsdepartementet

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1. Adresseliste
2. Nye fagevalueringer – varsel om oppstart november 2021
3. Erfaringer med oppfølging av fagevaluering av biologi, medisin og helsefag 2010/2011
4. Fagevaluering av livsvitenskap 2022-2024 – Evalueringsprotokoll
5. Tentativ panelinndeling EVALMEDHELSE mai 2023
6. Skjema 1 – Innmeldingsskjema Administrative enheter
7. Skjema 2 – Innmeldingsskjema Forskergrupper
8. Skjema 3 – Forslag til internasjonale eksperter til evalueringskomiteene og ekspertpanelene
9. Appendix A – word format

Evaluation of life sciences in Norway 2022-2023

LIVSEVAL protocol version 1.0

By decision of the Portfolio board for life sciences April 5., 2022

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The report can be downloaded at
www.forskningsradet.no/publikasjoner

Oslo, 5 April 2022

ISBN 978-82-12-Klikk her for å fylle ut (xxxxx-x). (pdf)

1 Introduction

Research assessments based on this protocol serve different aims and have different target groups. The primary aim of the evaluation of life sciences is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), and by the institute sector and regional health authorities and health trusts. These institutions will hereafter be collectively referred to as Research Performing Organisations (RPOs). The assessments should serve a formative purpose by contributing to the development of research quality and relevance at these institutions and at the national level.

1.1 Evaluation units

The assessment will comprise a number of *administrative units* submitted for evaluation by the host institution. By assessing these administrative units in light of the goals and strategies set for them by their host institution, it will be possible to learn more about how public funding is used at the institution(s) to facilitate high-quality research and how this research contributes to society. The administrative units will be assessed by evaluation committees according to sectoral affiliation and/or other relevant similarities between the units.

The administrative units will be invited to submit data on their *research groups* to be assessed by expert panels organised by research subject or theme. See Chapter 3 for details on organisation.

<i>Administrative unit</i>	An administrative unit is any part of an RPO that is recognised as a formal (administrative) unit of that RPO, with a designated budget, strategic goals and dedicated management. It may, for instance, be a university faculty or department, a department of an independent research institute or a hospital.
<i>Research group</i>	Designates groups of researchers within the administrative units that fulfil the minimum requirements set out in section 1.2. Research groups are identified and submitted for evaluation by the administrative unit, which may decide to consider itself a single research group.

1.2 Minimum requirements for research groups

- 1) The research group must be sufficiently large in size, i.e. at least five persons in full-time positions with research obligations. This merely indicates the minimum number, and larger units are preferable. In exceptional cases, the minimum number may include PhD students, postdoctoral fellows and/or non-tenured researchers. *In all cases, a research group must include at least three full-time tenured staff.* Adjunct professors, technical staff and other relevant personnel may be listed as group members but may not be included in the minimum number.

- 2) The research group subject to assessment must have been established for at least three years. Groups of more recent date may be accepted if they have come into existence as a consequence of major organisational changes within their host institution.
- 3) The research group should be known as such both within and outside the institution (e.g. have a separate website). It should be able to document common activities and results in the form of co-publications, research databases and infrastructure, software, or shared responsibilities for delivering education, health services or research-based solutions to designated markets.
- 4) In its self-assessment, the administrative unit should propose a suitable benchmark for the research group. The benchmark will be considered by the expert panels as a reference in their assessment of the performance of the group. The benchmark can be grounded in both academic and extra-academic standards and targets, depending on the purpose of the group and its host institution.

1.3 The evaluation in a nutshell

The assessment concerns:

- research that the administrative unit and its research groups have conducted in the previous 10 years
- the research strategy that the administrative units under evaluation intend to pursue going forward
- the capacity and quality of research in life sciences at the national level

The Research Council of Norway (RCN) will:

- provide a template for the Terms of Reference¹ for the assessment of RPOs and a national-level assessment in life sciences
- appoint members to evaluation committees and expert panels
- provide secretarial services
- commission reports on research personnel and publications based on data in national registries
- take responsibility for following up assessments and recommendations at the national level.

RPOs conducting research in life sciences are expected to take part in the evaluation. The board of each RPO under evaluation is responsible for tailoring the assessment to its own strategies and specific needs and for following them up within their own institution. Each participating RPO will carry out the following steps:

- 1) Identify the administrative unit(s) to be included as the main unit(s) of assessment
- 2) Specify the Terms of Reference by including information on specific tasks and/or strategic goals of relevance to the administrative unit(s)

¹ The terms of reference (ToR) document defines all aspects of how the evaluation committees and expert panels will conduct the [research area] evaluation. It defines the objectives and the scope of the evaluation, outlines the responsibilities of the involved parties, and provides a description of the resources available to carry out the evaluation.

- 3) The administrative unit will, in turn, be invited to register a set of research groups that fulfil the minimum criteria specified above (see section 1.2). The administrative unit may decide to consider itself a single research group.
- 4) For each research group, the administrative unit should select an appropriate benchmark in consultation with the group in question. This benchmark can be a reference to an academic level of performance or to the group's contributions to other institutional or sectoral purposes (see section 2.4). The benchmark will be used as a reference in the assessment of the unit by the expert panel.
- 5) The administrative units subject to assessment must provide information about each of their research groups, and about the administrative unit as a whole, by preparing self-assessments and by providing additional documentation in support of the self-assessment.

1.4 Target groups

- Administrative units represented by institutional management and boards
- Research groups represented by researchers and research group leaders
- Research funders
- Government

The evaluation will result in recommendations to the institutions, the RCN and the ministries. The results of the evaluation will also be disseminated for the benefit of potential students, users of research and society at large.

This protocol is intended for all participants in the evaluation. It provides the information required to organise and carry out the research assessments. Questions about the interpretation or implementation of the protocol should be addressed to the RCN.

2 Assessment criteria

The administrative units are to be assessed on the basis of five assessment criteria. The five criteria are applied in accordance with international standards. Finally, the evaluation committee passes judgement on the administrative units as a whole in qualitative terms. In this overall assessment, the committee should relate the assessment of the specific tasks to the strategic goals that the administrative unit has set for itself in the Terms of Reference.

When assessing administrative units, the committees will build on a separate assessment by expert panels of the research groups within the administrative units. See Chapter 3 'Evaluation process and organisation' for a description of the division of tasks.

2.1 Strategy, resources and organisation

The evaluation committee assesses the framework conditions for research in terms of funding, personnel, recruitment and research infrastructure in relation to the strategic aims set for the administrative unit. The administrative unit should address at least the following five specific aspects in its self-assessment: 1) funding sources, 2) national and international cooperation, 3) cross-sector and interdisciplinary cooperation, 4) research careers and mobility, and 5) Open Science. These five aspects relate to how the unit organises and actually performs its research, its composition in terms of leadership and personnel, and how the unit is run on a day-to-day basis.

To contribute to understanding what the administrative unit can or should change to improve its ability to perform, the evaluation committee is invited to focus on factors that may affect performance.

Further, the evaluation committee assesses the extent to which the administrative unit's goals for the future remain scientifically and societally relevant. It is also assessed whether its aims and strategy, as well as the foresight of its leadership and its overall management, are optimal in relation to attaining these goals. Finally, it is assessed whether the plans and resources are adequate to implement this strategy.

2.2 Research production, quality and integrity

The evaluation committee assesses the profile and quality of the administrative unit's research and the contribution the research makes to the body of scholarly knowledge and the knowledge base for other relevant sectors of society. The committee also assesses the scale of the unit's research results (scholarly publications, research infrastructure developed by the unit, and other contributions to the field) and its contribution to Open Science (early knowledge and sharing of data and other relevant digital objects, as well as science communication and collaboration with societal partners, where appropriate).

The evaluation committee considers the administrative unit's policy for research integrity and how violations of such integrity are prevented. It is interested in how the unit deals with research data, data management, confidentiality (GDPR) and integrity, and the extent to which independent and critical pursuit of research is made possible within the unit. Research integrity relates to both the scientific integrity of conducted research and the professional integrity of researchers.

2.3 Diversity and equality

The evaluation committee considers the diversity of the administrative unit, including gender equality. The presence of differences can be a powerful incentive for creativity and talent development in a diverse administrative unit. Diversity is not an end in itself in that regard, but a tool for bringing together different perspectives and opinions.

The evaluation committee considers the strategy and practices of the administrative unit to prevent discrimination on the grounds of gender, age, disability, ethnicity, religion, sexual orientation or other personal characteristics.

2.4 Relevance to institutional and sectoral purposes

The evaluation committee compares the relevance of the administrative unit's activities and results to the specific aspects detailed in the Terms of Reference for each institution and to the relevant sectoral goals (see below).

Higher Education Institutions

There are 36 Higher Education Institutions in Norway that receive public funding from the Ministry for Education and Research. Twenty-one of the 36 institutions are owned by the ministry, whereas the last 15 are privately owned. The HEIs are regulated under the Act relating to universities and university colleges of 1 August 2005.

The purposes of Norwegian HEIs are defined as follows in the Act relating to universities and university colleges²

- provide higher education at a high international level;
- conduct research and academic and artistic development work at a high international level;
- disseminate knowledge of the institution's activities and promote an understanding of the principle of academic freedom and application of scientific and artistic methods and results in the teaching of students, in the institution's own general activity as well as in public administration, in cultural life and in business and industry.

In line with these purposes, the Ministry for Research and Education has defined four overall goals for HEIs that receive public funding. These goals have been applied since 2015:

- 1) High quality in research and education
- 2) Research and education for welfare, value creation and innovation
- 3) Access to education (esp. capacity in health and teacher education)
- 4) Efficiency, diversity and solidity of the higher education sector and research system

The committee is invited to assess to what extent the research activities and results of each administrative unit have contributed to sectoral purposes as defined above. In particular, the committee is invited to take the share of resources spent on education at the administrative units into account and to assess the relevance and contributions of research to education, focusing on the master's and PhD levels. This assessment should be distinguished from an

² <https://lovdata.no/dokument/NLE/lov/2005-04-01-15?q=universities>

assessment of the quality of education in itself, and it is limited to the role of research in fostering high-quality education.

Research institutes (the institute sector)

Norway's large institute sector reflects a practical orientation of state R&D funding that has long historical roots. The Government's strategy for the institute sector³ applies to the 33 independent research institutes that receive public basic funding through the RCN, in addition to 12 institutes outside the public basic funding system.

The institute sector plays an important and specific role in attaining the overall goal of the national research system, i.e. to increase competitiveness and innovation power to address major societal challenges. The research institutes' contributions to achieving these objectives should therefore form the basis for the evaluation. The main purpose of the sector is to conduct independent applied research for present and future use in the private and public sector. However, some institutes primarily focus on developing a research platform for public policy decisions, others on fulfilling their public responsibilities.

The institutes should:

- maintain a sound academic level, documented through scientific publications in recognised journals
- obtain competitive national and/or international research funding grants
- conduct contract research for private and/or public clients
- demonstrate robustness by having a reasonable number of researchers allocated to each research field

The committee is invited to assess the extent to which the research activities and results of each administrative unit contribute to sectoral purposes and overall goals as defined above. In particular, the committee is invited to assess the level of collaboration between the administrative unit(s) and partners in their own or other sectors.

The hospital sector

There are four regional health authorities (RHF) in Norway. They are responsible for the specialist health service in their respective regions. The RHF are regulated through the Health Enterprises Act of 15 June 2001 and are bound by requirements that apply to specialist and other health services, the Health Personnel Act and the Patient Rights Act. Under each of the regional health authorities, there are several health trusts (HF), which can consist of one or more hospitals. A health trust (HF) is wholly owned by an RHF.

Research is one of the four main tasks of hospital trusts.⁴ The three other main tasks are to ensure good treatment, education and training of patients and relatives. Research is important if the health service is to keep abreast of stay up-to-date with medical developments and carry out critical assessments of established and new diagnostic methods,

³ [Strategy for a holistic institute policy \(Kunnskapsdepartementet 2020\)](#)

⁴ Cf. the Specialist Health Services Act § 3-8 and the Health Enterprises Act §§ 1 and 2

treatment options and technology, and work on quality development and patient safety while caring for and guiding patients.

The committee is invited to assess the extent to which the research activities and results of each administrative unit have contributed to sectoral purposes as described above. The assessment does not include an evaluation of the health services performed by the services.

2.5 Relevance to society

The committee assesses the quality, scale and relevance of contributions targeting specific economic, social or cultural target groups, of advisory reports on policy, of contributions to public debates, and so on. The documentation provided as the basis for the assessment of societal relevance should make it possible to assess relevance to various sectors of society (i.e. business, the public sector, non-governmental organisations and civil society).

When relevant, the administrative units will be asked to link their contributions to national and international goals set for research, including the Norwegian Long-term Plan for Research and Higher Education and the UN Sustainable Development Goals. Sector-specific objectives, e.g. those described in the Development Agreements for the HEIs and other national guidelines for the different sectors, will be assessed as part of criterion 2.4.

The committee is also invited to assess the societal impact of research based on case studies submitted by the administrative units and/or other relevant data presented to the committee. Academic impact will be assessed as part of criterion 2.2.

3 Evaluation process and organisation

The RCN will organise the assessment process as follows:

- Commission a professional secretariat to support the assessment process in the committees and panels, as well as the production of self-assessments within each RPO
- Commission reports on research personnel and publications within life sciences based on data in national registries
- Appoint one or more evaluation committees for the assessment of administrative units.
- Divide the administrative units between the appointed evaluation committees according to sectoral affiliation and/or other relevant similarities between the units.
- Appoint a number of expert panels for the assessment of research groups submitted by the administrative units.
- Divide research groups between expert panels according to similarity of research subjects or themes.
- Task the chairs of the evaluation committees with producing a national-level report building on the assessments of administrative units and a national-level assessments produced by the expert panels.

Committee members and members of the expert panels will be international, have sufficient competence and be able, as a body, to pass judgement based on all relevant assessment criteria. The RCN will facilitate the connection between the assessment levels of panels and committees by appointing committee members as panel chairs.

3.1 Division of tasks between the committee and panel levels

The expert panels will assess research groups across institutions and sectors, focusing on the first two criteria specified in Chapter 2: 'Strategy, resources and organisation' and 'Research production and quality' The assessments from the expert panels will also be used as part of the evidence base for a report on Norwegian research within life sciences (see section 3.3).

The evaluation committees will assess the administrative units based on all the criteria specified in Chapter 2. The assessment of research groups delivered by the expert panels will be a part of the evidence base for the committees' assessments of administrative units. See figure 1 below.

The evaluation committee has sole responsibility for the assessments and any recommendations in the report. The evaluation committee reaches a judgement on the research based on the administrative units and research groups' self-assessments provided by the RPOs, any additional documents provided by the RCN, and interviews with representatives of the administrative units. The additional documents will include a standardised analysis of research personnel and publications provided by the RCN.

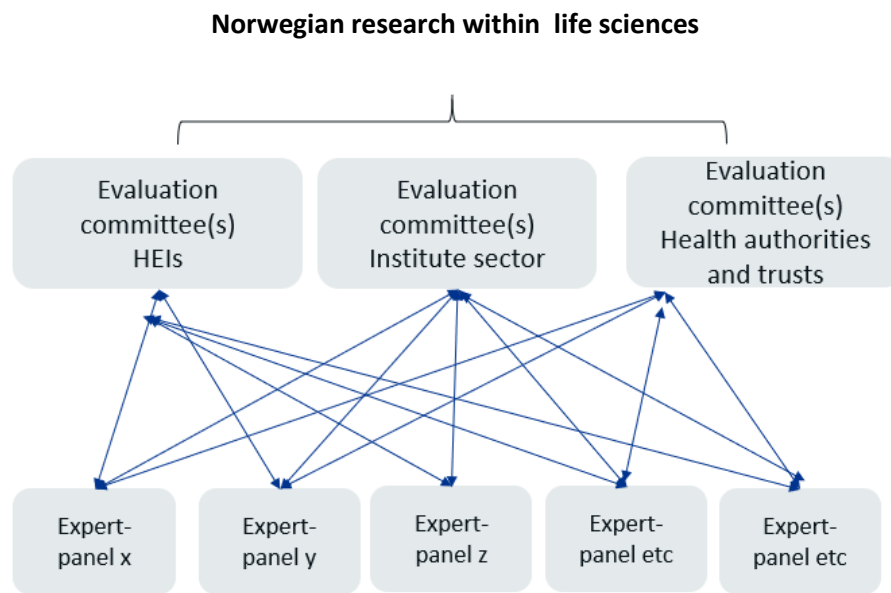


Figure 1. Evaluation committees and expert panels

The evaluation committee takes international trends and developments in science and society into account when forming its judgement. When judging the quality and relevance of the research, the committees shall bear in mind the specific tasks and/or strategic goals that the administrative unit has set for itself including sectoral purposes (see section 2.4 above).

3.2 Accuracy of factual information

The administrative unit under evaluation should be consulted to check the factual information before the final report is delivered to the RCN and the board of the institution hosting the administrative unit.

3.3 National level report

Finally, the RCN will ask the chairs of the evaluation committees to produce a national-level report that builds on the assessments of administrative units and the national-level assessments produced by the expert panels. The committee chairs will present their assessment of Norwegian research in life sciences at the national level in a separate report that pays specific attention to:

- Strengths and weaknesses of the research area in the international context
- The general resource situation regarding funding, personnel and infrastructure
- PhD training, recruitment, mobility and diversity
- Research cooperation nationally and internationally
- Societal impact and the role of research in society, including Open Science

This national-level assessment should be presented to the RCN.

Appendix A: Terms of References (ToR)

[Text in red to be filled in by the Research-performing organisations (RPOs)]

The board of [RPO] mandates the evaluation committee appointed by the Research Council of Norway (RCN) to assess [administrative unit] based on the following Terms of Reference.

Assessment

You are asked to assess the organisation, quality and diversity of research conducted by [administrative unit] as well as its relevance to institutional and sectoral purposes, and to society at large. You should do so by judging the unit's performance based on the following five assessment criteria (a. to e.). Be sure to take current international trends and developments in science and society into account in your analysis.

- a) Strategy, resources and organisation
- b) Research production, quality and integrity
- c) Diversity and equality
- d) Relevance to institutional and sectoral purposes
- e) Relevance to society

For a description of these criteria, see Chapter 2 of the life sciences evaluation protocol. Please provide a written assessment for each of the five criteria. Please also provide recommendations for improvement. We ask you to pay special attention to the following [n] aspects in your assessment:

- 1. ...
- 2. ...
- 3. ...
- 4. ...
- ...

[To be completed by the board: specific aspects that the evaluation committee should focus on – they may be related to a) strategic issues, or b) an administrative unit's specific tasks.]

In addition, we would like your report to provide a qualitative assessment of [administrative unit] as a whole in relation to its strategic targets. The committee assesses the strategy that the administrative unit intends to pursue in the years ahead and the extent to which it will be capable of meeting its targets for research and society during this period based on available resources and competence. The committee is also invited to make recommendations concerning these two subjects.

Documentation

The necessary documentation will be made available by the **life sciences** secretariat at Technopolis Group.

The documents will include the following:

- a report on research personnel and publications within life sciences commissioned by RCN
- a self-assessment based on a template provided by the life sciences secretariat
- **[to be completed by the board]**

Interviews with representatives from the evaluated units

Interviews with the **[administrative unit]** will be organised by the evaluation secretariat. Such interviews can be organised as a site visit, in another specified location in Norway or as a video conference.

Statement on impartiality and confidence

The assessment should be carried out in accordance with the *Regulations on Impartiality and Confidence in the Research Council of Norway*. A statement on the impartiality of the committee members has been recorded by the RCN as a part of the appointment process. The impartiality and confidence of committee and panel members should be confirmed when evaluation data from **[the administrative unit]** are made available to the committee and the panels, and before any assessments are made based on these data. The RCN should be notified if questions concerning impartiality and confidence are raised by committee members during the evaluation process.

Assessment report

We ask you to report your findings in an assessment report drawn up in accordance with a format specified by the life sciences secretariat. The committee may suggest adjustments to this format at its first meeting. A draft report should be sent to the **[administrative unit]** and RCN by [date]. The **[administrative unit]** should be allowed to check the report for factual inaccuracies; if such inaccuracies are found, they should be reported to the life sciences secretariat no later than two weeks after receipt of the draft report. After the committee has made the amendments judged necessary, a corrected version of the assessment report should be sent to the board of **[the RPO]** and the RCN no later than two weeks after all feedback on inaccuracies has been received from **[administrative unit]**.

Appendix B: Data sources

The lists below shows the most relevant data providers and types of data to be included in the evaluation. Data are categorised in two broad categories according to the data source: National registers and self-assessments prepared by the RFOs. The RCN will commission an analysis of data in national registers (R&D-expenditure, personnel, publications etc.) to be used as support for the committees' assessment of administrative units. The analysis will include a set of indicators related to research personnel and publications.

- **National directorates and data providers**
- Norwegian Directorate for Higher Education and Skills (HK-dir)
- Norwegian Agency for Quality Assurance in Education (NOKUT)
- Norwegian Agency for Shared Services in Education and Research (SIKT)
- Research Council of Norway (RCN)
- Statistics Norway (SSB)

National registers

- 1) R&D-expenditure
 - a. SSB: R&D statistics
 - b. SSB: Key figures for research institutes
 - c. HK-dir: Database for Statistics on Higher Education (DBH)
 - d. RCN: Project funding database (DVH)
 - e. EU-funding: eCorda
- 2) Research personnel
 - a. SSB: The Register of Research personnel
 - b. SSB: The Doctoral Degree Register
 - c. RCN: Key figures for research institutes
 - d. HK-dir: Database for Statistics on Higher Education (DBH)
- 3) Research publications
 - a. SIKT: Cristin - Current research information system in Norway
 - b. SIKT: Norwegian Infrastructure for Bibliometrics
(full bibliometric data incl. citations and co-authors)
- 4) Education
 - a. HK-dir/DBH: Students and study points
 - b. NOKUT: Study barometer
 - c. NOKUT: National Teacher Survey
- 5) Sector-oriented research
 - a. RCN: Key figures for research institutes
- 6) Patient treatments and health care services
 - a. Research & Innovation expenditure in the health trusts
 - b. Measurement of research and innovation activity in the health trusts
 - c. Collaboration between health trusts and HEIs
 - d. Funding of research and innovation in the health trusts
 - e. Classification of medical and health research using HRCS (HO21 monitor)

Self-assessments

1) Administrative units

- a. *Self-assessment covering all assessment criteria*
- b. Administrative data on funding sources
- c. Administrative data on personnel
- d. Administrative data on the division of staff resources between research and other activities (teaching, dissemination etc.)
- e. Administrative data on research infrastructure and other support structures
- f. SWOT analysis
- g. Any supplementary data needed to assess performance related to the strategic goals and specific tasks of the unit

2) Research groups

- a. *Self-assessment covering the first two assessment criteria (see Table 1)*
- b. Administrative data on funding sources
- c. Administrative data on personnel
- d. Administrative data on contribution to sectoral purposes: teaching, commissioned work, clinical work [will be assessed at committee level]
- e. Publication profiles
- f. Example publications and other research results (databases, software etc.)
The examples should be accompanied by an explanation of the groups' specific contributions to the result
- g. Any supplementary data needed to assess performance related to the benchmark defined by the administrative unit

The table below shows how different types of evaluation data may be relevant to different evaluation criteria. Please note that the self-assessment produced by the administrative units in the form of a written account of management, activities, results etc. should cover all criteria. A template for the self-assessment of research groups and administrative units will be commissioned by the RCN from the life sciences secretariat for the evaluation.

Table 1. Types of evaluation data per criterion

Criteria \ Evaluation units	Research groups	Administrative units
Strategy, resources and organisation	Self-assessment Administrative data	Self-assessment National registers Administrative data SWOT analysis
Research production and quality	Self-assessment Example publications (and other research results)	Self-assessment National registers
Diversity, equality and integrity		Self-assessment National registers Administrative data
Relevance to institutional and sectoral purposes		Self-assessment Administrative data
Relevance to society		Self-assessment National registers Impact cases
Overall assessment	<i>Data related to: Benchmark defined by administrative unit</i>	<i>Data related to: Strategic goals and specific tasks of the admin. unit</i>



Evaluation of Medicine and Health (EVALMEDHELSE) 2023-2024

Self- assessment for administrative units

Date of dispatch: **15 September 2023**
Deadline for submission: **31 January 2024**

Institution (name and short name): _____

Administrative unit (name and short name): _____

Date: _____

Contact person: _____

Contact details (email): _____

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Introduction

The primary aim of the evaluation is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), the institute sector and the health trusts. These institutions will henceforth be collectively referred to as research performing organisations (RPOs). The evaluation report(s) will provide a set of recommendations to the RPOs, the Research Council of Norway (RCN) and the responsible and concerned ministries. The results of the evaluation will also be disseminated for the benefit of potential students, users of research and society at large.

You have been invited to complete this self-assessment as an administrative unit. The self-assessment contains questions regarding the unit's research- and innovation related activities and developments over years 2012-2022. All submitted data will be evaluated by international evaluation committees. The administrative unit's research groups will be assessed by international expert panels who report their assessment to the relevant evaluation committee.

Deadline for submitting self- assessments to the Research Council of Norway – 31 January 2024

As an administrative unit you are responsible for collecting completed self-assessments for each of the research groups that belong to the administrative unit. The research groups need to submit their completed self-assessment to the administrative unit no later than 26 January 2024. The administrative unit will submit the research groups' completed self-assessments and the administrative unit's own completed self-assessment to the Research Council within 31 January 2024.

Please use the following format when naming your document: name of the institution and short name of the administrative unit, e.g. *NTNU_FacMedHealthSci* and send it to evalmedhelse@forskningsradet.no within 31 January 2024.

For questions concerning the self-assessment or EVALMEDHELSE in general, please contact RCN at evalmedhelse@forskningsradet.no.

Thank you!

Guidelines for completing the self-assessment

- Please read the entire self-assessment document before answering.
- The evaluation language is English.
- Please be sure that all documents which are linked to in the self- assessment are in English and are accessible.
- The page format must be A4 with 2 cm margins, single spacing and Calibri and 11-point font.
- The self-assessment follows the same structure as the [evaluation protocol](#). In order to be evaluated on all criteria, the administrative unit must answer all questions.
- Information should be provided by link to webpages i.e. strategy and other planning documents.
 - Provide information – provide documents and other relevant data or figures about the administrative unit, for example strategy and other planning documents.
 - Describe – explain and present using contextual information about the administrative unit and inform the reader about the administrative unit.
 - Reflect – comment in a reflective and evaluative manner how the administrative unit operates.
- Data on personnel should refer to reporting to DBH on 1 October 2022 for HEIs and to the yearly reporting for 2022 for the institute sector and the health trusts. Other data should refer to 31 December 2022, if not specified otherwise.
- Questions in 4.3c should **ONLY** be answered by administrative units responsible for the Cand.med. degree programme, cf. [Evaluation of the Professional programme in Medicine \(NOKUT\)](#).
- It is possible to extend the textboxes when filling in the form. **NB!** A completed self- assessment cannot exceed 50 pages (pdf file) excluding question 4.3.c. The evaluation committees are not requested to read more than the maximum of 50 pages. Pages exceeding maximum limit of 50 pages **might not** be evaluated.
- Submit the self- assessment as a pdf (max 50 pages). Before submission, please be sure that all text are readable after the conversion of the document to pdf. The administrative unit is responsible for submitting the self-assessment of the administrative unit together with the self-assessments of the belonging research group(s) to evalmedhelse@forskningsradet.no within **31 January 2024**.

Please note that information you write in the self- assessment and the links to documents/webpages in the self- assessment are the only available information (data material) for the evaluation committee.

In exceptional cases, documents/publications that are not openly available must be submitted as attachment(s) to the self- assessment (pdf file(s)).

1.Strategy, resources and organisation

1.1 Research strategy

Describe the main strategic goals for research and innovation of the administrative unit. You may include the following:

- How are these goals related to institutional strategies and scientific priorities?
- Describe how the administrative unit's strategies and scientific priorities are related to the "specific aspects that the evaluation committee should focus on" indicated in your Terms of Reference (ToR)
- Describe the main fields and focus of research and innovation in the administrative unit
- Describe the planned research-field impact; planned policy impact and planned societal impact
- Describe how the strategy is followed-up in the allocation of resources and other measures
- Describe the most important occasions where priorities are made (i.e., announcement of new positions, applying for external funding, following up on evaluations)
- If there is no research strategy – please explain why

Table 1. Administrative unit's strategies

For each category present up to 5 documents which are most relevant for the administrative unit. Please delete lines which are not in use.

Research strategy		
No.	Title	Link
1		
2		
3		
4		
5		
Outreach strategies		
No.	Title	Link
1		
2		
3		
4		
5		
Open science policy		
No.	Title	Link
1		
2		
3		
4		
5		

1.2 Organisation of research

a) Describe the organisation of research and innovation activities/projects at the administrative unit, including how responsibilities for research and other purposes (education, knowledge exchange, patient treatment, researcher training, outreach activities etc.) are distributed and delegated.

b) Describe how you work to maximise synergies between the different purposes of the administrative unit (education, knowledge exchange, patient treatment, researcher training, outreach activities etc.).

1.3 Research staff

Describe the profile of research personnel at the administrative unit in terms of position and gender. Institutions in the higher education sector should use the categories used in DBH, <https://dbh.hkdir.no/datainnhold/kodeverk/stillingskoder>.

RCN has commissioned reports from Statistics Norway (SSB) on personnel for the administrative units included in the evaluation. These reports will be made available to the units early November 2023.

Only a subset of the administrative units submitted to the evaluation is directly identifiable in the national statistics. Therefore, we ask all administrative units to provide data on their R&D personnel. Institutions that are directly identifiable in the national statistics (mainly higher education) are invited to use the figures provided in the report delivered by Statistics Norway. Please delete lines which are not in use.

Table 2. Research staff

	Position by category	No. of researcher per category	Share of women per category (%)	No. of researchers who are part of multiple (other) research groups at the admin unit	No. of temporary positions
No. of Personell by position	Position A (Fill in)				
	Position B (Fill in)				
	Position C (Fill in)				
	Position D (Fill in)				

1.4 Researcher careers opportunities

- a) Describe the structures and practices to support researcher careers and help early-career researchers to make their way into the profession.
- b) Describe how research time is distributed among staff including criteria for research leave/sabbaticals (forskningstermin/undervisningsfri).
- c) Describe research mobility options.

1.5 Research funding

- a) Describe the funding sources of the administrative unit. Indicate the administrative unit's total yearly budget and the share of the unit's budget dedicated to research.
- b) Give an overview of the administrative unit's competitive national and/or international grants last five years (2018-2022).

Table 3. R&D funding sources

Please indicate R&D funding sources for the administrative unit for the period 2018-2022 (average NOK per year, last five years).

For Higher Education Institutions: Share of basic grant (grunnbevilgning) used for R&D ¹ For Research Institutes and Health Trusts: Direct R&D funding from Ministries (per ministry)	
Name of ministry	NOK

National grants (bidragsinntekter) (NOK)	
From the ministries and underlying directorates	
From industry	
From public sector	
Other national grants	
Total National grants	
National contract research (oppdragsinntekter) ² (NOK)	
From the ministries and underlying directorates	
From industry	

¹ Shares may be calculated based on full time equivalents (FTE) allocated to research compared to total FTE in administrative unit

² For research institutes only research activities should be included from section 1.3 in the yearly reporting

From public sector	
Other national contract research	
Total contract research	
International grants (NOK)	
From the European Union	
From industry	
Other international grants	
Total international grants	
Funding related to public management (forvaltningsoppgaver) or (if applicable) funding related to special hospital tasks, if any	
Total funding related to public management/special hospital tasks	
Total all R&D budget items (except basic grant)	

1.6 Collaboration

Describe the administrative unit's policy towards national and international collaboration partners, the type of the collaborations the administrative unit have with the partners, how the collaboration is put to practice as well as cross-sectorial and interdisciplinary collaborations.

- Reflect of how successful the administrative unit has been in meeting its aspirations for collaborations
- Reflect on the importance of different types of collaboration for the administrative unit: National and international collaborations. Collaborations with different sectors, including public, private and third sector
- Reflect on the added value of these collaborations to the administrative unit and Norwegian research system

Table 4a. The main national collaborative constellations with the administrative unit

Please categorise the collaboration according to the most important national partner(s): 5-10 institutions in the period 2012-2022. Please delete lines which are not in use.

National collaborations

Collaboration with national institutions – 1 -10	
Name of main collaboration or collaborative project with the admin unit	
Name of partner institution(s)	
Sector of partner/institution(s)/sectors involved	
Impacts and relevance of the collaboration	

Table 4b. The main international collaborative constellations with the administrative unit

Please categorise the collaboration according to the most important international partner(s): 5-10 international institutions in the period 2012-2022. Please delete lines which are not in use.

International collaborations

Collaboration with international institutions – 1-10	
Name of main collaboration or collaborative project with the admin unit	
Name of partner institution(s)	
Sector of partner/institution(s)/sectors involved	

Impacts and relevance of the collaboration	
--	--

1.7 Open science policies

a) Describe the institutional policies, approaches, and activities to the Open Science areas which may include the following:

- Open access to publications
- Open access to research data and implementation of FAIR data principles
- Open-source software/tools
- Open access to educational resources
- Open peer review
- Citizen science and/or involvement of stakeholders / user groups
- Skills and training for Open Science

b) Describe the most important contributions and impact of the administrative unit's researchers towards the different Open Science areas cf. 1.7a above.

c) Describe the institutional policy regarding ownership of research data, data management, and confidentiality. Is the use of data management plans implemented at the administrative unit?

1.8 SWOT analysis for administrative units

Instructions: Please complete a SWOT analysis for your administrative unit. Reflect on what are the major internal Strengths and Weaknesses as well as external Threats and Opportunities for your research and innovation activities/projects and research environment. Assess what the present Strengths enable in the future and what kinds of Threats are related to the Weaknesses. Consider your scientific expertise and achievements, funding, facilities, organisation and management.

Internal	Strengths	Weaknesses
External	Opportunities	Threats

2. Research production, quality and integrity

2.1 Research quality and integrity

Please see the bibliometric analysis for the administrative unit developed by NIFU (available by the end of October, 2023).

a) Describe the scientific focus areas of the research conducted at the administrative unit, including the unit's contribution to these areas.

b) Describe the administrative unit's policy for research integrity, including preventative measures when integrity is at risk, or violated.

2.2 Research infrastructures

a) Participation in national infrastructure

Describe the most important participation in the national infrastructures listed in the Norwegian roadmap for research infrastructures (Norsk veikart for forskningsinfrastruktur) including as host institution(s).

Table 5. Participation in national infrastructure

Please present up to 5 participations in the national infrastructures listed in the Norwegian roadmap for research infrastructures (Norsk veikart for forskningsinfrastruktur) for each area that were the most important to your administrative unit.

Areas in roadmap	Name of research infrastructure	Period (from year to year)	Description	Link to website

b) Participation in international infrastructures

Describe the most important participation in the international infrastructures funded by the ministries (Norsk deltakelse i internasjonale forskningsorganisasjoner finansiert av departementene).

Table 6. Participation in international infrastructure

Please describe up to 5 participations in international infrastructures for each area that have been most important to your administrative unit.

Project	Name	Period (from year to year)	Description	Link to infrastructure

c) Participation in European (ESFRI) infrastructures

Describe the most important participation in European (ESFRI) infrastructures (Norske medlemskap i infrastruktur i ESFRI roadmap) including as host institution(s).

Table 7. Participation in infrastructures on the ESFRI Roadmap

Please give a description of up to 5 participations that have been most important to your administrative unit.

Social sciences and the humanities				
Name	ESFRI-project	Summary of participation	Period (from year to year)	Link

d) Access to research infrastructures

Describe access to relevant national and/or international research infrastructures for your researchers. Considering both physical and digital infrastructure.

e) FAIR- principles

Describe what is done at the unit to fulfil the FAIR-principles.

3. Diversity and equality

Describe the policy and practices to protect against any form of discrimination and to promote diversity in the administrative unit.

Table 8. Administrative unit policy against discrimination

Give a description of up to 5 documents that are the most relevant. If the administrative unit uses the strategies, policies, etc. of a larger institution, then these documents should be referred to. Please delete lines which are not in use.

No.	Name	Valid period	Link
1			

4.Relevance to institutional and sectorial purposes

4.1 Sector specific impact

Describe whether the administrative unit has activities aimed at achieving sector-specific objectives or focusing on contributing to the knowledge base in general. Describe activities connected to sector-specific objectives, the rationale for participation and achieved and/or expected impacts. Please refer to chapter 2.4 in the [evaluation protocol](#).

- Alternatively, describe whether the activities of the administrative unit are aimed at contribution to the knowledge base in general. Describe the rationale for this approach and the impacts of the unit's work to the knowledge base.

4.2 Research innovation and commercialisation

- a) Describe the administrative unit's practices for innovation and commercialisation.
- b) Describe the motivation among the research staff in doing innovation and commercialisation activities.
- c) Describe how innovation and commercialisation is supported at the administrative unit.

Table 9. Policies for innovation including IP policies, new patents, licenses, start-up/spin-off guidelines

Describe up to 5 documents of the administrative unit's policies for innovation, including IP policies, new patents, licenses, start-up/spin-off guidelines, etc., that are the most relevant. If the administrative unit uses the strategies, policies, etc. of a larger institution, then present these documents. Please delete lines which are not in use.

No.	Name	Valid period	Link
1			

Table 10. Administrative description of successful innovation and commercialisation results

Please describe up to 10 successful innovation and commercialisation results at your administrative unit in the period 2012-2022. Please delete lines which are not in use.

No.	Name of innovation and commercial results	Link	Description of successful innovation and commercialisation result.
1			

4.3 Higher education institutions

a) Reflect how research at the administrative unit contributes towards master and PhD-level education provision, at your institutions and beyond.

b) Describe the opportunities for master students to become involved in research activities at the administrative unit.

c) **ONLY** for administrative units responsible for the Cand.med. degree programme, cf. [Evaluation of the Professional programme in Medicine \(NOKUT\)](#).

- Reflect on how research at the administrative unit contributes towards the quality of the Cand.med. degree programme at your institutions and beyond.
- Describe the different opportunities for students on the Cand.med. degree programme to become involved in research activities at the administrative unit, and the extent to which students use those opportunities.

4.4 Research institutes

a) Describe how the research and innovation activities/projects at the administrative unit contribute to the knowledge base for policy development, sustainable development, and societal and industrial transformations more generally.

b) Describe the most important research activities with partners outside of research organisations.

4.5 Health trusts

a) Reflect on how the administrative unit's clinical research, innovation and commercialisation contribute towards development, assessment and implementation of new diagnostic methods, treatment, and healthcare technologies.

b) Reflect on how research at the unit contributes towards the quality of relevant education programme at your institutions or beyond.

c) Describe the different opportunities for students on relevant educational programmes to become involved in research activities at the administrative unit, and the extent to which students use those opportunities.

5.Relevance to society

Reflect on the administrative unit's contribution towards the Norwegian Long-term plan for research and higher education, societal challenges more widely, and the UN Sustainable Development Goals.

5.1 Impact cases

Please use the attached template for impact cases. Each impact case should be submitted as an attachment (pdf) to the self-assessment.

Impact case guidelines

Each case study should include sufficiently clear and detailed information to enable the evaluation committee to make judgements based on the information it contains, without making inferences, gathering additional material, following up references or relying on members' prior knowledge. References to other sources of information will be used for verification purposes only, not as a means for the evaluation committee to gather further information to inform judgements.

In this evaluation, impact is defined as an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia.

Timeframes

- The impact must have occurred between 2012 and 2022
- Some of the underpinning research should have been published in 2012 or later
- The administrative units are encouraged to prioritise recent cases

Page limit

Each completed case study template will be limited to **five pages** in length. Within the annotated template below, indicative guidance is provided about the expected maximum length limit of each section, but institutions will have flexibility to exceed these so long as the case study as a whole remains no longer than **five pages** (font Calibri, font size 11). Please write the text into the framed template under the sections 1–5 below. The guiding text that stands there now, can be deleted.

Maximum number of cases permitted per administrative unit

For up to 10 researchers: one case; for 10 to 30 researchers: two cases; for 30-50 researchers: three cases; for 50-100 researchers: four cases, and up to five cases for units exceeding 100 researchers.

Naming and numbering of cases

Please use the standardised short name for the administrative unit, and the case number for the unit (1,2,3, etc) in the headline of the case. Each case should be stored as a separate PDF-document with the file name: [Name of the institution and name of the administrative unit] [case number]

Publication of cases

RCN plans to publish all impact cases in a separate evaluation report. By submitting the case the head of the administrative units consents to the publication of the case. Please indicate below if a case may not be made public for reasons of confidentiality.

If relevant, describe any reason to keep this case confidential:

Please write the text here

[Name of the institution and name of the administrative unit] [case number]

Institution:
Administrative unit:
Title of case study:
Period when the underpinning research was undertaken:
Period when staff involved in the underpinning research were employed by the submitting institution:
Period when the impact occurred:

1. Summary of the impact (indicative maximum 100 words)

This section should briefly state what specific impact is being described in the case study.

2. Underpinning research (indicative maximum 500 words)

This section should outline the key research insights or findings that underpinned the impact, and provide details of what research was undertaken, when, and by whom. This research may be a body of work produced over a number of years or may be the output(s) of a particular project. References to specific research outputs that embody the research described in this section, and evidence of its quality, should be provided in the next section. Details of the following should be provided in this section:

- The nature of the research insights or findings which relate to the impact claimed in the case study.
- An outline of what the underpinning research produced by the submitted unit was (this may relate to one or more research outputs, projects or programmes).
- Dates of when it was carried out.
- Names of the key researchers and what positions they held at the administrative unit at the time of the research (where researchers joined or left the administrative unit during this time, these dates must also be stated).
- Any relevant key contextual information about this area of research.

3. References to the research (indicative maximum of six references)

This section should provide references to key outputs from the research described in the previous section, and evidence about the quality of the research. All forms of output cited as underpinning research will be considered equitably, with no distinction being made between the types of output referenced. Include the following details for each cited output:

- Author(s)
 - Title
 - Year of publication
 - Type of output and other relevant details required to identify the output (for example, DOI, journal title and issue)
 - Details to enable the panel to gain access to the output, if required (for example, a DOI or URL).
- All outputs cited in this section must be capable of being made available to panels. If they are not available in the public domain, the administrative unit must be able to provide them if requested by RCN or the evaluation secretariate.

4. Details of the impact (indicative maximum 750 words)

This section should provide a narrative, with supporting evidence, to explain:

- How the research underpinned (made a distinct and material contribution to) the impact;
- The nature and extent of the impact.

The following should be provided:

- A clear explanation of the process or means through which the research led to, underpinned or made a contribution to the impact (for example, how it was disseminated, how it came to influence users or beneficiaries, or how it came to be exploited, taken up or applied).

- Where the submitted administrative unit's research was part of a wider body of research that contributed to the impact (for example, where there has been research collaboration with other institutions), the case study should specify the particular contribution of the submitted administrative unit's research and acknowledge other key research contributions.
- Details of the beneficiaries – who or what community, constituency or organisation has benefitted, been affected or impacted on.
- Details of the nature of the impact – how they have benefitted, been affected or impacted on.
- Evidence or indicators of the extent of the impact described, as appropriate to the case being made.
- Dates of when these impacts occurred.

5. Sources to corroborate the impact (indicative maximum of ten references)

Institution	Administrative unit	Name of research group	Expert panel
UiB	Department of Biomedicine	Basic and Translational Neuroscience	Panel 1b
UiB	Department of Biomedicine	Cardiovascular research	Panel 1a
UiB	Department of Biomedicine	Metabolism and cancer	Panel 2c
UiB	Department of Biomedicine	Structural biology and drug discovery	Panel 2b
UiB	Department of Biomedicine	Systems Biology and Translational Cell Signaling (STC)	Panel 2c
UiB	Department of Biomedicine	Translational Cancer Research Group	Panel 2c

Scales for research group assessment

Use whole integers only – no fractions!

Organisational dimension

Score	Organisational environment
5	An organisational environment that is outstanding for supporting the production of excellent research.
4	An organisational environment that is very strong for supporting the production of excellent research.
3	An organisational environment that is adequate for supporting the production of excellent research.
2	An organisational environment that is modest for supporting the production of excellent research.
1	An organisational environment that is not supportive for the production of excellent research.

Quality dimension

The quality dimension consists of two judgements: 1) Research and publication quality, and 2) Research group's contribution. The first judgement is defined as follows:

Score	Research and publication quality	Supporting explanation
5	Quality that is outstanding in terms of originality, significance, and rigour.	The quality of the research is world leading in terms of quality, and is comparable to the best work internationally in the same area of research. The publications submitted provide evidence that the work of the group meets the highest international standards in terms of originality, significance, and rigour. Work at this level should be a key international reference in its area.
4	Quality that is internationally excellent in terms of originality, significance and rigour but which falls short of the highest standards of excellence.	The quality of the research is internationally excellent. The research is clearly of an international standard, with a very good level of quality in terms of originality, significance, and rigour. Work at this level can arouse significant interest in the international academic community, and international journals with the most rigorous standards of publication (irrespective of the place or language of publication) could publish work of this level.
3	Quality that is recognised internationally in terms of originality, significance and rigour.	The quality of the research is sufficient to achieve some international recognition. It would be perceived nationally as strong and may occasionally reach an internationally recognised level in terms of originality, significance and rigour. Internationally recognised journals could publish some work of this level.
2	Quality that meets the published definition of research for the purposes of this assessment.	The international academic community would deem the research to be nationally acceptable, but below world standards. Legitimate nationally recognised peer-reviewed journals could publish work of this level.
1	Quality that falls below the published definition of research for the purposes of this assessment ¹ .	The quality of the research is well below international level, and is unpublishable in legitimate peer-reviewed research journals.

¹ A publication has to meet all of the criteria below:

Societal impact dimension

The societal impact dimension is also composed of two judgements, defined as presented in the table below.

Score	Research group's societal contribution, taking into consideration the resources available to the group	Score	User involvement
5	The group has contributed extensively to economic, societal and/or cultural development in Norway and/or internationally.	5	Societal partner involvement is outstanding – partners have had an important role in all parts of the research process, from problem formulation to the publication and/or process or product innovation.
4	The group's contribution to economic, societal and/or cultural development in Norway and/or internationally is very considerable given what is expected from groups in the same research field.	4	Societal partners have very considerable involvement in all parts of the research process, from problem formulation to the publication and/or process or product innovation.
3	The group's contribution to economic, societal and/or cultural development in Norway and/or internationally is on par with what is expected from groups in the same research field.	3	Societal partners have considerable involvement in the research process, from problem formulation to the publication and/or process or product innovation.
2	The group's contribution to economic, societal and/or cultural development in Norway and/or internationally is modest given what is expected from groups in the same research field.	2	Societal partners have a modest part in the research process, from problem formulation to the publication and/or process or product innovation.
1	There is little documentation of contributions from the group to economic, societal and/or cultural development in Norway and/or internationally.	1	There is little documentation of societal partners' participation in the research process, from problem formulation to the publication and/or process or product innovation.



Methods and limitations

Methods

The evaluation is based on documentary evidence and online interviews with the representatives of Administrative Unit.

The documentary inputs to the evaluation were:

- Evaluation Protocol Evaluation of life sciences in Norway 2022-2023
- Administrative Unit's Terms of Reference
- Administrative Unit's self-assessment report
- Administrative Unit's impact cases
- Administrative Unit's research groups evaluation reports
- Panel reports from the Expert panels
- Bibliometric data (*NIFU Nordic Institute for Studies of innovation, research and education*)
- Personnel data (*Statistics Norway (SSB)*)
- Funding data – The Research Council's contribution to biosciences research (*RCN*)
- Extract from the Survey for academic staff and the Student Survey (*Norwegian Agency for Quality Assurance in Education (NOKUT)*)

After the documentary review, the Committee held a meeting and discussed an initial assessment against the assessment criteria and defined questions for the interview with the Administrative Unit. The Committee shared the interview questions with the Administrative Unit two weeks before the interview.

Following the documentary review, the Committee interviewed the Administrative Unit in an hour-long virtual meeting to fact-check the Committee's understanding and refine perceptions. The Administrative Unit presented answers to the Committee's questions and addressed other follow-up questions.

After the online interview, the Committee attended the final meeting to review the initial assessment in light of the interview and make any final adjustments.

A one-page summary of the Administrative Unit was developed based on the information from the self-assessment, the research group assessment, and the interview. The Administrative Unit had the opportunity to fact-check this summary. The Administrative Unit approved the summary without adjustments. ***(Adjust the text if the AU asked for corrections. Include the AU request and explain what adjustments were made).***

Limitations

(Choose one of the three options below and delete the others. Feel free to elaborate slightly if necessary. For example, if you choose option 3, explain the missing information. Note that the Committee can provide detailed feedback and suggestions on improving the evaluation in the Memorandum to the RCN. This section has to remain concise and only summarise whether the information was or was not sufficient.)

- (1) The Committee judged the information received through documentary inputs and the interview with the Administrative Unit sufficient to complete the evaluation.

- (2) The Committee judged that the Administrative Unit self-assessment report was insufficient to assess all evaluation criteria fully. However, the interview with the Administrative Unit filled gaps in the Committee's understanding, and the information was sufficient to complete the evaluation.
- (3) The Committee judged that the Administrative Unit's self-assessment report was insufficient to assess all evaluation criteria fully, and some information gaps remained after the interview with the Administrative Unit.

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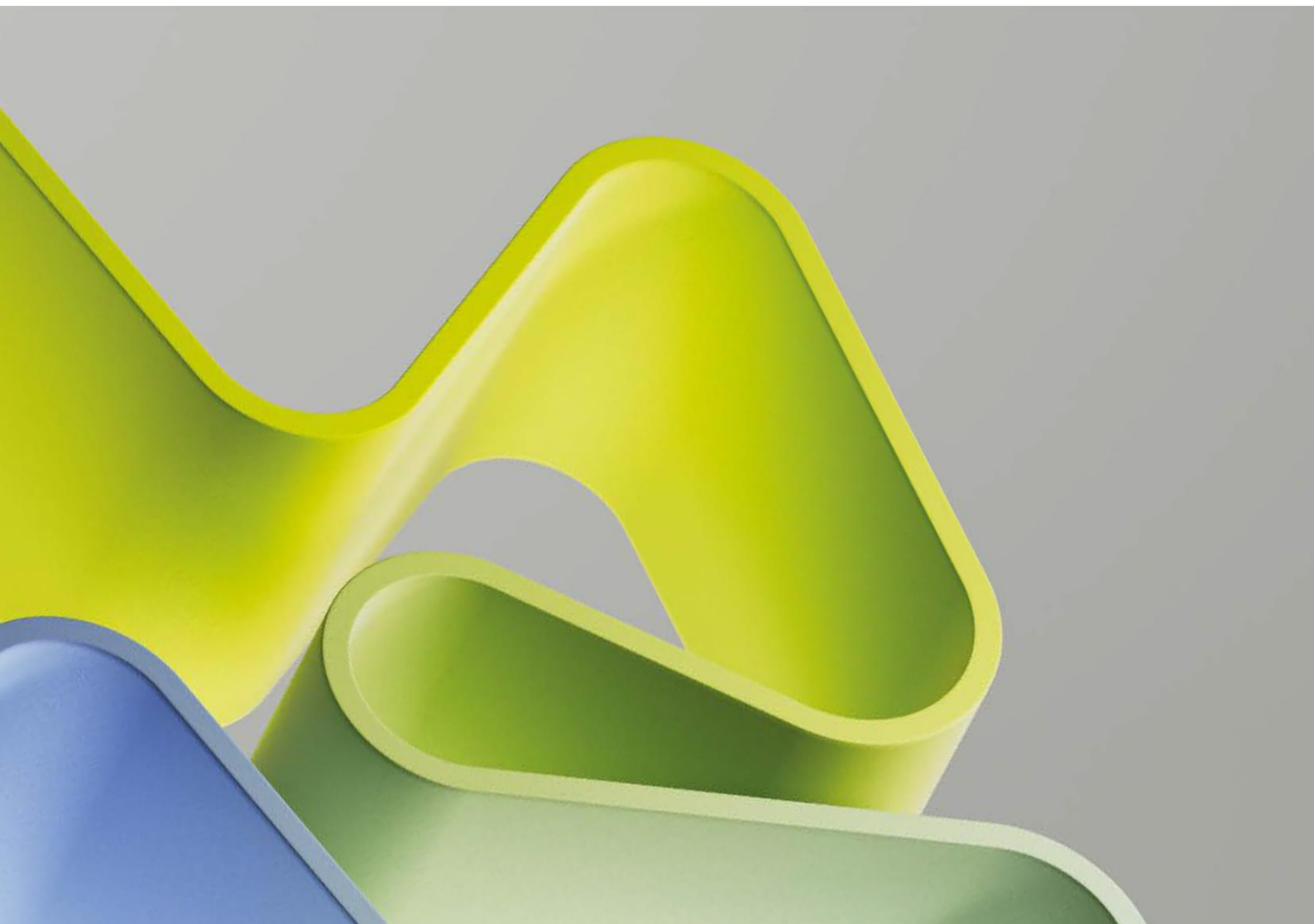
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Publikasjonen kan lastes ned fra
www.forskningsradet.no/publikasjoner

Design: [design]

Foto/ill. omslagsside: [fotokreditt]

ISBN 978-82-12-04106-6 (pdf)



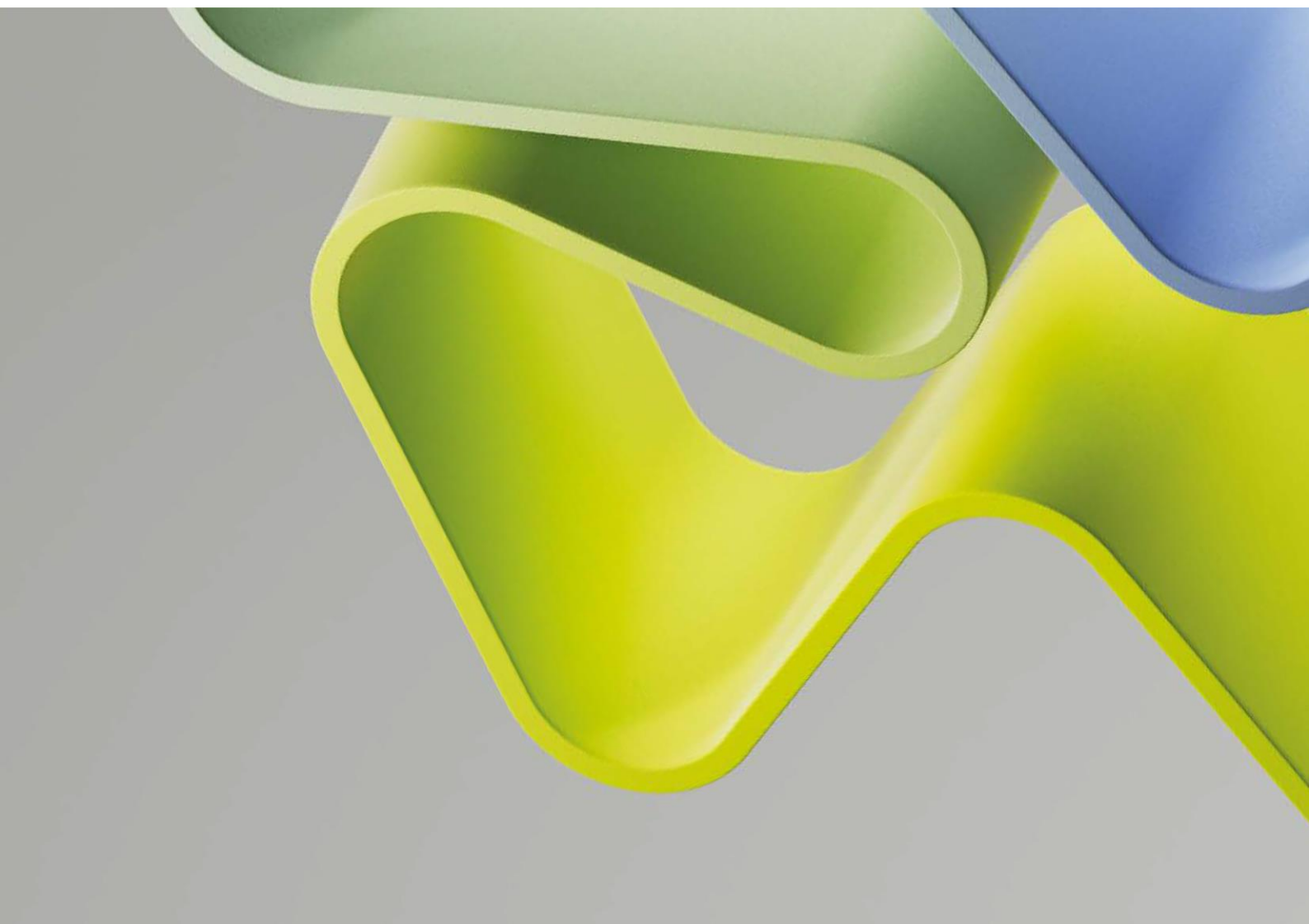
Evaluation of Life Sciences 2022-2024

Evaluation of medicine and health 2023-2024

Evaluation report

ADMIN UNIT: Department of Global Public Health and Primary Care
INSTITUTION: University of Bergen (UiB)

December 2024



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Statement from Evaluation Committee Higher Education Institutions 4

This report is from Evaluation Committee Higher Education Institutions 4 which evaluated the following administrative units representing the higher education sector in the Evaluation of medicine and health 2023-2024:

- Faculty of Health Sciences and Social Care, Molde University College
- Faculty of Medicine and Health Sciences, Norwegian University of Science and Technology (NTNU)
- Faculty of medicine and Health Sciences, NTNU, Norwegian University of Science and Technology (NTNU)
- Department of Clinical Dentistry (IKO), UiT Arctic University of Norway
- Department of Community Medicine, UiT Arctic University of Norway
- Department of Medical Biology (IMB), UiT Arctic University of Norway
- Faculty of Health and Sport Sciences, University of Agder (UiA)
- Department of Global Public Health and Primary Care, University of Bergen (UiB)

The conclusions and recommendations in this report are based on information from the administrative units (self-assessment), digital meetings with representatives from the administrative units, bibliometric analysis and personnel statistics from the Nordic Institute for Studies of Innovation, Research, and Education (NIFU) and Statistics Norway (SSB), and selected data from Studiebarometeret (NOKUT). The digital interviews took place in Autumn 2024.

This report is the consensus view from committee Higher Education Institutions 4. All members of the committee have agreed with the assessments, conclusions and recommendations presented here.

Evaluation committee Higher Education Institutions 4 consisted of the following members:

Professor Anja Krumeich (Chair)
Maastricht University

Professor John de Wit
Utrecht University

Professor Paul Hatton
University of Sheffield

Professor Marialuisa Lavitrano
Milano-Bicocca University

Professor Patrik Midlöv
Lund University

Professor Louise Torp Dalgaard
Roskilde University

Rebecca Babb, Technopolis Group, was the committee secretary.

Oslo, December 2024

Profile of the administrative unit

The Department of Global Public Health and Primary Care (IGS) at the University of Bergen conducts research and training across diverse disciplines and is organised into 19 research groups within seven sections, promoting academic autonomy and collaboration.

Additionally, IGS hosts several specialised centres, operates two research schools for approximately 150 PhD candidates, and engages in innovation through partnerships with health services and private sector initiatives, providing resources for early-stage funding and networking opportunities. The research personnel at the department includes both permanent and temporary positions requiring doctoral competence, and includes 49 professors, 40 associate professors, and 13 postdoctoral researchers. Additionally, there are 13 researchers affiliated with externally funded research projects. The department also has 52 employed PhD students, six engineers, one head engineer and one head of department. Women represent a majority in all categories except among professors in which they represent 43 percent.

The Department of Global Public Health and Primary Care has submitted four research groups for evaluation: Bergen Centre for Ethics and Priority Setting (BCEPS), Section for epidemiology and medical statistics (EPISTAT), Centre for International Health (CIH) and Section for general practice (FAM).

The department's current research and innovation strategy runs from 2020-24. IGS aims to fulfil the UN's Sustainable Development Goals (SDGs), with emphasis on SDG3, "ensure healthy lives and promote well-being for all at all ages", through high quality inclusive research, innovation, and educational activities within global health, public health, and primary health care. Their research also supports SDG1 (no poverty), SDG4 (quality education), and SDG10 (reduced inequalities). IGS hosts two Centres of Excellence and manages key research infrastructures. They are considered pivotal and are the larger partner in the Alrek Health Cluster, promoting innovative solutions for health and health care, based on excellent research and education, arenas for practice development and cooperation. They also run two research schools and are adapting the medical curriculum to accommodate more students of which a share will be trained at decentralised campuses.

The department collaborates actively with large national and international networks within its three pillars: public health, global health, and primary care, and has a significant number of national and international co-authors in their publications. They focus on fostering equal partnerships by contracting and distributing research funds. The total budget in 2022 was 210 MNOK, of which 63 MNOK was base funding from the ministry and 147 MNOK was external funds for research. Of the latter, our international partners managed approximately 72 MNOK. The administrative unit is involved in national initiatives like research schools and research infrastructures and collaborates extensively with national institutions such as regional hospital trusts and the Norwegian Institute of Public Health. Internationally, they partner with universities in low- and middle-income countries such as India, Nepal, Pakistan, Uganda, Ethiopia, Zambia, and Tanzania, engage in collaborations with Nordic partners (e.g. Karolinska Institute, Aarhus University and Finnish Cancer Registry) for

example regarding health registry-based studies, and collaborate with prominent institutions like Harvard University and the University of Washington.

According to its self-assessment, in the future, the department may leverage its national and international networks within academia and the health sector, securing substantial research funding and benefiting from high-quality infrastructure and proximity to health institutions. Collaboration with non-academic institutions and user representation ensures practical research applications, while a good work environment and significant roles in medical education can enhance its academic influence. High media interest boosts visibility, and alignment with UiB's strategy supports coherent goals. Challenges include high workloads affecting work-life balance, an underdeveloped innovation culture, administrative burdens, and limited EU funding applications. External threats like data access issues, marginalisation of non-capital institutions, and strategic changes could impact effectiveness.

Overall evaluation

IGS' dedication to tackle health inequities through transdisciplinary and applied research is very relevant and clearly described in ToR and SA, and as such aligns well with the University's Norwegian long-term plan for research and higher education. The strategies seem to be well supported by allocation of resources, policies and administrative structures at the university level. It was less, however, clear to the committee how and to what extent each of the department's different groups and sections contribute to the departments' work on local/national level or to its international research activities. Nor was it clear how each of these groups and sections contribute

Career development, mobility and research/teaching time are well organised, although the increasing time spent on administrative procedures needs attention. Since the merging of the previous centre for international health and the departments involved in public health and primary care research, the new department has a more robust organisation, including a strong administrative section. Moreover, insights from national-local public health and primary care research and findings can be applied in other parts of the world and vice versa (see also section 1.1). The department is facing some challenges, though, if it comes to overseas project spending, which impedes financial incentives within important funding streams. Moreover, tailored administrative support is required to manage these projects and align practices between partner countries and domestic requirements.

While the IGS's interdisciplinary focus is clearly and frequently mentioned, the self-assessment does not describe how collaboration, communication, prioritising and decision-making with regards to research topics, which research grants to apply for, what research collaborations to build, etc. is formally or informally organised and how the different groups/sectors have a voice in this. Nor was it clear if/how all groups and sections contributed to the department's output.

While IGS' acquisition capacity is well according to expectation it remains important to involve more researchers in external acquisition, especially as EU grants appear to align better with the department's interdisciplinary, applied ambitions. It also agrees that a more team-wise approach might be explored where some contribute in other ways than through grant acquisition per se.

IGS does not participate in international data infrastructures.

IGS participates in diverse national and international collaborations. A challenge is the complexity involved in international collaborations especially where this involves capacity building projects in low- and middle-income countries.

There was a concern regarding an apparently strong representation, possibly over-representation of women in all categories, except for the category "full professor". A second question concerned a disbalance between senior staff (a total of 89) and PhD and Postdocs (a total of 65) as indicated in the table presented in the SA. The number of PhDs (52) however, only included PhDs with a full position in Norway.

A well-established system seems to be in place, including a fund for OA publishing, but as indicated in ToR, processes related to research ethics sometimes lead to delay.

UiB has many policies and practices in place to ensure diversity and a safe work environment. These apply to IGs as well. It is not clear how effective these policies are and how they are evaluated and monitored, especially with regard to IGS.

Research at IGS seems well aligned with Institutional, sectorial and national objectives. Innovation and commercialisation have a well-established place in IGS research practices and it seems a well-established support system for innovation and commercialisation is in place. The nature of the output, however, remains based on the assumption that scientific knowledge and evidence based advice will find its way into society by itself rather than via a complex process of translation that requires transdisciplinary and multisectoral effort.

IGS is involved in curriculum development and delivery at many levels, bringing in innovations in content (interdisciplinarity, coloniality) and educational approach (active learning).

Considering the impact cases IGS has a considerable and impressive track record of applied and socially relevant research projects. Except for some of the examples by the section “Centre for International Health”, however, most of IGS’ impact is primarily research based and largely traditional, with quite some focus on publication in international journals or reports. None of the impact cases mention any impact related to the innovation and commercialisation strategies employed by UiB (see section 4 of this report) and hardly of IGS’s engagement in translational or implementation research.

Recommendations

- Insights from national-local public health and primary care research, can be applied in other parts of the world and vice versa, insight and experiences elsewhere can have relevance for the local situation. Hosting these different foci gives the department a unique opportunity for crosspollination between research with a local focus (in particular in a welfare state such as Norway) and research with an international focus. It may be good to not only document, map and detail these opportunities more explicitly, but to use them more consistently as a base for innovation in research and research methodologies.
- Internationally the awareness of the need for interdisciplinary and applied research is growing. Therefore it is crucial to capitalise on the diverse, multidisciplinary environment of IGS. It is recommended to map the potential contributions of the different groups and to explicitly define policies and strategies that make full use of the potential for internal interdisciplinary networks. Not only for IGS itself, but also in the context of advocacy; as example and basis for new policies at national level. Exploration of possibilities to have an administrative and financial support system attuned to this and for overseas project collaboration might be considered.
- In line with the above IGS may explore the organisation of small (internal) networks in which individual researchers can take part in the development of proposal writing
- As infrastructure needs evolve, the committee recommends a periodic review and adaptation, of available and required infrastructure. The committee also recommends exploring opportunities to participate in international infrastructure in the context of possible (new) collaborations with international partners.
- The committee recommends working with all parties involved to develop and implement workable models to address the challenges that arise from the complexities international transdisciplinary collaboration as well as with of international collaborations. This may involve scaling up to the institutional level and possible to national level.
- Keep an eye on gender-parity and consider strategies that ensure a good balance, rather than strategies that favour recruitment of women.
- Make sure the ratio senior staff – PhDs/postdocs is well documented, providing clear insights in different constructions for PhD positions and the benefits and challenges this brings. Explore strategies for overcoming inequalities (if and where required) and further reflect on dilemma's brought about by differences in PhD constructions.
- Consider evaluation and monitoring, especially with regards to its impact on recruitment and retention of staff, and ensuring diversity.
- Exploration of a more explicit, stakeholder/community based approach to translation of scientific evidence for application in society may be considered.
- A dialogue about definitions and practices of innovation and societal impact may be initiated among the different IGS groups in interaction with relevant stakeholders. Based on this more state-of-the-art policies and practices with regard these issues can be formulated and implemented.

1. Strategy, resources and organisation of research

1.1 Research strategy

IGS's current strategy runs from 2020-24, Aim is to fulfil the UN's sustainable development goals, in particular SDG3, through contributions to SDG 1,4, and 10). This strategy is fully aligned with the thematic area in "Health" in UiB's priority area "Global Challenges". IGS also plays an important role in achieving UiB's strategic vision to be among Europe's leading universities, internationally recognised for its high-quality research and education.

As written down in its ToR, IGS engages in high-quality interdisciplinary **global health** research, collaborating with institutions in low- and middle-income countries to build equal partnerships that enhance research capacity and innovation. The aim is to produce actionable research with a significant impact on health equity and health care practices worldwide, by building specific experience and expertise in project governance, management, and financing. With its research IGS also aims to strengthen the knowledge base for **public health**. To that end IGS engages in population-based and large-scale epidemiological studies to identify and understand the distribution and causal determinants of health, and their direct and indirect implications for public health. This includes a particular focus on social inequality as a determinant of health, for which a diverse array of methodologies is employed.

Thirdly, IGS is committed to enhancing **primary health care** both within Norway and on a global scale. IGS's research is committed to contribute to the integration of research into primary health care services and aims at achieving relevance in the domains of clinical practice, the organisation of primary health care, and health education.

IGS aims to conduct transdisciplinary research with a strong focus on applicability in order to tackle health inequities both on national as well as on global level. In this context it aims to fulfil SDGs 3 (ensuring healthy lives), 1 (no poverty), 10 (reduced inequalities) and 4 (quality education) through high quality research that assures success in securing national and international grants, and that impacts both national and international standards, models and policies for treatment and risk assessment. In addition, IGS's societal impact is also realised through its contribution to (innovations in) education of medical doctors which also prepares them for participation in IGS' applied and transdisciplinary research.

To further research at national level IGS host two centres of excellence (CISMAC and BCEPS), is responsible for research infrastructures such as PraksisNett and HRR, as well as for data surveys such as HUSK and BIOS. IGS also operates two research schools with +/- 150 PhD candidates and participates in national RCN financed schools. The cultivation of equitable partnerships with low- and middle-income countries is facilitated by a robust administration.

IGS's priorities are reflected in the way in which it makes funding and other resources available to its research staff, its administrative support systems, and announcement of new positions.

The committee's evaluation

IGS' dedication to tackle health inequities through transdisciplinary and applied research is very relevant and clearly described in ToR and self-assessment, and as such aligns well with the University's Norwegian long-term plan for research and higher education. The

strategies to achieve these are described in detail and seem to be well supported by allocation of resources, policies and administrative structures at the university level.

The IGS is the result of a merge between UiB's former Centre for International Health and the Primary care departments, meeting each other in its transdisciplinary and applied objectives to tackle health inequities. Strategies also include external collaboration at national and international level and appear to underlie IGS's success in securing national and international grants and the societal impact it seeks.

The self-assessment is not always clear about how and to what extent the described strategies, successes, outputs and challenges apply to IGS's work in Primary Care and Public Health in Norway or its activities in middle- and low-income countries, or to both. It was also less clear to the committee how and to what extent the department's different groups and sections contribute to the departments' work on local/national level or to its international research activities. For example, are these activities linked, do they overlap, do they mutually inform and support each other (academically and administrative), and thus also if, how, and to what extent resources, policies or administration systems as described in the self-assessment apply to or support these different activities. The interviews brought more clarity in that respect and IGS explained how the merger brought a stronger administrative section as well as a more robust organisation, that is (being) designed to make optimal use of the different groups and resources that were brought together through this merger. Insights from national-local public health and primary care research, for instance can be applied in other parts of the world and vice versa, insight and experiences elsewhere can have relevance for the local situation.

The committee's recommendations

- Hosting these different foci gives the department a unique opportunity for crosspollination between research with a local focus (in particular in a welfare state such as Norway) and research with an international focus. Such crosspollination may generate relevant new insights and research areas, and the committee suggests it may be good to not only document, map and detail this more explicitly, but to use it more consistently as a base for innovation in research and research methodologies.

1.2 Organisation of research

Research and research training at IGS cover a wide spectrum of disciplines and is organised within 19 research groups, each of which belongs primarily to one of seven sections. In addition, the department hosts several centres and groups, operates two research schools, participates in several national (RCN funded) research schools where it collaborates with other Norwegian universities and institutions and is the driving force behind the Alrek Health Cluster, a network built to enhance collaboration between health services, government, and private sector.

The seven sections are responsible for both research and education, thus allowing for a smooth connection between research and education. Research staff of all levels is involved in education and latest insights from research thus find their way into education. This also allows participation of medical students who opt for a "research track" in research projects via for instance their thesis projects, which then often lead to publication.

IGS established a career centre supporting young early researchers in career development and competence. At Faculty level annual career days involving career guidance and workshops in transferable skills are offered to PhD candidates and postdocs. The faculty of Medicine also requires a career development plan for Postdocs, which includes the possibility for individual consults with a research advisor. Female research staff enjoys favourable conditions with regard to research stay and research leave.

According to UiB guidelines staff spends 10% of work time on administration, 45% on teaching and 45% on research. Doctoral and postdoctoral candidates (when financed by faculty of medicine) spend 25% on “duty work” which often involves teaching, but must be relevant to the candidate’s career. Professors and Associate professor are entitled to a sabbatical year every six years (provided they have at least a 0,5fte position).

Mobility options include long and short-term visits during the sabbatical to research institutions abroad, funded by the UiB via the Meltzer foundation. The Faculty of Medicine also provides both UiB funded mobility grants for doctoral and postdoctoral fellows. The Faculty also allocates budget to support mobility for PhD candidates.

The committee's evaluation

The committee is very positive about the way career development, mobility and research/teaching time are organised, although the increasing time spent on admin may needs some attention. Since the merging of the previous centre for international health and the departments involved in public health and primary care research, the new department has a more robust organisation, including a strong administrative section. Moreover, insights from national-local public health and primary care research and findings can be applied in other parts of the world and vice versa (see also section 1.1). The department is facing some challenges, though, if it comes to overseas project spending, which impedes financial incentives within important funding streams. Moreover, tailored administrative support is required to manage these projects and align practices between partner countries and domestic requirements.

The committee recognises these issues, but also had some questions, however, with regards to synergy between IGS’ aims, mission and vision and the way in which the department ‘s research is organised. Central to the department’s mission/vision is the aim to tackle health inequities through interdisciplinary and applied health research. To that purpose the department hosts a wide spectrum of (discipline based) research groups organised in seven sections that should facilitate and allow for collaboration across and between these different groups. While the IGS’s interdisciplinary focus is clearly and frequently mentioned, the self-assessment does not describe how collaboration, communication, prioritising and decision-making with regards to research topics, which research grants to apply for, what research collaborations to build, etc. is formally or informally organised and how the different groups/sectors have a voice in this. Nor was it clear if/how all groups and sections contributed to the department’s output. During the interview this topic was extensively discussed, and this provided much insight in how abovementioned discussions take place at many different levels (via collaboration in teaching, via research advisors, discussion about what grant to apply for between head research and section heads, informally by being in same building, etc.), but some more reflection and detailing may be required.

The committee’s recommendations

- It is quite possible that the current structures for decisions making in in IGS’ interdisciplinary environment are clear and functional for those who work at IGS. However, as the need for and interest in interdisciplinary and applied research is growing, it may become more important to describe these structures and the way in which one organises true interdisciplinary collaboration more clearly and explicitly. Not only for IGS itself, but also in the context of advocacy; as example and basis for new policies at national level. Exploration of possibilities to have a administrative and financial support system for overseas project collaboration might be considered.

1.3 Research funding

The total budget in 2022 was 210 MNOK, of which 63 MNOK was base funding from the ministry and 147 MNOK was external funds for research. Of the latter, our international partners managed approximately 72 MNOK.

During the interview with ISG, it was pointed out that, because of the applied, interdisciplinary nature of ISG's research, international grants are becoming increasingly important. While national grants remain popular (which are less difficult to manage than EU grants), in the last year the EU was by far the most important source of new funding as it is easier to win an EU grants for applied interdisciplinary research. However, this brought along an important challenge: Only 10% of the researchers bring in 50% of external funding. To address this issue and to encourage the involvement of more researchers in acquisition of external grants, the department brings its department leadership, research advisors and the research group leaders together at regular intervals to find matches between the different calls and the expertise within the different groups. Matchmaking structures to enhance collaboration between individual researchers, is also considered as that might be the most effective way of involving researchers that are not involved yet in successful projects. Alternative performance strategies could be explored where staff members are not (only) assessed according to the traditional output criteria. Some may not be "fantastic grant winners", but have (equally important) contributions to the teams. Success in research (and acquisition of grants to fund it) is still considered most important by many, however. Finally it was pointed out that the developing of proposal in itself is a continuous process from which much can be gained even if an application is not immediately successful.

The committee's evaluation

While IGS' acquisition capacity is good, the committee agrees with the department's analysis that it is important to involve more researchers in external acquisition, especially as EU grants appear to align better with the department's interdisciplinary, applied ambitions. It also agrees that a more team-wide approach might be explored where some researchers contribute in other ways than through grant acquisition per se.

The committee's recommendations

- Besides the "matchmaking" strategies the department is already employing, the organisation of small (internal) networks in which individual researchers can take part in the development of proposal writing and share in the success of winning grants could be considered. The committee also would like to encourage IGS to further explore how/when acquisition can be approached as the outcome of teamwork in which members each have their own roles and tasks in developing of a proposal, even if not immediately successful, has value of its own.

1.4 Use of infrastructures

IGS participates in 3 research infrastructures as indicated by the Norwegian roadmap for research infrastructures: PraksisNett (led by former IGS department head); HRR (led by IGS 2014-2019), but further developed by Directorate of e-health in HAP initiative, helsedataservice, and helsedata.no) and Biobank Norway (following recommendation from previous RCN evaluation in 2011, IGS led initiative to strengthen biostatistics and bioinformatics capacity for biobank research in Norway). IGS also participates in BBMRI-ERIC through Biobank Norway. IGS pays a share of the Norway BBMRI-ERIC membership fee.

Research infrastructure is prioritised at the faculty of medicine and is primarily consolidated in core facilities at the faculty, including IGS. It is fundamental principle for the faculty that all infrastructure should be made available in the best possible way for researchers, and

that the faculty contributes to the research community with up-to-date infrastructure. Core facilities are anchored in, and operated by, an institute on behalf of the faculty, following an approved operational model that involves a user fee for internal users, constituting approximately 25% of the actual costs. The faculty has a dedicated committee for core facilities that advises the faculty leadership and the institutes on matters related to core facilities and other advanced infrastructure. The faculty has also developed a strategy for research infrastructure, and it's its own roadmap for research infrastructure in line with the *Norwegian Roadmap for Research Infrastructure*.

UiB's policy for Open Science states that "UiB will promote open access to research data and the FAIR principles in national and international networks and collaborations." Data management plans (DMP) are an instrument to support good data handling practice throughout the whole research data life cycle. A DMP also includes how ethical aspects and sensitive data are managed. The University Library offers resource pages on open science and DMPs, as well as webinars and tailored courses by request.

The committee's evaluation

Participation in national infrastructures seems to provide adequate access for researchers and research groups. IGS does not participate in international data infrastructures.

The committee's recommendations

- As infrastructure needs likely evolve, the committee recommends a periodic review and adaptation, as needed, of available and required infrastructure. The committee also recommends exploring opportunities to participate in international infrastructure in the context of possible (new) collaborations with international partners.

1.5 Collaboration

IGS is involved in extensive collaboration on a national level. This includes collaboration with trusts and academic hospitals, national research and or public health institutes, and municipalities. No project titles were listed as there would be too many to fit the space allotted.

Internationally, they partner with universities in low- and middle-income countries such as India, Nepal, Pakistan, Uganda, Ethiopia, Zambia, and Tanzania, engage in collaborations with Nordic partners (e.g. Karolinska Institute, Aarhus University and Finnish Cancer Registry) for example regarding health registry-based studies, and collaborate with prominent institutions like Harvard University and the University of Washington.

Sectors with which IGS collaborates include: Academia, Government, research institutes, universities, municipalities, registries, and international organisation (UN).

The committee's evaluation

IGS participates in diverse national and international collaborations. A challenge mentioned by IGS and extensively discussed during the interview is the complexity involved in international collaborations, with respect to application of Norwegian labour legislation and financial aspects of collaboration, and especially where this involves capacity building projects in low- and middle-income countries. While current debates around issues such as coloniality were not explicitly addressed in the self-assessment or the ToR, the IGS was happy to highlight how they pay attention to the issue at different levels. Coloniality is addressed thoroughly in the department's education programs, but also in its collaboration with partners from the Global South, which remains strongly focused on capacity building.

The committee's recommendations

- The committee recommends working with all parties involved to develop and implement workable models to address the challenges that arise from the complexities of international collaborations. This may involve scaling up to the institutional level and possible collaborating at the national level.

1.6 Research staff

IGS's highly international research staff consist of 175 individuals from 30 different countries who together constitute 118,5 fulltime scientific staff positions. Scientific personnel include 49 Professors (21 women), 40 Associate Professors (24 women), 13 researchers (10 women), 52 PhD fellows (34 women), 13 Post Docs (9 women), 6 senior engineers (all women), and 1 head engineer (a woman). About 40% of research staff (with exclusion of PhDs and Post docs whose position is per definition temporary) has a temporary position.

Two issues were discussed during interview. The first concerned an apparent strong representation, possibly over-representation of women in all categories, except for the category "full professor". It is expected, however, this will change in a couple of years due to retirement. This new gender-disbalance could be associated with societal trends where girls tend to do better in at school. The department is considering applying policies for recruiting more women less strictly and in some cases even encourage men to apply for vacant positions.

A second question concerned a disbalance between senior staff (a total of 89) and PhD and Postdocs (a total of 65) as indicated in the table presented in the self-assessment. The number of PhDs (52) however, only included PhDs with a full position in Norway. However, the department is also involved in other PhD trajectories, for instance, some PhDs are appointed at one of the partner institutions, in particular in low- and middle-income countries. These PhDs were not included in the table. The department is facing a dilemma with regard to these constructions. Had these PhDs been appointed directly by a Norwegian Institute, they would have been subject to Norwegian labour laws which require them to be in Norway regularly and this brings a considerable risk of brain drain. These PhDs however receive the same support and education as those appointed in Norway.

It was acknowledged however that not all senior staff had similar number of PhDs, and that the low number of PhDs is a known phenomenon across Norway. It was suggested that the issue might need some further looking into.

The committee's evaluation

IGS may consider whether current issues regarding gender parity in its research staff may pose problems in the future. Based on the information in the self-assessment there seems to be a low number of PhDs and postdoc relative to number of full and associate professors. There is some unclarity about the status of about 100 other PhDs, who are attached to IGS but not considered staff, and if these are included the professor-PhD ration is sufficient.

The committee's recommendations

- Keep an eye on gender-balance and consider strategies that ensure a good balance, rather than strategies that favour recruitment of women. If feasible: advocate for the promotion of research into performance of boys in education at national level.

- Make sure the ratio of senior staff, PhDs and postdocs is well documented, providing clear insights in different constructions for PhD positions and the benefits and challenges this brings. Explore strategies for amending (if and where required) and further reflect on dilemma's brought about by differences in PhD constructions.

1.7 Open Science

Specialised library teams provide training courses in open Access (OA) and are available for guidance and support on issues related to OA publication and OA to data. UiB participates OA publishing agreements and covers publishing costs involved through the OA Publication Fund. Scholarly articles submitted after December 1st 2022 are made available in UiB's institutional repository BORA (Bergen Open Research Archive) in accordance with UiB's rights retention policy. Other publications are made available in accordance with the copyright owner and publishers' archiving policies.

The UiB's Policy for Open Science is based on the EU's, Research Council of Norway's and the Norwegian government's open-science principles and states that research and research processes are to be "as open as possible, as closed as necessary". UiB's Data Protection Officer provides guidance on issues related to data protection and privacy issues in research and research projects.

IGS adheres to UiB's policy for open science, as is indicative from the According to the NIFU Bibliometric report, since 2018, more than 90% of all publications are open access. The share of Gold OA publications has increased, reaching 56.4 % in 2022.

Archiving and making the data openly available must be done in accordance with legal regulations on personal privacy, information security, business secrets and intellectual property rights (IPR). UiB also has a curated institutional research data archive, DataverseNO.

According to UiB's regulations for handling of personal data in research, data should be stored and analysed in SAFE (Secure access to research data and e-infrastructure), a solution for secure processing of sensitive personal data in research, developed by the IT division at UiB.

The UiB policy for open access states that "*all research projects lead by researchers at UiB will have a data management plan*". UiB offers guidance on various aspects of research data handling and data management planning.

The use of data management plans is systematically implemented for projects where funding sources require it, but not otherwise. Safe handling of data is part of what should be included in a data management plan. This part is handled for all projects in RETTE, "risk and compliance in research projects", which is UiB's system for monitoring and control of the processing of personal data in research and student projects, and in DPIA (data protection impact assessment. So even though not all IGS projects have a separate document called "Data management plan", some of the elements included in such a plan are taken care of by other reporting systems.

The committee's evaluation

A well-established system seems to be in place, including a fund for OA publishing, but as indicated in ToR, processes related to research ethics sometimes lead to delay.

The committee's recommendations

- The committee recognises that processes related to research ethics can lead to delays. We suggest initiating dialogue with those responsible for organising these processes to explore potential solutions and to see how processes and practices involved can be streamlined.

2. Research production, quality and integrity

Introduction

The administrative unit's aim is to produce actionable research with a significant impact on health equity and health care practices worldwide, by building specific experience and expertise in project governance, management, and financing. This includes a particular focus on social inequality as a determinant of health, for which a diverse array of methodologies is employed. With its research the unit thus aims to strengthen the knowledge base for public health and engages in population-based and large-scale epidemiological studies to identify and understand the distribution and causal determinants of health, and their direct and indirect implications for public health. Translation of its transdisciplinary research findings for the betterment of primary health care services worldwide reflects the unit's mission to achieve relevance in the domains of clinical practice, the organisation of primary health care, and health education in Norway as well as in low- and middle-income countries.

Policies for research integrity include promotion of publication in open access and data protection and management. For research projects led by UiB staff a data management plan is required. The university offers support on various aspects of data handling and management planning.

2.1 Research quality and integrity

This part includes one overall evaluation of each research group that the administrative unit has registered for the evaluation. The overall assessment of the research group has been written by one of the 18 expert panels that have evaluated the registered research groups in EVALMEDHELSE. The expert panels are solely behind the evaluation of the research group(s). The evaluation committee is not responsible for the assessment of the research group(s).

Research group: Bergen Centre for Ethics and Priority Setting (BCEPS)

BCEPS prioritises high-quality research while emphasising societal impact, reflecting a commitment to academic excellence and relevance. Including normative perspectives in priority setting adds value to the discipline and practice, highlighting BCEPS' unique contribution. Its strong ethical theory and practice foundations enable BCEPS to make methodological contributions that would otherwise be challenging. BCEPS fosters interdisciplinary collaboration, resulting in well-coordinated research efforts and the integration of diverse perspectives. BCEPS is proactive in dissemination and communication, with plans to improve visibility through targeted training and engagement with media and policymakers.

Transitioning research prototypes into software products requires IT expertise and resources which are not readily available within the current organisational structure and funding framework. Rapid expansion has posed challenges in terms of organisational structure and administrative resources, highlighting the need for stability and a long-term perspective.

BCEPS has made significant strides in defining its role as an academic centre, focusing on foundational research with societal impact. Despite challenges such as resource constraints and organisational adjustments, BCEPS leverages its strengths in interdisciplinary collaboration, methodological expertise, and normative perspectives to contribute

The group received meaningfully to the field of ethics and priority setting in health. Through ongoing efforts to enhance visibility, communication, and policy dialogue, BCEPS aims to further solidify its position as a world-leading centre for research and innovation in healthcare ethics and priority setting.

Research group: Centre for International Health

The unit has a clear position and is surrounded by a strong and supportive institution and governance structure and hosts or contributes heavily to several centres in both education and funding derived from ancillary funding. The research portfolio of this group is very strong in several ways. The unit has a well-balanced breadth across diverse global health problems, while maintaining its focus to achieve international recognition in the global health aspects of HIV, maternal-child health and occupational health. These areas of strength also give it a platform for strong post-graduate education with collaborating LMICs. The unit is well funded from diverse sources, leads a diverse range of projects with diverse methodologies, ranging from clinical trials to observational studies and multi-component program grants. The unit also excels in publishing high impact papers in tier 1 and tier 2 journals; its societal impact is multi-faceted, and perhaps most obvious in their stimulation and influence of education for emerging scientists from low and middle-income country settings. Overall, the unit is competitive and impactful on the international level due to its breadth of science, productivity, and collaborations in education and research amongst LMIC partners.

Research group: Epidemiology and Medical Statistics

The group's organisation and administration seem very suitable for conducting its research activities. The group has a decentralised but seemingly cohesive strategy for its activities. The benchmarking seems comparatively humble. There seems to be an opportunity of increasing the contribution to education and supervision at master's and research level. The group's national and international collaboration is on an adequate level, given available resources. The research group has been very successful in attracting funding from international sources, while their share from RCN is comparatively low. The research group performs very well to the strategies of their host institution. The research group makes very important contributions to the international body of knowledge in their area, and to the advancement of research methodology in their discipline. The research group contributes very significantly to the internal collaboration in which they are involved, both in terms of infrastructure for this research and in terms of analytical and innovative skills. The societal impact of the group's research is deemed important as knowledge that could guide policy makers and individuals, both in Norway and internationally. The group has to some extent involved non-academic stakeholders in the research process.

Research group: General practice

In summary, this is a strong research group with considerable external funding, well placed in the department's mission of strong public health and general practice-oriented research. Research is on high level and very relevant to public health and primary care practice. They have good outreach and many contacts with regional and national stakeholders, for some activities, involvement of end users is reported. They have strong contacts with other

national likeminded research environments, though international contacts seem more to be on research and teaching collaborative initiatives.

The committee's comment to the assessment of the research group(s)

The expert panel's evaluation of four of the research groups is very positive with regard to the quality of these groups' research and research output as well as for the institutional support for their research. The panel was also generally positive about the groups' societal impact, although less than for output and organisation. The panel's recommendations included suggestions related to this, as well as recommendations with regard to further extending international collaboration and international grant application.

3. Diversity and equality

There are four university and faculty level policies and actions plans in place to protect against any form of discrimination and to promote diversity at IGS. These are the action Plan "Diversity, inclusion and equal opportunity 2023-2025" (UiB); "The policy for bullying, harassment and conflict" (UiB); the "Diversity, inclusion, and gender equality plan 2023-2025" (Faculty of Medicine); and the "Health, safety, and Environment action plan 2023-2026" (UiB)

The committee's evaluation

UiB has many policies and practices in place to ensure diversity and a safe work environment. These apply to IGS as well. It is not clear how effective these policies are and how they are evaluated and monitored, especially with regard to IGS.

The committee's recommendations

- Consider evaluation and monitoring, especially with regards to its impact on recruitment and retention of staff, and ensuring diversity.

4. Relevance to institutional and sectorial purposes

The Ministry for Research and Education has defined four overall goals for Higher Education Institutions (HEI) that receive public funding. These goals have been applied since 2015:

1. High quality in research and education
2. Research and education for welfare, value creation and innovation
3. Access to education (esp. capacity in health and teacher education)
4. Efficiency, diversity and solidity of the higher education sector and research system

The way in which IGS contributes to these goals is outlined below.

IGS's strategy is well aligned within the HEI goals of providing high quality and accessibility in research and higher education. IGS is specifically contributing to the thematic area health, an imperative part of welfare in the society. In 2014, the HealthCare21 strategy was launched based on efforts from many researchers nationally, including IGS. An IGS professor led one of the five working groups, "The knowledge system". Results from this strategy was a strong emphasis on research for primary care and global health, which has later been followed up by national health and research authorities.

IGS is organised in sections that are responsible for both education and research. We believe this contributes to the HEI goals by smoothing the coordination between education and research, and by creating an environment where our students are exposed to an active research environment. Furthermore, IGS has a long tradition for emphasis on faculty development in pedagogics, including practice-based training and research-based teaching. Thus, in 2021, when the Faculty of Medicine appointed the first six educators in the new excellency of teaching programme ("*merittert underviser*"), all six were IGS employees. Substantial efforts are made to keep up the quality of decentralised practice-based training.

Educators at IGS are actively working to develop the quality of education through empirical and theoretical research on established study programmes, especially medicine and pharmacy. This research addresses professional identity formation, patient-centred medicine, students' mental health, student-active educational methods, and the quality of workplace learning during practice periods.

IGS contributes significantly to increased access to education. First, IGS operates two research schools with approximately 150 active PhD candidates. Secondly, master students from our master programs are introduced to research and research training through their course work and master thesis. Thirdly, the medical school at UiB is currently adapting the curriculum to the uptake of more medical students and increased use of distributed campuses. IGS, as the main responsible unit for learning goals related to primary care and global health, is heavily involved in this development. We contribute to ensure that academic staff working at decentralised campuses have an active research portfolio within these subjects. Finally, IGS contributes to continuing education (of health personnel) by offering health personnel a continuing education master programme in health management, quality improvement and health economics, and a programme of continuing education in digital health, in addition to continued medical education (CME) for doctors.

IGS aligns with UiB's equality action plan and the medical faculty action plan with the core theme *everyone is welcome* to express the vision for ensuring diversity, equality, and inclusion at the faculty (link in Table 8-3). Furthermore, in one of our master programmes, the master's programme in global health, we have been offering potential students from

LMIC scholarships to increase their access to a high-quality master programme tailored to prepare candidates for work in global health settings. A high proportion of the candidates who are enrolled and qualify for the degree are from low- and middle-income countries. IGS researchers at the Centre for International Health have established several joint PhD degrees with universities in low-income countries, to strengthen capacity in research through collaborative partnerships. IGS emphasises sustainable partnerships with research and higher education institutions in LMIC. In this respect, we contribute to the solidity of the higher education sector and research system.

In relation to practices for innovation and commercialisation, IGS aims to:

- Include industry partners into the development of research projects;
- Maintain a presence in incubator environments (Eitri Medical Incubator);
- Initiate and participate in project proposals under calls for innovation, national and international;
- Hold a membership in the Bergen Chamber of Commerce and Industry;
- Foster interdisciplinary and transdisciplinary collaboration within and outside the department, i.e., employing specialists from outside the medical field in order to engage new ideas and ways of thinking;
- Network with political entities (e.g., within embassies) to drive innovation internationally;
- Include students at bachelor, master, and PhD level in innovation activities.

When a researcher identifies the innovation potential in the research project, they contact VIS Innovation/TTO and the faculty's innovation advisor for early clarification of the potential and IPR opportunities. If VIS Innovation recommends the project, it is included in the TTO portfolio and developed, financed by UiB's funding from Service Purchase Agreement with VIS and external funding. UiB has made available an Innovation Handbook to guide researchers and advisors on how to foster, scale, and accelerate innovation across UiB. The Innovation Handbook is only available on UiB's internal network or by VPN connection.

The research staff at IGS are highly motivated to innovation activities that may promote the goals of creating equitable and high-quality health services nationally and internationally. Working inter- professionally, including user representatives and students in research and working closely with external partners from hospitals, primary care or private sector all contribute to the department being a highly innovative research hub. While commercialisation is one possible end point of the department's innovations (see Table 10), service innovation, ground-breaking research structures and projects, and excellent education are others. The department's placement in the Alrek Health Cluster has increased the staff's focus and motivation for innovation.

UiB and the Faculty of medicine have several policies in place to enhance and facilitate innovation and commercialisation. Moreover, IGS has a dedicated innovation leader who is part of the department's management team and the Faculty's Innovation Leader Forum. The forum is led by the Vice-dean for Innovation. IGS has access to two dedicated innovation advisors at the medical faculty and several innovation advisors and legal advisors at UiB's central Division of Research and Innovation. Researchers who are interested in developing their ideas and network in an innovation environment can use resources in Eitri Medical Incubator. Researchers and students can apply for early-stage innovation funding through UiB's in-house verification programs, UiB Ide and UiB Early Idea. As of 2023 the Faculty of Medicine also awards prizes for Innovation of the Year. The department's place in Alrek Health Cluster and its closeness to other partners within and outside the university is also an important promoter for innovation at IGS. The success of

these policies and activities is illustrated in an extensive table overviewing IGS many successes, ranging from vaccine patent, to pandemic preparedness centre, a priority setting tool for Middle income countries, a device for taking samples of intestinal matter, and many more.

The committee's evaluation

Research at IGS seems well aligned with Institutional, sectorial and national objectives. Innovation and commercialisation have a well-established place in IGS research practices and it seems a well-established support system for innovation and commercialisation is in place. Its considerable output is detailed in table 10 and includes examples from the three foci (Global Health, Public health and Primary Health Care) as described in the ToR. The nature of the output, however, remains based on the assumption that scientific knowledge and evidence based advice will find its way into society by itself rather than via a complex process of translation that requires transdisciplinary and multisectoral effort.

The committee's recommendations

- Exploration of a more explicit, stakeholder/community-based approach to translation of scientific evidence for application in society may be considered.

4.1 Higher education institutions

As main responsible for integration of learning goals related to primary care and global health, IGS is heavily involved in the UiBs medical school's curriculum revision. ITG also brings in discussions about issues related to coloniality.

Master and PhD-level courses are given by IGS researchers who teach based on the latest results, methods, techniques, and practices in their respective fields. IGS operates two research schools hosting approximately 150 active PhD candidates: The Research School in Public Health and Primary Health Care and the CIH-CISMAC Research School. Additionally, IGS participates actively in several national research schools funded by RCN (e.g., The Norwegian Research School in General Practice and Norwegian Research School of Global Health) and IGS's contribution consists of offering courses, summer schools, and seminars etc. for the participating PhD candidates.

IGS regularly hosts the scientific leadership for the Bergen summer Research school for PhD students attracting around 100 international PhD candidates annually for 6-10 credit courses. These courses are multidisciplinary and influenced by our global health research. IGS is also leading other PhD courses in domains within global and public health and has periodically funding for so called "National PhD schools", like EPINOR. IGS's organisation of research within research groups and centres is well suited to receiving candidates at the PhD and master's levels.

In addition, IGS contributes to common meeting places for the candidates by organising the department's research day and joint seminars for all its research groups and centres. Researchers at IGS lead FREMFARM and PROFMED, two DIKU/HKDir-financed projects in "student active learning". In both projects new teaching methods are tried out and followed up with research, conference presentations, and publications. One postdoc and one PhD student conduct research with a focus on quality in teaching and assessment.

In terms of opportunities for master students to become involved in research activities at the administrative unit. Students may choose to write a scientific paper as their master's thesis, and such papers are often published.

Master students take part in research projects run by staff members at IGS, e.g., designing their own qualitative or quantitative subprojects or assisting with quantitative data collection and/or analysis for the larger project, often in collaboration with other institutions in Bergen, Norway, and abroad. Students may choose to write a scientific paper as their master's thesis, and such papers are often published.

Medical students are often involved with our research, either via a "research thesis" they must submit in the fifth year of medical school or via the Research track-program, which enrolls students who participate in research activities in parallel with medical studies. Upon completion of their medical degree, Research track students are prioritised for PhD positions at the faculty.

The annual student conference at Alrek health cluster serves as a hub for students, professionals, and academics. The student conference is a special opportunity for students to present their work, for professionals in the workforce to network with individuals who will address future health and care concerns, and for bachelor's students to find motivation for their master's. The student conference was awarded with the medical faculty's main price for education in 2021.

The committee's evaluation

IGS is involved in curriculum development and delivery at many levels, bringing in innovations in content (interdisciplinarity, coloniality) and educational approach (active learning).

The committee's recommendations

- Some concrete examples of course development and delivery might have underscored and illustrated IGS' important contribution to education.

5. Relevance to society

Introduction

While IGS's strategies contribute to the faculty's and the University's strategies regarding internationalisation, and while they aim to contribute to the achievement of UN's SDG's, IGS' relevance for society is diverse and can be identified at many levels.

Besides publication of important findings from applied research in high impact journals, expected to impact public health and primary care across the globe, the SA report also mentions how IGS projects have had an important contribution to the training of future health professionals and researchers who can play a role in strengthening (building blocks of) health care systems in low- and middle-income countries.

IGS research has led to several recommendations for better clinical practice (assessment, treatment, relationship professional user) some of which found their way in national and international standards and protocols. Moreover, IGS researchers have participated in advisory boards for policy makers or directly in policy making bodies. Finally, research results have been picked up by media and led discussion (even at parliamentary level) in several European countries and countries in the Global South.

This is a considerable and impressive track record. But, except for some of the examples by the section "Centre for International Health", most of IGS' impact is primarily research based and largely traditional. There is no mention of any impact from the innovation and commercialisation strategies employed by UiB (see section 4 of this report) nor of particular strategies with regard to communication with public or other stakeholders or their involvement in research, or IGS's engagement in translational or implementation research.

The committee's comments on impact case 1 – Post-discharge malaria prevention in children (PDMC)

The findings of randomised controlled trials in Kenya and Uganda, compared with other relevant studies on post-discharge malaria prevention in children (PDMC) confirmed the potential benefit of different antimalarials used post-discharge in high-risk populations, including children. Findings contributed to revision of WHO Guidelines recommending including PDMC in prevention strategies for children with severe anaemia living in areas of moderate-to-high transmission after they are discharged from a hospital, when they are at high risk of re-admission. Moreover, Malawi, Uganda, Kenya and Benin initiated and championed the process of adopting and implementing the new guidelines. Beyond the interaction with the WHO, the consortium's policy-engagement group had also been involving national decision-makers throughout the research period, especially in the countries hosting research sites. Six articles/research reports were published.

The committee's comments on impact case 2 – Cardiovascular Disease in Norway 1994-2014 (CVDNOR)

The Cardiovascular Disease in Norway (CVDNOR) project was initiated to study burden and trends over time in CVD occurrence and prognosis, provide CVD endpoints for national and regional health surveys conducted throughout Norway, and facilitate studies of the impact of known and potentially new risk factors in CVD occurrence. Using a system called FS (Forskning i Sykehus = Research in hospitals) developed by Tomislav Dimoski at the NIPH, the project extracted retrospectively information on all hospital stays with a CVD, diabetes or congenital malformations of the circulatory system code diagnoses, as well as all related procedures (diagnostic or treatment) performed from Patient Administrative

Systems (PAS) from all Norwegian somatic hospitals from 1994 to 2009. Later the data were expanded with data from the Norwegian Patient Registry from 2009 to 2014.

The research informed a Norwegian risk model for acute cerebral stroke and myocardial infarction which is implemented in national guidelines for primary prevention of CVD. The project was also a cornerstone for the development of a national CVD register. The project provided for the first time unique, nationwide data on CVD over two decades in Norway (1994-2014). 11 PhD dissertations were based on this project. Further, the data were used to develop a Norwegian risk model for acute cerebral stroke and myocardial infarction which is implemented in national guidelines for primary prevention of CVD. The project was also a cornerstone for the development of a national CVD register. Six publications in international and national journals were listed; 2023, 88 papers using data from the CVDNOR project have been published in international peer-reviewed journals

The committee`s comments on impact case 3 – Continuity in general practice as predictor of mortality, acute hospitalisation, and use of out-of- hours care: a registry-based observational study in Norway

Continuity of care in general practice is shown to increase patient satisfaction, improve health, and contribute to more efficient use of total health care. However, when holding different policy goals against each other access has often been prioritised over continuity of care. In the research environment, there has been a focus on the utilisation of health care with continuity of care as one main pillar. Research was conducted with the aim to increase knowledge regarding continuity of care and analyse the association between longitudinal continuity with a named regular general practitioner (RGP). The duration of the RGP-patient relationship (I.e. being listed to the same RGP) was used as an predictor for the use of OOH services, acute hospital admission, and mortality in 2018. The research led to a publication of the study that was covered by media and led to high level political discussions in several European countries

The committee`s comments on impact case 4 – Kangaroo Mother Care to enhance the survival of low birth weight infants

This study in India indicated that promoting home-based (or community- initiated) kangaroo mother care (ciKMC) to babies with low birth weight can substantially and equitably increase their survival over the first 6 months of life, while also reducing risk of illness and maternal post-partum depressive symptoms. Being by far the largest of its kind, the high-quality trial contributed important evidence to a systematic review and meta- analysis which constituted the base for the new 2022-WHO recommendations for care of preterm and other low-birth-weight infants. Moreover Health economic evaluations indicated that ciKMC can substantially reduce the cost of care-seeking, the risk of impoverishment of households, and may thus offer financial risk protection.

The committee`s comments on impact case 5 - Disease Control Priorities – Ethiopia (DCP-E)

The overall aim of DCP-E was to establish a participatory, inclusive and evidence-based prioritisation process. Within this context research activities took place with differing aims:

- 1) To summarise and synthesise evidence of the effectiveness of global health interventions;
- 2) To provide comparative economic evaluation of policies;
- 3) To generate an evidence base that informed the development, design, and recommendations for Ethiopia's current essential health services package;
- 4) To measure progress towards universal health coverage by national and subnational analysis in Ethiopia, by supporting decision makers to save lives, by cost-effectiveness analyses for priority setting.

DCP-E, successfully delivered on its two objectives: DCP-E provided input, through research and evidence led by Ethiopian researchers, to the revision of the Essential Health Services Package (EHSP) for the Ethiopian health sector. BCEPS, Bergen Centre of Ethics and Priority Setting, through this project, helped develop priority-setting capacity in Ethiopia through 7 master's degrees and 2 PhD degrees for civil servants recruited from and for the Health Economics and Financing Case Team in the Ministry of Health.

DCP-E has had societal impact by concretely shaping key policies and four policy documents (2019-21) in Ethiopia. Reference list 6 policy report, and articles in international peer reviewed journals.

Appendices

Evaluation of Medicine and health 2023-2024

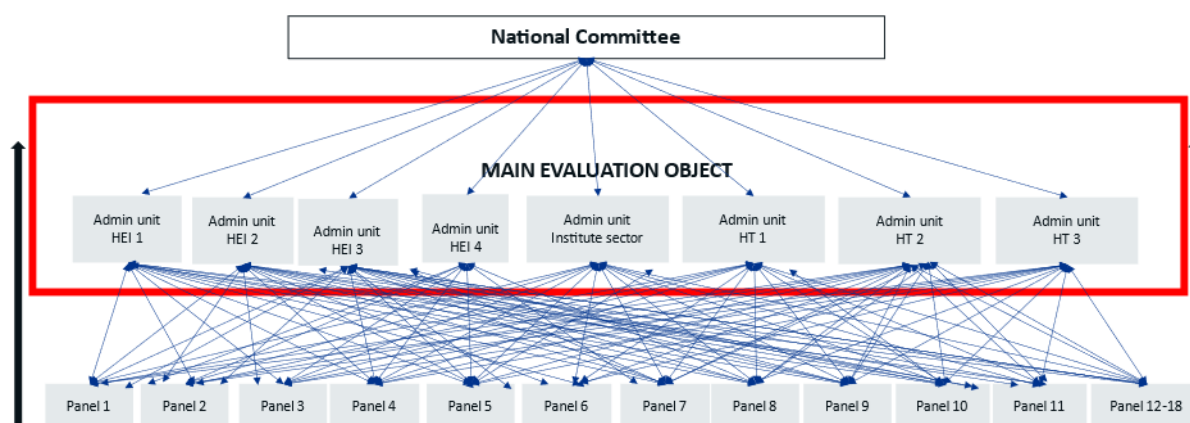
By evaluating Norwegian research and higher education we aim to enhance the quality, relevance, and efficiency. In accordance with the statutes of the Research Council of Norway (RCN), the RCN evaluates Norwegian professional environments to create a solid and up-to-date knowledge base about Norwegian research and higher education in an international perspective.

The evaluation of life sciences is conducted in 2022-2024. The evaluation of medicine takes place in 2023-2024. The evaluation of biosciences was carried out in 2022-2023. The primary aim of the evaluation of life sciences is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), the institute sector and the health trusts. The evaluation shall result in recommendations to the institutions, the RCN and the ministries.

Evaluation of medicine and health (EVALMEDHELSE) 2023-2024

The evaluation of medicine and health includes sixty-eight administrative units (e.g., faculty, department, institution, center, division) which are assessed by evaluation committees according to sectorial affiliation and other relevant similarities between the units. The administrative units enrolled their research groups (315) to eighteen expert panels organised by research subjects or themes and assessed across institutions and sectors.

Organisation of evaluation of medicine and health 2023-2024



The institutions have been allowed to adapt the evaluation mandate (Terms of Reference) to their own strategic goals. This is to ensure that the results of the evaluation will be useful for the institution's own strategic development. The administrative unit together with the research group(s) selects an appropriate benchmark for each of the research group(s).

The Research Council of Norway has commissioned an external evaluation secretariat at Technopolis Group for the implementation of the evaluation process.

Each institution/administrative unit is responsible for following up the recommendations that apply to their own institution/administrative unit. The Research Council will use the results from the evaluation in the development of funding instruments and as a basis for advice to the Government.

The web page for the evaluation of medicine and health 2023-2024: [Evaluation of medicine and health sciences \(forskingsradet.no\)](https://forskingsradet.no/evaluering-av-medisin-og-helsevitenskap)

Se vedlagte adresseliste

Vår saksbehandler / tlf.	Vår ref.	Deres ref.	Sted
Hilde G. Nielsen/40922260	23/3056	[Ref.]	Lysaker 28.4.2023

Invitasjon til å delta i fagevaluering av medisin og helsefag (EVALMEDHELSE) 2023-2024

Vi viser til varsel om oppstart av nye evalueringer sendt institusjonenes ledelse 9. november 2021 (vedlegg 2).

Porteføljestyret for livsvitenskap har vedtatt å gjennomføre fagevaluering av livsvitenskap 2022-2024 som to evalueringer:

- Evaluering av biovitenskap (EVALBIOVIT) (2022-2023)
- Evaluering av medisin og helsefag (EVALMEDHELSE) (2023-2024)

Hovedmålet med fagevalueringen av livsvitenskap 2022-2024 er å vurdere kvalitet og rammebetingelser for livsvitenskapelig forskning i Norge, samt forskningens relevans for sentrale samfunnsområder. Evalueringen skal resultere i anbefalinger til institusjonene, til Forskningsrådet og til departementene. Den forrige fagevalueringen av biologi, medisin og helsefag ble gjennomført i 2010/2011 (vedlegg 3).

Fagevaluering av livsvitenskap retter seg mot UH-sektor, helseforetak og instituttsektor (vedlegg 4). Forskningsrådet forventer at aktuelle forskningsmiljøer deltar i evalueringene, selv om beslutning om deltagelse gjøres ved den enkelte institusjon. Videre ber vi om at deltakende institusjoner setter av tilstrekkelig med ressurser til å delta i evalueringsprosessen, og at institusjonen oppnevner minst én representant som kontaktperson for Forskningsrådet.

Invitasjon til å delta i fagevaluering av medisin og helsefag (2023-2024)

Fagevaluering av medisin og helsefag er organisert over to nivåer (vedlegg 4, side 11). Internasjonale ekspertpaneler vil evaluere forskergrupper på tvers av fag, disiplin og forskningssektorer (UH, institutt og helseforetak) etter kriteriene beskrevet i kapittel 2 i evalueringsprotokollen (vedlegg 4).

Panelrapporten(e) for forskergruppene vil inngå i bakgrunnsdokumentasjonen til forskergruppen(e)s administrative enhet (hovedevalueringsobjektet i evaluering), og som vil bli evaluert i internasjonale

sektorspesifikke evalueringskomiteer. Evalueringskriteriene for administrative enheter er beskrevet i kapittel 2 i evalueringsprotokollen (vedlegg 4).

Innmelding av administrative enheter og forskergrupper – frist 6. juni 2023

Administrative enheter (hovedevalueringssubjektet i evalueringen) – skjema 1

Forskningsrådet inviterer institusjonene til å melde inn sine administrative enhet/er ved å fylle ut skjema 1. Definisjonen av en administrativ enhet i denne evalueringen er å finne på side 3 (kap 1.1) i evalueringsprotokollen (vedlegg 4). Ved innmelding av administrativ/e enhet/er anbefaler Forskningsrådet institusjonene til å se innmelding av administrativ enhet/er i sammenheng med tilpasning av mandat for den administrative enheten (Appendix A i evalueringsprotokollen).

Forskergrupper – skjema 2

Forskningsrådet ber de administrative enheter om å melde inn forskergrupper i tråd med forskergruppedefinisjonen (kap 1.1) og minimumskravene beskrevet i kapittel 1.2 i evalueringsprotokollen. Hver administrative enhet melder inn sin/e forskergruppe/r ved å fylle ut Skjema 2. Vi ber også om at forskergruppene innplasseres i den tentative fagpanelinndelingen for EVALMEDHELSE (vedlegg 5).

Forskningsrådet vil ferdigstille panelstruktur og avgjøre den endelige fordelingen av forskergruppene på fagpaneler etter at alle forskergrupper er meldt inn. Mer informasjon vil bli sendt i slutten av juni 2023.

Invitasjon til å foreslå eksperter – skjema 3

Forskningsrådet inviterer administrative enheter og forskergrupper til å spille inn forslag til eksperter som kan inngå i evalueringskomitéene og i ekspertpanelene. Hver evalueringskomité vil bestå av 7-9 komitémedlemmer, mens hvert ekspertpanel vil bestå av 5-7 eksperter.

Obs. Det er to faner i regnearket:

- FANE 1 – forslag til medlemmer til evalueringskomitéene. Medlemmene i evalueringskomitéene skal inneha bred vitenskapelig kompetanse, både faglig kompetanse og andre kvalifikasjoner som erfaring med ledelse, strategi- og evalueringsarbeid og kunnskapsutveksling.
- FANE 2 – forslag til medlemmer til ekspertpanelene. Medlemmene i ekspertpanelene skal være internasjonalt ledende eksperter innen medisin og helsefaglig forskning og innovasjon.

Utfylte skjemaer (3 stk):

- innmelding av administrative enhet/er (skjema 1)
- innmelding av forskergruppe/er (skjema 2)
- forslag til eksperter (skjema 3)

sendes på epost til evalmedhelse@forskningsradet.no **innen 6. juni 2023.**

Tilpasning av mandat – frist 30. september 2023

Forskningsrådet ber med dette administrative enheter om å tilpasse mandatet (vedlegg 4) ved å opplyse om egne strategiske mål og andre lokale forhold som er relevant for evalueringen.

Tilpasningen gjøres ved å fylle inn de åpne punktene i malen (Appendix A). Utfylt skjema sendes på epost til evalmedhelse@forskningssradet.no innen 30. september 2023.

Digitalt informasjonsmøte 15. mai 2023, kl. 14.00-15.00.

Forskningssrådet arrangerer et digitalt informasjonsmøte for alle som ønsker å delta i EVALMEDHELSE.

Påmelding til informasjonsmøtet gjøres her: [Fagevaluering av medisin og helsefag \(EVALMEDHELSE\) - Digitalt informasjonsmøte \(pameldingssystem.no\)](#) .

Nettsider

Forskningssrådet vil opprette en nettside på www.forskningssradet.no for EVALMEDHELSE hvor informasjon vil bli publisert fortløpende. [Her](#) kan dere lese om Fagevaluering av biovitenskap (EVALBIOVIT) 2022-2023. Fagevaluering av medisin og helsefag vil bli gjennomført etter samme modell.

Spørsmål vedrørende fagevaluering av medisin og helsefag kan rettes til Hilde G. Nielsen, hgn@forskningssradet.no eller mobil 40 92 22 60.

Med vennlig hilsen
Norges forskningsråd

Ole Johan Borge
avdelingsdirektør
Helse

Hilde G. Nielsen
spesialrådgiver
Helse

Dokumentet er elektronisk godkjent og signert og har derfor ikke håndskrevne signaturer.

Kopi

Helse- og omsorgsdepartementet
Kunnskapsdepartementet

Vedlegg

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2. Nye fagevalueringer – varsel om oppstart november 2021
3. Erfaringer med oppfølging av fagevaluering av biologi, medisin og helsefag 2010/2011
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9. Appendix A – word format

Evaluation of life sciences in Norway 2022-2023

LIVSEVAL protocol version 1.0

By decision of the Portfolio board for life sciences April 5., 2022

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The report can be downloaded at
www.forskningsradet.no/publikasjoner

Oslo, 5 April 2022

ISBN 978-82-12-Klikk her for å fylle ut (xxxxx-x). (pdf)

1 Introduction

Research assessments based on this protocol serve different aims and have different target groups. The primary aim of the evaluation of life sciences is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), and by the institute sector and regional health authorities and health trusts. These institutions will hereafter be collectively referred to as Research Performing Organisations (RPOs). The assessments should serve a formative purpose by contributing to the development of research quality and relevance at these institutions and at the national level.

1.1 Evaluation units

The assessment will comprise a number of *administrative units* submitted for evaluation by the host institution. By assessing these administrative units in light of the goals and strategies set for them by their host institution, it will be possible to learn more about how public funding is used at the institution(s) to facilitate high-quality research and how this research contributes to society. The administrative units will be assessed by evaluation committees according to sectoral affiliation and/or other relevant similarities between the units.

The administrative units will be invited to submit data on their *research groups* to be assessed by expert panels organised by research subject or theme. See Chapter 3 for details on organisation.

<i>Administrative unit</i>	An administrative unit is any part of an RPO that is recognised as a formal (administrative) unit of that RPO, with a designated budget, strategic goals and dedicated management. It may, for instance, be a university faculty or department, a department of an independent research institute or a hospital.
<i>Research group</i>	Designates groups of researchers within the administrative units that fulfil the minimum requirements set out in section 1.2. Research groups are identified and submitted for evaluation by the administrative unit, which may decide to consider itself a single research group.

1.2 Minimum requirements for research groups

- 1) The research group must be sufficiently large in size, i.e. at least five persons in full-time positions with research obligations. This merely indicates the minimum number, and larger units are preferable. In exceptional cases, the minimum number may include PhD students, postdoctoral fellows and/or non-tenured researchers. *In all cases, a research group must include at least three full-time tenured staff.* Adjunct professors, technical staff and other relevant personnel may be listed as group members but may not be included in the minimum number.

- 2) The research group subject to assessment must have been established for at least three years. Groups of more recent date may be accepted if they have come into existence as a consequence of major organisational changes within their host institution.
- 3) The research group should be known as such both within and outside the institution (e.g. have a separate website). It should be able to document common activities and results in the form of co-publications, research databases and infrastructure, software, or shared responsibilities for delivering education, health services or research-based solutions to designated markets.
- 4) In its self-assessment, the administrative unit should propose a suitable benchmark for the research group. The benchmark will be considered by the expert panels as a reference in their assessment of the performance of the group. The benchmark can be grounded in both academic and extra-academic standards and targets, depending on the purpose of the group and its host institution.

1.3 The evaluation in a nutshell

The assessment concerns:

- research that the administrative unit and its research groups have conducted in the previous 10 years
- the research strategy that the administrative units under evaluation intend to pursue going forward
- the capacity and quality of research in life sciences at the national level

The Research Council of Norway (RCN) will:

- provide a template for the Terms of Reference¹ for the assessment of RPOs and a national-level assessment in life sciences
- appoint members to evaluation committees and expert panels
- provide secretarial services
- commission reports on research personnel and publications based on data in national registries
- take responsibility for following up assessments and recommendations at the national level.

RPOs conducting research in life sciences are expected to take part in the evaluation. The board of each RPO under evaluation is responsible for tailoring the assessment to its own strategies and specific needs and for following them up within their own institution. Each participating RPO will carry out the following steps:

- 1) Identify the administrative unit(s) to be included as the main unit(s) of assessment
- 2) Specify the Terms of Reference by including information on specific tasks and/or strategic goals of relevance to the administrative unit(s)

¹ The terms of reference (ToR) document defines all aspects of how the evaluation committees and expert panels will conduct the [research area] evaluation. It defines the objectives and the scope of the evaluation, outlines the responsibilities of the involved parties, and provides a description of the resources available to carry out the evaluation.

- 3) The administrative unit will, in turn, be invited to register a set of research groups that fulfil the minimum criteria specified above (see section 1.2). The administrative unit may decide to consider itself a single research group.
- 4) For each research group, the administrative unit should select an appropriate benchmark in consultation with the group in question. This benchmark can be a reference to an academic level of performance or to the group's contributions to other institutional or sectoral purposes (see section 2.4). The benchmark will be used as a reference in the assessment of the unit by the expert panel.
- 5) The administrative units subject to assessment must provide information about each of their research groups, and about the administrative unit as a whole, by preparing self-assessments and by providing additional documentation in support of the self-assessment.

1.4 Target groups

- Administrative units represented by institutional management and boards
- Research groups represented by researchers and research group leaders
- Research funders
- Government

The evaluation will result in recommendations to the institutions, the RCN and the ministries. The results of the evaluation will also be disseminated for the benefit of potential students, users of research and society at large.

This protocol is intended for all participants in the evaluation. It provides the information required to organise and carry out the research assessments. Questions about the interpretation or implementation of the protocol should be addressed to the RCN.

2 Assessment criteria

The administrative units are to be assessed on the basis of five assessment criteria. The five criteria are applied in accordance with international standards. Finally, the evaluation committee passes judgement on the administrative units as a whole in qualitative terms. In this overall assessment, the committee should relate the assessment of the specific tasks to the strategic goals that the administrative unit has set for itself in the Terms of Reference.

When assessing administrative units, the committees will build on a separate assessment by expert panels of the research groups within the administrative units. See Chapter 3 'Evaluation process and organisation' for a description of the division of tasks.

2.1 Strategy, resources and organisation

The evaluation committee assesses the framework conditions for research in terms of funding, personnel, recruitment and research infrastructure in relation to the strategic aims set for the administrative unit. The administrative unit should address at least the following five specific aspects in its self-assessment: 1) funding sources, 2) national and international cooperation, 3) cross-sector and interdisciplinary cooperation, 4) research careers and mobility, and 5) Open Science. These five aspects relate to how the unit organises and actually performs its research, its composition in terms of leadership and personnel, and how the unit is run on a day-to-day basis.

To contribute to understanding what the administrative unit can or should change to improve its ability to perform, the evaluation committee is invited to focus on factors that may affect performance.

Further, the evaluation committee assesses the extent to which the administrative unit's goals for the future remain scientifically and societally relevant. It is also assessed whether its aims and strategy, as well as the foresight of its leadership and its overall management, are optimal in relation to attaining these goals. Finally, it is assessed whether the plans and resources are adequate to implement this strategy.

2.2 Research production, quality and integrity

The evaluation committee assesses the profile and quality of the administrative unit's research and the contribution the research makes to the body of scholarly knowledge and the knowledge base for other relevant sectors of society. The committee also assesses the scale of the unit's research results (scholarly publications, research infrastructure developed by the unit, and other contributions to the field) and its contribution to Open Science (early knowledge and sharing of data and other relevant digital objects, as well as science communication and collaboration with societal partners, where appropriate).

The evaluation committee considers the administrative unit's policy for research integrity and how violations of such integrity are prevented. It is interested in how the unit deals with research data, data management, confidentiality (GDPR) and integrity, and the extent to which independent and critical pursuit of research is made possible within the unit. Research integrity relates to both the scientific integrity of conducted research and the professional integrity of researchers.

2.3 Diversity and equality

The evaluation committee considers the diversity of the administrative unit, including gender equality. The presence of differences can be a powerful incentive for creativity and talent development in a diverse administrative unit. Diversity is not an end in itself in that regard, but a tool for bringing together different perspectives and opinions.

The evaluation committee considers the strategy and practices of the administrative unit to prevent discrimination on the grounds of gender, age, disability, ethnicity, religion, sexual orientation or other personal characteristics.

2.4 Relevance to institutional and sectoral purposes

The evaluation committee compares the relevance of the administrative unit's activities and results to the specific aspects detailed in the Terms of Reference for each institution and to the relevant sectoral goals (see below).

Higher Education Institutions

There are 36 Higher Education Institutions in Norway that receive public funding from the Ministry for Education and Research. Twenty-one of the 36 institutions are owned by the ministry, whereas the last 15 are privately owned. The HEIs are regulated under the Act relating to universities and university colleges of 1 August 2005.

The purposes of Norwegian HEIs are defined as follows in the Act relating to universities and university colleges²

- provide higher education at a high international level;
- conduct research and academic and artistic development work at a high international level;
- disseminate knowledge of the institution's activities and promote an understanding of the principle of academic freedom and application of scientific and artistic methods and results in the teaching of students, in the institution's own general activity as well as in public administration, in cultural life and in business and industry.

In line with these purposes, the Ministry for Research and Education has defined four overall goals for HEIs that receive public funding. These goals have been applied since 2015:

- 1) High quality in research and education
- 2) Research and education for welfare, value creation and innovation
- 3) Access to education (esp. capacity in health and teacher education)
- 4) Efficiency, diversity and solidity of the higher education sector and research system

The committee is invited to assess to what extent the research activities and results of each administrative unit have contributed to sectoral purposes as defined above. In particular, the committee is invited to take the share of resources spent on education at the administrative units into account and to assess the relevance and contributions of research to education, focusing on the master's and PhD levels. This assessment should be distinguished from an

² <https://lovdata.no/dokument/NLE/lov/2005-04-01-15?q=universities>

assessment of the quality of education in itself, and it is limited to the role of research in fostering high-quality education.

Research institutes (the institute sector)

Norway's large institute sector reflects a practical orientation of state R&D funding that has long historical roots. The Government's strategy for the institute sector³ applies to the 33 independent research institutes that receive public basic funding through the RCN, in addition to 12 institutes outside the public basic funding system.

The institute sector plays an important and specific role in attaining the overall goal of the national research system, i.e. to increase competitiveness and innovation power to address major societal challenges. The research institutes' contributions to achieving these objectives should therefore form the basis for the evaluation. The main purpose of the sector is to conduct independent applied research for present and future use in the private and public sector. However, some institutes primarily focus on developing a research platform for public policy decisions, others on fulfilling their public responsibilities.

The institutes should:

- maintain a sound academic level, documented through scientific publications in recognised journals
- obtain competitive national and/or international research funding grants
- conduct contract research for private and/or public clients
- demonstrate robustness by having a reasonable number of researchers allocated to each research field

The committee is invited to assess the extent to which the research activities and results of each administrative unit contribute to sectoral purposes and overall goals as defined above. In particular, the committee is invited to assess the level of collaboration between the administrative unit(s) and partners in their own or other sectors.

The hospital sector

There are four regional health authorities (RHF) in Norway. They are responsible for the specialist health service in their respective regions. The RHF are regulated through the Health Enterprises Act of 15 June 2001 and are bound by requirements that apply to specialist and other health services, the Health Personnel Act and the Patient Rights Act. Under each of the regional health authorities, there are several health trusts (HF), which can consist of one or more hospitals. A health trust (HF) is wholly owned by an RHF.

Research is one of the four main tasks of hospital trusts.⁴ The three other main tasks are to ensure good treatment, education and training of patients and relatives. Research is important if the health service is to keep abreast of stay up-to-date with medical developments and carry out critical assessments of established and new diagnostic methods,

³ [Strategy for a holistic institute policy \(Kunnskapsdepartementet 2020\)](#)

⁴ Cf. the Specialist Health Services Act § 3-8 and the Health Enterprises Act §§ 1 and 2

treatment options and technology, and work on quality development and patient safety while caring for and guiding patients.

The committee is invited to assess the extent to which the research activities and results of each administrative unit have contributed to sectoral purposes as described above. The assessment does not include an evaluation of the health services performed by the services.

2.5 Relevance to society

The committee assesses the quality, scale and relevance of contributions targeting specific economic, social or cultural target groups, of advisory reports on policy, of contributions to public debates, and so on. The documentation provided as the basis for the assessment of societal relevance should make it possible to assess relevance to various sectors of society (i.e. business, the public sector, non-governmental organisations and civil society).

When relevant, the administrative units will be asked to link their contributions to national and international goals set for research, including the Norwegian Long-term Plan for Research and Higher Education and the UN Sustainable Development Goals. Sector-specific objectives, e.g. those described in the Development Agreements for the HEIs and other national guidelines for the different sectors, will be assessed as part of criterion 2.4.

The committee is also invited to assess the societal impact of research based on case studies submitted by the administrative units and/or other relevant data presented to the committee. Academic impact will be assessed as part of criterion 2.2.

3 Evaluation process and organisation

The RCN will organise the assessment process as follows:

- Commission a professional secretariat to support the assessment process in the committees and panels, as well as the production of self-assessments within each RPO
- Commission reports on research personnel and publications within life sciences based on data in national registries
- Appoint one or more evaluation committees for the assessment of administrative units.
- Divide the administrative units between the appointed evaluation committees according to sectoral affiliation and/or other relevant similarities between the units.
- Appoint a number of expert panels for the assessment of research groups submitted by the administrative units.
- Divide research groups between expert panels according to similarity of research subjects or themes.
- Task the chairs of the evaluation committees with producing a national-level report building on the assessments of administrative units and a national-level assessments produced by the expert panels.

Committee members and members of the expert panels will be international, have sufficient competence and be able, as a body, to pass judgement based on all relevant assessment criteria. The RCN will facilitate the connection between the assessment levels of panels and committees by appointing committee members as panel chairs.

3.1 Division of tasks between the committee and panel levels

The expert panels will assess research groups across institutions and sectors, focusing on the first two criteria specified in Chapter 2: 'Strategy, resources and organisation' and 'Research production and quality' The assessments from the expert panels will also be used as part of the evidence base for a report on Norwegian research within life sciences (see section 3.3).

The evaluation committees will assess the administrative units based on all the criteria specified in Chapter 2. The assessment of research groups delivered by the expert panels will be a part of the evidence base for the committees' assessments of administrative units. See figure 1 below.

The evaluation committee has sole responsibility for the assessments and any recommendations in the report. The evaluation committee reaches a judgement on the research based on the administrative units and research groups' self-assessments provided by the RPOs, any additional documents provided by the RCN, and interviews with representatives of the administrative units. The additional documents will include a standardised analysis of research personnel and publications provided by the RCN.

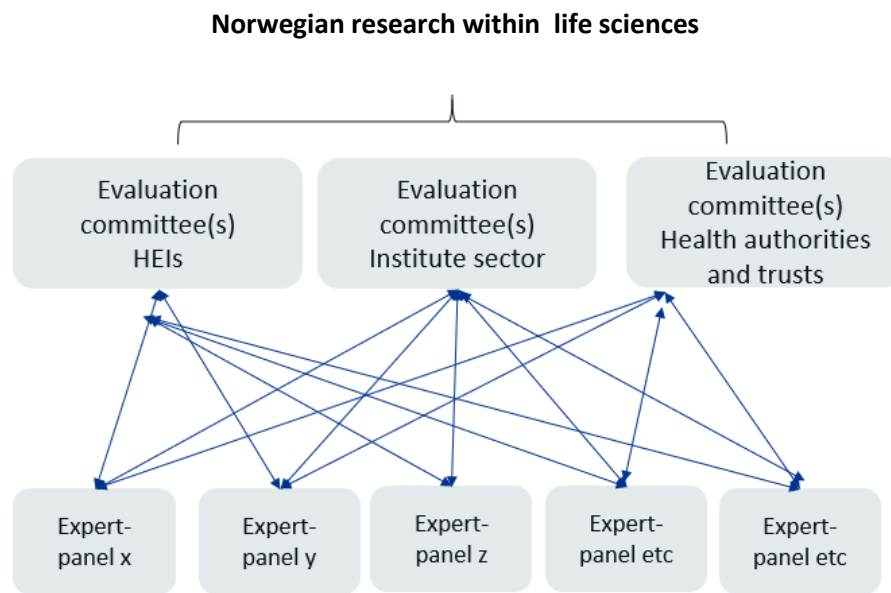


Figure 1. Evaluation committees and expert panels

The evaluation committee takes international trends and developments in science and society into account when forming its judgement. When judging the quality and relevance of the research, the committees shall bear in mind the specific tasks and/or strategic goals that the administrative unit has set for itself including sectoral purposes (see section 2.4 above).

3.2 Accuracy of factual information

The administrative unit under evaluation should be consulted to check the factual information before the final report is delivered to the RCN and the board of the institution hosting the administrative unit.

3.3 National level report

Finally, the RCN will ask the chairs of the evaluation committees to produce a national-level report that builds on the assessments of administrative units and the national-level assessments produced by the expert panels. The committee chairs will present their assessment of Norwegian research in life sciences at the national level in a separate report that pays specific attention to:

- Strengths and weaknesses of the research area in the international context
- The general resource situation regarding funding, personnel and infrastructure
- PhD training, recruitment, mobility and diversity
- Research cooperation nationally and internationally
- Societal impact and the role of research in society, including Open Science

This national-level assessment should be presented to the RCN.

Appendix A: Terms of References (ToR)

[Text in red to be filled in by the Research-performing organisations (RPOs)]

The board of [RPO] mandates the evaluation committee appointed by the Research Council of Norway (RCN) to assess [administrative unit] based on the following Terms of Reference.

Assessment

You are asked to assess the organisation, quality and diversity of research conducted by [administrative unit] as well as its relevance to institutional and sectoral purposes, and to society at large. You should do so by judging the unit's performance based on the following five assessment criteria (a. to e.). Be sure to take current international trends and developments in science and society into account in your analysis.

- a) Strategy, resources and organisation
- b) Research production, quality and integrity
- c) Diversity and equality
- d) Relevance to institutional and sectoral purposes
- e) Relevance to society

For a description of these criteria, see Chapter 2 of the life sciences evaluation protocol. Please provide a written assessment for each of the five criteria. Please also provide recommendations for improvement. We ask you to pay special attention to the following [n] aspects in your assessment:

- 1. ...
- 2. ...
- 3. ...
- 4. ...
- ...

[To be completed by the board: specific aspects that the evaluation committee should focus on – they may be related to a) strategic issues, or b) an administrative unit's specific tasks.]

In addition, we would like your report to provide a qualitative assessment of [administrative unit] as a whole in relation to its strategic targets. The committee assesses the strategy that the administrative unit intends to pursue in the years ahead and the extent to which it will be capable of meeting its targets for research and society during this period based on available resources and competence. The committee is also invited to make recommendations concerning these two subjects.

Documentation

The necessary documentation will be made available by the **life sciences** secretariat at Technopolis Group.

The documents will include the following:

- a report on research personnel and publications within life sciences commissioned by RCN
- a self-assessment based on a template provided by the life sciences secretariat
- **[to be completed by the board]**

Interviews with representatives from the evaluated units

Interviews with the **[administrative unit]** will be organised by the evaluation secretariat. Such interviews can be organised as a site visit, in another specified location in Norway or as a video conference.

Statement on impartiality and confidence

The assessment should be carried out in accordance with the *Regulations on Impartiality and Confidence in the Research Council of Norway*. A statement on the impartiality of the committee members has been recorded by the RCN as a part of the appointment process. The impartiality and confidence of committee and panel members should be confirmed when evaluation data from **[the administrative unit]** are made available to the committee and the panels, and before any assessments are made based on these data. The RCN should be notified if questions concerning impartiality and confidence are raised by committee members during the evaluation process.

Assessment report

We ask you to report your findings in an assessment report drawn up in accordance with a format specified by the life sciences secretariat. The committee may suggest adjustments to this format at its first meeting. A draft report should be sent to the **[administrative unit]** and RCN by [date]. The **[administrative unit]** should be allowed to check the report for factual inaccuracies; if such inaccuracies are found, they should be reported to the life sciences secretariat no later than two weeks after receipt of the draft report. After the committee has made the amendments judged necessary, a corrected version of the assessment report should be sent to the board of **[the RPO]** and the RCN no later than two weeks after all feedback on inaccuracies has been received from **[administrative unit]**.

Appendix B: Data sources

The lists below shows the most relevant data providers and types of data to be included in the evaluation. Data are categorised in two broad categories according to the data source: National registers and self-assessments prepared by the RFOs. The RCN will commission an analysis of data in national registers (R&D-expenditure, personnel, publications etc.) to be used as support for the committees' assessment of administrative units. The analysis will include a set of indicators related to research personnel and publications.

- **National directorates and data providers**
- Norwegian Directorate for Higher Education and Skills (HK-dir)
- Norwegian Agency for Quality Assurance in Education (NOKUT)
- Norwegian Agency for Shared Services in Education and Research (SIKT)
- Research Council of Norway (RCN)
- Statistics Norway (SSB)

National registers

- 1) R&D-expenditure
 - a. SSB: R&D statistics
 - b. SSB: Key figures for research institutes
 - c. HK-dir: Database for Statistics on Higher Education (DBH)
 - d. RCN: Project funding database (DVH)
 - e. EU-funding: eCorda
- 2) Research personnel
 - a. SSB: The Register of Research personnel
 - b. SSB: The Doctoral Degree Register
 - c. RCN: Key figures for research institutes
 - d. HK-dir: Database for Statistics on Higher Education (DBH)
- 3) Research publications
 - a. SIKT: Cristin - Current research information system in Norway
 - b. SIKT: Norwegian Infrastructure for Bibliometrics
(full bibliometric data incl. citations and co-authors)
- 4) Education
 - a. HK-dir/DBH: Students and study points
 - b. NOKUT: Study barometer
 - c. NOKUT: National Teacher Survey
- 5) Sector-oriented research
 - a. RCN: Key figures for research institutes
- 6) Patient treatments and health care services
 - a. Research & Innovation expenditure in the health trusts
 - b. Measurement of research and innovation activity in the health trusts
 - c. Collaboration between health trusts and HEIs
 - d. Funding of research and innovation in the health trusts
 - e. Classification of medical and health research using HRCS (HO21 monitor)

Self-assessments

1) Administrative units

- a. *Self-assessment covering all assessment criteria*
- b. Administrative data on funding sources
- c. Administrative data on personnel
- d. Administrative data on the division of staff resources between research and other activities (teaching, dissemination etc.)
- e. Administrative data on research infrastructure and other support structures
- f. SWOT analysis
- g. Any supplementary data needed to assess performance related to the strategic goals and specific tasks of the unit

2) Research groups

- a. *Self-assessment covering the first two assessment criteria (see Table 1)*
- b. Administrative data on funding sources
- c. Administrative data on personnel
- d. Administrative data on contribution to sectoral purposes: teaching, commissioned work, clinical work [will be assessed at committee level]
- e. Publication profiles
- f. Example publications and other research results (databases, software etc.)
The examples should be accompanied by an explanation of the groups' specific contributions to the result
- g. Any supplementary data needed to assess performance related to the benchmark defined by the administrative unit

The table below shows how different types of evaluation data may be relevant to different evaluation criteria. Please note that the self-assessment produced by the administrative units in the form of a written account of management, activities, results etc. should cover all criteria. A template for the self-assessment of research groups and administrative units will be commissioned by the RCN from the life sciences secretariat for the evaluation.

Table 1. Types of evaluation data per criterion

Criteria \ Evaluation units	Research groups	Administrative units
Strategy, resources and organisation	Self-assessment Administrative data	Self-assessment National registers Administrative data SWOT analysis
Research production and quality	Self-assessment Example publications (and other research results)	Self-assessment National registers
Diversity, equality and integrity		Self-assessment National registers Administrative data
Relevance to institutional and sectoral purposes		Self-assessment Administrative data
Relevance to society		Self-assessment National registers Impact cases
Overall assessment	<i>Data related to: Benchmark defined by administrative unit</i>	<i>Data related to: Strategic goals and specific tasks of the admin. unit</i>



Evaluation of Medicine and Health (EVALMEDHELSE) 2023-2024

Self- assessment for administrative units

Date of dispatch: **15 September 2023**
Deadline for submission: **31 January 2024**

Institution (name and short name): _____

Administrative unit (name and short name): _____

Date: _____

Contact person: _____

Contact details (email): _____

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Introduction

The primary aim of the evaluation is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), the institute sector and the health trusts. These institutions will henceforth be collectively referred to as research performing organisations (RPOs). The evaluation report(s) will provide a set of recommendations to the RPOs, the Research Council of Norway (RCN) and the responsible and concerned ministries. The results of the evaluation will also be disseminated for the benefit of potential students, users of research and society at large.

You have been invited to complete this self-assessment as an administrative unit. The self-assessment contains questions regarding the unit's research- and innovation related activities and developments over years 2012-2022. All submitted data will be evaluated by international evaluation committees. The administrative unit's research groups will be assessed by international expert panels who report their assessment to the relevant evaluation committee.

Deadline for submitting self- assessments to the Research Council of Norway – 31 January 2024

As an administrative unit you are responsible for collecting completed self-assessments for each of the research groups that belong to the administrative unit. The research groups need to submit their completed self-assessment to the administrative unit no later than 26 January 2024. The administrative unit will submit the research groups' completed self-assessments and the administrative unit's own completed self-assessment to the Research Council within 31 January 2024.

Please use the following format when naming your document: name of the institution and short name of the administrative unit, e.g. *NTNU_FacMedHealthSci* and send it to evalmedhelse@forskningsradet.no within 31 January 2024.

For questions concerning the self-assessment or EVALMEDHELSE in general, please contact RCN at evalmedhelse@forskningsradet.no.

Thank you!

Guidelines for completing the self-assessment

- Please read the entire self-assessment document before answering.
- The evaluation language is English.
- Please be sure that all documents which are linked to in the self- assessment are in English and are accessible.
- The page format must be A4 with 2 cm margins, single spacing and Calibri and 11-point font.
- The self-assessment follows the same structure as the [evaluation protocol](#). In order to be evaluated on all criteria, the administrative unit must answer all questions.
- Information should be provided by link to webpages i.e. strategy and other planning documents.
 - Provide information – provide documents and other relevant data or figures about the administrative unit, for example strategy and other planning documents.
 - Describe – explain and present using contextual information about the administrative unit and inform the reader about the administrative unit.
 - Reflect – comment in a reflective and evaluative manner how the administrative unit operates.
- Data on personnel should refer to reporting to DBH on 1 October 2022 for HEIs and to the yearly reporting for 2022 for the institute sector and the health trusts. Other data should refer to 31 December 2022, if not specified otherwise.
- Questions in 4.3c should **ONLY** be answered by administrative units responsible for the Cand.med. degree programme, cf. [Evaluation of the Professional programme in Medicine \(NOKUT\)](#).
- It is possible to extend the textboxes when filling in the form. **NB!** A completed self- assessment cannot exceed 50 pages (pdf file) excluding question 4.3.c. The evaluation committees are not requested to read more than the maximum of 50 pages. Pages exceeding maximum limit of 50 pages **might not** be evaluated.
- Submit the self- assessment as a pdf (max 50 pages). Before submission, please be sure that all text are readable after the conversion of the document to pdf. The administrative unit is responsible for submitting the self-assessment of the administrative unit together with the self-assessments of the belonging research group(s) to evalmedhelse@forskningsradet.no within **31 January 2024**.

Please note that information you write in the self- assessment and the links to documents/webpages in the self- assessment are the only available information (data material) for the evaluation committee.

In exceptional cases, documents/publications that are not openly available must be submitted as attachment(s) to the self- assessment (pdf file(s)).

1.Strategy, resources and organisation

1.1 Research strategy

Describe the main strategic goals for research and innovation of the administrative unit. You may include the following:

- How are these goals related to institutional strategies and scientific priorities?
- Describe how the administrative unit's strategies and scientific priorities are related to the "specific aspects that the evaluation committee should focus on" indicated in your Terms of Reference (ToR)
- Describe the main fields and focus of research and innovation in the administrative unit
- Describe the planned research-field impact; planned policy impact and planned societal impact
- Describe how the strategy is followed-up in the allocation of resources and other measures
- Describe the most important occasions where priorities are made (i.e., announcement of new positions, applying for external funding, following up on evaluations)
- If there is no research strategy – please explain why

Table 1. Administrative unit's strategies

For each category present up to 5 documents which are most relevant for the administrative unit. Please delete lines which are not in use.

Research strategy		
No.	Title	Link
1		
2		
3		
4		
5		
Outreach strategies		
No.	Title	Link
1		
2		
3		
4		
5		
Open science policy		
No.	Title	Link
1		
2		
3		
4		
5		

1.2 Organisation of research

a) Describe the organisation of research and innovation activities/projects at the administrative unit, including how responsibilities for research and other purposes (education, knowledge exchange, patient treatment, researcher training, outreach activities etc.) are distributed and delegated.

b) Describe how you work to maximise synergies between the different purposes of the administrative unit (education, knowledge exchange, patient treatment, researcher training, outreach activities etc.).

1.3 Research staff

Describe the profile of research personnel at the administrative unit in terms of position and gender. Institutions in the higher education sector should use the categories used in DBH, <https://dbh.hkdir.no/datainnhold/kodeverk/stillingskoder>.

RCN has commissioned reports from Statistics Norway (SSB) on personnel for the administrative units included in the evaluation. These reports will be made available to the units early November 2023.

Only a subset of the administrative units submitted to the evaluation is directly identifiable in the national statistics. Therefore, we ask all administrative units to provide data on their R&D personnel. Institutions that are directly identifiable in the national statistics (mainly higher education) are invited to use the figures provided in the report delivered by Statistics Norway. Please delete lines which are not in use.

Table 2. Research staff

	Position by category	No. of researcher per category	Share of women per category (%)	No. of researchers who are part of multiple (other) research groups at the admin unit	No. of temporary positions
No. of Personell by position	Position A (Fill in)				
	Position B (Fill in)				
	Position C (Fill in)				
	Position D (Fill in)				

1.4 Researcher careers opportunities

- a) Describe the structures and practices to support researcher careers and help early-career researchers to make their way into the profession.
- b) Describe how research time is distributed among staff including criteria for research leave/sabbaticals (forskningstermin/undervisningsfri).
- c) Describe research mobility options.

1.5 Research funding

- a) Describe the funding sources of the administrative unit. Indicate the administrative unit's total yearly budget and the share of the unit's budget dedicated to research.
- b) Give an overview of the administrative unit's competitive national and/or international grants last five years (2018-2022).

Table 3. R&D funding sources

Please indicate R&D funding sources for the administrative unit for the period 2018-2022 (average NOK per year, last five years).

For Higher Education Institutions: Share of basic grant (grunnbevilgning) used for R&D ¹ For Research Institutes and Health Trusts: Direct R&D funding from Ministries (per ministry)	
Name of ministry	NOK

National grants (bidragsinntekter) (NOK)	
From the ministries and underlying directorates	
From industry	
From public sector	
Other national grants	
Total National grants	
National contract research (oppdragsinntekter) ² (NOK)	
From the ministries and underlying directorates	
From industry	

¹ Shares may be calculated based on full time equivalents (FTE) allocated to research compared to total FTE in administrative unit

² For research institutes only research activities should be included from section 1.3 in the yearly reporting

From public sector	
Other national contract research	
Total contract research	
International grants (NOK)	
From the European Union	
From industry	
Other international grants	
Total international grants	
Funding related to public management (forvaltningsoppgaver) or (if applicable) funding related to special hospital tasks, if any	
Total funding related to public management/special hospital tasks	
Total all R&D budget items (except basic grant)	

1.6 Collaboration

Describe the administrative unit's policy towards national and international collaboration partners, the type of the collaborations the administrative unit have with the partners, how the collaboration is put to practice as well as cross-sectorial and interdisciplinary collaborations.

- Reflect of how successful the administrative unit has been in meeting its aspirations for collaborations
- Reflect on the importance of different types of collaboration for the administrative unit: National and international collaborations. Collaborations with different sectors, including public, private and third sector
- Reflect on the added value of these collaborations to the administrative unit and Norwegian research system

Table 4a. The main national collaborative constellations with the administrative unit

Please categorise the collaboration according to the most important national partner(s): 5-10 institutions in the period 2012-2022. Please delete lines which are not in use.

National collaborations

Collaboration with national institutions – 1 -10	
Name of main collaboration or collaborative project with the admin unit	
Name of partner institution(s)	
Sector of partner/institution(s)/sectors involved	
Impacts and relevance of the collaboration	

Table 4b. The main international collaborative constellations with the administrative unit

Please categorise the collaboration according to the most important international partner(s): 5-10 international institutions in the period 2012-2022. Please delete lines which are not in use.

International collaborations

Collaboration with international institutions – 1-10	
Name of main collaboration or collaborative project with the admin unit	
Name of partner institution(s)	
Sector of partner/institution(s)/sectors involved	

Impacts and relevance of the collaboration	
--	--

1.7 Open science policies

a) Describe the institutional policies, approaches, and activities to the Open Science areas which may include the following:

- Open access to publications
- Open access to research data and implementation of FAIR data principles
- Open-source software/tools
- Open access to educational resources
- Open peer review
- Citizen science and/or involvement of stakeholders / user groups
- Skills and training for Open Science

b) Describe the most important contributions and impact of the administrative unit's researchers towards the different Open Science areas cf. 1.7a above.

c) Describe the institutional policy regarding ownership of research data, data management, and confidentiality. Is the use of data management plans implemented at the administrative unit?

1.8 SWOT analysis for administrative units

Instructions: Please complete a SWOT analysis for your administrative unit. Reflect on what are the major internal Strengths and Weaknesses as well as external Threats and Opportunities for your research and innovation activities/projects and research environment. Assess what the present Strengths enable in the future and what kinds of Threats are related to the Weaknesses. Consider your scientific expertise and achievements, funding, facilities, organisation and management.

Internal	Strengths	Weaknesses
External	Opportunities	Threats

2. Research production, quality and integrity

2.1 Research quality and integrity

Please see the bibliometric analysis for the administrative unit developed by NIFU (available by the end of October, 2023).

a) Describe the scientific focus areas of the research conducted at the administrative unit, including the unit's contribution to these areas.

b) Describe the administrative unit's policy for research integrity, including preventative measures when integrity is at risk, or violated.

2.2 Research infrastructures

a) Participation in national infrastructure

Describe the most important participation in the national infrastructures listed in the Norwegian roadmap for research infrastructures (Norsk veikart for forskningsinfrastruktur) including as host institution(s).

Table 5. Participation in national infrastructure

Please present up to 5 participations in the national infrastructures listed in the Norwegian roadmap for research infrastructures (Norsk veikart for forskningsinfrastruktur) for each area that were the most important to your administrative unit.

Areas in roadmap	Name of research infrastructure	Period (from year to year)	Description	Link to website

b) Participation in international infrastructures

Describe the most important participation in the international infrastructures funded by the ministries (Norsk deltakelse i internasjonale forskningsorganisasjoner finansiert av departementene).

Table 6. Participation in international infrastructure

Please describe up to 5 participations in international infrastructures for each area that have been most important to your administrative unit.

Project	Name	Period (from year to year)	Description	Link to infrastructure

c) Participation in European (ESFRI) infrastructures

Describe the most important participation in European (ESFRI) infrastructures (Norske medlemskap i infrastruktur i ESFRI roadmap) including as host institution(s).

Table 7. Participation in infrastructures on the ESFRI Roadmap

Please give a description of up to 5 participations that have been most important to your administrative unit.

Social sciences and the humanities				
Name	ESFRI-project	Summary of participation	Period (from year to year)	Link

d) Access to research infrastructures

Describe access to relevant national and/or international research infrastructures for your researchers. Considering both physical and digital infrastructure.

e) FAIR- principles

Describe what is done at the unit to fulfil the FAIR-principles.

3. Diversity and equality

Describe the policy and practices to protect against any form of discrimination and to promote diversity in the administrative unit.

Table 8. Administrative unit policy against discrimination

Give a description of up to 5 documents that are the most relevant. If the administrative unit uses the strategies, policies, etc. of a larger institution, then these documents should be referred to. Please delete lines which are not in use.

No.	Name	Valid period	Link
1			

4.Relevance to institutional and sectorial purposes

4.1 Sector specific impact

Describe whether the administrative unit has activities aimed at achieving sector-specific objectives or focusing on contributing to the knowledge base in general. Describe activities connected to sector-specific objectives, the rationale for participation and achieved and/or expected impacts. Please refer to chapter 2.4 in the [evaluation protocol](#).

- Alternatively, describe whether the activities of the administrative unit are aimed at contribution to the knowledge base in general. Describe the rationale for this approach and the impacts of the unit's work to the knowledge base.

4.2 Research innovation and commercialisation

- a) Describe the administrative unit's practices for innovation and commercialisation.
- b) Describe the motivation among the research staff in doing innovation and commercialisation activities.
- c) Describe how innovation and commercialisation is supported at the administrative unit.

Table 9. Policies for innovation including IP policies, new patents, licenses, start-up/spin-off guidelines

Describe up to 5 documents of the administrative unit's policies for innovation, including IP policies, new patents, licenses, start-up/spin-off guidelines, etc., that are the most relevant. If the administrative unit uses the strategies, policies, etc. of a larger institution, then present these documents. Please delete lines which are not in use.

No.	Name	Valid period	Link
1			

Table 10. Administrative description of successful innovation and commercialisation results

Please describe up to 10 successful innovation and commercialisation results at your administrative unit in the period 2012-2022. Please delete lines which are not in use.

No.	Name of innovation and commercial results	Link	Description of successful innovation and commercialisation result.
1			

4.3 Higher education institutions

a) Reflect how research at the administrative unit contributes towards master and PhD-level education provision, at your institutions and beyond.

b) Describe the opportunities for master students to become involved in research activities at the administrative unit.

c) **ONLY** for administrative units responsible for the Cand.med. degree programme, cf. [Evaluation of the Professional programme in Medicine \(NOKUT\)](#).

- Reflect on how research at the administrative unit contributes towards the quality of the Cand.med. degree programme at your institutions and beyond.
- Describe the different opportunities for students on the Cand.med. degree programme to become involved in research activities at the administrative unit, and the extent to which students use those opportunities.

4.4 Research institutes

a) Describe how the research and innovation activities/projects at the administrative unit contribute to the knowledge base for policy development, sustainable development, and societal and industrial transformations more generally.

b) Describe the most important research activities with partners outside of research organisations.

4.5 Health trusts

a) Reflect on how the administrative unit's clinical research, innovation and commercialisation contribute towards development, assessment and implementation of new diagnostic methods, treatment, and healthcare technologies.

b) Reflect on how research at the unit contributes towards the quality of relevant education programme at your institutions or beyond.

c) Describe the different opportunities for students on relevant educational programmes to become involved in research activities at the administrative unit, and the extent to which students use those opportunities.

5.Relevance to society

Reflect on the administrative unit's contribution towards the Norwegian Long-term plan for research and higher education, societal challenges more widely, and the UN Sustainable Development Goals.

5.1 Impact cases

Please use the attached template for impact cases. Each impact case should be submitted as an attachment (pdf) to the self-assessment.

Impact case guidelines

Each case study should include sufficiently clear and detailed information to enable the evaluation committee to make judgements based on the information it contains, without making inferences, gathering additional material, following up references or relying on members' prior knowledge. References to other sources of information will be used for verification purposes only, not as a means for the evaluation committee to gather further information to inform judgements.

In this evaluation, impact is defined as an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia.

Timeframes

- The impact must have occurred between 2012 and 2022
- Some of the underpinning research should have been published in 2012 or later
- The administrative units are encouraged to prioritise recent cases

Page limit

Each completed case study template will be limited to **five pages** in length. Within the annotated template below, indicative guidance is provided about the expected maximum length limit of each section, but institutions will have flexibility to exceed these so long as the case study as a whole remains no longer than **five pages** (font Calibri, font size 11). Please write the text into the framed template under the sections 1–5 below. The guiding text that stands there now, can be deleted.

Maximum number of cases permitted per administrative unit

For up to 10 researchers: one case; for 10 to 30 researchers: two cases; for 30-50 researchers: three cases; for 50-100 researchers: four cases, and up to five cases for units exceeding 100 researchers.

Naming and numbering of cases

Please use the standardised short name for the administrative unit, and the case number for the unit (1,2,3, etc) in the headline of the case. Each case should be stored as a separate PDF-document with the file name: [Name of the institution and name of the administrative unit] [case number]

Publication of cases

RCN plans to publish all impact cases in a separate evaluation report. By submitting the case the head of the administrative units consents to the publication of the case. Please indicate below if a case may not be made public for reasons of confidentiality.

If relevant, describe any reason to keep this case confidential:

Please write the text here

[Name of the institution and name of the administrative unit] [case number]

Institution:
Administrative unit:
Title of case study:
Period when the underpinning research was undertaken:
Period when staff involved in the underpinning research were employed by the submitting institution:
Period when the impact occurred:

1. Summary of the impact (indicative maximum 100 words)

This section should briefly state what specific impact is being described in the case study.

2. Underpinning research (indicative maximum 500 words)

This section should outline the key research insights or findings that underpinned the impact, and provide details of what research was undertaken, when, and by whom. This research may be a body of work produced over a number of years or may be the output(s) of a particular project. References to specific research outputs that embody the research described in this section, and evidence of its quality, should be provided in the next section. Details of the following should be provided in this section:

- The nature of the research insights or findings which relate to the impact claimed in the case study.
- An outline of what the underpinning research produced by the submitted unit was (this may relate to one or more research outputs, projects or programmes).
- Dates of when it was carried out.
- Names of the key researchers and what positions they held at the administrative unit at the time of the research (where researchers joined or left the administrative unit during this time, these dates must also be stated).
- Any relevant key contextual information about this area of research.

3. References to the research (indicative maximum of six references)

This section should provide references to key outputs from the research described in the previous section, and evidence about the quality of the research. All forms of output cited as underpinning research will be considered equitably, with no distinction being made between the types of output referenced. Include the following details for each cited output:

- Author(s)
 - Title
 - Year of publication
 - Type of output and other relevant details required to identify the output (for example, DOI, journal title and issue)
 - Details to enable the panel to gain access to the output, if required (for example, a DOI or URL).
- All outputs cited in this section must be capable of being made available to panels. If they are not available in the public domain, the administrative unit must be able to provide them if requested by RCN or the evaluation secretariate.

4. Details of the impact (indicative maximum 750 words)

This section should provide a narrative, with supporting evidence, to explain:

- How the research underpinned (made a distinct and material contribution to) the impact;
- The nature and extent of the impact.

The following should be provided:

- A clear explanation of the process or means through which the research led to, underpinned or made a contribution to the impact (for example, how it was disseminated, how it came to influence users or beneficiaries, or how it came to be exploited, taken up or applied).

- Where the submitted administrative unit's research was part of a wider body of research that contributed to the impact (for example, where there has been research collaboration with other institutions), the case study should specify the particular contribution of the submitted administrative unit's research and acknowledge other key research contributions.
- Details of the beneficiaries – who or what community, constituency or organisation has benefitted, been affected or impacted on.
- Details of the nature of the impact – how they have benefitted, been affected or impacted on.
- Evidence or indicators of the extent of the impact described, as appropriate to the case being made.
- Dates of when these impacts occurred.

5. Sources to corroborate the impact (indicative maximum of ten references)

Institution	Administrative unit	Name of research group	Expert panel
UiB	Department of Global Public Health and Primary Care	Bergen Center for Ethics and Priority Setting	Panel 4c
UiB	Department of Global Public Health and Primary Care	Centre for International Health (CIH)	Panel 4f
UiB	Department of Global Public Health and Primary Care	EPISTAT	Panel 4e
UiB	Department of Global Public Health and Primary Care	Section for general practice (FAM)	Panel 4f

Scales for research group assessment

Use whole integers only – no fractions!

Organisational dimension

Score	Organisational environment
5	An organisational environment that is outstanding for supporting the production of excellent research.
4	An organisational environment that is very strong for supporting the production of excellent research.
3	An organisational environment that is adequate for supporting the production of excellent research.
2	An organisational environment that is modest for supporting the production of excellent research.
1	An organisational environment that is not supportive for the production of excellent research.

Quality dimension

The quality dimension consists of two judgements: 1) Research and publication quality, and 2) Research group's contribution. The first judgement is defined as follows:

Score	Research and publication quality	Supporting explanation
5	Quality that is outstanding in terms of originality, significance, and rigour.	The quality of the research is world leading in terms of quality, and is comparable to the best work internationally in the same area of research. The publications submitted provide evidence that the work of the group meets the highest international standards in terms of originality, significance, and rigour. Work at this level should be a key international reference in its area.
4	Quality that is internationally excellent in terms of originality, significance and rigour but which falls short of the highest standards of excellence.	The quality of the research is internationally excellent. The research is clearly of an international standard, with a very good level of quality in terms of originality, significance, and rigour. Work at this level can arouse significant interest in the international academic community, and international journals with the most rigorous standards of publication (irrespective of the place or language of publication) could publish work of this level.
3	Quality that is recognised internationally in terms of originality, significance and rigour.	The quality of the research is sufficient to achieve some international recognition. It would be perceived nationally as strong and may occasionally reach an internationally recognised level in terms of originality, significance and rigour. Internationally recognised journals could publish some work of this level.
2	Quality that meets the published definition of research for the purposes of this assessment.	The international academic community would deem the research to be nationally acceptable, but below world standards. Legitimate nationally recognised peer-reviewed journals could publish work of this level.
1	Quality that falls below the published definition of research for the purposes of this assessment ¹ .	The quality of the research is well below international level, and is unpublishable in legitimate peer-reviewed research journals.

¹ A publication has to meet all of the criteria below:

Societal impact dimension

The societal impact dimension is also composed of two judgements, defined as presented in the table below.

Score	Research group's societal contribution, taking into consideration the resources available to the group	Score	User involvement
5	The group has contributed extensively to economic, societal and/or cultural development in Norway and/or internationally.	5	Societal partner involvement is outstanding – partners have had an important role in all parts of the research process, from problem formulation to the publication and/or process or product innovation.
4	The group's contribution to economic, societal and/or cultural development in Norway and/or internationally is very considerable given what is expected from groups in the same research field.	4	Societal partners have very considerable involvement in all parts of the research process, from problem formulation to the publication and/or process or product innovation.
3	The group's contribution to economic, societal and/or cultural development in Norway and/or internationally is on par with what is expected from groups in the same research field.	3	Societal partners have considerable involvement in the research process, from problem formulation to the publication and/or process or product innovation.
2	The group's contribution to economic, societal and/or cultural development in Norway and/or internationally is modest given what is expected from groups in the same research field.	2	Societal partners have a modest part in the research process, from problem formulation to the publication and/or process or product innovation.
1	There is little documentation of contributions from the group to economic, societal and/or cultural development in Norway and/or internationally.	1	There is little documentation of societal partners' participation in the research process, from problem formulation to the publication and/or process or product innovation.

Methods and limitations

Methods

The evaluation is based on documentary evidence and online interviews with the representatives of Administrative Unit.

The documentary inputs to the evaluation were:

- Evaluation Protocol Evaluation of life sciences in Norway 2022-2023
- Administrative Unit's Terms of Reference
- Administrative Unit's self-assessment report
- Administrative Unit's impact cases
- Administrative Unit's research groups evaluation reports
- Panel reports from the Expert panels
- Bibliometric data (*NIFU Nordic Institute for Studies of innovation, research and education*)
- Personnel data (*Statistics Norway (SSB)*)
- Funding data – The Research Council's contribution to biosciences research (*RCN*)
- Extract from the Survey for academic staff and the Student Survey (*Norwegian Agency for Quality Assurance in Education (NOKUT)*)

After the documentary review, the Committee held a meeting and discussed an initial assessment against the assessment criteria and defined questions for the interview with the Administrative Unit. The Committee shared the interview questions with the Administrative Unit two weeks before the interview.

Following the documentary review, the Committee interviewed the Administrative Unit in an hour-long virtual meeting to fact-check the Committee's understanding and refine perceptions. The Administrative Unit presented answers to the Committee's questions and addressed other follow-up questions.

After the online interview, the Committee attended the final meeting to review the initial assessment in light of the interview and make any final adjustments.

A one-page summary of the Administrative Unit was developed based on the information from the self-assessment, the research group assessment, and the interview. The Administrative Unit had the opportunity to fact-check this summary. The Administrative Unit approved the summary without adjustments. ***(Adjust the text if the AU asked for corrections. Include the AU request and explain what adjustments were made).***

Limitations

(Choose one of the three options below and delete the others. Feel free to elaborate slightly if necessary. For example, if you choose option 3, explain the missing information. Note that the Committee can provide detailed feedback and suggestions on improving the evaluation in the Memorandum to the RCN. This section has to remain concise and only summarise whether the information was or was not sufficient.)

- (1) The Committee judged the information received through documentary inputs and the interview with the Administrative Unit sufficient to complete the evaluation.

- (2) The Committee judged that the Administrative Unit self-assessment report was insufficient to assess all evaluation criteria fully. However, the interview with the Administrative Unit filled gaps in the Committee's understanding, and the information was sufficient to complete the evaluation.
- (3) The Committee judged that the Administrative Unit's self-assessment report was insufficient to assess all evaluation criteria fully, and some information gaps remained after the interview with the Administrative Unit.

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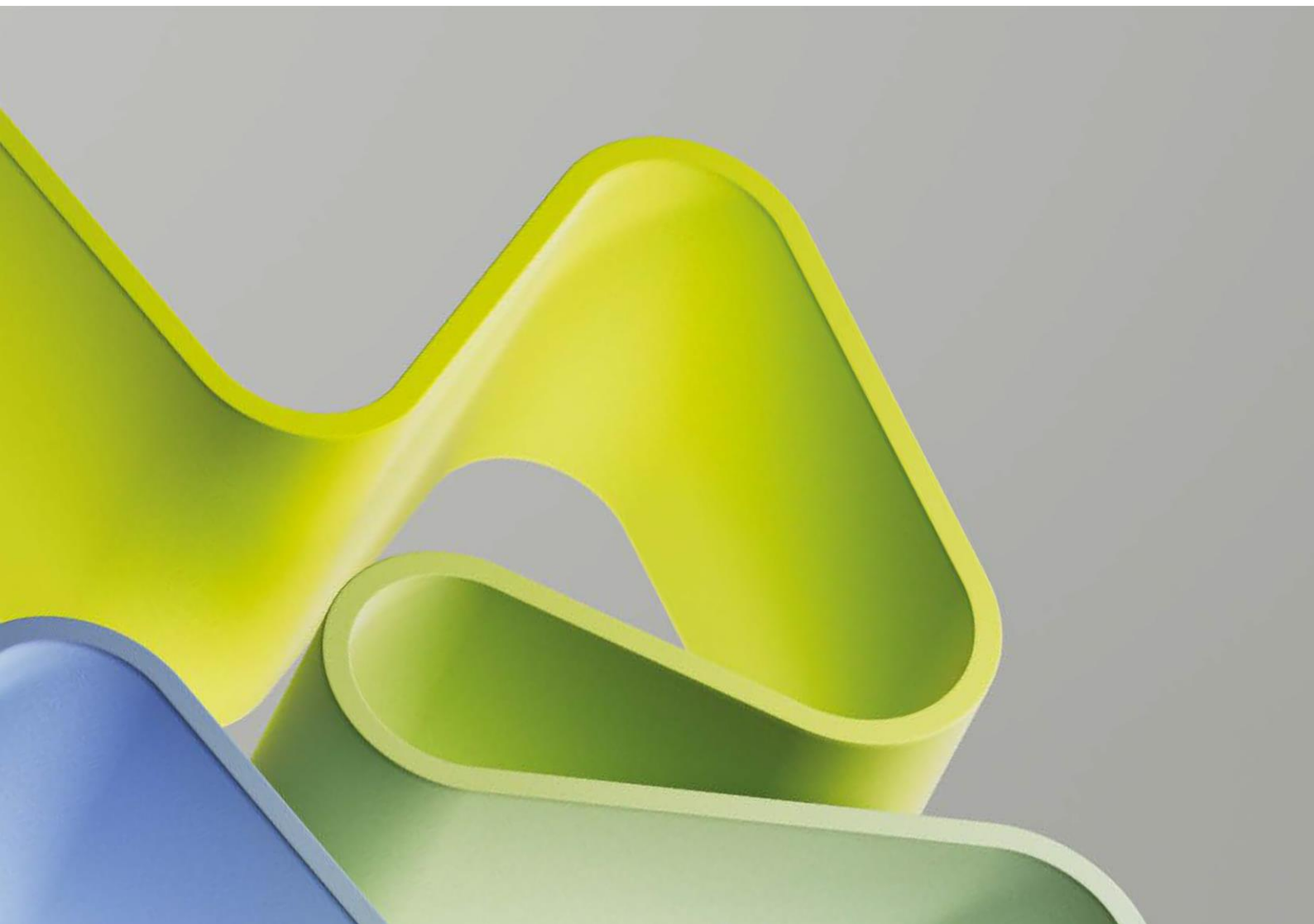
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www.forskningsradet.no/publikasjoner

Design: [design]

Foto/ill. omslagsside: [fotokreditt]

ISBN 978-82-12-04114-1 (pdf)



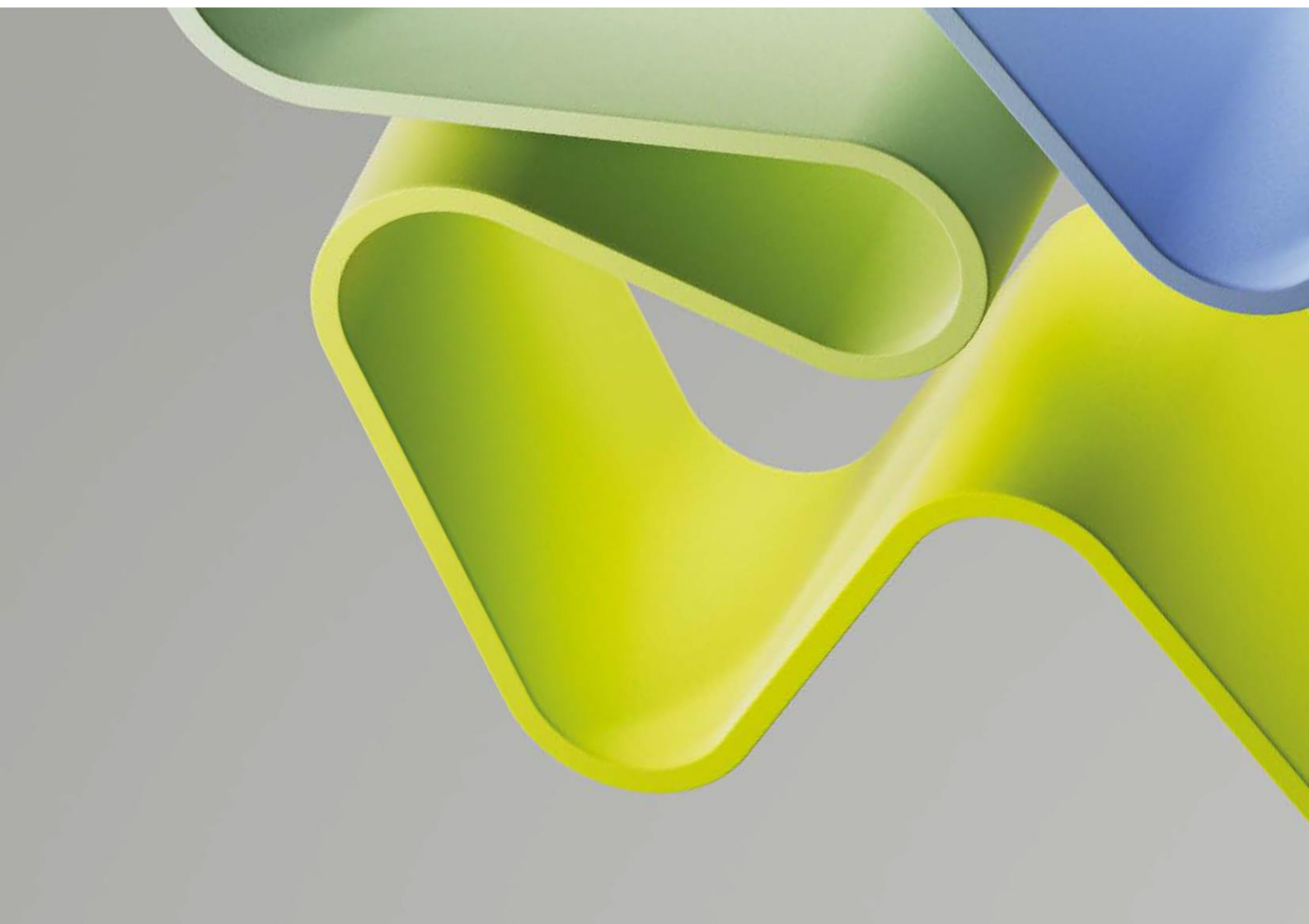
Evaluation of Life Sciences 2022-2024

Evaluation of medicine and health 2023-2024

Evaluation report

ADMIN UNIT: Department of Clinical Dentistry
INSTITUTION: University of Bergen (UiB)

December 2024



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Statement from Evaluation Committee 4

This report is from Evaluation Committee 4 which evaluated the following administrative units representing the higher education sector in the Evaluation of medicine and health 2023-2024:

- Faculty of Health Sciences and Social Care, Molde University College
- Faculty of Medicine and Health Sciences, Norwegian University of Science and Technology (NTNU)
- Faculty of medicine and Health Sciences, NTNU, Norwegian University of Science and Technology (NTNU)
- Department of Clinical Dentistry (UIB), UiT Arctic University of Norway
- Department of Community Medicine, UiT Arctic University of Norway
- Department of Medical Biology (IMB), UiT Arctic University of Norway
- Faculty of Health and Sport Sciences, University of Agder (UiA)
- Department of Global Public Health and Primary Care, University of Bergen (UiB)

The conclusions and recommendations in this report are based on information from the administrative units (self-assessment), digital meetings with representatives from the administrative units, bibliometric analysis and personnel statistics from the Nordic Institute for Studies of Innovation, Research, and Education (NIFU) and Statistics Norway (SSB), and selected data from Studiebarometeret (NOKUT). The digital interviews took place in Autumn 2024.

This report is the consensus view from committee Higher Education Institutions 4. All members of the committee have agreed with the assessments, conclusions and recommendations presented here.

Evaluation committee Higher Education Institutions 4 consisted of the following members:

Professor Anja Krumeich (Chair)
Maastricht University

Professor John de Wit
Utrecht University

Professor Paul Hatton
University of Sheffield

Professor Marialuisa Lavitrano
Milano-Bicocca University

Professor Patrik Midlöv
Lund University

Professor Louise Torp Dalgaard
Roskilde University

Rebecca Babb, Technopolis Group, was the committee secretary.

Oslo, December 2024

Profile of the administrative unit

The research activities at the Department of Clinical Dentistry at the University of Bergen (UiB) is organised in two institutes: IKO, which focuses on patient treatment and teaching with centres for Operative Dentistry and Functional Tissue Reconstruction (FUTURE), and IOB, which emphasises preclinical medicine and oral health. Both institutes provide research training, and the PhD programme is at faculty-level. The administrative unit consists of FTE 17,5 professors, 7,5 associate professors, 31 PhD-candidates, seven post-docs and researchers, five senior engineers, one head of department, one research coordinator and one financial project manager. Women represent a majority in all categories except the head of department, which is a man.

The administrative unit is comprised of one research group, the TOR (Center for translational oral research). The administrative unit aims to fulfil the UN's Sustainable Development Goals (SDG), with emphasis on SDG3 – ensure healthy lives and promote well-being for all ages through high quality research, innovations and educational activities related to oral health. IKO's strategy for research runs from 2018 to 2023. A new strategy is currently in progress. The administrative unit's vision is to be a leading actor in research in oral health, nationally and internationally. The administrative unit has active research environments in clinical, epidemiological, and population-based research, infection and inflammation, biomaterials, and regenerative dentistry/medicine of international standard. Their main targets are to develop safe and durable biomaterials, improve treatments, study the evolution of oral health at a population level and exploring links between oral health and general health. They further aim to strengthen translational research. Addressing challenges in tissue engineering and regenerative medicine requires true integration of many disciplines (biology, biomaterials science, clinical medicine, and engineering). The interdisciplinary nature of the studies has been shown in several projects and studies reported by TOR members and through the large global network established by the groups (more than 40 institutes are collaborating with the groups in Norway, Europe, Japan, USA and Africa). Among its national collaborators are universities, hospitals, institutes, and industry. The administrative unit also has several international industrial collaborators. In these projects, societal engagement is a strategic priority to drive maximum positive benefits from stem cells and 3D bioprinting while staying focused on any risks related to these technologies.

According to the self-assessment, internal strengths are a dedicated workforce, top-notch infrastructure, and strategic collaborations, position the administrative unit at the forefront of translational oral research, which the administrative unit may leverage in the future. However, challenges like diminishing economic resources, a lack of research topics, recruitment difficulties, and limited visibility highlight the need for a strategic approach, including resource optimisation, curriculum restructuring, and proactive efforts to enhance collaboration. Additionally, external threats from political and regulatory factors threaten research funding, necessitating project reprioritisation and potentially marginalising oral health within the broader health system. These challenges underscore the importance of strategic planning and proactive engagement with policymakers to safeguard the administrative unit's future. Abundant external opportunities, including strategic collaborations and securing funding, are listed as a possibility to propel the administrative unit toward greater innovation and societal impact.

Overall evaluation

The Department of Clinical Dentistry at the University of Bergen (UiB) is comparable to the leading Dental Schools throughout Europe in terms of strategy, organisation, and quality of research. The evidence reviewed showed that the best research undertaken and published by this department at UiB was world leading in terms of quality and – where relevant – impact. Research activities aligned well with local strategy, where the strategic goals set at a departmental level were sound. The focus on excellence in terms of research quality is welcome, although it was noted that the Department lacked a consensus for a common definition of high quality or excellence in terms of assessing research (see below). Funding for research came from a range of sources, including grants secured from competitive processes.

There were many research and related strengths noted in this review. The quality of the strongest peer reviewed outputs was world leading, in terms of publishing well designed studies with valuable results in field leading journals that were then attracting citations from recognised centres of excellence internationally. Open science policies and practices were also especially strong, with all of the best work reviewed publicly available. Much of the research undertaken was informed by national and global oral health challenges and clinical needs, and it was encouraging that the Department could demonstrate real world impact. The Departmental culture – including research culture – was positive, with evidence of mature and effective policies for equality, diversity, and inclusion (EDI) as well as a wider sense of a collegiate departmental community. Research facilities including technical support were also a strength, but there are opportunities to further improve sustainability. PhD training appeared to be highly effective.

Weaknesses include a relatively poor understanding of how to define excellence in research. As noted in this report, there is much excellent and impactful research in the department, but the evidence reviewed suggested that staff could not always articulate why – for example – a publication was especially noteworthy or excellent in terms of the field or more generally in oral health research. One further weakness was the lack of focus on a smaller number of stronger research subjects or thematic areas. This fragmentation of the community meant that most themes were relatively lacking in critical mass, with reduced opportunities for collaboration towards securing major research grants, and this made it more difficult for the department to articulate its strengths. While the best publications were undoubtedly world leading, there was also a “tail” of unremarkable or weaker outputs that added little to the field. These observations may also relate to a relative lack of accountability for researchers to line managers and leaders (while overall the Department enjoyed a positive, collegiate culture, there appeared to be no real mechanism for leaders to challenge staff in situations where there were opportunities to improve on the quality of research). In addition, there are opportunities to use formal training and staff development to increase the skills and competencies of all academic and technical staff to further strengthen the community and build cohesion. The departmental research strategy was reasonable, but there was certainly room for improvement, primarily to address the issues outlined here and also to better align with faculty and institutional strategies.

Priorities for change and improvement of research at the Department – to address potential weaknesses - include establishing a new strategy that aligns with the Faculty and Institutional strategies, where this new strategy should further emphasise excellence and real-world impact. Related to this, the institution should better define what “excellence” looks like in terms of research, basing this on internationally recognised indicators but recognising subject-specific enhancements and the need to comply with the Declaration on Research Assessment (DORA). The new strategy and prioritisation of excellence and impact should be understood and implemented by all relevant staff, with an approach that includes improved education/staff development and accountability. These steps need to be taken in such a way as to preserve the positive aspects of research culture noted above, balancing so-called academic freedom with the goal of further raising standards.

The future prospects for the Department of Clinical Dentistry are highly promising, especially if the recommendations in this review are acted upon. Norway enjoys overall good standards of oral health due to the excellent education and training provided by the Higher Education sector, with many additional benefits arising from research. This acknowledged, it is also true that relatively disadvantaged communities including some ageing populations and patients with special needs have poor oral health, and there are opportunities to undertake and apply research to address these gaps. By implementing a robust local research strategy (that aligns with the wider institutional perspective), the Department will be able to direct its efforts rationally to address both national oral health priorities and wider European and global opportunities. The latter includes research with translational partners – ideally industry – that delivers innovations in products and services to improve oral health and associated socio-economic benefits.

Recommendations

- Priorities for change and improvement of research at the Department – to address potential weaknesses - include establishing a new strategy that aligns with the Faculty and Institutional strategies, where this new strategy should further emphasise excellence and real-world impact. Related to this, the institution should better define what “excellence” looks like in terms of research, basing this on internationally recognised indicators but recognising subject-specific enhancements and the need to comply with the Declaration on Research Assessment (DORA). There are a wide variety of indicators of research excellence that should be considered, including competitive grant capture, publication in field leading journals where papers are then highly cited by recognised groups around the world, national and international collaboration, PhD success, awards and prizes, and diverse real-world impacts.
- The new strategy and prioritisation of excellence and impact should be understood and implemented by all relevant staff, with an approach that includes improved education/staff development and accountability. These steps need to be taken in such a way as to preserve the positive aspects of research culture noted above, balancing so-called academic freedom with the important goal of further raising quality and standards. One positive step here would be greater formalisation of the research leadership structure, with a research committee established to assist with setting, implementing and reviewing strategy and policies.
- Research strategy and implementation should prioritise consolidation around a smaller number of broader research themes, each with sufficient critical mass to further improve the number of high quality of publications, increase opportunities for impact, and facilitate staff training and development. There are opportunities to use formal training and staff development to increase the skills and competencies of all academic and technical staff to further strengthen the research community or ecosystem and build cohesion. It may be that a focus on a smaller number of stronger themes means that some research that does not fit in terms of excellence or impact should be deprioritised in terms of internal support.
- Research staff, especially those with leadership responsibilities, should further prioritise winning large, collaborative and where relevant multi-disciplinary research grants. These larger awards are more likely to deliver the highest quality research that stands out in an increasingly competitive global landscape, they provide a better environment for research staff to grow and develop, and in the medium term they assist in recruiting and retaining the very best staff at all levels. Prioritisation for larger, competitive awards should be acknowledged in the renewed research strategy.
- While research infrastructure was on balance a strength, there are always opportunities to improve sustainability. This is especially true at a time of reduced resources but where access to state-of-the-art infrastructure is an important determinant of success. The Department are therefore encouraged to continue with technical staff development and continue to facilitate wider access to local equipment while collaborating more widely to establish core facilities.

1. Strategy, resources and organisation of research

1.1 Research strategy

The Department of Clinical Dentistry at the University of Bergen (UiB) is similar in structure and activities to comparable Dental Schools throughout Europe and North America. As noted elsewhere, this is understandable because of the necessarily strong focus on clinical teaching and the graduation of qualified dentists and other related professionals (e.g. hygienists). The research strategy and programmes reflect these strong clinical foundations, where it is also influenced by national and global oral health priorities alongside the personal expertise of key academic staff.

While the broad vision and goals for this administrative unit are reasonable and reflect the environment noted above, there are some opportunities for improvement (summarised below). Firstly, it was noted that – while there are many common features – the institutional, Faculty and UiB research strategies do not map fully in terms of coverage and time periods (where the UiB strategy only ran until 2023). Moreover, while there is a strong emphasis on excellent or “high quality” research, this is relatively poorly defined in the documentation and interviews with key staff did not establish recognised indicators or metrics that could identify excellent, high quality and/or world leading research. While these shortcomings are noted here to benefit the Departments and help drive positive improvement, many strengths and positives were also noted i.e. opportunities for improvement lay in establishing a stronger strategy and making necessary structural changes, many aspects of the Department’s research had features that indicated high quality/excellence, impact and other positives. Some of these are noted elsewhere in this report but included evidence of high-quality research ranging from laboratory studies to clinical evaluation and trial, multidisciplinary research, international profile and collaboration, competitive grant capture, and publication in field-leading journals (attracting citations from major groups globally).

It is good practice to focus on a smaller number of research fields or themes – as UIB describes here - building critical mass in each and where possible facilitating collaborative studies between them. Inevitably, departmental size and a focus on teaching restricts research opportunities, but the Department has wisely integrated their research in a single “Centre for Translational Oral Research” (TOR) that as four thematic research groups, and is itself integrated with a doctoral education programme under a Research School (one of three research units). Beneath this layer of research organisation, the structure is less clear, where each of the four research groups has a different number of areas (from 1 to 5) with very different representation of work for each. Some specific areas have been put forward for more detailed analysis in subsequent sections of this report.

Elements of the Department’s research are undoubtedly impactful on society, both directly and indirectly (e.g. in terms of policy, such as the impressive work on antibiotic stewardship). The focus on real world oral health and related challenges is recognised as a strength.

The committee's evaluation

Overall, the Department generates some high-quality research, with many aspects of their best work comparable to leading Dental Schools across Europe. Aspects of strategy are also reasonable, with evidence of some implementation leading to positive change. It was noted in the documentation - and at interview – that Department staff generally believe that

they have relatively high teaching loads, and this has the potential to detract from research. This is also a common feature among European dental schools.

The committee's recommendations

- The Department is urged to complete an updated research strategy that aligns with the UiB vision and goals, and also takes on board the recommendations in this review.
- As part of this strategic update, the leadership are strongly encouraged to make decisions around prioritising the highest quality research (as defined by common indicators e.g. competitive grant capture, publication in field leading journals where papers are then highly cited by recognised groups around the world, national and international collaboration, successful PhD supervision, etc.). In parallel, the leadership should consider how best to manage or support individual staff who are not thriving in research terms (e.g. by moving them into larger, more successful teams for mentoring and development).
- Irrespective of how successful versus less effective researchers are managed, the leadership and wider department community are strongly encouraged to consolidate research groups further (see below, Section 1.2). For example, there are many obvious overlaps between biomaterials and tissue engineering, and also craniofacial development - these do not necessarily need to be separate themes.
- Finally, the department is encouraged to consider teaching loads, and potentially share some dental teaching across the institution or faculty to generate more time for the leading researchers to generate even greater success.

1.2 Organisation of research

The establishment of TOR in 2021 was a very positive development, providing a home and unifying mission with distinctive research objectives. There is also much added value (e.g. in achieving critical mass) and potential for further improvement using TOR as a vehicle. As noted above and in the documentation provided in the self-assessment, TOR has four thematic research groups and three units that include the Research School. These positives recognised, it was less clear how well integrated the strategic and operational realities at TOR are, and there appear to be differences in terms of research “success” associated with each group. The narrative in the self-assessment reinforces the impression that these groups in general are run very separately with relatively little integration or collaboration. While there is an opportunity here to generate even greater critical mass via consolidation – where this is a key recommendation in this review - it was noted that all thematic groups had some evidence of impressive research success, especially around grant capture (including European) and some world leading publications.

With respect to research staff and careers, overall the impression gained from the self-assessment and interviews was very positive. Very many staff and postgraduate students appeared to have developed during their training and careers, diversity and inclusion was a positive feature of the research community (including in leadership), and institutional effort appeared to be directed at supporting earlier career researchers. There were some anomalies that might be related to English language, but it was noted that (a) the Head of Department appeared to have a large number of critical responsibilities with little evidence of effective delegation, and (b) the overall research leadership appeared to be the responsibility of a “coordinator” rather than a leader (where a director or leader is usually more effective in comparable Departments). Time distribution appeared fair overall with the limited information available, although the documents and interviews suggested most staff felt that teaching and administration loads were high and research time was limited. The option of a sabbatical was viewed positively, although no data was available on uptake.

The committee's evaluation

Overall, the organisation of research and related activities (e.g. postgraduate development and training) is sound, with a logical structure and much evidence of success.

The committee's recommendations

- The Department is strongly encouraged to deliver on the promise of TOR, through a combination of structural changes (e.g. establishing a distinctive research leadership team with real powers) and consideration of some thematic group mergers (see Section 1.1 above) there is now an opportunity to better integrate the research community with a focus on excellent and impactful research.
- The Department is encouraged to make full use of sabbatical opportunities to develop staff, build collaborations, and/or establish new lines of research enquiry. If this path is followed, it is important that staff with sabbatical time understand their responsibilities to use the time productively, ideally against specific objectives (e.g. grant submission).

1.3 Research funding

The Department appear to have a healthy research budget that is a combination of government "core" funding and competitive grant success. The core budget also covers essential professional support staff (e.g. technicians) and infrastructure (institutional and departmental). Support for PhD students is impressive, greater than typically associated with European Dental Schools and a major opportunity for the Department. Competitive national and/or international grants last five years (2018-2022).

The committee's evaluation

The Department and specifically key members of staff and their teams appear to have been highly successful in securing competitive research income, especially from EC schemes, including as project leaders/coordinators. Winning this income is an indicator of high research quality and standing in the community, and larger awards are associated with longer programmes that are more likely to deliver significant findings that are associated with the highest quality publications in field leading journals. Many of the projects listed in the self-assessment are also translational, with evidence of potential for real world impact. Indeed the Department has examples of recent real-world impact as a result of their research.

The committee's recommendations

- The Department is encouraged to continue to seek and secure international grant funding for the reasons outlined above.
- Where appropriate, the Department is encouraged to seek new (and mature existing) relevant industry partnerships, prioritising successful translation to the real-world application of their best research.

1.4 Use of infrastructures

The Department has clearly invested in local infrastructure, and also accesses institutional core facilities, to conduct the bulk of research. Participation/use of national and international infrastructure is more limited but is appropriate for relevant projects and aligns well with external collaborations.

The committee's evaluation

In addition to evidence of appropriate use including use of infrastructure leading to grant capture and publication, the committee noted a strong emphasis on sustainability in the self-assessment that was commended.

The committee's recommendations

The Department is encouraged to continue to emphasise establishing or accessing the best facilities to support their strongest research programmes and continue an emphasis on sustainable infrastructure. Towards the latter objective, it would be wise to consider sharing facilities in a sustainable and safe way, and “join forces” with other parties to invest in new, world class facilities (again with a sustainable model).

1.5 Collaboration

Researchers at the Department appear to be highly collaborative, both internally, nationally, and internationally. This was evidenced by grant capture and publication. While the self-assessment catalogued a large volume of collaboration, in most cases very little detail was provided on the qualitative aspects of these research partnerships (i.e. did these collaborations lead to major publications or impacts, were they sustained, and how was success determined). To be fair, there were several noted exceptions to this observation, both in the self-assessment and case studies. Industry and clinical partnerships were also noted, and these typically contained more detail.

The committee's evaluation

The Department is evidently a highly collaborative community, further reinforcing their high standing in the oral and dental research environment that is arguably out of proportion to their relatively small size.

The committee's recommendations

- Continue to maintain an outward looking, collaborative research culture, this is clearly a strength of the Department.
- Be willing to benchmark your individual collaborations. Consider recognised approaches to benchmarking. For example: Are they supported with sufficient funds, and/or do they lead to new funding opportunities? Do they generate publications that are field leading (in the stronger journals, and do they attract citations from major groups globally), and/or are they associated with meaningful, real-world impacts.

1.6 Research staff

As noted in the opening section, the impression gained from the self-assessment and interviews was very positive. Very many staff and postgraduate students appeared to have developed during their training and careers; diversity and inclusion was a positive feature of the research community (including in leadership), and institutional effort appeared to be directed at supporting earlier career researchers. With respect to diversity, it was noted that the research community contained a large number of women, including in many senior leadership roles. Time distribution appeared fair overall with the limited information available, although the documents and interviews suggested most staff felt that teaching and administration loads were high, and research time was limited. This evidence of diversity appeared true for all levels of the organisation.

The committee's evaluation

Overall the profile and organisation of staff appeared logical and reasonable. The evidence for significant female leadership was read as evidence of a positive research culture, most likely reflected in other indicators of diversity. It was however noted that (a) the Head of Department appeared to have a large number of critical responsibilities with little evidence of effective delegation, and (b) overall research leadership appeared to be the responsibility of a “coordinator” rather than a leader (where a director or leader is usually more effective in comparable Departments).

The committee's recommendations

- It is recommended that a more overt leadership team be described with shared or delegated responsibilities around research (some delegation was recognised, but even then, the weight of responsibility appeared to lie with the Head of Department with others having coordinator roles – coordination is not leadership). Sharing and delegating leadership will better prepare individuals for further promotion and contribution to the ambition and goals for the Department.

1.7 Open Science

The self-report and follow up interview suggested - with supporting evidence - that UiB has a very positive approach to open science policies and practice. Overall though compliance with EU and RCN open science principles appeared to be good and in line with funder expectations. This is partly because the open science policy adherence is supported by expert professional staff at the University, but also indicates a positive research culture. The latter is supported by extensive training, delivered by specialist library teams. UiB also utilises an institutional repository to maximise access and comply with their own rights retention policy. Data management plans form a key part of responsible research.

The committee's evaluation

Overall, our evaluation was very favourable. All publications reviewed were open access, with some examples of supplementary data (although not all supplementary were accessible e.g. Shanbhag et al 2024 J Funct Biomater data was not findable in the EMBL EBI PRIDE proteomics database as claimed in the paper). Committee investigations supported the claims that 97% of publications in 2022 were open access, with almost half at the gold standard. Likewise, the attitude to data ownership appeared positive and responsible.

The committee's recommendations

- Elsewhere the committee recommends a continued focus on raising research quality and consistency, where this should be reflected by focussing resources in publishing the very strongest papers that attract favourable attention in the global community (the Department already has many examples of this work, this is encouragement to maintain this direction of travel). In these cases, the Department is strongly encouraged to seek gold open access, making their best work available to the widest audience to maximise opportunities for impact in the wider sense of the term.

2. Research production, quality and integrity

Introduction

The Department's research is brought together in the Centre for Translational Oral Research (TOR) that was established in 2021 and is a substantial entity that includes 4 research groups and three units (research laboratory unit, statistical unit, research school). The research groups pre-date the Centre that integrates basic experimental, epidemiological, clinical research activities and facilitates translation of the results into evidence-based innovative therapies. The research groups have distinct and complementary profiles. The Tissue Engineering Research Group has undertaken Advanced Therapy Medicinal Products (ATMP)-based clinical trials that are among few in Europe. The research of the group has also resulted in a standardised protocol for mesenchymal stem cell use. The contributions of the NanoSafety & NanoMedicine group include establishing advanced biological models and methods to provide reliable, free for nanomaterial interference, cost- and time- efficient, ecologically friendly testing that also reduces the need for animal use. The Craniofacial Development, Oral Infections and Inflammations research is focused on investigation of some most frequently occurring diseases in the oral cavity, periodontitis, and inflammation of endodontic origin. The aim of the research group is to gain more knowledge of the pathogenesis of inflammatory diseases and conditions to achieve earlier and better diagnosis, treatment, and prevention. The research profile of the research group for Oral Health is to provide knowledge to prevent and treat diseases and conditions. Some of this research close to and relevant for society and patients is nationally and internationally unique.

UiB has its own ethical guidelines, in addition to the national and international research ethics guidelines. The Faculty of Medicine also adheres to guidelines for medicine and health research such as the declaration of Helsinki, the Vancouver protocol, as well as Guidelines by The Norwegian National Research Ethics Committee for medical and health research. When handling sensitive personal data, researchers are expected to use SAFE (secure access to research data and e-infrastructures), UiB's solution for secure processing. UiB guidelines were reviewed and revised in 2022 and include guidance on how suspicions of misconduct in research should be handled at the departmental level, which is being implemented in the departments of the Faculty of Medicine. The university has research ethics committees both at the faculty level and at the central level, which handle cases of suspected scientific misconduct. The committees also have a preventive mandate, which should promote good research practice. The central research ethics committee offers seminars on relevant topics, as well as e-courses and web resources. Sikresiden.no, which is a collaboration between 33 universities, colleges and research organisations in Norway, also provides resources for research ethics and privacy and personal data. The Faculty of Medicine offers training in research ethics through seminars for PhD supervisors, courses for PhD candidates in Research Ethics, Laboratory Animal Science and Good Clinical Practice.

Research infrastructure is prioritized by the Faculty of Medicine and it is fundamental for the faculty that all infrastructure should be made available in the best feasible way for researchers, and that the faculty contributes to the research community with up-to-date infrastructure. Research infrastructure is primarily consolidated in core facilities that are anchored in and operated by an institute on behalf of the faculty. The faculty has a dedicated committee for core facilities that advises the faculty leadership and the institutes on matters related to core facilities and other advanced infrastructure. The faculty has also developed a strategy for research infrastructure and its own roadmap for research infrastructure in line with the Norwegian Roadmap for research Infrastructure. At present, IKO is not responsible for a core facility. However, the Department has specific equipment and instruments. A substantial effort has been made by the Tissue Engineering Research

Group over the years to establish the infrastructure and research facilities available at TOR, together with the Biomaterials group. In addition, the research groups at the Department participate in a substantial number of national, international and European infrastructures.

2.1 Research quality and integrity

This part includes one overall evaluation of each research group that the administrative unit has registered for the evaluation. The overall assessment of the research group has been written by one of the 18 expert panels that have evaluated the registered research groups in EVALMEDHELSE. The expert panels are solely behind the evaluation of the research group(s). The evaluation committee is not responsible for the assessment of the research group(s).

Research group: Centre for Translational Oral Research (TOR)

The Centre for Translational Oral Research (TOR) receives critical and substantial auxiliary support by the three units (laboratory and statistical support). The research is well funded, and it is multidisciplinary and translational. More than 40 international academic partners and small as well as large industries are currently collaborating with the centre. The centre provides extensive training for the next generation of scientists and their findings have led to clinical trials for products in regenerative medicine. However, there seem to be disparities between the groups and not all of them contribute equally. Furthermore, they appear to function as independent groups and not utilising full synergy and interdisciplinary options between groups. Tissue Engineering is the most successful group and perhaps their success 'masks' the overall performance of the centre making it more successful than it actually is. Taking into account the size of the Centre, more contributions were expected. However, grants and high impact publications are dominated by the Tissue Engineering group. That disparity between the different groups contributions can be further exacerbated by the retirement of key academics with no plans to be replaced. This will significantly impact the Centre.

The committee's comment to the assessment of the research group(s)

The overall assessment of Centre for Translational Research highlights the strength of the research undertaken at the Department, including in relation to it being well funded, multidisciplinary and translational, collaborations with a substantial number of international academic and (small and large) business partners, and the extensive training for the next generation of scientists. As noted elsewhere in this evaluation report, there is, however, a disparity in the contributions of the research groups. It is of concern that success of the Tissue Engineering group in particular may mask disparities in performance. The Department may want to ensure this disparity is not exacerbated by the retirement of key academics that will affect the Centre as a whole with no plans in place for them to be replaced. A further and possibly related issue deserving of attention, equally noted elsewhere, is that research groups seem to operate mostly independently and that opportunities for synergy and interdisciplinarity are not fully utilised.

3. Diversity and equality

The Department reports a long history of engaging in actions to improve diversity and equality, and has continued this work to the present day. This is supported by clear policy documents that address key issues.

The committee's evaluation

Overall, the Department is commended for their positive and effective approach. This appears to be a very positive aspect of their research, and it most likely contributes to the very positive research culture noted in this report.

The committee's recommendations

- Few details of specific training are provided in the self-assessment, so it is encouraged that these are developed as a written programme if they do not exist already.

4. Relevance to institutional and sectorial purposes

The Department has activities towards achieving the sector-specific objectives and contributing to the knowledge base in general. The Department undertakes high-quality innovative research in fields like tissue engineering, regenerative medicine, biomaterials, and population based studies that contribute to the advancement of knowledge in these areas. The high-quality research is reflected in publications and the research excellence feeds into the quality of education. The Department has a long-standing focus on innovation and value creation in the healthcare sector and has successfully established several new companies based on research findings. The Department is responsible for dental education, education for dental hygienists, postgraduate education for seven specialties in dentistry and research education. The establishment of the Centre for Translational Oral Research (TOR) as an umbrella for the research groups at IKO has ensured a good critical mass of researchers and research support in most of the Department's fields of research.

The Department's practices for innovation and commercialisation start with a researcher who identifies the innovation potential in a research project, and contacts VIS Innovation/TTO and the faculty's innovation advisor for early clarification of the potential and IPR opportunities. If VIS Innovation recommends the project, it is included in the TTO portfolio and developed, with financing from UiB's funding. UiB has made available an Innovation handbook to guide researchers and advisors on how to foster, scale and accelerate innovation across UiB. To support innovation and commercialisation the Department aims to include industry partners into the development of research projects, maintain a presence in incubator environments (Eitri Medical Incubator), initiate and participate in project proposals under calls for innovation (national and international), foster interdisciplinary and transdisciplinary collaboration within and outside the Department (i.e., employing specialists from outside the medical field to engage new ideas and ways of thinking, undertake networking with political entities (e.g., within embassies) to drive innovation internationally, and include students at bachelor, master, and PhD-level in innovation activities; the Department also holds membership of the Bergen Business Chamber.

The Department's research staff are highly motivated to innovation activities that may promote the goals of creating equitable and high-quality oral health services nationally and internationally. The Department has a dedicated innovation leader who is part of the Department's management team and the Faculty of Medicine's Innovation Leader Forum, led by the vice-dean for innovation. The administrative unit also has access to two dedicated innovation advisors at the medical faculty and several innovation advisors and legal advisors at UiB's central Division of Research and Innovation. Researchers who are interested in developing their ideas and network in an innovation environment can use resources of the Eitri Medical Incubator. Researchers and students can apply for early-stage innovation funding through UiB's in-house verification programs, UiB Ide and UiB Early Idea.

The committee's evaluation

The Department makes extensive contributions to all the sector specific objectives. The Committee commends the Department with its supportive environment to foster innovation and commercialisation.

The committee's recommendations

- Promote optimal utilisation of the potential for collaborations and synergies between research groups to maintain and further strengthen contributions to sector specific objectives related to research and publications, innovation, education and robustness.

- Maintain the supportive environment to foster innovation and commercialisation and explore possibilities to reduce what seems a predominant reliance on the motivation initiative of researchers, for instance as an integrated focus of the process of developing research proposals.

4.1 Higher education institutions

The PhD programs at the University of Bergen are directed at the 7 faculties, with the overall responsibility for the PhD programs allocated centrally with the University Board. The individual faculties are responsible for implementing quality measures and follow-up, with the Central Research and Innovation Administration overseeing the quality assurance system. The medical faculty has a thriving doctoral program, with approximately 565 PhD candidates and 100 research students enrolled, representing the externally funded multidisciplinary research at the 5 departments. Candidates are educated to be curious, critical and independent thinkers, able to develop innovative solutions to our society's biggest challenges. High-quality PhD education is provided through supervision excellence, predicated on pedagogic competence and interpersonal relationship-building that fosters good research ethics and integrity. Elective courses are organised through research schools that foster specialised competence, greater professional collaborative networks and arena for psychosocial interaction.

The committee's evaluation

UiB makes an important contribution to PhD training and education, with evidence that postgraduate students are generally well supported and benefit greatly from the experience. The specific contributions to PhD training made by the Department are less clear. The Department also contributes to postgraduate taught programmes, including a 5-year masters that qualifies students as clinical dentists, and an undergraduate dental hygiene degree.

The committee's recommendations

- It would be beneficial to highlight the specific the contributions the department makes to PhD training and education.
- The Department might consider approaches to expose undergraduates to research.

5. Relevance to society

Introduction

The impact case studies reported by UiB appear to be strong in terms of the evidence of primary research and the links between this and the real-world impact described. These are all in areas of global significance, where Norway also has specific oral health and related challenges. In this way, the impacts are in line with the Norwegian Long-term plan for Research and Higher Education 2023-2032. The specific areas of antibiotic stewardship, regenerative medicine, orofacial pain and tooth loss as a disability are all recognised widely, and priorities for impactful research worldwide. These align closely with UN Sustainable Development Goal 3 “Good Health and Well-being”, as well as potentially influencing Goal 8 related promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all, the international community aims to achieve full and productive employment and decent work for all women and men, including for persons with disabilities, and equal pay for work of equal value.

The committee`s comments on impact case 1 – Antibiotic stewardship in dentistry

This impact case details how research and associated educational efforts have had a major impact on rational antibiotic usage in dentistry. Importantly, the research has formed the basis for national guidelines and knowledge-based antibiotic utilisation in dentistry. The potential cost-benefit of antibiotic prophylaxis to prevent infective endocarditis is an exceptionally important and sometimes heated debate in the global dental community today, with different recommendations and policies across the world. The research group make an important contribution to this debate, producing carefully researched data that provide evidence that shows – broadly - that antibiotic prophylaxis is generally not desirable, even for high-risk patients. While this work is exemplary, the researchers are encouraged to remain open minded in their pursuit of knowledge, for example published data suggests some sub-groups of high-risk patients may benefit greatly (e.g. dental extractions in patients with poor oral hygiene), while the types of prophylaxis used in implantology are unlikely to cause issues related to antimicrobial resistance (AMR). The impact case is well supported by research, which is referenced in six publications. The impact has been achieved through an impressive number and great diversity of avenues, the details of which are well described and supported by the inclusion of many relevant sources.

The committee`s comments on impact case 2 – Mesenchymal stem cell-based regenerative applications.

As highlighted in this impact case the research group have optimised and established protocols for ex vivo culture of mesenchymal stem-cells (MSC) and transportation between the GMP cell production facility and hospitals and used these protocols for clinical bone regeneration and other clinical applications. MSC represent an invaluable therapeutic tool for treatment of many of the currently non-treatable or challenging defects, diseases, and disorders. Providing such treatments has a direct impact on the health and quality of life of the patients and their families and a remarkable economic impact by reducing of the burden and costs on the health systems related to long-term care provided for the patients. The group are making good progress towards substantial impact in this competitive field, including clinical trial. In many ways though this is a less mature impact case study, as there is some way to go before cell-based regenerative therapies become mainstream. It would be good to incorporate cost effectiveness studies into the research. The research underpinning the impact case is sound and six references are provided. The details of the impact case are clearly described and supported by publications relevant to evidence translation.

The committee`s comments on impact case 3 – Increased quality of life in orofacial pain with an interdisciplinary approach

Orofacial pain is the outcome of different pathologies, and this impact case documents the contributions to increased quality of life resulting from interdisciplinary research. Launched at Haukeland University Hospital in Bergen by the Health Directorate of Norway, the project has provided insights into new mechanisms, sharpened diagnostic methods, offered novel treatments, and personalised rehabilitation programs. It has also paved the way to strengthen interdisciplinary collaboration between odontology and medicine. New knowledge of orofacial pain is being applied to establish innovative, more effective interventions. Parallel progress around classification of disease is welcome. The case is underpinned by research that has resulted in three PhD theses. Impact is described in detail and a diversity of supportive sources is provided.

The committee`s comments on impact 4 – Prosthetic rehabilitation of the edentulous

Previously, edentulous patients were not entitled to reimbursement of cost for dentures. This impact case highlights research that has shown that edentulous patients have significantly reduced oral function compared to dentate, with dire consequences such as pain, discomfort, severely reduced chewing ability, increased risk of oral infection and reduced dietary selection. In addition, edentulousness may have adverse psychological effects and may cause social isolation. The research underscored that this condition must be categorised as a major handicap and these findings had policy impact, resulting in public reimbursement. It is not clear if further research in this area will yield further impact in proportion to the costs. Details of underpinning research are provided and referenced in six publications. While the specific new impact is explained a little less clear, the researchers clearly have contributed to debate on the subject of edentulism and the best approaches to manage the condition with respect to both clinical interventions and society. Details of the impact are supported by several noted publications.

Appendices

Evaluation of Medicine and health 2023-2024

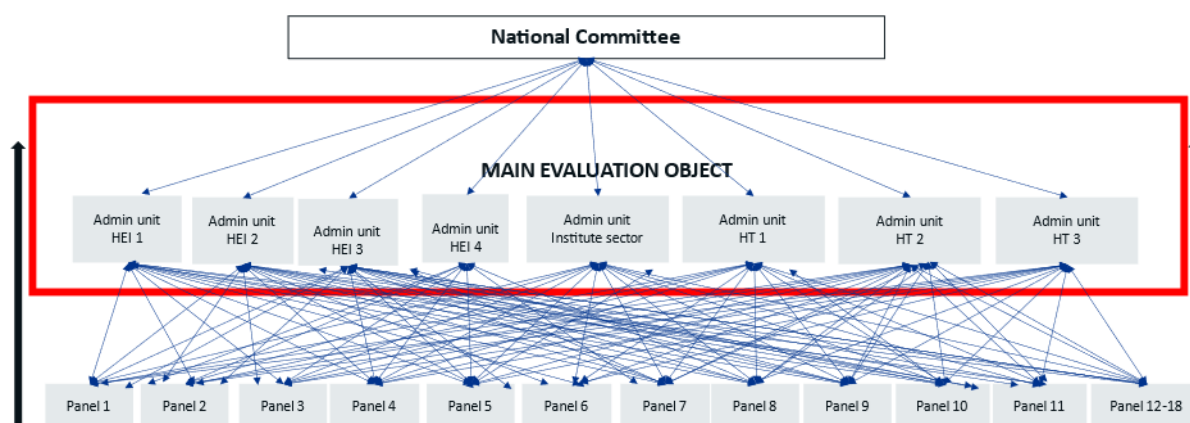
By evaluating Norwegian research and higher education we aim to enhance the quality, relevance, and efficiency. In accordance with the statutes of the Research Council of Norway (RCN), the RCN evaluates Norwegian professional environments to create a solid and up-to-date knowledge base about Norwegian research and higher education in an international perspective.

The evaluation of life sciences is conducted in 2022-2024. The evaluation of medicine takes place in 2023-2024. The evaluation of biosciences was carried out in 2022-2023. The primary aim of the evaluation of life sciences is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), the institute sector and the health trusts. The evaluation shall result in recommendations to the institutions, the RCN and the ministries.

Evaluation of medicine and health (EVALMEDHELSE) 2023-2024

The evaluation of medicine and health includes sixty-eight administrative units (e.g., faculty, department, institution, center, division) which are assessed by evaluation committees according to sectorial affiliation and other relevant similarities between the units. The administrative units enrolled their research groups (315) to eighteen expert panels organised by research subjects or themes and assessed across institutions and sectors.

Organisation of evaluation of medicine and health 2023-2024



The institutions have been allowed to adapt the evaluation mandate (Terms of Reference) to their own strategic goals. This is to ensure that the results of the evaluation will be useful for the institution's own strategic development. The administrative unit together with the research group(s) selects an appropriate benchmark for each of the research group(s).

The Research Council of Norway has commissioned an external evaluation secretariat at Technopolis Group for the implementation of the evaluation process.

Each institution/administrative unit is responsible for following up the recommendations that apply to their own institution/administrative unit. The Research Council will use the results from the evaluation in the development of funding instruments and as a basis for advice to the Government.

The web page for the evaluation of medicine and health 2023-2024: [Evaluation of medicine and health sciences \(forskingsradet.no\)](https://forskingsradet.no)

Se vedlagte adresseliste

Vår saksbehandler / tlf.	Vår ref.	Deres ref.	Sted
Hilde G. Nielsen/40922260	23/3056	[Ref.]	Lysaker 28.4.2023

Invitasjon til å delta i fagevaluering av medisin og helsefag (EVALMEDHELSE) 2023-2024

Vi viser til varsel om oppstart av nye evalueringer sendt institusjonenes ledelse 9. november 2021 (vedlegg 2).

Porteføljestyret for livsvitenskap har vedtatt å gjennomføre fagevaluering av livsvitenskap 2022-2024 som to evalueringer:

- Evaluering av biovitenskap (EVALBIOVIT) (2022-2023)
- Evaluering av medisin og helsefag (EVALMEDHELSE) (2023-2024)

Hovedmålet med fagevalueringen av livsvitenskap 2022-2024 er å vurdere kvalitet og rammebetingelser for livsvitenskapelig forskning i Norge, samt forskningens relevans for sentrale samfunnsområder. Evalueringen skal resultere i anbefalinger til institusjonene, til Forskningsrådet og til departementene. Den forrige fagevalueringen av biologi, medisin og helsefag ble gjennomført i 2010/2011 (vedlegg 3).

Fagevaluering av livsvitenskap retter seg mot UH-sektor, helseforetak og instituttsektor (vedlegg 4). Forskningsrådet forventer at aktuelle forskningsmiljøer deltar i evalueringene, selv om beslutning om deltagelse gjøres ved den enkelte institusjon. Videre ber vi om at deltakende institusjoner setter av tilstrekkelig med ressurser til å delta i evalueringsprosessen, og at institusjonen oppnevner minst én representant som kontaktperson for Forskningsrådet.

Invitasjon til å delta i fagevaluering av medisin og helsefag (2023-2024)

Fagevaluering av medisin og helsefag er organisert over to nivåer (vedlegg 4, side 11). Internasjonale ekspertpaneler vil evaluere forskergrupper på tvers av fag, disiplin og forskningssektorer (UH, institutt og helseforetak) etter kriteriene beskrevet i kapittel 2 i evalueringsprotokollen (vedlegg 4).

Panelrapporten(e) for forskergruppene vil inngå i bakgrunnsdokumentasjonen til forskergruppen(e)s administrative enhet (hovedevalueringsobjektet i evaluering), og som vil bli evaluert i internasjonale

sektorspesifikke evalueringskomiteer. Evalueringskriteriene for administrative enheter er beskrevet i kapittel 2 i evalueringsprotokollen (vedlegg 4).

Innmelding av administrative enheter og forskergrupper – frist 6. juni 2023

Administrative enheter (hovedevalueringssubjektet i evalueringen) – skjema 1

Forskningsrådet inviterer institusjonene til å melde inn sine administrative enhet/er ved å fylle ut skjema 1. Definisjonen av en administrativ enhet i denne evalueringen er å finne på side 3 (kap 1.1) i evalueringsprotokollen (vedlegg 4). Ved innmelding av administrativ/e enhet/er anbefaler Forskningsrådet institusjonene til å se innmelding av administrativ enhet/er i sammenheng med tilpasning av mandat for den administrative enheten (Appendix A i evalueringsprotokollen).

Forskergrupper – skjema 2

Forskningsrådet ber de administrative enheter om å melde inn forskergrupper i tråd med forskergruppedefinisjonen (kap 1.1) og minimumskravene beskrevet i kapittel 1.2 i evalueringsprotokollen. Hver administrative enhet melder inn sin/e forskergruppe/r ved å fylle ut Skjema 2. Vi ber også om at forskergruppene innplasseres i den tentative fagpanelinndelingen for EVALMEDHELSE (vedlegg 5).

Forskningsrådet vil ferdigstille panelstruktur og avgjøre den endelige fordelingen av forskergruppene på fagpaneler etter at alle forskergrupper er meldt inn. Mer informasjon vil bli sendt i slutten av juni 2023.

Invitasjon til å foreslå eksperter – skjema 3

Forskningsrådet inviterer administrative enheter og forskergrupper til å spille inn forslag til eksperter som kan inngå i evalueringskomitéene og i ekspertpanelene. Hver evalueringskomité vil bestå av 7-9 komitémedlemmer, mens hvert ekspertpanel vil bestå av 5-7 eksperter.

Obs. Det er to faner i regnearket:

- FANE 1 – forslag til medlemmer til evalueringskomitéene. Medlemmene i evalueringskomitéene skal inneha bred vitenskapelig kompetanse, både faglig kompetanse og andre kvalifikasjoner som erfaring med ledelse, strategi- og evalueringsarbeid og kunnskapsutveksling.
- FANE 2 – forslag til medlemmer til ekspertpanelene. Medlemmene i ekspertpanelene skal være internasjonalt ledende eksperter innen medisin og helsefaglig forskning og innovasjon.

Utfylte skjemaer (3 stk):

- innmelding av administrative enhet/er (skjema 1)
- innmelding av forskergruppe/er (skjema 2)
- forslag til eksperter (skjema 3)

sendes på epost til evalmedhelse@forskningsradet.no **innen 6. juni 2023.**

Tilpasning av mandat – frist 30. september 2023

Forskningsrådet ber med dette administrative enheter om å tilpasse mandatet (vedlegg 4) ved å opplyse om egne strategiske mål og andre lokale forhold som er relevant for evalueringen.

Tilpasningen gjøres ved å fylle inn de åpne punktene i malen (Appendix A). Utfylt skjema sendes på epost til evalmedhelse@forskningssradet.no innen 30. september 2023.

Digitalt informasjonsmøte 15. mai 2023, kl. 14.00-15.00.

Forskningssrådet arrangerer et digitalt informasjonsmøte for alle som ønsker å delta i EVALMEDHELSE.

Påmelding til informasjonsmøtet gjøres her: [Fagevaluering av medisin og helsefag \(EVALMEDHELSE\) - Digitalt informasjonsmøte \(pameldingssystem.no\)](#) .

Nettsider

Forskningssrådet vil opprette en nettside på www.forskningssradet.no for EVALMEDHELSE hvor informasjon vil bli publisert fortløpende. [Her](#) kan dere lese om Fagevaluering av biovitenskap (EVALBIOVIT) 2022-2023. Fagevaluering av medisin og helsefag vil bli gjennomført etter samme modell.

Spørsmål vedrørende fagevaluering av medisin og helsefag kan rettes til Hilde G. Nielsen, hgn@forskningssradet.no eller mobil 40 92 22 60.

Med vennlig hilsen
Norges forskningsråd

Ole Johan Borge
avdelingsdirektør
Helse

Hilde G. Nielsen
spesialrådgiver
Helse

Dokumentet er elektronisk godkjent og signert og har derfor ikke håndskrevne signaturer.

Kopi

Helse- og omsorgsdepartementet
Kunnskapsdepartementet

Vedlegg

1. Adresseliste
2. Nye fagevalueringer – varsel om oppstart november 2021
3. Erfaringer med oppfølging av fagevaluering av biologi, medisin og helsefag 2010/2011
4. Fagevaluering av livsvitenskap 2022-2024 – Evalueringsprotokoll
5. Tentativ panelinndeling EVALMEDHELSE mai 2023
6. Skjema 1 – Innmeldingsskjema Administrative enheter
7. Skjema 2 – Innmeldingsskjema Forskergrupper
8. Skjema 3 – Forslag til internasjonale eksperter til evalueringskomiteene og ekspertpanelene
9. Appendix A – word format

Evaluation of life sciences in Norway 2022-2023

LIVSEVAL protocol version 1.0

By decision of the Portfolio board for life sciences April 5., 2022

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The report can be downloaded at
www.forskningsradet.no/publikasjoner

Oslo, 5 April 2022

ISBN 978-82-12-Klikk her for å fylle ut (xxxxx-x). (pdf)

1 Introduction

Research assessments based on this protocol serve different aims and have different target groups. The primary aim of the evaluation of life sciences is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), and by the institute sector and regional health authorities and health trusts. These institutions will hereafter be collectively referred to as Research Performing Organisations (RPOs). The assessments should serve a formative purpose by contributing to the development of research quality and relevance at these institutions and at the national level.

1.1 Evaluation units

The assessment will comprise a number of *administrative units* submitted for evaluation by the host institution. By assessing these administrative units in light of the goals and strategies set for them by their host institution, it will be possible to learn more about how public funding is used at the institution(s) to facilitate high-quality research and how this research contributes to society. The administrative units will be assessed by evaluation committees according to sectoral affiliation and/or other relevant similarities between the units.

The administrative units will be invited to submit data on their *research groups* to be assessed by expert panels organised by research subject or theme. See Chapter 3 for details on organisation.

<i>Administrative unit</i>	An administrative unit is any part of an RPO that is recognised as a formal (administrative) unit of that RPO, with a designated budget, strategic goals and dedicated management. It may, for instance, be a university faculty or department, a department of an independent research institute or a hospital.
<i>Research group</i>	Designates groups of researchers within the administrative units that fulfil the minimum requirements set out in section 1.2. Research groups are identified and submitted for evaluation by the administrative unit, which may decide to consider itself a single research group.

1.2 Minimum requirements for research groups

- 1) The research group must be sufficiently large in size, i.e. at least five persons in full-time positions with research obligations. This merely indicates the minimum number, and larger units are preferable. In exceptional cases, the minimum number may include PhD students, postdoctoral fellows and/or non-tenured researchers. *In all cases, a research group must include at least three full-time tenured staff.* Adjunct professors, technical staff and other relevant personnel may be listed as group members but may not be included in the minimum number.

- 2) The research group subject to assessment must have been established for at least three years. Groups of more recent date may be accepted if they have come into existence as a consequence of major organisational changes within their host institution.
- 3) The research group should be known as such both within and outside the institution (e.g. have a separate website). It should be able to document common activities and results in the form of co-publications, research databases and infrastructure, software, or shared responsibilities for delivering education, health services or research-based solutions to designated markets.
- 4) In its self-assessment, the administrative unit should propose a suitable benchmark for the research group. The benchmark will be considered by the expert panels as a reference in their assessment of the performance of the group. The benchmark can be grounded in both academic and extra-academic standards and targets, depending on the purpose of the group and its host institution.

1.3 The evaluation in a nutshell

The assessment concerns:

- research that the administrative unit and its research groups have conducted in the previous 10 years
- the research strategy that the administrative units under evaluation intend to pursue going forward
- the capacity and quality of research in life sciences at the national level

The Research Council of Norway (RCN) will:

- provide a template for the Terms of Reference¹ for the assessment of RPOs and a national-level assessment in life sciences
- appoint members to evaluation committees and expert panels
- provide secretarial services
- commission reports on research personnel and publications based on data in national registries
- take responsibility for following up assessments and recommendations at the national level.

RPOs conducting research in life sciences are expected to take part in the evaluation. The board of each RPO under evaluation is responsible for tailoring the assessment to its own strategies and specific needs and for following them up within their own institution. Each participating RPO will carry out the following steps:

- 1) Identify the administrative unit(s) to be included as the main unit(s) of assessment
- 2) Specify the Terms of Reference by including information on specific tasks and/or strategic goals of relevance to the administrative unit(s)

¹ The terms of reference (ToR) document defines all aspects of how the evaluation committees and expert panels will conduct the [research area] evaluation. It defines the objectives and the scope of the evaluation, outlines the responsibilities of the involved parties, and provides a description of the resources available to carry out the evaluation.

- 3) The administrative unit will, in turn, be invited to register a set of research groups that fulfil the minimum criteria specified above (see section 1.2). The administrative unit may decide to consider itself a single research group.
- 4) For each research group, the administrative unit should select an appropriate benchmark in consultation with the group in question. This benchmark can be a reference to an academic level of performance or to the group's contributions to other institutional or sectoral purposes (see section 2.4). The benchmark will be used as a reference in the assessment of the unit by the expert panel.
- 5) The administrative units subject to assessment must provide information about each of their research groups, and about the administrative unit as a whole, by preparing self-assessments and by providing additional documentation in support of the self-assessment.

1.4 Target groups

- Administrative units represented by institutional management and boards
- Research groups represented by researchers and research group leaders
- Research funders
- Government

The evaluation will result in recommendations to the institutions, the RCN and the ministries. The results of the evaluation will also be disseminated for the benefit of potential students, users of research and society at large.

This protocol is intended for all participants in the evaluation. It provides the information required to organise and carry out the research assessments. Questions about the interpretation or implementation of the protocol should be addressed to the RCN.

2 Assessment criteria

The administrative units are to be assessed on the basis of five assessment criteria. The five criteria are applied in accordance with international standards. Finally, the evaluation committee passes judgement on the administrative units as a whole in qualitative terms. In this overall assessment, the committee should relate the assessment of the specific tasks to the strategic goals that the administrative unit has set for itself in the Terms of Reference.

When assessing administrative units, the committees will build on a separate assessment by expert panels of the research groups within the administrative units. See Chapter 3 'Evaluation process and organisation' for a description of the division of tasks.

2.1 Strategy, resources and organisation

The evaluation committee assesses the framework conditions for research in terms of funding, personnel, recruitment and research infrastructure in relation to the strategic aims set for the administrative unit. The administrative unit should address at least the following five specific aspects in its self-assessment: 1) funding sources, 2) national and international cooperation, 3) cross-sector and interdisciplinary cooperation, 4) research careers and mobility, and 5) Open Science. These five aspects relate to how the unit organises and actually performs its research, its composition in terms of leadership and personnel, and how the unit is run on a day-to-day basis.

To contribute to understanding what the administrative unit can or should change to improve its ability to perform, the evaluation committee is invited to focus on factors that may affect performance.

Further, the evaluation committee assesses the extent to which the administrative unit's goals for the future remain scientifically and societally relevant. It is also assessed whether its aims and strategy, as well as the foresight of its leadership and its overall management, are optimal in relation to attaining these goals. Finally, it is assessed whether the plans and resources are adequate to implement this strategy.

2.2 Research production, quality and integrity

The evaluation committee assesses the profile and quality of the administrative unit's research and the contribution the research makes to the body of scholarly knowledge and the knowledge base for other relevant sectors of society. The committee also assesses the scale of the unit's research results (scholarly publications, research infrastructure developed by the unit, and other contributions to the field) and its contribution to Open Science (early knowledge and sharing of data and other relevant digital objects, as well as science communication and collaboration with societal partners, where appropriate).

The evaluation committee considers the administrative unit's policy for research integrity and how violations of such integrity are prevented. It is interested in how the unit deals with research data, data management, confidentiality (GDPR) and integrity, and the extent to which independent and critical pursuit of research is made possible within the unit. Research integrity relates to both the scientific integrity of conducted research and the professional integrity of researchers.

2.3 Diversity and equality

The evaluation committee considers the diversity of the administrative unit, including gender equality. The presence of differences can be a powerful incentive for creativity and talent development in a diverse administrative unit. Diversity is not an end in itself in that regard, but a tool for bringing together different perspectives and opinions.

The evaluation committee considers the strategy and practices of the administrative unit to prevent discrimination on the grounds of gender, age, disability, ethnicity, religion, sexual orientation or other personal characteristics.

2.4 Relevance to institutional and sectoral purposes

The evaluation committee compares the relevance of the administrative unit's activities and results to the specific aspects detailed in the Terms of Reference for each institution and to the relevant sectoral goals (see below).

Higher Education Institutions

There are 36 Higher Education Institutions in Norway that receive public funding from the Ministry for Education and Research. Twenty-one of the 36 institutions are owned by the ministry, whereas the last 15 are privately owned. The HEIs are regulated under the Act relating to universities and university colleges of 1 August 2005.

The purposes of Norwegian HEIs are defined as follows in the Act relating to universities and university colleges²

- provide higher education at a high international level;
- conduct research and academic and artistic development work at a high international level;
- disseminate knowledge of the institution's activities and promote an understanding of the principle of academic freedom and application of scientific and artistic methods and results in the teaching of students, in the institution's own general activity as well as in public administration, in cultural life and in business and industry.

In line with these purposes, the Ministry for Research and Education has defined four overall goals for HEIs that receive public funding. These goals have been applied since 2015:

- 1) High quality in research and education
- 2) Research and education for welfare, value creation and innovation
- 3) Access to education (esp. capacity in health and teacher education)
- 4) Efficiency, diversity and solidity of the higher education sector and research system

The committee is invited to assess to what extent the research activities and results of each administrative unit have contributed to sectoral purposes as defined above. In particular, the committee is invited to take the share of resources spent on education at the administrative units into account and to assess the relevance and contributions of research to education, focusing on the master's and PhD levels. This assessment should be distinguished from an

² <https://lovdata.no/dokument/NLE/lov/2005-04-01-15?q=universities>

assessment of the quality of education in itself, and it is limited to the role of research in fostering high-quality education.

Research institutes (the institute sector)

Norway's large institute sector reflects a practical orientation of state R&D funding that has long historical roots. The Government's strategy for the institute sector³ applies to the 33 independent research institutes that receive public basic funding through the RCN, in addition to 12 institutes outside the public basic funding system.

The institute sector plays an important and specific role in attaining the overall goal of the national research system, i.e. to increase competitiveness and innovation power to address major societal challenges. The research institutes' contributions to achieving these objectives should therefore form the basis for the evaluation. The main purpose of the sector is to conduct independent applied research for present and future use in the private and public sector. However, some institutes primarily focus on developing a research platform for public policy decisions, others on fulfilling their public responsibilities.

The institutes should:

- maintain a sound academic level, documented through scientific publications in recognised journals
- obtain competitive national and/or international research funding grants
- conduct contract research for private and/or public clients
- demonstrate robustness by having a reasonable number of researchers allocated to each research field

The committee is invited to assess the extent to which the research activities and results of each administrative unit contribute to sectoral purposes and overall goals as defined above. In particular, the committee is invited to assess the level of collaboration between the administrative unit(s) and partners in their own or other sectors.

The hospital sector

There are four regional health authorities (RHF) in Norway. They are responsible for the specialist health service in their respective regions. The RHF are regulated through the Health Enterprises Act of 15 June 2001 and are bound by requirements that apply to specialist and other health services, the Health Personnel Act and the Patient Rights Act. Under each of the regional health authorities, there are several health trusts (HF), which can consist of one or more hospitals. A health trust (HF) is wholly owned by an RHF.

Research is one of the four main tasks of hospital trusts.⁴ The three other main tasks are to ensure good treatment, education and training of patients and relatives. Research is important if the health service is to keep abreast of stay up-to-date with medical developments and carry out critical assessments of established and new diagnostic methods,

³ [Strategy for a holistic institute policy \(Kunnskapsdepartementet 2020\)](#)

⁴ Cf. the Specialist Health Services Act § 3-8 and the Health Enterprises Act §§ 1 and 2

treatment options and technology, and work on quality development and patient safety while caring for and guiding patients.

The committee is invited to assess the extent to which the research activities and results of each administrative unit have contributed to sectoral purposes as described above. The assessment does not include an evaluation of the health services performed by the services.

2.5 Relevance to society

The committee assesses the quality, scale and relevance of contributions targeting specific economic, social or cultural target groups, of advisory reports on policy, of contributions to public debates, and so on. The documentation provided as the basis for the assessment of societal relevance should make it possible to assess relevance to various sectors of society (i.e. business, the public sector, non-governmental organisations and civil society).

When relevant, the administrative units will be asked to link their contributions to national and international goals set for research, including the Norwegian Long-term Plan for Research and Higher Education and the UN Sustainable Development Goals. Sector-specific objectives, e.g. those described in the Development Agreements for the HEIs and other national guidelines for the different sectors, will be assessed as part of criterion 2.4.

The committee is also invited to assess the societal impact of research based on case studies submitted by the administrative units and/or other relevant data presented to the committee. Academic impact will be assessed as part of criterion 2.2.

3 Evaluation process and organisation

The RCN will organise the assessment process as follows:

- Commission a professional secretariat to support the assessment process in the committees and panels, as well as the production of self-assessments within each RPO
- Commission reports on research personnel and publications within life sciences based on data in national registries
- Appoint one or more evaluation committees for the assessment of administrative units.
- Divide the administrative units between the appointed evaluation committees according to sectoral affiliation and/or other relevant similarities between the units.
- Appoint a number of expert panels for the assessment of research groups submitted by the administrative units.
- Divide research groups between expert panels according to similarity of research subjects or themes.
- Task the chairs of the evaluation committees with producing a national-level report building on the assessments of administrative units and a national-level assessments produced by the expert panels.

Committee members and members of the expert panels will be international, have sufficient competence and be able, as a body, to pass judgement based on all relevant assessment criteria. The RCN will facilitate the connection between the assessment levels of panels and committees by appointing committee members as panel chairs.

3.1 Division of tasks between the committee and panel levels

The expert panels will assess research groups across institutions and sectors, focusing on the first two criteria specified in Chapter 2: 'Strategy, resources and organisation' and 'Research production and quality' The assessments from the expert panels will also be used as part of the evidence base for a report on Norwegian research within life sciences (see section 3.3).

The evaluation committees will assess the administrative units based on all the criteria specified in Chapter 2. The assessment of research groups delivered by the expert panels will be a part of the evidence base for the committees' assessments of administrative units. See figure 1 below.

The evaluation committee has sole responsibility for the assessments and any recommendations in the report. The evaluation committee reaches a judgement on the research based on the administrative units and research groups' self-assessments provided by the RPOs, any additional documents provided by the RCN, and interviews with representatives of the administrative units. The additional documents will include a standardised analysis of research personnel and publications provided by the RCN.

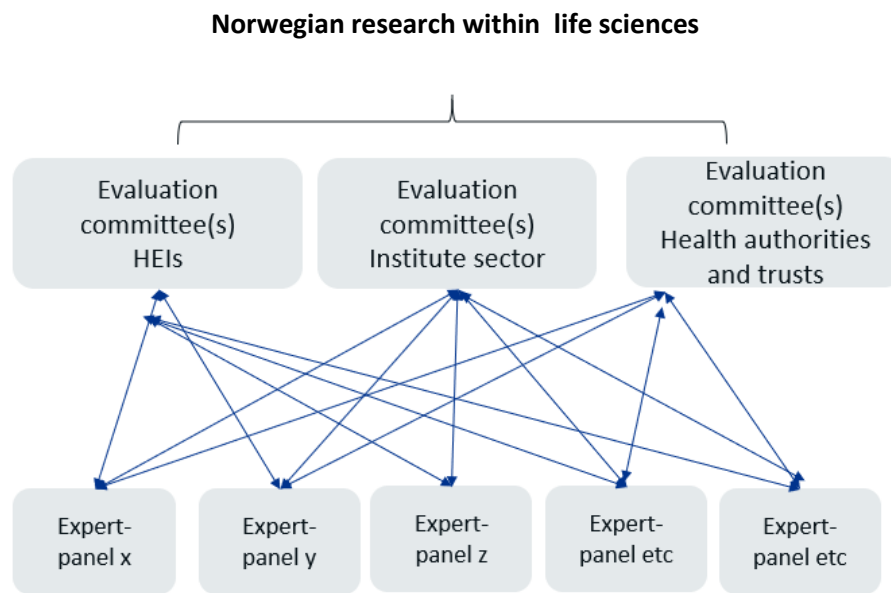


Figure 1. Evaluation committees and expert panels

The evaluation committee takes international trends and developments in science and society into account when forming its judgement. When judging the quality and relevance of the research, the committees shall bear in mind the specific tasks and/or strategic goals that the administrative unit has set for itself including sectoral purposes (see section 2.4 above).

3.2 Accuracy of factual information

The administrative unit under evaluation should be consulted to check the factual information before the final report is delivered to the RCN and the board of the institution hosting the administrative unit.

3.3 National level report

Finally, the RCN will ask the chairs of the evaluation committees to produce a national-level report that builds on the assessments of administrative units and the national-level assessments produced by the expert panels. The committee chairs will present their assessment of Norwegian research in life sciences at the national level in a separate report that pays specific attention to:

- Strengths and weaknesses of the research area in the international context
- The general resource situation regarding funding, personnel and infrastructure
- PhD training, recruitment, mobility and diversity
- Research cooperation nationally and internationally
- Societal impact and the role of research in society, including Open Science

This national-level assessment should be presented to the RCN.

Appendix A: Terms of References (ToR)

[Text in red to be filled in by the Research-performing organisations (RPOs)]

The board of [RPO] mandates the evaluation committee appointed by the Research Council of Norway (RCN) to assess [administrative unit] based on the following Terms of Reference.

Assessment

You are asked to assess the organisation, quality and diversity of research conducted by [administrative unit] as well as its relevance to institutional and sectoral purposes, and to society at large. You should do so by judging the unit's performance based on the following five assessment criteria (a. to e.). Be sure to take current international trends and developments in science and society into account in your analysis.

- a) Strategy, resources and organisation
- b) Research production, quality and integrity
- c) Diversity and equality
- d) Relevance to institutional and sectoral purposes
- e) Relevance to society

For a description of these criteria, see Chapter 2 of the life sciences evaluation protocol. Please provide a written assessment for each of the five criteria. Please also provide recommendations for improvement. We ask you to pay special attention to the following [n] aspects in your assessment:

- 1. ...
- 2. ...
- 3. ...
- 4. ...
- ...

[To be completed by the board: specific aspects that the evaluation committee should focus on – they may be related to a) strategic issues, or b) an administrative unit's specific tasks.]

In addition, we would like your report to provide a qualitative assessment of [administrative unit] as a whole in relation to its strategic targets. The committee assesses the strategy that the administrative unit intends to pursue in the years ahead and the extent to which it will be capable of meeting its targets for research and society during this period based on available resources and competence. The committee is also invited to make recommendations concerning these two subjects.

Documentation

The necessary documentation will be made available by the **life sciences** secretariat at Technopolis Group.

The documents will include the following:

- a report on research personnel and publications within life sciences commissioned by RCN
- a self-assessment based on a template provided by the life sciences secretariat
- **[to be completed by the board]**

Interviews with representatives from the evaluated units

Interviews with the **[administrative unit]** will be organised by the evaluation secretariat. Such interviews can be organised as a site visit, in another specified location in Norway or as a video conference.

Statement on impartiality and confidence

The assessment should be carried out in accordance with the *Regulations on Impartiality and Confidence in the Research Council of Norway*. A statement on the impartiality of the committee members has been recorded by the RCN as a part of the appointment process. The impartiality and confidence of committee and panel members should be confirmed when evaluation data from **[the administrative unit]** are made available to the committee and the panels, and before any assessments are made based on these data. The RCN should be notified if questions concerning impartiality and confidence are raised by committee members during the evaluation process.

Assessment report

We ask you to report your findings in an assessment report drawn up in accordance with a format specified by the life sciences secretariat. The committee may suggest adjustments to this format at its first meeting. A draft report should be sent to the **[administrative unit]** and RCN by [date]. The **[administrative unit]** should be allowed to check the report for factual inaccuracies; if such inaccuracies are found, they should be reported to the life sciences secretariat no later than two weeks after receipt of the draft report. After the committee has made the amendments judged necessary, a corrected version of the assessment report should be sent to the board of **[the RPO]** and the RCN no later than two weeks after all feedback on inaccuracies has been received from **[administrative unit]**.

Appendix B: Data sources

The lists below shows the most relevant data providers and types of data to be included in the evaluation. Data are categorised in two broad categories according to the data source: National registers and self-assessments prepared by the RFOs. The RCN will commission an analysis of data in national registers (R&D-expenditure, personnel, publications etc.) to be used as support for the committees' assessment of administrative units. The analysis will include a set of indicators related to research personnel and publications.

- **National directorates and data providers**
- Norwegian Directorate for Higher Education and Skills (HK-dir)
- Norwegian Agency for Quality Assurance in Education (NOKUT)
- Norwegian Agency for Shared Services in Education and Research (SIKT)
- Research Council of Norway (RCN)
- Statistics Norway (SSB)

National registers

- 1) R&D-expenditure
 - a. SSB: R&D statistics
 - b. SSB: Key figures for research institutes
 - c. HK-dir: Database for Statistics on Higher Education (DBH)
 - d. RCN: Project funding database (DVH)
 - e. EU-funding: eCorda
- 2) Research personnel
 - a. SSB: The Register of Research personnel
 - b. SSB: The Doctoral Degree Register
 - c. RCN: Key figures for research institutes
 - d. HK-dir: Database for Statistics on Higher Education (DBH)
- 3) Research publications
 - a. SIKT: Cristin - Current research information system in Norway
 - b. SIKT: Norwegian Infrastructure for Bibliometrics
(full bibliometric data incl. citations and co-authors)
- 4) Education
 - a. HK-dir/DBH: Students and study points
 - b. NOKUT: Study barometer
 - c. NOKUT: National Teacher Survey
- 5) Sector-oriented research
 - a. RCN: Key figures for research institutes
- 6) Patient treatments and health care services
 - a. Research & Innovation expenditure in the health trusts
 - b. Measurement of research and innovation activity in the health trusts
 - c. Collaboration between health trusts and HEIs
 - d. Funding of research and innovation in the health trusts
 - e. Classification of medical and health research using HRCS (HO21 monitor)

Self-assessments

1) Administrative units

- a. *Self-assessment covering all assessment criteria*
- b. Administrative data on funding sources
- c. Administrative data on personnel
- d. Administrative data on the division of staff resources between research and other activities (teaching, dissemination etc.)
- e. Administrative data on research infrastructure and other support structures
- f. SWOT analysis
- g. Any supplementary data needed to assess performance related to the strategic goals and specific tasks of the unit

2) Research groups

- a. *Self-assessment covering the first two assessment criteria (see Table 1)*
- b. Administrative data on funding sources
- c. Administrative data on personnel
- d. Administrative data on contribution to sectoral purposes: teaching, commissioned work, clinical work [will be assessed at committee level]
- e. Publication profiles
- f. Example publications and other research results (databases, software etc.)
The examples should be accompanied by an explanation of the groups' specific contributions to the result
- g. Any supplementary data needed to assess performance related to the benchmark defined by the administrative unit

The table below shows how different types of evaluation data may be relevant to different evaluation criteria. Please note that the self-assessment produced by the administrative units in the form of a written account of management, activities, results etc. should cover all criteria. A template for the self-assessment of research groups and administrative units will be commissioned by the RCN from the life sciences secretariat for the evaluation.

Table 1. Types of evaluation data per criterion

Criteria \ Evaluation units	Research groups	Administrative units
Strategy, resources and organisation	Self-assessment Administrative data	Self-assessment National registers Administrative data SWOT analysis
Research production and quality	Self-assessment Example publications (and other research results)	Self-assessment National registers
Diversity, equality and integrity		Self-assessment National registers Administrative data
Relevance to institutional and sectoral purposes		Self-assessment Administrative data
Relevance to society		Self-assessment National registers Impact cases
Overall assessment	<i>Data related to: Benchmark defined by administrative unit</i>	<i>Data related to: Strategic goals and specific tasks of the admin. unit</i>



Evaluation of Medicine and Health (EVALMEDHELSE) 2023-2024

Self- assessment for administrative units

Date of dispatch: **15 September 2023**
Deadline for submission: **31 January 2024**

Institution (name and short name): _____

Administrative unit (name and short name): _____

Date: _____

Contact person: _____

Contact details (email): _____

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Introduction

The primary aim of the evaluation is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), the institute sector and the health trusts. These institutions will henceforth be collectively referred to as research performing organisations (RPOs). The evaluation report(s) will provide a set of recommendations to the RPOs, the Research Council of Norway (RCN) and the responsible and concerned ministries. The results of the evaluation will also be disseminated for the benefit of potential students, users of research and society at large.

You have been invited to complete this self-assessment as an administrative unit. The self-assessment contains questions regarding the unit's research- and innovation related activities and developments over years 2012-2022. All submitted data will be evaluated by international evaluation committees. The administrative unit's research groups will be assessed by international expert panels who report their assessment to the relevant evaluation committee.

Deadline for submitting self- assessments to the Research Council of Norway – 31 January 2024

As an administrative unit you are responsible for collecting completed self-assessments for each of the research groups that belong to the administrative unit. The research groups need to submit their completed self-assessment to the administrative unit no later than 26 January 2024. The administrative unit will submit the research groups' completed self-assessments and the administrative unit's own completed self-assessment to the Research Council within 31 January 2024.

Please use the following format when naming your document: name of the institution and short name of the administrative unit, e.g. *NTNU_FacMedHealthSci* and send it to evalmedhelse@forskningsradet.no within 31 January 2024.

For questions concerning the self-assessment or EVALMEDHELSE in general, please contact RCN at evalmedhelse@forskningsradet.no.

Thank you!

Guidelines for completing the self-assessment

- Please read the entire self-assessment document before answering.
- The evaluation language is English.
- Please be sure that all documents which are linked to in the self- assessment are in English and are accessible.
- The page format must be A4 with 2 cm margins, single spacing and Calibri and 11-point font.
- The self-assessment follows the same structure as the [evaluation protocol](#). In order to be evaluated on all criteria, the administrative unit must answer all questions.
- Information should be provided by link to webpages i.e. strategy and other planning documents.
 - Provide information – provide documents and other relevant data or figures about the administrative unit, for example strategy and other planning documents.
 - Describe – explain and present using contextual information about the administrative unit and inform the reader about the administrative unit.
 - Reflect – comment in a reflective and evaluative manner how the administrative unit operates.
- Data on personnel should refer to reporting to DBH on 1 October 2022 for HEIs and to the yearly reporting for 2022 for the institute sector and the health trusts. Other data should refer to 31 December 2022, if not specified otherwise.
- Questions in 4.3c should **ONLY** be answered by administrative units responsible for the Cand.med. degree programme, cf. [Evaluation of the Professional programme in Medicine \(NOKUT\)](#).
- It is possible to extend the textboxes when filling in the form. **NB!** A completed self- assessment cannot exceed 50 pages (pdf file) excluding question 4.3.c. The evaluation committees are not requested to read more than the maximum of 50 pages. Pages exceeding maximum limit of 50 pages **might not** be evaluated.
- Submit the self- assessment as a pdf (max 50 pages). Before submission, please be sure that all text are readable after the conversion of the document to pdf. The administrative unit is responsible for submitting the self-assessment of the administrative unit together with the self-assessments of the belonging research group(s) to evalmedhelse@forskningsradet.no within **31 January 2024**.

Please note that information you write in the self- assessment and the links to documents/webpages in the self- assessment are the only available information (data material) for the evaluation committee.

In exceptional cases, documents/publications that are not openly available must be submitted as attachment(s) to the self- assessment (pdf file(s)).

1.Strategy, resources and organisation

1.1 Research strategy

Describe the main strategic goals for research and innovation of the administrative unit. You may include the following:

- How are these goals related to institutional strategies and scientific priorities?
- Describe how the administrative unit's strategies and scientific priorities are related to the "specific aspects that the evaluation committee should focus on" indicated in your Terms of Reference (ToR)
- Describe the main fields and focus of research and innovation in the administrative unit
- Describe the planned research-field impact; planned policy impact and planned societal impact
- Describe how the strategy is followed-up in the allocation of resources and other measures
- Describe the most important occasions where priorities are made (i.e., announcement of new positions, applying for external funding, following up on evaluations)
- If there is no research strategy – please explain why

Table 1. Administrative unit's strategies

For each category present up to 5 documents which are most relevant for the administrative unit. Please delete lines which are not in use.

Research strategy		
No.	Title	Link
1		
2		
3		
4		
5		
Outreach strategies		
No.	Title	Link
1		
2		
3		
4		
5		
Open science policy		
No.	Title	Link
1		
2		
3		
4		
5		

1.2 Organisation of research

a) Describe the organisation of research and innovation activities/projects at the administrative unit, including how responsibilities for research and other purposes (education, knowledge exchange, patient treatment, researcher training, outreach activities etc.) are distributed and delegated.

b) Describe how you work to maximise synergies between the different purposes of the administrative unit (education, knowledge exchange, patient treatment, researcher training, outreach activities etc.).

1.3 Research staff

Describe the profile of research personnel at the administrative unit in terms of position and gender. Institutions in the higher education sector should use the categories used in DBH, <https://dbh.hkdir.no/datainnhold/kodeverk/stillingskoder>.

RCN has commissioned reports from Statistics Norway (SSB) on personnel for the administrative units included in the evaluation. These reports will be made available to the units early November 2023.

Only a subset of the administrative units submitted to the evaluation is directly identifiable in the national statistics. Therefore, we ask all administrative units to provide data on their R&D personnel. Institutions that are directly identifiable in the national statistics (mainly higher education) are invited to use the figures provided in the report delivered by Statistics Norway. Please delete lines which are not in use.

Table 2. Research staff

	Position by category	No. of researcher per category	Share of women per category (%)	No. of researchers who are part of multiple (other) research groups at the admin unit	No. of temporary positions
No. of Personell by position	Position A (Fill in)				
	Position B (Fill in)				
	Position C (Fill in)				
	Position D (Fill in)				

1.4 Researcher careers opportunities

- a) Describe the structures and practices to support researcher careers and help early-career researchers to make their way into the profession.
- b) Describe how research time is distributed among staff including criteria for research leave/sabbaticals (forskningstermin/undervisningsfri).
- c) Describe research mobility options.

1.5 Research funding

- a) Describe the funding sources of the administrative unit. Indicate the administrative unit's total yearly budget and the share of the unit's budget dedicated to research.
- b) Give an overview of the administrative unit's competitive national and/or international grants last five years (2018-2022).

Table 3. R&D funding sources

Please indicate R&D funding sources for the administrative unit for the period 2018-2022 (average NOK per year, last five years).

For Higher Education Institutions: Share of basic grant (grunnbevilgning) used for R&D ¹ For Research Institutes and Health Trusts: Direct R&D funding from Ministries (per ministry)	
Name of ministry	NOK

National grants (bidragsinntekter) (NOK)	
From the ministries and underlying directorates	
From industry	
From public sector	
Other national grants	
Total National grants	
National contract research (oppdragsinntekter) ² (NOK)	
From the ministries and underlying directorates	
From industry	

¹ Shares may be calculated based on full time equivalents (FTE) allocated to research compared to total FTE in administrative unit

² For research institutes only research activities should be included from section 1.3 in the yearly reporting

From public sector	
Other national contract research	
Total contract research	
International grants (NOK)	
From the European Union	
From industry	
Other international grants	
Total international grants	
Funding related to public management (forvaltningsoppgaver) or (if applicable) funding related to special hospital tasks, if any	
Total funding related to public management/special hospital tasks	
Total all R&D budget items (except basic grant)	

1.6 Collaboration

Describe the administrative unit's policy towards national and international collaboration partners, the type of the collaborations the administrative unit have with the partners, how the collaboration is put to practice as well as cross-sectorial and interdisciplinary collaborations.

- Reflect of how successful the administrative unit has been in meeting its aspirations for collaborations
- Reflect on the importance of different types of collaboration for the administrative unit: National and international collaborations. Collaborations with different sectors, including public, private and third sector
- Reflect on the added value of these collaborations to the administrative unit and Norwegian research system

Table 4a. The main national collaborative constellations with the administrative unit

Please categorise the collaboration according to the most important national partner(s): 5-10 institutions in the period 2012-2022. Please delete lines which are not in use.

National collaborations

Collaboration with national institutions – 1 -10	
Name of main collaboration or collaborative project with the admin unit	
Name of partner institution(s)	
Sector of partner/institution(s)/sectors involved	
Impacts and relevance of the collaboration	

Table 4b. The main international collaborative constellations with the administrative unit

Please categorise the collaboration according to the most important international partner(s): 5-10 international institutions in the period 2012-2022. Please delete lines which are not in use.

International collaborations

Collaboration with international institutions – 1-10	
Name of main collaboration or collaborative project with the admin unit	
Name of partner institution(s)	
Sector of partner/institution(s)/sectors involved	

Impacts and relevance of the collaboration	
--	--

1.7 Open science policies

a) Describe the institutional policies, approaches, and activities to the Open Science areas which may include the following:

- Open access to publications
- Open access to research data and implementation of FAIR data principles
- Open-source software/tools
- Open access to educational resources
- Open peer review
- Citizen science and/or involvement of stakeholders / user groups
- Skills and training for Open Science

b) Describe the most important contributions and impact of the administrative unit's researchers towards the different Open Science areas cf. 1.7a above.

c) Describe the institutional policy regarding ownership of research data, data management, and confidentiality. Is the use of data management plans implemented at the administrative unit?

1.8 SWOT analysis for administrative units

Instructions: Please complete a SWOT analysis for your administrative unit. Reflect on what are the major internal Strengths and Weaknesses as well as external Threats and Opportunities for your research and innovation activities/projects and research environment. Assess what the present Strengths enable in the future and what kinds of Threats are related to the Weaknesses. Consider your scientific expertise and achievements, funding, facilities, organisation and management.

Internal	Strengths	Weaknesses
External	Opportunities	Threats

2. Research production, quality and integrity

2.1 Research quality and integrity

Please see the bibliometric analysis for the administrative unit developed by NIFU (available by the end of October, 2023).

a) Describe the scientific focus areas of the research conducted at the administrative unit, including the unit's contribution to these areas.

b) Describe the administrative unit's policy for research integrity, including preventative measures when integrity is at risk, or violated.

2.2 Research infrastructures

a) Participation in national infrastructure

Describe the most important participation in the national infrastructures listed in the Norwegian roadmap for research infrastructures (Norsk veikart for forskningsinfrastruktur) including as host institution(s).

Table 5. Participation in national infrastructure

Please present up to 5 participations in the national infrastructures listed in the Norwegian roadmap for research infrastructures (Norsk veikart for forskningsinfrastruktur) for each area that were the most important to your administrative unit.

Areas in roadmap	Name of research infrastructure	Period (from year to year)	Description	Link to website

b) Participation in international infrastructures

Describe the most important participation in the international infrastructures funded by the ministries (Norsk deltakelse i internasjonale forskningsorganisasjoner finansiert av departementene).

Table 6. Participation in international infrastructure

Please describe up to 5 participations in international infrastructures for each area that have been most important to your administrative unit.

Project	Name	Period (from year to year)	Description	Link to infrastructure

c) Participation in European (ESFRI) infrastructures

Describe the most important participation in European (ESFRI) infrastructures (Norske medlemskap i infrastrukturer i ESFRI roadmap) including as host institution(s).

Table 7. Participation in infrastructures on the ESFRI Roadmap

Please give a description of up to 5 participations that have been most important to your administrative unit.

Social sciences and the humanities				
Name	ESFRI-project	Summary of participation	Period (from year to year)	Link

d) Access to research infrastructures

Describe access to relevant national and/or international research infrastructures for your researchers. Considering both physical and digital infrastructure.

e) FAIR- principles

Describe what is done at the unit to fulfil the FAIR-principles.

3.Diversity and equality

Describe the policy and practices to protect against any form of discrimination and to promote diversity in the administrative unit.

Table 8. Administrative unit policy against discrimination

Give a description of up to 5 documents that are the most relevant. If the administrative unit uses the strategies, policies, etc. of a larger institution, then these documents should be referred to. Please delete lines which are not in use.

No.	Name	Valid period	Link
1			

4.Relevance to institutional and sectorial purposes

4.1 Sector specific impact

Describe whether the administrative unit has activities aimed at achieving sector-specific objectives or focusing on contributing to the knowledge base in general. Describe activities connected to sector-specific objectives, the rationale for participation and achieved and/or expected impacts. Please refer to chapter 2.4 in the [evaluation protocol](#).

- Alternatively, describe whether the activities of the administrative unit are aimed at contribution to the knowledge base in general. Describe the rationale for this approach and the impacts of the unit's work to the knowledge base.

4.2 Research innovation and commercialisation

- a) Describe the administrative unit's practices for innovation and commercialisation.
- b) Describe the motivation among the research staff in doing innovation and commercialisation activities.
- c) Describe how innovation and commercialisation is supported at the administrative unit.

Table 9. Policies for innovation including IP policies, new patents, licenses, start-up/spin-off guidelines

Describe up to 5 documents of the administrative unit's policies for innovation, including IP policies, new patents, licenses, start-up/spin-off guidelines, etc., that are the most relevant. If the administrative unit uses the strategies, policies, etc. of a larger institution, then present these documents. Please delete lines which are not in use.

No.	Name	Valid period	Link
1			

Table 10. Administrative description of successful innovation and commercialisation results

Please describe up to 10 successful innovation and commercialisation results at your administrative unit in the period 2012-2022. Please delete lines which are not in use.

No.	Name of innovation and commercial results	Link	Description of successful innovation and commercialisation result.
1			

4.3 Higher education institutions

a) Reflect how research at the administrative unit contributes towards master and PhD-level education provision, at your institutions and beyond.

b) Describe the opportunities for master students to become involved in research activities at the administrative unit.

c) **ONLY** for administrative units responsible for the Cand.med. degree programme, cf. [Evaluation of the Professional programme in Medicine \(NOKUT\)](#).

- Reflect on how research at the administrative unit contributes towards the quality of the Cand.med. degree programme at your institutions and beyond.
- Describe the different opportunities for students on the Cand.med. degree programme to become involved in research activities at the administrative unit, and the extent to which students use those opportunities.

4.4 Research institutes

a) Describe how the research and innovation activities/projects at the administrative unit contribute to the knowledge base for policy development, sustainable development, and societal and industrial transformations more generally.

b) Describe the most important research activities with partners outside of research organisations.

4.5 Health trusts

a) Reflect on how the administrative unit's clinical research, innovation and commercialisation contribute towards development, assessment and implementation of new diagnostic methods, treatment, and healthcare technologies.

b) Reflect on how research at the unit contributes towards the quality of relevant education programme at your institutions or beyond.

c) Describe the different opportunities for students on relevant educational programmes to become involved in research activities at the administrative unit, and the extent to which students use those opportunities.

5.Relevance to society

Reflect on the administrative unit's contribution towards the Norwegian Long-term plan for research and higher education, societal challenges more widely, and the UN Sustainable Development Goals.

5.1 Impact cases

Please use the attached template for impact cases. Each impact case should be submitted as an attachment (pdf) to the self-assessment.

Impact case guidelines

Each case study should include sufficiently clear and detailed information to enable the evaluation committee to make judgements based on the information it contains, without making inferences, gathering additional material, following up references or relying on members' prior knowledge. References to other sources of information will be used for verification purposes only, not as a means for the evaluation committee to gather further information to inform judgements.

In this evaluation, impact is defined as an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia.

Timeframes

- The impact must have occurred between 2012 and 2022
- Some of the underpinning research should have been published in 2012 or later
- The administrative units are encouraged to prioritise recent cases

Page limit

Each completed case study template will be limited to **five pages** in length. Within the annotated template below, indicative guidance is provided about the expected maximum length limit of each section, but institutions will have flexibility to exceed these so long as the case study as a whole remains no longer than **five pages** (font Calibri, font size 11). Please write the text into the framed template under the sections 1–5 below. The guiding text that stands there now, can be deleted.

Maximum number of cases permitted per administrative unit

For up to 10 researchers: one case; for 10 to 30 researchers: two cases; for 30-50 researchers: three cases; for 50-100 researchers: four cases, and up to five cases for units exceeding 100 researchers.

Naming and numbering of cases

Please use the standardised short name for the administrative unit, and the case number for the unit (1,2,3, etc) in the headline of the case. Each case should be stored as a separate PDF-document with the file name: [Name of the institution and name of the administrative unit] [case number]

Publication of cases

RCN plans to publish all impact cases in a separate evaluation report. By submitting the case the head of the administrative units consents to the publication of the case. Please indicate below if a case may not be made public for reasons of confidentiality.

If relevant, describe any reason to keep this case confidential:

Please write the text here

[Name of the institution and name of the administrative unit] [case number]

Institution:
Administrative unit:
Title of case study:
Period when the underpinning research was undertaken:
Period when staff involved in the underpinning research were employed by the submitting institution:
Period when the impact occurred:

1. Summary of the impact (indicative maximum 100 words)

This section should briefly state what specific impact is being described in the case study.

2. Underpinning research (indicative maximum 500 words)

This section should outline the key research insights or findings that underpinned the impact, and provide details of what research was undertaken, when, and by whom. This research may be a body of work produced over a number of years or may be the output(s) of a particular project. References to specific research outputs that embody the research described in this section, and evidence of its quality, should be provided in the next section. Details of the following should be provided in this section:

- The nature of the research insights or findings which relate to the impact claimed in the case study.
- An outline of what the underpinning research produced by the submitted unit was (this may relate to one or more research outputs, projects or programmes).
- Dates of when it was carried out.
- Names of the key researchers and what positions they held at the administrative unit at the time of the research (where researchers joined or left the administrative unit during this time, these dates must also be stated).
- Any relevant key contextual information about this area of research.

3. References to the research (indicative maximum of six references)

This section should provide references to key outputs from the research described in the previous section, and evidence about the quality of the research. All forms of output cited as underpinning research will be considered equitably, with no distinction being made between the types of output referenced. Include the following details for each cited output:

- Author(s)
 - Title
 - Year of publication
 - Type of output and other relevant details required to identify the output (for example, DOI, journal title and issue)
 - Details to enable the panel to gain access to the output, if required (for example, a DOI or URL).
- All outputs cited in this section must be capable of being made available to panels. If they are not available in the public domain, the administrative unit must be able to provide them if requested by RCN or the evaluation secretariate.

4. Details of the impact (indicative maximum 750 words)

This section should provide a narrative, with supporting evidence, to explain:

- How the research underpinned (made a distinct and material contribution to) the impact;
- The nature and extent of the impact.

The following should be provided:

- A clear explanation of the process or means through which the research led to, underpinned or made a contribution to the impact (for example, how it was disseminated, how it came to influence users or beneficiaries, or how it came to be exploited, taken up or applied).

- Where the submitted administrative unit's research was part of a wider body of research that contributed to the impact (for example, where there has been research collaboration with other institutions), the case study should specify the particular contribution of the submitted administrative unit's research and acknowledge other key research contributions.
- Details of the beneficiaries – who or what community, constituency or organisation has benefitted, been affected or impacted on.
- Details of the nature of the impact – how they have benefitted, been affected or impacted on.
- Evidence or indicators of the extent of the impact described, as appropriate to the case being made.
- Dates of when these impacts occurred.

5. Sources to corroborate the impact (indicative maximum of ten references)

Institution	Administrative unit	Name of research group	Expert panel
UiB	Department of Clinical Dentistry	TOR (Center for translational oral research)	Panel 1a

Scales for research group assessment

Use whole integers only – no fractions!

Organisational dimension

Score	Organisational environment
5	An organisational environment that is outstanding for supporting the production of excellent research.
4	An organisational environment that is very strong for supporting the production of excellent research.
3	An organisational environment that is adequate for supporting the production of excellent research.
2	An organisational environment that is modest for supporting the production of excellent research.
1	An organisational environment that is not supportive for the production of excellent research.

Quality dimension

The quality dimension consists of two judgements: 1) Research and publication quality, and 2) Research group's contribution. The first judgement is defined as follows:

Score	Research and publication quality	Supporting explanation
5	Quality that is outstanding in terms of originality, significance, and rigour.	The quality of the research is world leading in terms of quality, and is comparable to the best work internationally in the same area of research. The publications submitted provide evidence that the work of the group meets the highest international standards in terms of originality, significance, and rigour. Work at this level should be a key international reference in its area.
4	Quality that is internationally excellent in terms of originality, significance and rigour but which falls short of the highest standards of excellence.	The quality of the research is internationally excellent. The research is clearly of an international standard, with a very good level of quality in terms of originality, significance, and rigour. Work at this level can arouse significant interest in the international academic community, and international journals with the most rigorous standards of publication (irrespective of the place or language of publication) could publish work of this level.
3	Quality that is recognised internationally in terms of originality, significance and rigour.	The quality of the research is sufficient to achieve some international recognition. It would be perceived nationally as strong and may occasionally reach an internationally recognised level in terms of originality, significance and rigour. Internationally recognised journals could publish some work of this level.
2	Quality that meets the published definition of research for the purposes of this assessment.	The international academic community would deem the research to be nationally acceptable, but below world standards. Legitimate nationally recognised peer-reviewed journals could publish work of this level.
1	Quality that falls below the published definition of research for the purposes of this assessment ¹ .	The quality of the research is well below international level, and is unpublishable in legitimate peer-reviewed research journals.

¹ A publication has to meet all of the criteria below:

Societal impact dimension

The societal impact dimension is also composed of two judgements, defined as presented in the table below.

Score	Research group's societal contribution, taking into consideration the resources available to the group	Score	User involvement
5	The group has contributed extensively to economic, societal and/or cultural development in Norway and/or internationally.	5	Societal partner involvement is outstanding – partners have had an important role in all parts of the research process, from problem formulation to the publication and/or process or product innovation.
4	The group's contribution to economic, societal and/or cultural development in Norway and/or internationally is very considerable given what is expected from groups in the same research field.	4	Societal partners have very considerable involvement in all parts of the research process, from problem formulation to the publication and/or process or product innovation.
3	The group's contribution to economic, societal and/or cultural development in Norway and/or internationally is on par with what is expected from groups in the same research field.	3	Societal partners have considerable involvement in the research process, from problem formulation to the publication and/or process or product innovation.
2	The group's contribution to economic, societal and/or cultural development in Norway and/or internationally is modest given what is expected from groups in the same research field.	2	Societal partners have a modest part in the research process, from problem formulation to the publication and/or process or product innovation.
1	There is little documentation of contributions from the group to economic, societal and/or cultural development in Norway and/or internationally.	1	There is little documentation of societal partners' participation in the research process, from problem formulation to the publication and/or process or product innovation.



Methods and limitations

Methods

The evaluation is based on documentary evidence and online interviews with the representatives of Administrative Unit.

The documentary inputs to the evaluation were:

- Evaluation Protocol Evaluation of life sciences in Norway 2022-2023
- Administrative Unit's Terms of Reference
- Administrative Unit's self-assessment report
- Administrative Unit's impact cases
- Administrative Unit's research groups evaluation reports
- Panel reports from the Expert panels
- Bibliometric data (*NIFU Nordic Institute for Studies of innovation, research and education*)
- Personnel data (*Statistics Norway (SSB)*)
- Funding data – The Research Council's contribution to biosciences research (*RCN*)
- Extract from the Survey for academic staff and the Student Survey (*Norwegian Agency for Quality Assurance in Education (NOKUT)*)

After the documentary review, the Committee held a meeting and discussed an initial assessment against the assessment criteria and defined questions for the interview with the Administrative Unit. The Committee shared the interview questions with the Administrative Unit two weeks before the interview.

Following the documentary review, the Committee interviewed the Administrative Unit in an hour-long virtual meeting to fact-check the Committee's understanding and refine perceptions. The Administrative Unit presented answers to the Committee's questions and addressed other follow-up questions.

After the online interview, the Committee attended the final meeting to review the initial assessment in light of the interview and make any final adjustments.

A one-page summary of the Administrative Unit was developed based on the information from the self-assessment, the research group assessment, and the interview. The Administrative Unit had the opportunity to fact-check this summary. The Administrative Unit approved the summary without adjustments. ***(Adjust the text if the AU asked for corrections. Include the AU request and explain what adjustments were made).***

Limitations

(Choose one of the three options below and delete the others. Feel free to elaborate slightly if necessary. For example, if you choose option 3, explain the missing information. Note that the Committee can provide detailed feedback and suggestions on improving the evaluation in the Memorandum to the RCN. This section has to remain concise and only summarise whether the information was or was not sufficient.)

- (1) The Committee judged the information received through documentary inputs and the interview with the Administrative Unit sufficient to complete the evaluation.

- (2) The Committee judged that the Administrative Unit self-assessment report was insufficient to assess all evaluation criteria fully. However, the interview with the Administrative Unit filled gaps in the Committee's understanding, and the information was sufficient to complete the evaluation.
- (3) The Committee judged that the Administrative Unit's self-assessment report was insufficient to assess all evaluation criteria fully, and some information gaps remained after the interview with the Administrative Unit.

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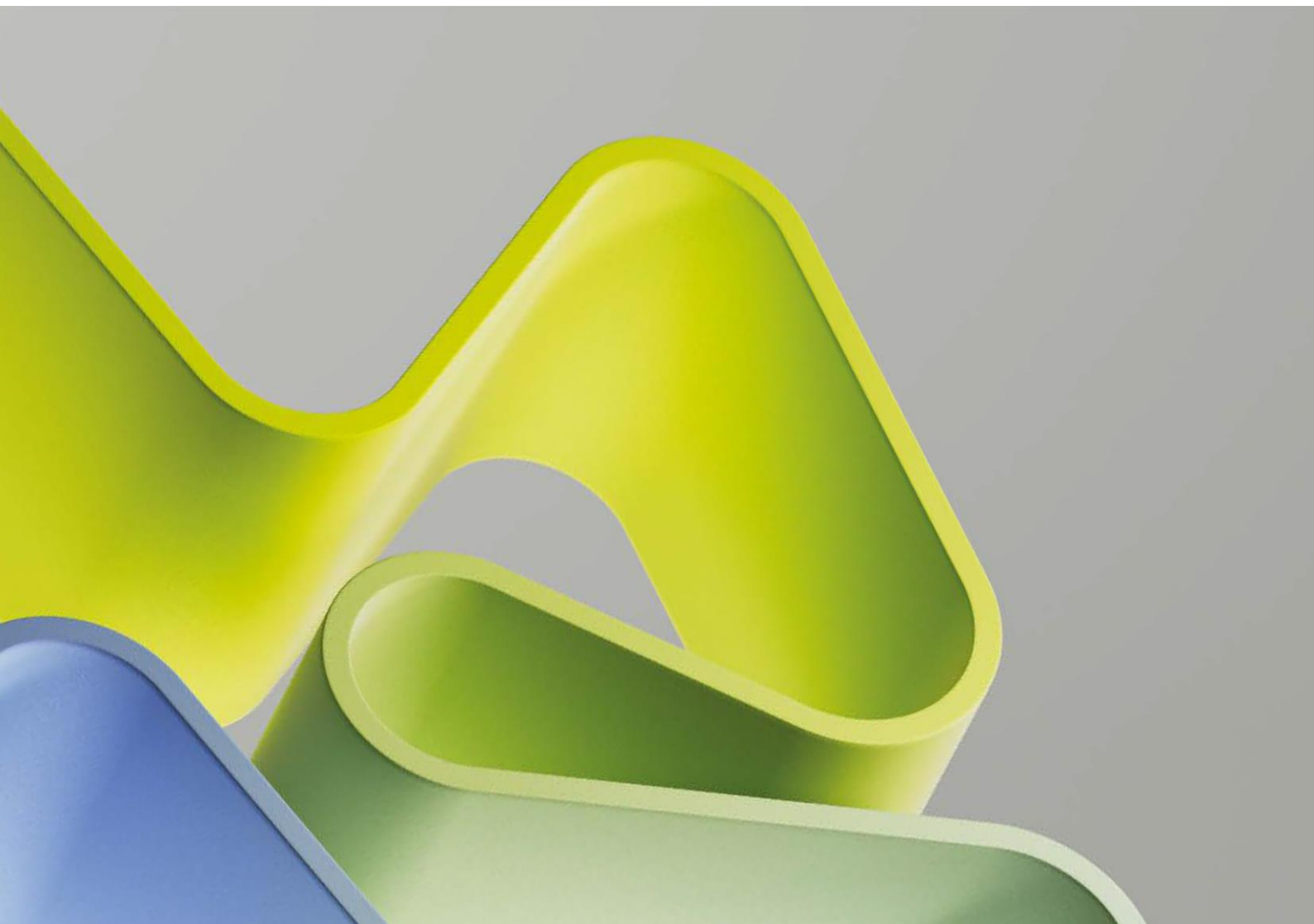
www.forskningsradet.no

Publikasjonen kan lastes ned fra
www.forskningsradet.no/publikasjoner

Design: [design]

Foto/ill. omslagsside: [fotokreditt]

ISBN 978-82-12-04109-7 (pdf)



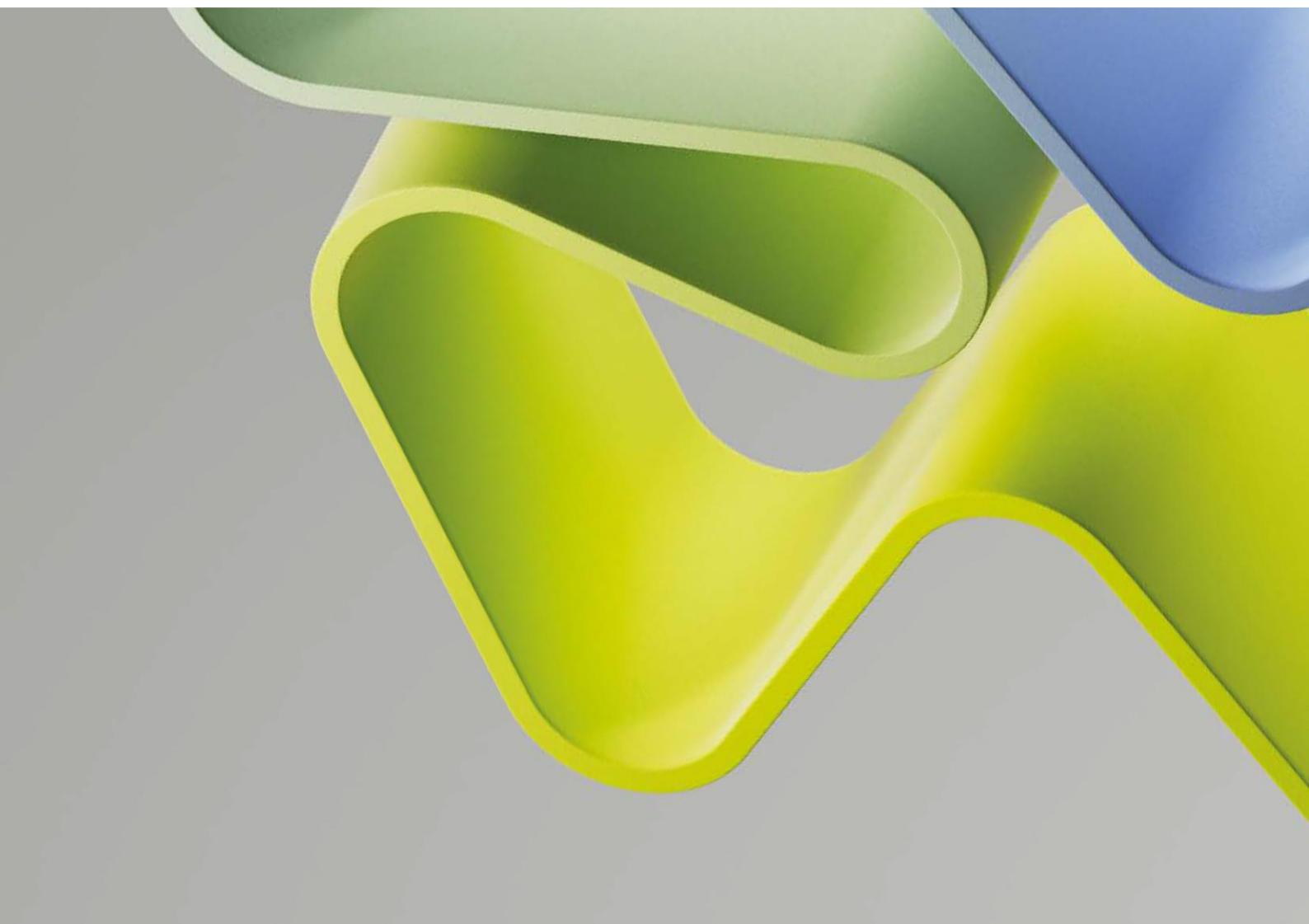
Evaluation of Life Sciences 2022-2024

Evaluation of medicine and health 2023-2024

Evaluation report

ADMIN UNIT: Department of Clinical Science I
INSTITUTION: University of Bergen (UiB)

December 2024



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Statement from Evaluation Committee Higher Education Institutions 3

This report is from Evaluation Committee Higher Education Institutions 3 which evaluated the following administrative units representing the higher education sector in the Evaluation of medicine and health 2023-2024:

- Department of Clinical medicine, UiT Arctic University of Norway
- Department of Pharmacy, UiT Arctic University of Norway
- Department of Biomedicine, University of Bergen (UiB)
- Department of Clinical Science I, University of Bergen (UiB)
- Department of Clinical Science II, University of Bergen (UiB)
- Department of Pharmacy, University of Oslo (UiO)
- Institute of Basic Medical Sciences, University of Oslo (UiO)
- Centre for Molecular Medicine Norway (NCMM), University of Oslo (UiO)

The conclusions and recommendations in this report are based on information from the administrative units (self-assessment), digital meetings with representatives from the administrative units, bibliometric analysis and personnel statistics from the Nordic Institute for Studies of Innovation, Research, and Education (NIFU) and Statistics Norway (SSB), and selected data from Studiebarometeret (NOKUT). The digital interviews took place in Autumn 2024.

This report is the consensus view from Committee Higher Education Institutions 3. All members of the committee agree with the assessments, conclusions and recommendations presented here.

Evaluation Committee Higher Education Institutions 3 consisted of the following members:

Professor Søren Brunak (Chair)

Novo Nordisk Foundation Center for Protein Research, University of Copenhagen

Professor Jouni Hirvonen

University of Helsinki

Professor Ruth Palmer

University of Gothenburg

Professor Lea Sistonen

Åbo Akademi University

Associate Professor Simona Lodato

Humanitas University

Professor Ron Heeren

Maastricht University / Maastricht Multimodal Molecular Imaging Institute

Anoushka Dave, Technopolis Group, was the Committee Secretary.

Oslo, December 2024

Profile of the administrative unit

The Department of Clinical Medicine I (K1) at the University of Bergen is responsible for teaching, research, and researcher education in various clinical disciplines. It also hosts the faculty's animal facility. The K1 has several major research groups as well as four major research centres. The K1 has about 240 employees, with women making up a majority in all positions, except professors and assistant professors where they make up approximately 30%. Among postdocs, PhD students and researchers, women account for 80%, 73% and 75% of the total numbers respectively.

K1 is comprised of an array of research groups in all medical disciplines covered by the department. The following five groups are the largest: (1) Centre for Cancer Biomarkers (CCBIO), with focus on pathology and tumour biology; (2) Bergen Multiple Sclerosis (MS) Research Group with focus on improved treatment and diagnostics of MS; (3) DECODE-PD group which aims to decipher and treat Parkinson's disease; (4) Renal Research Group (RRG) which aims to understand mechanisms in development of chronic renal failure; (5) Section of Nutrition, with a broad focus on nutrition research.

K1 follows the strategy of the Faculty of Medicine (Strategy 2023– 2030) which has four main aims: 1) To host powerful and robust research environments, 2) To obtain solid financing, 3) To serve as attractive research partners and 4) To stimulate students to become research-active. Researchers in K1 aim to become international leaders in several areas of clinical research and state that they are committed to strengthening clinical care both in Norway and internationally, through projects that focus on impacting diagnosis and treatment of both common and rare diseases. K1 has concentrated research efforts on nurturing clinical and laboratory expertise to ensure that the science produced is both translational and patient-centred.

International, national, and regional cooperation is highly prioritised in K1. The major collaborator is the University Hospital of Bergen, reflecting the deep integration of clinical research and education. In recent years, this has been extended to include the University Hospital of Stavanger, and K1 also has extensive and very fruitful collaborations with the universities/university hospitals in Oslo and Trondheim. Internationally, their most extensive collaborations are with institutions in Sweden, Denmark, and Finland. Outside of Scandinavia, they collaborate with world-leading institutions such as King's College and Harvard Medical School. Most of the research collaborations have been established by individual groups based on common research interests. The research collaborations in K1 are mainly with established institutions in the public sector. Collaborations with the private and third sector are underrepresented and represent an arena amenable for development in the years to come.

According to its self-assessment, in the future, K1 may benefit from strong research groups in key clinical fields, skilled staff, supportive administration, and beneficial collaborations. However, it faces internal challenges like heterogeneity, small research groups, lack of full-time scientific positions, and part-time clinicians struggling to dedicate time to research. External challenges include worsening university finances, difficulty recruiting physician leaders, limited funding for rare disease research, and societal trends devaluing academic methods. Data security, fake publications, predatory journals, and security issues with researchers from red-listed countries also pose problems. Opportunities can be found in decentralised education with multiple hospitals, increased number of medical students, a focus on treatment trials, personalised medicine, and potential for more international research funding. Additionally, advancements in AI and machine learning are expected to open new research avenues.

Overall evaluation

The administrative unit is very productive as demonstrated by an impressive publication output. Despite being challenged by having to balance between medical education, innovative research, impact and patient care, it performs outstandingly. The quality of research is overall assessed as outstanding, driven by excellent researchers across all career stages.

The strengths of the departments include the breadth of topics covered, a strong and outstanding educational profile and impactful national and international academic collaborations. One of the weaknesses the committee perceived is the lack of a formalised departmental research strategy which challenges a multidisciplinary ecosystem like K1. The lack of this strategy is asynchronous with the faculty's strategic documents, thus limiting the dynamics of the ecosystem. The infrastructure (especially when considered combined with K2) is state-of-the-art for some activities, but does not seem to be embedded in a financially sustainable manner, making the ecosystem vulnerable. Addressing this could increase the attractiveness of the region for young national (and international) talent.

The committee observed that the current diversity situation does not seem well aligned with the listed institutional policies. No administrative unit-specific diversity measures are in place and the administrative unit states that it aligns with university's policies. That awareness exists, but the gender diversity in the leadership positions needs attention.

The future prospects of the department are outstanding. The strong regional fundamentals and national and international research provide a solid basis for new research directions, innovations, collaborations and the attraction of new funding sources. Strengthening the local large-scale infrastructure while making it nationally available could be the basis for new strategic programmes of RCN for translational medical technologies where major international private partners could participate.

Recommendations

In this section the main recommendations of the committee are summarized in line with the terms of Reference provided by the administrative unit. More details can be found in the corresponding sections of this report.

The most important recommendation of the committee is to develop a clear forward-looking research strategy and communicate it to the different actors and stakeholders. The lack of a clear proactive research strategy and vision contributes to the expression of the lack of a 'raison-d'être' that was indicated on several occasions in line with an absence of the evaluation of the results of the K1/K2 division. The committee recommends determining if this type of division has resulted in the intended outcome. Following that evaluation, we advise the administrative unit to develop a more recognisable profile that more clearly distinguishes K1 from K2. This profile could potentially be employed to attract additional international translational funding through targeted collaborations.

The committee also recommends the establishment of a local programme to stimulate collaboration across administrative units around selected themes. The lack of a strong K1 identity other than being the medical faculty (similar to K2) seems to hamper more interdisciplinary collaborations and visibility. A strategic reduction of the departments' heterogeneity could be used to increase focus, impact and productivity even beyond the current successes.

The committee recommends establishing a clearer separation between the three core tasks of the department, education/research/care, to reduce workload in particular for early career researchers. A career assessment approach that recognises and rewards diversity (not everybody becomes a full professor, some are better researchers, some better educators) in local academic or clinical careers could be developed to better fit the needs of the younger generation of medical researchers. This step should be designed to improve the quality of each of the key activity areas of the department: education, research, impact, leadership and patient care. UiB is well positioned to take the lead in the development of such a national programme.

One area that the committee would recommend to strategically strengthening is translational collaborations with industry through the development of a targeted departmental strategy. A more centrally driven and stimulated approach could increase the size, breadth and impact of the public-private collaborations in medical technologies and accelerate translation to patient care. The Norwegian language requirement for these types of collaborations should be abandoned as that seems counterproductive.

It is evident that K1 boasts an outstanding infrastructure. The long-term sustainability is not evident from the documentation and discussions provided. The committee recommends the development of a more sustainable long-term funding strategy for the research infrastructure in close collaboration with the faculty and other administrative units. This could include the development of distributed shared technology platforms for which increased funding is warranted.

Lastly, more emphasis on (international) talent-based personal funding schemes is recommended and the support structure for early career researchers (ECRs) should be emphasised. Recognise and reward ECRs that obtain high quality evaluations but do not get funded to help their careers forward by developing workload reduction programmes that allow these talents to further develop their strengths and alleviate some of the more mundane administrative tasks.

1. Strategy, resources and organisation of research

1.1 Research strategy

The Department of Clinical Medicine K1 is one of five departments at The Faculty of Medicine, University of Bergen (UiB). The faculty holds and operates extensive advanced research infrastructure that is made available for researchers in and outside Bergen. The Department of Clinical Medicine K1 was established in 2013 because of the reorganisation of the Faculty of Medicine. This administrative unit is responsible for teaching, research, and researcher education in various clinical disciplines, and it also hosts the faculty's animal facility. Research efforts are concentrated on nurturing clinical and laboratory expertise to ensure that the science produced is both translational and patient-centred. Team science is stimulated through team-centric organisation of research groups to ensure sufficient critical mass. Researchers in K1 aim to become international leaders in several areas of clinical research. The administrative unit as a whole has an excellent publication record and succeeds in acquiring competitive national and international grants. The department focusses on those research groups conducting high quality research in clinical science, whether large or small, and encourages them to aim for excellence in their clinical fields. Researchers are committed to strengthening clinical care both in Norway and internationally, and they do so through projects that focus on impacting diagnosis and treatment of both common and rare diseases. Research performed within the administrative unit is aligned with the goals of the Faculty and University, as well as the University Hospitals of Bergen and Stavanger. The research groups use large and unique biobanks of biological samples and epidemiological data and perform clinical and translational studies to discover underlying determinants of disease that can have direct and indirect implications for public health.

The Department of Clinical Medicine K1 follows the strategy of the Faculty of Medicine (Strategy 2023–2030) which has four main aims: 1) To host powerful and robust research environments, 2) To obtain solid financing, 3) To serve as attractive research partners and 4) To stimulate students to become research-active. The individual research groups set their own strategic goals aligned with the above. The faculty was reorganised 12 years ago – from 8 institutes/departments to 4 or 5 – to be more streamlined, more efficient, and improve research and teaching. Research was seemingly randomly distributed across two new clinical departments without thematic or geographic co-location between disciplines in the two departments: K1 based on medical sub-disciplines i.e. neurology, pathology, psychiatry; K2 based on research themes. No overarching top-down scientific strategy or specific thematic focus is observed. Strategy seems to be driven by current interests of key researchers and available infrastructure. The areas of research are determined by the research expertise of the principal researchers and organised based on the medical sub-disciplines covered. Research and innovation are predominantly aimed at the selected medical sub-disciplines covered: Nutritional research, Renal diseases, Pathology and Neurology.

The committee's evaluation

The department lacks a formalised research strategy which challenges a multidisciplinary ecosystem like K1. The modus operandus is more reactive to the availability of research ideas, talents and funding rather than strategically, proactively pursuing selected strengths. The administrative unit is very productive as demonstrated by an impressive publication output. Despite being challenged by having to balance medical education, innovative research and patient care, it performs outstandingly. As many employees are clinicians in part-time positions and physically located at different hospitals, it negatively impacts job satisfaction and work-life balance for researchers with an academic interest. They take care

of the teaching of medical students, and often their time for research is perceived to be limited. This could be developed by more diverse career profiles within the ecosystem to recognise and reward talent. The committee recognises that K1 is faced with the challenge that funding for research on rare diseases tends to be more difficult to obtain as no specific national research programmes on these topics exist. The cooperation between administrative units within UiB's Faculty of Medicine could be improved to increase the impact of the unique Bergen ecosystem.

The committee's recommendations

Work out a forward-looking research strategy that to a higher degree would steer the direction for the department. As it is difficult to establish impactful research groups based on the workload-heavy education/research/care positions, the committee recommends establishing a clearer separation between the three tasks to reduce workload for early career researchers.

The committee recommends clearly defining the 'raison-d'être' which could also be more educational, and less research focused. In that light, the university should evaluate the results of the K1/K2 division and determine if it has resulted in the intended outcome, as it seems in some cases the lack of clarity still persists, as it did with the committee.

The committee also recommends the establishment of a local programme to stimulate collaboration across administrative units around selected themes. The lack of a strong K1 identity other than being the medical faculty (similar to K2) seems to hamper more interdisciplinary collaborations and visibility. A strategic reduction of the departments' heterogeneity could be used to increase focus, impact and productivity even beyond the current successes.

1.2 Organisation of research

The Department of Clinical Medicine K1 has 12 sections that correspond to 18 clinical departments at the University Hospital of Bergen. A Centre of Nutrition and an animal facility serve both the Faculty of Medicine and the University Hospital. The Department is responsible for a large part of the teaching programmes for medical students, being involved in all semesters of the 6-year programme. It is also responsible for the master's programmes in nutritional science as well as postgraduate courses. The department also has a special unit for educational research. The unit performs clinical research in close collaboration with basic research environments and facilitates translational research. The research groups are located in different university and hospital buildings across the campus area in Bergen. Researchers have access to several core facility platforms with discounted user fees. The department hosts and/or participates in different research schools at the faculty.

The administrative unit provides higher education and conducts impactful sector specific research and academic development work at a high international level. The Department also disseminates knowledge of the activities and promotes an understanding of the principle of academic freedom and application of scientific methods and results in the teaching of students, in the Department's own general activity as well as at the hospitals, and at national and international levels. The focus of the Department is clinical and translational research. The aim is to perform research that improves patient care, either in diagnosis, disease understanding or treatment. The close collaboration with the University Hospitals of Bergen and Stavanger, where many researchers also have part-time positions, is therefore important for the Department's ability to achieve these aims. Finally, research results and innovations are translated by the department into clinical use to the benefit of patients and society. This is a significant strength of the administrative unit that directly

impacts welfare of patients locally, nationally, and internationally. Innovations reported occur in the area of repurposing of drugs, improved clinical treatments, novel biomarkers or improved imaging diagnostics. While this progress is innovative in nature, the commercial potential in terms of patenting can be small.

Pre-award research support services at the Faculty of Medicine include research advisors and financial officers. Post-award services provide a legal team, a communication section, the technology transfer office (TTO) VIS, innovation officers, the biomedical incubator building Eitri, a general data protection officer, a career centre for early career scientists and the University Library. Responsibility for outreach activities lies mainly with the individual researchers, but with support from the communication advisors at faculty level. The administrative unit offers career development programmes for PhDs and post-doctoral researchers.

The committee's evaluation

The research is largely organised along the prevailing themes of the different sections and centres of excellence. The organisation is partly based on the seemingly random division between K1 and K2 which results in the lack of a recognisable identity for the administrative unit as confirmed by the leadership in the interview. The organisational structure does offer excellent opportunities to increase programmatic dynamics. This by itself could be a strategic choice, but is not expressed as such by the administrative unit. The academic career opportunities and attractiveness would benefit from an increased diversity in academic roles and closer interaction between staff members at different points of their careers. This could for example be used to coach and stimulate assistant and associate professors towards a quicker transition into leadership roles.

The committee's recommendations

The committee recommends the administrative unit to develop a more recognisable profile that more clearly distinguishes K1 from K2 and can be used to attract translational funding. This profile should capitalise on the research strengths already present in redefined and rejuvenated focus areas of the research programme. The development of a leadership programme in which junior and senior staff jointly take on leadership of different organisational elements and tasks would be useful.

1.3 Research funding

The overall budget for the Department of Clinical Medicine is 115 MNOK which comes from two main sources. Basic funding comes from the Ministry of Education and Research and was 69 MNOK in 2022. External grants contributed 46.7 MNOK in 2022. In addition, the University of Bergen provides significant indirect resources for research advisors, library services, legal assistance, and other administrative support. These resources are not included in the basic funding for the administrative unit. Of the total funding, approximately 77 MNOK is allocated to permanent staff salaries. Basic funding is not considered sufficient to cover all housing costs and research infrastructure. This implies that a significant need for soft or grant-based funding exists, but the diverse appointment (education/research labelling) make it difficult to reach that target.

The committee's evaluation

The committee recognises that the basic funding is not sufficient to cover all salaries of permanent project managers, technical staff and administrative personnel. The administrative unit has successfully increased international funding in 2023 from the 4-year average of 2.9 MNOK to 3.8 MNOK which is a commendable achievement. This constitutes ~4% of its total research funding which implies that the administrative unit is predominantly dependent on national funding and relatively little international funding. The infrastructural

funding lacks a structural component to make it sustainable for the future and is heavily dependent on soft funding. This is evaluated as a potential threat to the sustainability of the infrastructure administered by the administrative unit.

The committee's recommendations

Develop a more sustainable long term funding strategy for the research infrastructure in close collaboration with faculty and other administrative units.

Explore opportunities for an increase in shared technology platforms.

More emphasis on (international) talent based personal funding schemes is recommended and the support structure for ECRs should be emphasised. Recognise and reward ECRs that obtain high quality evaluations but do not get funded to help their careers forward.

1.4 Use of infrastructures

The Faculty of Medicine has developed a strategy for research infrastructure and its own roadmap for research infrastructure in line with the Norwegian Roadmap. In collaboration with the Faculty of Medicine, the Department of Clinical Medicine K1 actively takes part in proposals for the "Norwegian roadmap for research infrastructure". In these efforts, the Department works closely with relevant departments at the University Hospital of Bergen. A national brain biobank research infrastructure has been proposed for future research in collaboration with the hospital departments of Neurology, Pathology and Psychiatry. The gastroenterology research group is a member of the Norwegian roadmap for research infrastructures (NORMOLIM, NORBIOIMAGING). The Renal Research Group is member of NorCRIN/NorPedMed (www.norcrin.no).

Research infrastructure is primarily consolidated around core facilities that service several departments. The administrative unit aims to contribute to the research community with up-to-date infrastructure, and a fundamental principle is that the infrastructure should be available in the best possible way for all researchers, regardless of departmental affiliation. Core facilities are anchored in and operated by a department on behalf of the faculty. There is an approved operational model that involves a user fee for internal users, constituting approximately 25% of the actual costs. The faculty has a dedicated committee that advises leadership and the departments on matters related to core facilities and other advanced infrastructure. The Department of Clinical Medicine hosts the Animal Facility infrastructure. Two research groups are part of European ESFRI infrastructures. The gastroenterology group is an EATRIS member, and the renal research group is a member of ECRIN.

The Department of Clinical Medicine follows the University of Bergen Policy for Open Science which promotes open access to research data and the FAIR principles in national and international networks and collaborations. The data management plans (DMP) are employed to support good data handling practice throughout the whole research data life cycle and includes management of ethical aspects and sensitive data. The university library offers resource pages on open science and DMPs, as well as webinars and tailored courses by request.

The committee's evaluation

The department boasts outstanding access to core research facilities and infrastructure. The animal facility is broadly used by a wide variety of researchers. "Omics" and imaging infrastructure contributes the outstanding research output of the unit. The department is developing new infrastructural opportunities along the lines of the NeuroSysBio centre of excellence. The existing infrastructure, animal facilities and core technology platforms are faced with challenges in future, proofing funding and keeping the technological advantage the region needs.

The committee's recommendations

Develop a clearer sustainable reinvestment, maintenance and infrastructural innovation programme, with a focus on future-proof technologies.

1.5 Collaboration

The Department of Clinical Medicine K1 prioritises international, national, and regional cooperation with the aim of fulfilling the ambitions of the University of Bergen. The international scientific collaborations focus on several institutions with high visibility in the field. The driving force behind most collaborations are individual researchers, who also define the size of the collaboration. The biggest collaborator of the department is the Bergen University Hospital and now collaboration has been expanded to the University Hospital of Stavanger. It is remarkable that while the number of publications with international co-authors is high, the percentage of papers with top 10% international institutions is relatively low with a unit author share of only 0.7%. This potentially indicates that only a limited number of collaborations have the administrative unit as the main driver. The number of publications with international top institutions is 16 out of 497 in the year 2022 and differs markedly from the K2 department which could be attributed to a stronger focus on education. Collaborations are predominantly within the sector.

The committee's evaluation

The department exhibits an outstanding collaborative record with >60% of the publications that include international collaborators that reflect the interdisciplinary nature of the field of clinical medicine. The mix of national and international collaborations provides a healthy basis for the development of high-quality research. The regional focus is both a strength and a weakness. Researchers are appropriately stimulated to look across the boundaries of their own institution. Collaborations with private institutions and companies seem to be underdeveloped and could be strengthened to increase exonymic impact on top of scientific impact.

The committee's recommendations

Develop a departmental strategy to increase collaborations with industry and other (international) private partners, ideally in medical technologies. If this is more centrally driven, it could increase the size and impact of the collaboration. The Norwegian language requirement for these types of collaborations should be abandoned as that seems counterproductive.

1.6 Research staff

The administrative unit encompasses 240 persons spread across the different academic functions, including education, as well as organisational and research support. As the unit is responsible for decentralised medical education, and a large number of our positions are dedicated to clinical education, which is a major focus of unit and staff. With 148 Professor/Associate Professor (internal and external) positions, 62 teachers/researchers and the 45 support staff, the administrative unit is considered academically heavy. The administrative unit has 25 PhD students internally and 105 PhD students externally employed, i.e. approximately 1 PhD student per academic senior staff member.

The committee's evaluation

The distribution of 130 PhD position over 148 Professor/Associate Professor supervision amounts to approximately 1 PhD student per high-level academic supervisory position. This one-on-one supervisory structure provides direct guidance. As a substantial focus is placed on medical education, the staff workload does not seem excessively high. The administrative unit consists of many relatively small research groups. The gender

distribution up to the professor level is more or less in line with the national average in medical research. At the Professor/Associate Professor level the reported female participation of ~33% is well below the national average reported by NIFU. The teaching load for staff is relatively high, resulting in little time to devote to research. While the research output is commendable, an improved education/research balance could be explored.

The committee's recommendations

Initiate a proactive programme to improve gender diversity in leadership positions.

1.7 Open Science

UiB has open access (OA) publishing deals with several academic publishers that will cover the cost of publishing open access. The administrative unit K1 adheres to the UiB policies and takes appropriate advantage of this agreement. This has resulted in 91% of the publications being available through an open access strategy. Recent scholarly articles are made available at the university's institutional repository BORA (Bergen Open Research Archive) in accordance with the University's rights retention policy. Other publications are made available in accordance with the copyright owner and publishers' archiving policies. No specific policy for the administrative unit exists as the UiB policies are functioning well. The administrative unit adheres to the University of Bergen's Policy for Open Science, which is based on the EU's, Research Council of Norway's and the Norwegian government's open-science principles that state that research and research processes are to be "as open as possible, as closed as necessary". The goal of the University of Bergen is that data resulting from research activity should be made readily available for reuse in accordance with FAIR principles.

The committee's evaluation

The administrative unit has optimally developed their open access policies and OA has increased from 30% in 2013 to 91% in 2022. No administrative unit-specific awareness programmes or strategy for FAIR data usage exists although the administrative unit recognises the challenges that come with adherence to legal regulations on personal privacy, information security, business secrets and intellectual property rights (IPR). The committee supports use of the established university-funded curated institutional research data archive, Dataverse NO for storage of patient sensitive data. This is an essential element of open clinical research and education in clinical medicine. Open science with respect to open innovation is not discussed but could be an opportunity for translational research in close collaboration with companies active in the development of medical technology or diagnostics.

The committee's recommendations

Expand the open science policy with open innovation to increase the (funding) opportunities for innovative public-private partnerships.

2. Research production, quality and integrity

The administrative unit is responsible for a broad research palette across the medical sciences. K1 boasts an outstanding publication record with a far-reaching impact that surpasses both the world average (100) and the Norwegian average (115). This is a testimony of their commitment and success in striving for research excellence. The percentage of highly cited papers is well above average across the breadth of clinical and fundamental research topics covered. Productivity and quality are overall high – above national average – and match internationally renowned institutions in the field.

Ethical policies follow UiB's guidelines in addition to the national and international research ethics guidelines. Additional training is offered in research ethics through seminars for PhD supervisors, courses for PhD candidates in Research Ethics, Laboratory Animal Science and Good Clinical Practice. Preventive measures to reduce and correct scientific misconduct are in place following faculty and central guidelines to promote good research practice. Overall, the administrative unit has made highly impactful contributions to the chosen research areas and is managing ethical training and monitoring to the best of its abilities.

2.1 Research quality and integrity

This section presents the overall assessment of each research group that the administrative unit has entered in the evaluation. Each overall assessment has been written by one of the 18 expert panels that were responsible for evaluating the research groups entered in EVALMEDHELSE. The evaluation committee had no involvement in the evaluation of the research group(s).

Bergen Multiple Sclerosis (MS) Research Group

The Bergen Multiple Sclerosis (MS) Research Group provides an outstanding environment for supporting the production of world-leading research which is comparable to the best work internationally in this area. Its strategy for achieving this is cohesive and comprehensive. The contribution to education is excellent. The group has developed an extensive network of external collaborators, both nationally and internationally, to support the mobility of staff, and the production of high-quality research. The group has played a very considerable role in terms of societal contribution through robust clinically oriented research; educational programmes for clinicians, researchers and people affected by MS; and active engagement of its members with both professional and patient organisations, and health authorities; thereby directly influencing patient care.

Centre for Cancer Biomarkers

The main strength of this group is the ability to carry out relevant translational studies with cancer related biomarkers at a highly significant level. Their publications are also relevant with significant scientific quality. To make this sustainable, it may be critical that they open themselves for a more international network of cooperation. Their main weakness is the scarcity of internationally funded projects. Linking the different units in a cooperative strategy would also be of importance. They should be also taking care in attracting more industry funded clinical trial or interventional studies based upon biomarkers. The societal impact of their research is high. However, some improvement must be done on how to involve patients and patient advocacy groups in the planning and development of future studies.

DECODE-PD

DECODE produces very high-quality work. There are some organisational concerns related to centralised leadership which may limit the leadership opportunities for senior researchers. So too does the reliance on non-permanent staff positions potentially limit the work undertaken. There is no explicit report of mentorship schemes to support early and mid-career researchers. Similarly, there appears limited involvement in users throughout the research process. The group makes a positive contribution to education, supervising a growing number of students across all levels of education.

Section of Nutrition

The panel evaluated the research group of Nutrition as having an adequate organisational environment for supporting excellent science. The quality of the research is internationally excellent, with group members playing a considerable role in the research process. The group's contribution to economic and societal development is on par with what is expected from groups in the same research field, and societal partners seem to have considerable involvement in the research process. The group have set clear research goals, and ambitious but realistic metric-based benchmarks. The Research group seems very well organised for their research and teaching activities, with access to relevant facilities on the research group, Department or Faculty level. However, the panel felt that access to core funding would allow this group to grow their research, and research-based activities as part of teaching, more effectively. Despite being a small-sized group (4.5 FTE), and despite operating without any core funding, they have a very healthy grant income, and a good publication record in good impact journals. The group have a recognised track record in nutrition research, and in nutrition education. The group expresses an ambition to grow their research income, output and impacts. In order to achieve this the group would benefit from participating in, or leading on, more extensive national and international research collaborations, across senior scientists. The majority of research grants is held by one person in this group, but to grow as a research group there needs to be more of a concerted effort, across staff, to generate funding and research impact. The group shows clear evidence of impact generation, on the national level, by contributing to the Nordic Nutrition Recommendations 2023, but other opportunities to generate societal and/or economic impact are perhaps more underexploited.

Renal Research Group (RRG)

The research environment is outstanding enabling the production of excellent research. The group take a leading role in several major projects and plays a very considerable role in the research process through to publication. The output profile of the group indicates a quality that is outstanding in terms of originality, significance and rigour. The group have made a very considerable real-life societal impact and has very considerable user involvement across its research portfolio.

3. Diversity and equality

The administrative unit's actions to protect against discrimination and ensure equal treatment and opportunities for its employees are satisfactory and follows the institutional models. This includes the University of Bergen's action plan for diversity, inclusion and equality 2023-2025, the policy for bullying, harassment and conflict, ethical guidelines for relationships between supervisors and students or candidates as well as a tailored equality action plan of the faculty of medicine. The latter is intended to stimulate employees to express their vision to ensure diversity, equality, and inclusion. The presence of a Health, Safety and Environment (HSE) action plan 2023-2026 targets diversity, openness, and inclusion as measures to ensure that the University develops a culture in which health, safety, the environment, and emergency preparedness are preventative and health-promoting and stimulate workplace wellbeing.

The committee's evaluation

The handling of the diversity area seems to be adequate, mostly aligned with institutional policies and no unit specific measures are in place. Gender diversity in the leadership positions needs attention as indicated earlier. The current situation does not seem well aligned with the listed institutional policies.

The committee's recommendations

While institutional policies are in place, it is recommended to evaluate the administrative unit employees' awareness of these policies through questionnaires or topical townhall meetings within the administrative unit.

4. Relevance to institutional and sectorial purposes

The Department of Clinical Medicine K1 at the University of Bergen plays a pivotal role in the region, advancing healthcare through its sector-specific focus on clinical research and education. Together with the Department of Clinical Chemistry K2, it shapes the institutional clinical science landscape with a strong regional and national impact. The department's mission focusses on higher education, sector specific research and academic development work at a high international level. It is one of the largest medical educational institutions in western Norway. Bergen is well positioned as a hub for medical advancements and biomedical technology development. Moreover, the department's focus on translating research into clinical practice has the potential lead to cost-effective healthcare solutions, ultimately reducing the financial burden on the healthcare system. The current practice for innovation and commercialisation relies heavily individual research group leaders and them contacting the TTO (VIS Innovation) and the faculty's innovation advisor if they have identified innovation potential. K1 has a dedicated innovation leader part of the Department's management team and the Faculty of Medicine's Innovation Leader Forum. The forum is led by the Vice-Dean for Innovation. This approach follows common practice in many hospitals and is supported by the University of Bergen's administration.

The committee's evaluation

The committee positively supports the department's efforts to increase focus and awareness of the opportunities of innovation and commercialisation to improve patient care. The efforts to motivate the research staff in achieving these goals are commendable. The economic impact could be further amplified by strengthening connections with the private sector and startup stimulation programmes on top of the local hospital focus, ensuring that research findings and innovative technologies are commercialised effectively. This goes hand-in-hand with the attractiveness of the department for a more diverse group of (bio)medical professionals. Thus, while the department strongly contributes to the sustainable growth of the medical ecosystem, ample opportunity remains to enhance its role as a catalyst for broader economic development in the region. The innovation route starts with individual talented researchers that themselves have interest and time to make an economic impact. Relying (almost exclusively it seems) on the individual researchers to start the innovation chain might not be the most efficient way given the high workload of these individuals in education, research and funding acquisition.

The committee's recommendations

The committee recommends that the TTO establish an innovation outreach programme where they actively scout for innovations at the department(s) and possibly reduce the workload of the individual researchers. This could increase the economic impact and potentially reduce the time to market of innovations. The department leadership team could develop and regulate interaction with the TTO by providing opportunities for business developers and business scouts to attend a bi-annual lecture at departmental seminars to expose the business developers to research innovations and establish stronger lines of communication between the TTO and the work floor.

4.1 Higher education institutions

The Department of Clinical Medicine has a strong role in PhD-based higher education and is one of the departments with the highest number of awarded PhD degrees. Embedded in the Faculty of Medicine, this constitutes approximately 22% of the faculty's PhD students. The department is involved in the master 's programme with medical research as the leading activity area. The research focus allows the department to offer many project

possibilities for master's students. At the master's level, the department's resources are attributed to the integrated master's programme in medicine. Dedicated master 's programmes in clinical nutrition and human nutrition are specifically offered by the department.

The committee's evaluation

The department's emphasis on outstanding educational activities is reflected in the large and growing number of medical students in collaboration with the different hospitals involved. The education focus has a positive impact on the local economy through the attraction of students, researchers and other professionals to the region. The department also boasts the highest number of students admitted to the medical student research programme. The committee is positively impressed with the resulting reduction in time spent to complete a PhD and the relatively young age of the enrolled students upon completion of the programme.

The committee's recommendations

The committee recommends further investments in the PhD student stimulation programme to accelerate the career development and increase (international) career opportunities for the graduates.

5. Relevance to society

The department has developed a strong contribution to the Norwegian Long-term plan for research and higher education as is evidenced by the various impact cases that demonstrate strong interdisciplinary focus on innovation and advanced learning. The encouragement and emphasis on interdisciplinary translational medicine is positively evaluated by the committee. The provided impact cases combined highlights from the multiple sclerosis group, Parkinson Disease group, renal research group and Centre for Nutrition. The breadth of research addresses important topics in health and disease, are well aligned with both societal challenges and the focus on rare diseases is commendable. The strategic choices are at the heart of the Sustainable Development Goals (SDGs) of good health and well-being as well as quality education for all and address some of the major European societal challenges. The department's knowledge dissemination activities strongly contribute to its societal relevance. The committee observed in discussion that the development of a more external focus could potentially increase the translational impact further.

Comments on impact case 1 – Clinical nutrition

Disease-related malnutrition among hospitalised patients was investigated by members of the nutritional group in close collaboration with the regional hospitals. The underpinning research focussed on the improvement of guidelines and recommendations for prevention and treatment through the development of a clinical decision-making system to reduce the prevalence of the condition.

The Nutrition group's epidemiological and clinical nutritional research has resulted in the first Norwegian nutritional register for hospitalised patients and a large case-control study at Haukeland University Hospital. It revealed nutritional key factors and their impact on increased morbidity, mortality, length of stay/health care costs. This research impacted clinical practice and provided new innovative instruments for clinical professionals such as new definitions of ICD-10-codes for malnutrition in Norway.

The research has impacted the Norwegian guidelines for disease related malnutrition during hospital care in Norway.

Comments on impact case 2 – Digitisation of the Norwegian Kidney Biopsy Registry and kidney pathology services

Digital pathology technologies utilise modern digital slide scanners embedded in a state-of-the-art digital infrastructure with a multipurpose image database. This enables the use of advanced 'omics' techniques on formalin-fixed paraffin-embedded kidney biopsies for translational clinical research. One focus of the underpinning research was the digitisation and study of non-neoplastic kidney biopsies.

The Renal Research Group (RRG) has developed, digitised and deployed a national kidney biopsy registry since 2012. An essential recent innovative element is the integration of the registry as part of a digital pathology service to, among others, enable the future incorporation of broad 'omics' data within RRG. The registry enables the preservation of rare biopsy materials for fundamental clinical research and assists in the development of national standards for nephrology-pathology collaborations across the boundaries of scientific domains and disciplines.

The research has impacted local and national digital renal pathology research and augmented the national renal registry. It has resulted in an essential element of Norwegian national clinical research infrastructure with strong links to international integrative digital pathology.

Comments on impact case 3 – High-efficacy multiple sclerosis therapy to a sustainable cost to the society

The underpinning research facilitated academic trials in Norway and Scandinavia to establish improved treatment strategies of available therapies. One highlight of the impact case was the discovery of high efficacy from the off-label rituximab treatment. The finding, in close collaboration with Swedish researchers, led to gradual usage increase as well as systematic implementation of drug dosing and dosing interval recommendations. The researchers also reached out to international pharmaceutical industries, which enhanced impact.

The Bergen Multiple Sclerosis Research Group facilitated Norwegian participation in large clinical trials in the domain of MS research and pioneered early implementation of new personalised therapies. The research of the group aims to provide improved and personalised treatments for multiple sclerosis (MS).

The MS research group implemented rituximab in national treatment guidelines which impacted the Norwegian Health Technology Assessment (HTA) of MS-therapy. The group's contribution to the Multiple Sclerosis International Federation (MSIF) initiative to include MS medication on the WHO's list of essential medicines impacted global therapy access for patients.

Comments on impact case 4 – NAD-replenishment therapy as a disease modifying strategy for neurodegeneration

Researchers explored the downstream impact of impaired mitochondrial respiration in Parkinson's Disease, which was hypothesised to lead to aberrant nicotinamide adenine dinucleotide (NAD) metabolism. An indirect study of NAD metabolism was performed where the state of histone acetylation (largely regulated by NAD-dependent enzymes such as sirtuins) was targeted. The surprising findings that the Parkinson's Disease brain is characterised by genome-wide increased histone acetylation and dysregulation of gene expression, were plausibly linked to decreased NAD-dependent deacetylation.

Building on their underpinning research, the group proposed NAD-replenishment therapy as a potential disease-modifying strategy. These findings have nominated NAD-therapy as a neuroprotective strategy for Parkinson's Disease and have led to multiple ongoing trials, and significant intellectual property and commercialisation endeavours.

A new therapy to increase the NAD level in the human brain using oral nicotinamide ribose was discovered which potentially has a large impact on neuroprotective therapy. The clinical trials, filed intellectual property, and publications have or will generate social (patients), economic (pharma market) and scientific (publication) impact across the board. This is a beautiful example of how to add value to scientific research and the time needed to make optimised and long-term impact.

Appendices

Evaluation of Medicine and health 2023-2024

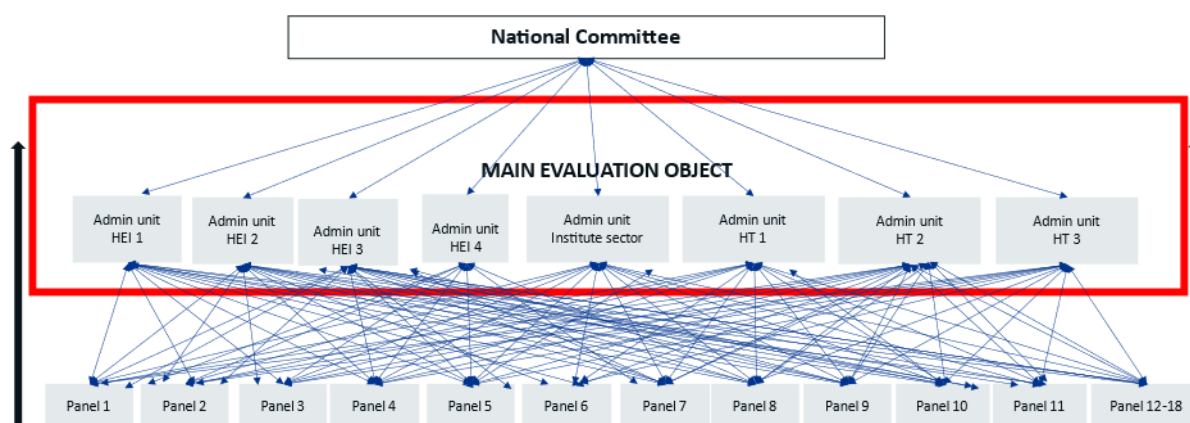
By evaluating Norwegian research and higher education we aim to enhance the quality, relevance, and efficiency. In accordance with the statutes of the Research Council of Norway (RCN), the RCN evaluates Norwegian professional environments to create a solid and up-to-date knowledge base about Norwegian research and higher education in an international perspective.

The evaluation of life sciences is conducted in 2022-2024. The evaluation of medicine takes place in 2023-2024. The evaluation of biosciences was carried out in 2022-2023. The primary aim of the evaluation of life sciences is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), the institute sector and the health trusts. The evaluation shall result in recommendations to the institutions, the RCN and the ministries.

Evaluation of medicine and health (EVALMEDHELSE) 2023-2024

The evaluation of medicine and health includes sixty-eight administrative units (e.g., faculty, department, institution, center, division) which are assessed by evaluation committees according to sectorial affiliation and other relevant similarities between the units. The administrative units enrolled their research groups (315) to eighteen expert panels organised by research subjects or themes and assessed across institutions and sectors.

Organisation of evaluation of medicine and health 2023-2024



The institutions have been allowed to adapt the evaluation mandate (Terms of Reference) to their own strategic goals. This is to ensure that the results of the evaluation will be useful for the institution's own strategic development. The administrative unit together with the research group(s) selects an appropriate benchmark for each of the research group(s).

The Research Council of Norway has commissioned an external evaluation secretariat at Technopolis Group for the implementation of the evaluation process.

Each institution/administrative unit is responsible for following up the recommendations that apply to their own institution/administrative unit. The Research Council will use the results from the evaluation in the development of funding instruments and as a basis for advice to the Government.

The web page for the evaluation of medicine and health 2023-2024: [Evaluation of medicine and health sciences \(forskingsradet.no\)](https://forskingsradet.no)

Se vedlagte adresseliste

Vår saksbehandler / tlf.	Vår ref.	Deres ref.	Sted
Hilde G. Nielsen/40922260	23/3056	[Ref.]	Lysaker 28.4.2023

Invitasjon til å delta i fagevaluering av medisin og helsefag (EVALMEDHELSE) 2023-2024

Vi viser til varsel om oppstart av nye evalueringer sendt institusjonenes ledelse 9. november 2021 (vedlegg 2).

Porteføljestyret for livsvitenskap har vedtatt å gjennomføre fagevaluering av livsvitenskap 2022-2024 som to evalueringer:

- Evaluering av biovitenskap (EVALBIOVIT) (2022-2023)
- Evaluering av medisin og helsefag (EVALMEDHELSE) (2023-2024)

Hovedmålet med fagevalueringen av livsvitenskap 2022-2024 er å vurdere kvalitet og rammebetingelser for livsvitenskapelig forskning i Norge, samt forskningens relevans for sentrale samfunnsområder. Evalueringen skal resultere i anbefalinger til institusjonene, til Forskningsrådet og til departementene. Den forrige fagevalueringen av biologi, medisin og helsefag ble gjennomført i 2010/2011 (vedlegg 3).

Fagevaluering av livsvitenskap retter seg mot UH-sektor, helseforetak og instituttsektor (vedlegg 4). Forskningsrådet forventer at aktuelle forskningsmiljøer deltar i evalueringene, selv om beslutning om deltagelse gjøres ved den enkelte institusjon. Videre ber vi om at deltakende institusjoner setter av tilstrekkelig med ressurser til å delta i evalueringsprosessen, og at institusjonen oppnevner minst én representant som kontaktperson for Forskningsrådet.

Invitasjon til å delta i fagevaluering av medisin og helsefag (2023-2024)

Fagevaluering av medisin og helsefag er organisert over to nivåer (vedlegg 4, side 11). Internasjonale ekspertpaneler vil evaluere forskergrupper på tvers av fag, disiplin og forskningssektorer (UH, institutt og helseforetak) etter kriteriene beskrevet i kapittel 2 i evalueringsprotokollen (vedlegg 4).

Panelrapporten(e) for forskergruppene vil inngå i bakgrunnsdokumentasjonen til forskergruppen(e)s administrative enhet (hovedevalueringsobjektet i evaluering), og som vil bli evaluert i internasjonale

sektorspesifikke evalueringskomiteer. Evalueringskriteriene for administrative enheter er beskrevet i kapittel 2 i evalueringsprotokollen (vedlegg 4).

Innmelding av administrative enheter og forskergrupper – frist 6. juni 2023

Administrative enheter (hovedevalueringssubjektet i evalueringen) – skjema 1

Forskningsrådet inviterer institusjonene til å melde inn sine administrative enhet/er ved å fylle ut skjema 1. Definisjonen av en administrativ enhet i denne evalueringen er å finne på side 3 (kap 1.1) i evalueringsprotokollen (vedlegg 4). Ved innmelding av administrativ/e enhet/er anbefaler Forskningsrådet institusjonene til å se innmelding av administrativ enhet/er i sammenheng med tilpasning av mandat for den administrative enheten (Appendix A i evalueringsprotokollen).

Forskergrupper – skjema 2

Forskningsrådet ber de administrative enheter om å melde inn forskergrupper i tråd med forskergruppedefinisjonen (kap 1.1) og minimumskravene beskrevet i kapittel 1.2 i evalueringsprotokollen. Hver administrative enhet melder inn sin/e forskergruppe/r ved å fylle ut Skjema 2. Vi ber også om at forskergruppene innplasseres i den tentative fagpanelinndelingen for EVALMEDHELSE (vedlegg 5).

Forskningsrådet vil ferdigstille panelstruktur og avgjøre den endelige fordelingen av forskergruppene på fagpaneler etter at alle forskergrupper er meldt inn. Mer informasjon vil bli sendt i slutten av juni 2023.

Invitasjon til å foreslå eksperter – skjema 3

Forskningsrådet inviterer administrative enheter og forskergrupper til å spille inn forslag til eksperter som kan inngå i evalueringskomitéene og i ekspertpanelene. Hver evalueringskomité vil bestå av 7-9 komitémedlemmer, mens hvert ekspertpanel vil bestå av 5-7 eksperter.

Obs. Det er to faner i regnearket:

- FANE 1 – forslag til medlemmer til evalueringskomitéene. Medlemmene i evalueringskomitéene skal inneha bred vitenskapelig kompetanse, både faglig kompetanse og andre kvalifikasjoner som erfaring med ledelse, strategi- og evalueringsarbeid og kunnskapsutveksling.
- FANE 2 – forslag til medlemmer til ekspertpanelene. Medlemmene i ekspertpanelene skal være internasjonalt ledende eksperter innen medisin og helsefaglig forskning og innovasjon.

Utfylte skjemaer (3 stk):

- innmelding av administrative enhet/er (skjema 1)
- innmelding av forskergruppe/er (skjema 2)
- forslag til eksperter (skjema 3)

sendes på epost til evalmedhelse@forskningsradet.no **innen 6. juni 2023.**

Tilpasning av mandat – frist 30. september 2023

Forskningsrådet ber med dette administrative enheter om å tilpasse mandatet (vedlegg 4) ved å opplyse om egne strategiske mål og andre lokale forhold som er relevant for evalueringen.

Tilpasningen gjøres ved å fylle inn de åpne punktene i malen (Appendix A). Utfylt skjema sendes på epost til evalmedhelse@forskningssradet.no innen 30. september 2023.

Digitalt informasjonsmøte 15. mai 2023, kl. 14.00-15.00.

Forskningssrådet arrangerer et digitalt informasjonsmøte for alle som ønsker å delta i EVALMEDHELSE.

Påmelding til informasjonsmøtet gjøres her: [Fagevaluering av medisin og helsefag \(EVALMEDHELSE\) - Digitalt informasjonsmøte \(pameldingssystem.no\)](#) .

Nettsider

Forskningssrådet vil opprette en nettside på www.forskningssradet.no for EVALMEDHELSE hvor informasjon vil bli publisert fortløpende. [Her](#) kan dere lese om Fagevaluering av biovitenskap (EVALBIOVIT) 2022-2023. Fagevaluering av medisin og helsefag vil bli gjennomført etter samme modell.

Spørsmål vedrørende fagevaluering av medisin og helsefag kan rettes til Hilde G. Nielsen, hgn@forskningssradet.no eller mobil 40 92 22 60.

Med vennlig hilsen
Norges forskningsråd

Ole Johan Borge
avdelingsdirektør
Helse

Hilde G. Nielsen
spesialrådgiver
Helse

Dokumentet er elektronisk godkjent og signert og har derfor ikke håndskrevne signaturer.

Kopi

Helse- og omsorgsdepartementet
Kunnskapsdepartementet

Vedlegg

1. Adresseliste
2. Nye fagevalueringer – varsel om oppstart november 2021
3. Erfaringer med oppfølging av fagevaluering av biologi, medisin og helsefag 2010/2011
4. Fagevaluering av livsvitenskap 2022-2024 – Evalueringsprotokoll
5. Tentativ panelinndeling EVALMEDHELSE mai 2023
6. Skjema 1 – Innmeldingsskjema Administrative enheter
7. Skjema 2 – Innmeldingsskjema Forskergrupper
8. Skjema 3 – Forslag til internasjonale eksperter til evalueringskomiteene og ekspertpanelene
9. Appendix A – word format

Evaluation of life sciences in Norway 2022-2023

LIVSEVAL protocol version 1.0

By decision of the Portfolio board for life sciences April 5., 2022

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www.forskningsradet.no/publikasjoner

Oslo, 5 April 2022

ISBN 978-82-12-Klikk her for å fylle ut (xxxxx-x). (pdf)

1 Introduction

Research assessments based on this protocol serve different aims and have different target groups. The primary aim of the evaluation of life sciences is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), and by the institute sector and regional health authorities and health trusts. These institutions will hereafter be collectively referred to as Research Performing Organisations (RPOs). The assessments should serve a formative purpose by contributing to the development of research quality and relevance at these institutions and at the national level.

1.1 Evaluation units

The assessment will comprise a number of *administrative units* submitted for evaluation by the host institution. By assessing these administrative units in light of the goals and strategies set for them by their host institution, it will be possible to learn more about how public funding is used at the institution(s) to facilitate high-quality research and how this research contributes to society. The administrative units will be assessed by evaluation committees according to sectoral affiliation and/or other relevant similarities between the units.

The administrative units will be invited to submit data on their *research groups* to be assessed by expert panels organised by research subject or theme. See Chapter 3 for details on organisation.

<i>Administrative unit</i>	An administrative unit is any part of an RPO that is recognised as a formal (administrative) unit of that RPO, with a designated budget, strategic goals and dedicated management. It may, for instance, be a university faculty or department, a department of an independent research institute or a hospital.
<i>Research group</i>	Designates groups of researchers within the administrative units that fulfil the minimum requirements set out in section 1.2. Research groups are identified and submitted for evaluation by the administrative unit, which may decide to consider itself a single research group.

1.2 Minimum requirements for research groups

- 1) The research group must be sufficiently large in size, i.e. at least five persons in full-time positions with research obligations. This merely indicates the minimum number, and larger units are preferable. In exceptional cases, the minimum number may include PhD students, postdoctoral fellows and/or non-tenured researchers. *In all cases, a research group must include at least three full-time tenured staff.* Adjunct professors, technical staff and other relevant personnel may be listed as group members but may not be included in the minimum number.

- 2) The research group subject to assessment must have been established for at least three years. Groups of more recent date may be accepted if they have come into existence as a consequence of major organisational changes within their host institution.
- 3) The research group should be known as such both within and outside the institution (e.g. have a separate website). It should be able to document common activities and results in the form of co-publications, research databases and infrastructure, software, or shared responsibilities for delivering education, health services or research-based solutions to designated markets.
- 4) In its self-assessment, the administrative unit should propose a suitable benchmark for the research group. The benchmark will be considered by the expert panels as a reference in their assessment of the performance of the group. The benchmark can be grounded in both academic and extra-academic standards and targets, depending on the purpose of the group and its host institution.

1.3 The evaluation in a nutshell

The assessment concerns:

- research that the administrative unit and its research groups have conducted in the previous 10 years
- the research strategy that the administrative units under evaluation intend to pursue going forward
- the capacity and quality of research in life sciences at the national level

The Research Council of Norway (RCN) will:

- provide a template for the Terms of Reference¹ for the assessment of RPOs and a national-level assessment in life sciences
- appoint members to evaluation committees and expert panels
- provide secretarial services
- commission reports on research personnel and publications based on data in national registries
- take responsibility for following up assessments and recommendations at the national level.

RPOs conducting research in life sciences are expected to take part in the evaluation. The board of each RPO under evaluation is responsible for tailoring the assessment to its own strategies and specific needs and for following them up within their own institution. Each participating RPO will carry out the following steps:

- 1) Identify the administrative unit(s) to be included as the main unit(s) of assessment
- 2) Specify the Terms of Reference by including information on specific tasks and/or strategic goals of relevance to the administrative unit(s)

¹ The terms of reference (ToR) document defines all aspects of how the evaluation committees and expert panels will conduct the [research area] evaluation. It defines the objectives and the scope of the evaluation, outlines the responsibilities of the involved parties, and provides a description of the resources available to carry out the evaluation.

- 3) The administrative unit will, in turn, be invited to register a set of research groups that fulfil the minimum criteria specified above (see section 1.2). The administrative unit may decide to consider itself a single research group.
- 4) For each research group, the administrative unit should select an appropriate benchmark in consultation with the group in question. This benchmark can be a reference to an academic level of performance or to the group's contributions to other institutional or sectoral purposes (see section 2.4). The benchmark will be used as a reference in the assessment of the unit by the expert panel.
- 5) The administrative units subject to assessment must provide information about each of their research groups, and about the administrative unit as a whole, by preparing self-assessments and by providing additional documentation in support of the self-assessment.

1.4 Target groups

- Administrative units represented by institutional management and boards
- Research groups represented by researchers and research group leaders
- Research funders
- Government

The evaluation will result in recommendations to the institutions, the RCN and the ministries. The results of the evaluation will also be disseminated for the benefit of potential students, users of research and society at large.

This protocol is intended for all participants in the evaluation. It provides the information required to organise and carry out the research assessments. Questions about the interpretation or implementation of the protocol should be addressed to the RCN.

2 Assessment criteria

The administrative units are to be assessed on the basis of five assessment criteria. The five criteria are applied in accordance with international standards. Finally, the evaluation committee passes judgement on the administrative units as a whole in qualitative terms. In this overall assessment, the committee should relate the assessment of the specific tasks to the strategic goals that the administrative unit has set for itself in the Terms of Reference.

When assessing administrative units, the committees will build on a separate assessment by expert panels of the research groups within the administrative units. See Chapter 3 'Evaluation process and organisation' for a description of the division of tasks.

2.1 Strategy, resources and organisation

The evaluation committee assesses the framework conditions for research in terms of funding, personnel, recruitment and research infrastructure in relation to the strategic aims set for the administrative unit. The administrative unit should address at least the following five specific aspects in its self-assessment: 1) funding sources, 2) national and international cooperation, 3) cross-sector and interdisciplinary cooperation, 4) research careers and mobility, and 5) Open Science. These five aspects relate to how the unit organises and actually performs its research, its composition in terms of leadership and personnel, and how the unit is run on a day-to-day basis.

To contribute to understanding what the administrative unit can or should change to improve its ability to perform, the evaluation committee is invited to focus on factors that may affect performance.

Further, the evaluation committee assesses the extent to which the administrative unit's goals for the future remain scientifically and societally relevant. It is also assessed whether its aims and strategy, as well as the foresight of its leadership and its overall management, are optimal in relation to attaining these goals. Finally, it is assessed whether the plans and resources are adequate to implement this strategy.

2.2 Research production, quality and integrity

The evaluation committee assesses the profile and quality of the administrative unit's research and the contribution the research makes to the body of scholarly knowledge and the knowledge base for other relevant sectors of society. The committee also assesses the scale of the unit's research results (scholarly publications, research infrastructure developed by the unit, and other contributions to the field) and its contribution to Open Science (early knowledge and sharing of data and other relevant digital objects, as well as science communication and collaboration with societal partners, where appropriate).

The evaluation committee considers the administrative unit's policy for research integrity and how violations of such integrity are prevented. It is interested in how the unit deals with research data, data management, confidentiality (GDPR) and integrity, and the extent to which independent and critical pursuit of research is made possible within the unit. Research integrity relates to both the scientific integrity of conducted research and the professional integrity of researchers.

2.3 Diversity and equality

The evaluation committee considers the diversity of the administrative unit, including gender equality. The presence of differences can be a powerful incentive for creativity and talent development in a diverse administrative unit. Diversity is not an end in itself in that regard, but a tool for bringing together different perspectives and opinions.

The evaluation committee considers the strategy and practices of the administrative unit to prevent discrimination on the grounds of gender, age, disability, ethnicity, religion, sexual orientation or other personal characteristics.

2.4 Relevance to institutional and sectoral purposes

The evaluation committee compares the relevance of the administrative unit's activities and results to the specific aspects detailed in the Terms of Reference for each institution and to the relevant sectoral goals (see below).

Higher Education Institutions

There are 36 Higher Education Institutions in Norway that receive public funding from the Ministry for Education and Research. Twenty-one of the 36 institutions are owned by the ministry, whereas the last 15 are privately owned. The HEIs are regulated under the Act relating to universities and university colleges of 1 August 2005.

The purposes of Norwegian HEIs are defined as follows in the Act relating to universities and university colleges²

- provide higher education at a high international level;
- conduct research and academic and artistic development work at a high international level;
- disseminate knowledge of the institution's activities and promote an understanding of the principle of academic freedom and application of scientific and artistic methods and results in the teaching of students, in the institution's own general activity as well as in public administration, in cultural life and in business and industry.

In line with these purposes, the Ministry for Research and Education has defined four overall goals for HEIs that receive public funding. These goals have been applied since 2015:

- 1) High quality in research and education
- 2) Research and education for welfare, value creation and innovation
- 3) Access to education (esp. capacity in health and teacher education)
- 4) Efficiency, diversity and solidity of the higher education sector and research system

The committee is invited to assess to what extent the research activities and results of each administrative unit have contributed to sectoral purposes as defined above. In particular, the committee is invited to take the share of resources spent on education at the administrative units into account and to assess the relevance and contributions of research to education, focusing on the master's and PhD levels. This assessment should be distinguished from an

² <https://lovdata.no/dokument/NLE/lov/2005-04-01-15?q=universities>

assessment of the quality of education in itself, and it is limited to the role of research in fostering high-quality education.

Research institutes (the institute sector)

Norway's large institute sector reflects a practical orientation of state R&D funding that has long historical roots. The Government's strategy for the institute sector³ applies to the 33 independent research institutes that receive public basic funding through the RCN, in addition to 12 institutes outside the public basic funding system.

The institute sector plays an important and specific role in attaining the overall goal of the national research system, i.e. to increase competitiveness and innovation power to address major societal challenges. The research institutes' contributions to achieving these objectives should therefore form the basis for the evaluation. The main purpose of the sector is to conduct independent applied research for present and future use in the private and public sector. However, some institutes primarily focus on developing a research platform for public policy decisions, others on fulfilling their public responsibilities.

The institutes should:

- maintain a sound academic level, documented through scientific publications in recognised journals
- obtain competitive national and/or international research funding grants
- conduct contract research for private and/or public clients
- demonstrate robustness by having a reasonable number of researchers allocated to each research field

The committee is invited to assess the extent to which the research activities and results of each administrative unit contribute to sectoral purposes and overall goals as defined above. In particular, the committee is invited to assess the level of collaboration between the administrative unit(s) and partners in their own or other sectors.

The hospital sector

There are four regional health authorities (RHF) in Norway. They are responsible for the specialist health service in their respective regions. The RHF are regulated through the Health Enterprises Act of 15 June 2001 and are bound by requirements that apply to specialist and other health services, the Health Personnel Act and the Patient Rights Act. Under each of the regional health authorities, there are several health trusts (HF), which can consist of one or more hospitals. A health trust (HF) is wholly owned by an RHF.

Research is one of the four main tasks of hospital trusts.⁴ The three other main tasks are to ensure good treatment, education and training of patients and relatives. Research is important if the health service is to keep abreast of stay up-to-date with medical developments and carry out critical assessments of established and new diagnostic methods,

³ [Strategy for a holistic institute policy \(Kunnskapsdepartementet 2020\)](#)

⁴ Cf. the Specialist Health Services Act § 3-8 and the Health Enterprises Act §§ 1 and 2

treatment options and technology, and work on quality development and patient safety while caring for and guiding patients.

The committee is invited to assess the extent to which the research activities and results of each administrative unit have contributed to sectoral purposes as described above. The assessment does not include an evaluation of the health services performed by the services.

2.5 Relevance to society

The committee assesses the quality, scale and relevance of contributions targeting specific economic, social or cultural target groups, of advisory reports on policy, of contributions to public debates, and so on. The documentation provided as the basis for the assessment of societal relevance should make it possible to assess relevance to various sectors of society (i.e. business, the public sector, non-governmental organisations and civil society).

When relevant, the administrative units will be asked to link their contributions to national and international goals set for research, including the Norwegian Long-term Plan for Research and Higher Education and the UN Sustainable Development Goals. Sector-specific objectives, e.g. those described in the Development Agreements for the HEIs and other national guidelines for the different sectors, will be assessed as part of criterion 2.4.

The committee is also invited to assess the societal impact of research based on case studies submitted by the administrative units and/or other relevant data presented to the committee. Academic impact will be assessed as part of criterion 2.2.

3 Evaluation process and organisation

The RCN will organise the assessment process as follows:

- Commission a professional secretariat to support the assessment process in the committees and panels, as well as the production of self-assessments within each RPO
- Commission reports on research personnel and publications within life sciences based on data in national registries
- Appoint one or more evaluation committees for the assessment of administrative units.
- Divide the administrative units between the appointed evaluation committees according to sectoral affiliation and/or other relevant similarities between the units.
- Appoint a number of expert panels for the assessment of research groups submitted by the administrative units.
- Divide research groups between expert panels according to similarity of research subjects or themes.
- Task the chairs of the evaluation committees with producing a national-level report building on the assessments of administrative units and a national-level assessments produced by the expert panels.

Committee members and members of the expert panels will be international, have sufficient competence and be able, as a body, to pass judgement based on all relevant assessment criteria. The RCN will facilitate the connection between the assessment levels of panels and committees by appointing committee members as panel chairs.

3.1 Division of tasks between the committee and panel levels

The expert panels will assess research groups across institutions and sectors, focusing on the first two criteria specified in Chapter 2: 'Strategy, resources and organisation' and 'Research production and quality' The assessments from the expert panels will also be used as part of the evidence base for a report on Norwegian research within life sciences (see section 3.3).

The evaluation committees will assess the administrative units based on all the criteria specified in Chapter 2. The assessment of research groups delivered by the expert panels will be a part of the evidence base for the committees' assessments of administrative units. See figure 1 below.

The evaluation committee has sole responsibility for the assessments and any recommendations in the report. The evaluation committee reaches a judgement on the research based on the administrative units and research groups' self-assessments provided by the RPOs, any additional documents provided by the RCN, and interviews with representatives of the administrative units. The additional documents will include a standardised analysis of research personnel and publications provided by the RCN.

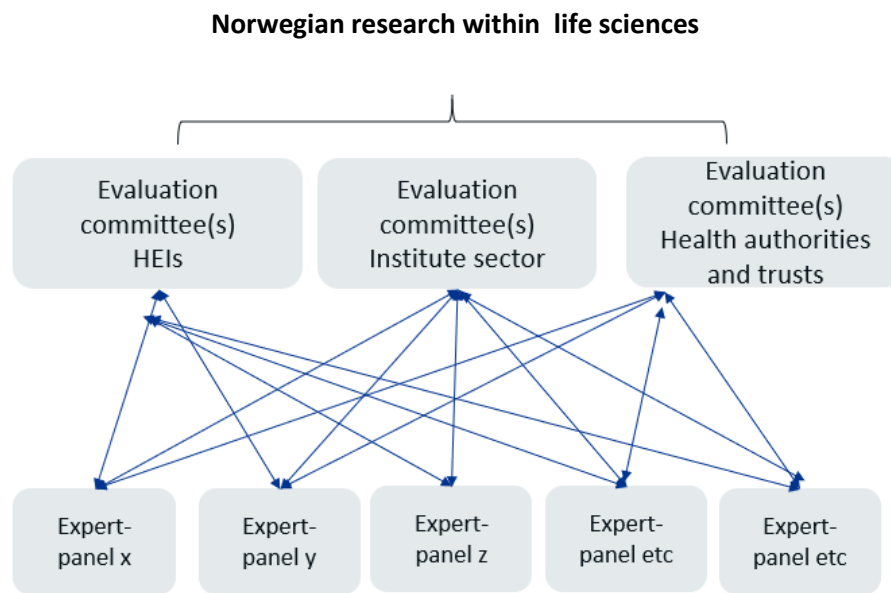


Figure 1. Evaluation committees and expert panels

The evaluation committee takes international trends and developments in science and society into account when forming its judgement. When judging the quality and relevance of the research, the committees shall bear in mind the specific tasks and/or strategic goals that the administrative unit has set for itself including sectoral purposes (see section 2.4 above).

3.2 Accuracy of factual information

The administrative unit under evaluation should be consulted to check the factual information before the final report is delivered to the RCN and the board of the institution hosting the administrative unit.

3.3 National level report

Finally, the RCN will ask the chairs of the evaluation committees to produce a national-level report that builds on the assessments of administrative units and the national-level assessments produced by the expert panels. The committee chairs will present their assessment of Norwegian research in life sciences at the national level in a separate report that pays specific attention to:

- Strengths and weaknesses of the research area in the international context
- The general resource situation regarding funding, personnel and infrastructure
- PhD training, recruitment, mobility and diversity
- Research cooperation nationally and internationally
- Societal impact and the role of research in society, including Open Science

This national-level assessment should be presented to the RCN.

Appendix A: Terms of References (ToR)

[Text in red to be filled in by the Research-performing organisations (RPOs)]

The board of [RPO] mandates the evaluation committee appointed by the Research Council of Norway (RCN) to assess [administrative unit] based on the following Terms of Reference.

Assessment

You are asked to assess the organisation, quality and diversity of research conducted by [administrative unit] as well as its relevance to institutional and sectoral purposes, and to society at large. You should do so by judging the unit's performance based on the following five assessment criteria (a. to e.). Be sure to take current international trends and developments in science and society into account in your analysis.

- a) Strategy, resources and organisation
- b) Research production, quality and integrity
- c) Diversity and equality
- d) Relevance to institutional and sectoral purposes
- e) Relevance to society

For a description of these criteria, see Chapter 2 of the life sciences evaluation protocol. Please provide a written assessment for each of the five criteria. Please also provide recommendations for improvement. We ask you to pay special attention to the following [n] aspects in your assessment:

- 1. ...
- 2. ...
- 3. ...
- 4. ...
- ...

[To be completed by the board: specific aspects that the evaluation committee should focus on – they may be related to a) strategic issues, or b) an administrative unit's specific tasks.]

In addition, we would like your report to provide a qualitative assessment of [administrative unit] as a whole in relation to its strategic targets. The committee assesses the strategy that the administrative unit intends to pursue in the years ahead and the extent to which it will be capable of meeting its targets for research and society during this period based on available resources and competence. The committee is also invited to make recommendations concerning these two subjects.

Documentation

The necessary documentation will be made available by the **life sciences** secretariat at Technopolis Group.

The documents will include the following:

- a report on research personnel and publications within life sciences commissioned by RCN
- a self-assessment based on a template provided by the life sciences secretariat
- **[to be completed by the board]**

Interviews with representatives from the evaluated units

Interviews with the **[administrative unit]** will be organised by the evaluation secretariat. Such interviews can be organised as a site visit, in another specified location in Norway or as a video conference.

Statement on impartiality and confidence

The assessment should be carried out in accordance with the *Regulations on Impartiality and Confidence in the Research Council of Norway*. A statement on the impartiality of the committee members has been recorded by the RCN as a part of the appointment process. The impartiality and confidence of committee and panel members should be confirmed when evaluation data from **[the administrative unit]** are made available to the committee and the panels, and before any assessments are made based on these data. The RCN should be notified if questions concerning impartiality and confidence are raised by committee members during the evaluation process.

Assessment report

We ask you to report your findings in an assessment report drawn up in accordance with a format specified by the life sciences secretariat. The committee may suggest adjustments to this format at its first meeting. A draft report should be sent to the **[administrative unit]** and RCN by [date]. The **[administrative unit]** should be allowed to check the report for factual inaccuracies; if such inaccuracies are found, they should be reported to the life sciences secretariat no later than two weeks after receipt of the draft report. After the committee has made the amendments judged necessary, a corrected version of the assessment report should be sent to the board of **[the RPO]** and the RCN no later than two weeks after all feedback on inaccuracies has been received from **[administrative unit]**.

Appendix B: Data sources

The lists below shows the most relevant data providers and types of data to be included in the evaluation. Data are categorised in two broad categories according to the data source: National registers and self-assessments prepared by the RFOs. The RCN will commission an analysis of data in national registers (R&D-expenditure, personnel, publications etc.) to be used as support for the committees' assessment of administrative units. The analysis will include a set of indicators related to research personnel and publications.

- **National directorates and data providers**
- Norwegian Directorate for Higher Education and Skills (HK-dir)
- Norwegian Agency for Quality Assurance in Education (NOKUT)
- Norwegian Agency for Shared Services in Education and Research (SIKT)
- Research Council of Norway (RCN)
- Statistics Norway (SSB)

National registers

- 1) R&D-expenditure
 - a. SSB: R&D statistics
 - b. SSB: Key figures for research institutes
 - c. HK-dir: Database for Statistics on Higher Education (DBH)
 - d. RCN: Project funding database (DVH)
 - e. EU-funding: eCorda
- 2) Research personnel
 - a. SSB: The Register of Research personnel
 - b. SSB: The Doctoral Degree Register
 - c. RCN: Key figures for research institutes
 - d. HK-dir: Database for Statistics on Higher Education (DBH)
- 3) Research publications
 - a. SIKT: Cristin - Current research information system in Norway
 - b. SIKT: Norwegian Infrastructure for Bibliometrics
(full bibliometric data incl. citations and co-authors)
- 4) Education
 - a. HK-dir/DBH: Students and study points
 - b. NOKUT: Study barometer
 - c. NOKUT: National Teacher Survey
- 5) Sector-oriented research
 - a. RCN: Key figures for research institutes
- 6) Patient treatments and health care services
 - a. Research & Innovation expenditure in the health trusts
 - b. Measurement of research and innovation activity in the health trusts
 - c. Collaboration between health trusts and HEIs
 - d. Funding of research and innovation in the health trusts
 - e. Classification of medical and health research using HRCS (HO21 monitor)

Self-assessments

1) Administrative units

- a. *Self-assessment covering all assessment criteria*
- b. Administrative data on funding sources
- c. Administrative data on personnel
- d. Administrative data on the division of staff resources between research and other activities (teaching, dissemination etc.)
- e. Administrative data on research infrastructure and other support structures
- f. SWOT analysis
- g. Any supplementary data needed to assess performance related to the strategic goals and specific tasks of the unit

2) Research groups

- a. *Self-assessment covering the first two assessment criteria (see Table 1)*
- b. Administrative data on funding sources
- c. Administrative data on personnel
- d. Administrative data on contribution to sectoral purposes: teaching, commissioned work, clinical work [will be assessed at committee level]
- e. Publication profiles
- f. Example publications and other research results (databases, software etc.)
The examples should be accompanied by an explanation of the groups' specific contributions to the result
- g. Any supplementary data needed to assess performance related to the benchmark defined by the administrative unit

The table below shows how different types of evaluation data may be relevant to different evaluation criteria. Please note that the self-assessment produced by the administrative units in the form of a written account of management, activities, results etc. should cover all criteria. A template for the self-assessment of research groups and administrative units will be commissioned by the RCN from the life sciences secretariat for the evaluation.

Table 1. Types of evaluation data per criterion

Evaluation units Criteria	Research groups	Administrative units
Strategy, resources and organisation	Self-assessment Administrative data	Self-assessment National registers Administrative data SWOT analysis
Research production and quality	Self-assessment Example publications (and other research results)	Self-assessment National registers
Diversity, equality and integrity		Self-assessment National registers Administrative data
Relevance to institutional and sectoral purposes		Self-assessment Administrative data
Relevance to society		Self-assessment National registers Impact cases
Overall assessment	<i>Data related to: Benchmark defined by administrative unit</i>	<i>Data related to: Strategic goals and specific tasks of the admin. unit</i>



Evaluation of Medicine and Health (EVALMEDHELSE) 2023-2024

Self- assessment for administrative units

Date of dispatch: **15 September 2023**
Deadline for submission: **31 January 2024**

Institution (name and short name): _____

Administrative unit (name and short name): _____

Date: _____

Contact person: _____

Contact details (email): _____

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Introduction

The primary aim of the evaluation is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), the institute sector and the health trusts. These institutions will henceforth be collectively referred to as research performing organisations (RPOs). The evaluation report(s) will provide a set of recommendations to the RPOs, the Research Council of Norway (RCN) and the responsible and concerned ministries. The results of the evaluation will also be disseminated for the benefit of potential students, users of research and society at large.

You have been invited to complete this self-assessment as an administrative unit. The self-assessment contains questions regarding the unit's research- and innovation related activities and developments over years 2012-2022. All submitted data will be evaluated by international evaluation committees. The administrative unit's research groups will be assessed by international expert panels who report their assessment to the relevant evaluation committee.

Deadline for submitting self- assessments to the Research Council of Norway – 31 January 2024

As an administrative unit you are responsible for collecting completed self-assessments for each of the research groups that belong to the administrative unit. The research groups need to submit their completed self-assessment to the administrative unit no later than 26 January 2024. The administrative unit will submit the research groups' completed self-assessments and the administrative unit's own completed self-assessment to the Research Council within 31 January 2024.

Please use the following format when naming your document: name of the institution and short name of the administrative unit, e.g. *NTNU_FacMedHealthSci* and send it to evalmedhelse@forskningsradet.no within 31 January 2024.

For questions concerning the self-assessment or EVALMEDHELSE in general, please contact RCN at evalmedhelse@forskningsradet.no.

Thank you!

Guidelines for completing the self-assessment

- Please read the entire self-assessment document before answering.
- The evaluation language is English.
- Please be sure that all documents which are linked to in the self- assessment are in English and are accessible.
- The page format must be A4 with 2 cm margins, single spacing and Calibri and 11-point font.
- The self-assessment follows the same structure as the [evaluation protocol](#). In order to be evaluated on all criteria, the administrative unit must answer all questions.
- Information should be provided by link to webpages i.e. strategy and other planning documents.
 - Provide information – provide documents and other relevant data or figures about the administrative unit, for example strategy and other planning documents.
 - Describe – explain and present using contextual information about the administrative unit and inform the reader about the administrative unit.
 - Reflect – comment in a reflective and evaluative manner how the administrative unit operates.
- Data on personnel should refer to reporting to DBH on 1 October 2022 for HEIs and to the yearly reporting for 2022 for the institute sector and the health trusts. Other data should refer to 31 December 2022, if not specified otherwise.
- Questions in 4.3c should **ONLY** be answered by administrative units responsible for the Cand.med. degree programme, cf. [Evaluation of the Professional programme in Medicine \(NOKUT\)](#).
- It is possible to extend the textboxes when filling in the form. **NB!** A completed self- assessment cannot exceed 50 pages (pdf file) excluding question 4.3.c. The evaluation committees are not requested to read more than the maximum of 50 pages. Pages exceeding maximum limit of 50 pages **might not** be evaluated.
- Submit the self- assessment as a pdf (max 50 pages). Before submission, please be sure that all text are readable after the conversion of the document to pdf. The administrative unit is responsible for submitting the self-assessment of the administrative unit together with the self-assessments of the belonging research group(s) to evalmedhelse@forskningsradet.no within **31 January 2024**.

Please note that information you write in the self- assessment and the links to documents/webpages in the self- assessment are the only available information (data material) for the evaluation committee.

In exceptional cases, documents/publications that are not openly available must be submitted as attachment(s) to the self- assessment (pdf file(s)).

1.Strategy, resources and organisation

1.1 Research strategy

Describe the main strategic goals for research and innovation of the administrative unit. You may include the following:

- How are these goals related to institutional strategies and scientific priorities?
- Describe how the administrative unit's strategies and scientific priorities are related to the "specific aspects that the evaluation committee should focus on" indicated in your Terms of Reference (ToR)
- Describe the main fields and focus of research and innovation in the administrative unit
- Describe the planned research-field impact; planned policy impact and planned societal impact
- Describe how the strategy is followed-up in the allocation of resources and other measures
- Describe the most important occasions where priorities are made (i.e., announcement of new positions, applying for external funding, following up on evaluations)
- If there is no research strategy – please explain why

Table 1. Administrative unit's strategies

For each category present up to 5 documents which are most relevant for the administrative unit. Please delete lines which are not in use.

Research strategy		
No.	Title	Link
1		
2		
3		
4		
5		
Outreach strategies		
No.	Title	Link
1		
2		
3		
4		
5		
Open science policy		
No.	Title	Link
1		
2		
3		
4		
5		

1.2 Organisation of research

a) Describe the organisation of research and innovation activities/projects at the administrative unit, including how responsibilities for research and other purposes (education, knowledge exchange, patient treatment, researcher training, outreach activities etc.) are distributed and delegated.

b) Describe how you work to maximise synergies between the different purposes of the administrative unit (education, knowledge exchange, patient treatment, researcher training, outreach activities etc.).

1.3 Research staff

Describe the profile of research personnel at the administrative unit in terms of position and gender. Institutions in the higher education sector should use the categories used in DBH, <https://dbh.hkdir.no/datainnhold/kodeverk/stillingskoder>.

RCN has commissioned reports from Statistics Norway (SSB) on personnel for the administrative units included in the evaluation. These reports will be made available to the units early November 2023.

Only a subset of the administrative units submitted to the evaluation is directly identifiable in the national statistics. Therefore, we ask all administrative units to provide data on their R&D personnel. Institutions that are directly identifiable in the national statistics (mainly higher education) are invited to use the figures provided in the report delivered by Statistics Norway. Please delete lines which are not in use.

Table 2. Research staff

	Position by category	No. of researcher per category	Share of women per category (%)	No. of researchers who are part of multiple (other) research groups at the admin unit	No. of temporary positions
No. of Personell by position	Position A (Fill in)				
	Position B (Fill in)				
	Position C (Fill in)				
	Position D (Fill in)				

1.4 Researcher careers opportunities

- a) Describe the structures and practices to support researcher careers and help early-career researchers to make their way into the profession.
- b) Describe how research time is distributed among staff including criteria for research leave/sabbaticals (forskningstermin/undervisningsfri).
- c) Describe research mobility options.

1.5 Research funding

- a) Describe the funding sources of the administrative unit. Indicate the administrative unit's total yearly budget and the share of the unit's budget dedicated to research.
- b) Give an overview of the administrative unit's competitive national and/or international grants last five years (2018-2022).

Table 3. R&D funding sources

Please indicate R&D funding sources for the administrative unit for the period 2018-2022 (average NOK per year, last five years).

For Higher Education Institutions: Share of basic grant (grunnbevilgning) used for R&D ¹ For Research Institutes and Health Trusts: Direct R&D funding from Ministries (per ministry)	
Name of ministry	NOK

National grants (bidragsinntekter) (NOK)	
From the ministries and underlying directorates	
From industry	
From public sector	
Other national grants	
Total National grants	
National contract research (oppdragsinntekter) ² (NOK)	
From the ministries and underlying directorates	
From industry	

¹ Shares may be calculated based on full time equivalents (FTE) allocated to research compared to total FTE in administrative unit

² For research institutes only research activities should be included from section 1.3 in the yearly reporting

From public sector	
Other national contract research	
Total contract research	
International grants (NOK)	
From the European Union	
From industry	
Other international grants	
Total international grants	
Funding related to public management (forvaltningsoppgaver) or (if applicable) funding related to special hospital tasks, if any	
Total funding related to public management/special hospital tasks	
Total all R&D budget items (except basic grant)	

1.6 Collaboration

Describe the administrative unit's policy towards national and international collaboration partners, the type of the collaborations the administrative unit have with the partners, how the collaboration is put to practice as well as cross-sectorial and interdisciplinary collaborations.

- Reflect of how successful the administrative unit has been in meeting its aspirations for collaborations
- Reflect on the importance of different types of collaboration for the administrative unit: National and international collaborations. Collaborations with different sectors, including public, private and third sector
- Reflect on the added value of these collaborations to the administrative unit and Norwegian research system

Table 4a. The main national collaborative constellations with the administrative unit

Please categorise the collaboration according to the most important national partner(s): 5-10 institutions in the period 2012-2022. Please delete lines which are not in use.

National collaborations

Collaboration with national institutions – 1 -10	
Name of main collaboration or collaborative project with the admin unit	
Name of partner institution(s)	
Sector of partner/institution(s)/sectors involved	
Impacts and relevance of the collaboration	

Table 4b. The main international collaborative constellations with the administrative unit

Please categorise the collaboration according to the most important international partner(s): 5-10 international institutions in the period 2012-2022. Please delete lines which are not in use.

International collaborations

Collaboration with international institutions – 1-10	
Name of main collaboration or collaborative project with the admin unit	
Name of partner institution(s)	
Sector of partner/institution(s)/sectors involved	

Impacts and relevance of the collaboration	
--	--

1.7 Open science policies

a) Describe the institutional policies, approaches, and activities to the Open Science areas which may include the following:

- Open access to publications
- Open access to research data and implementation of FAIR data principles
- Open-source software/tools
- Open access to educational resources
- Open peer review
- Citizen science and/or involvement of stakeholders / user groups
- Skills and training for Open Science

b) Describe the most important contributions and impact of the administrative unit's researchers towards the different Open Science areas cf. 1.7a above.

c) Describe the institutional policy regarding ownership of research data, data management, and confidentiality. Is the use of data management plans implemented at the administrative unit?

1.8 SWOT analysis for administrative units

Instructions: Please complete a SWOT analysis for your administrative unit. Reflect on what are the major internal Strengths and Weaknesses as well as external Threats and Opportunities for your research and innovation activities/projects and research environment. Assess what the present Strengths enable in the future and what kinds of Threats are related to the Weaknesses. Consider your scientific expertise and achievements, funding, facilities, organisation and management.

Internal	Strengths	Weaknesses
External	Opportunities	Threats

2. Research production, quality and integrity

2.1 Research quality and integrity

Please see the bibliometric analysis for the administrative unit developed by NIFU (available by the end of October, 2023).

a) Describe the scientific focus areas of the research conducted at the administrative unit, including the unit's contribution to these areas.

b) Describe the administrative unit's policy for research integrity, including preventative measures when integrity is at risk, or violated.

2.2 Research infrastructures

a) Participation in national infrastructure

Describe the most important participation in the national infrastructures listed in the Norwegian roadmap for research infrastructures (Norsk veikart for forskningsinfrastruktur) including as host institution(s).

Table 5. Participation in national infrastructure

Please present up to 5 participations in the national infrastructures listed in the Norwegian roadmap for research infrastructures (Norsk veikart for forskningsinfrastruktur) for each area that were the most important to your administrative unit.

Areas in roadmap	Name of research infrastructure	Period (from year to year)	Description	Link to website

b) Participation in international infrastructures

Describe the most important participation in the international infrastructures funded by the ministries (Norsk deltakelse i internasjonale forskningsorganisasjoner finansiert av departementene).

Table 6. Participation in international infrastructure

Please describe up to 5 participations in international infrastructures for each area that have been most important to your administrative unit.

Project	Name	Period (from year to year)	Description	Link to infrastructure

c) Participation in European (ESFRI) infrastructures

Describe the most important participation in European (ESFRI) infrastructures (Norske medlemskap i infrastruktur i ESFRI roadmap) including as host institution(s).

Table 7. Participation in infrastructures on the ESFRI Roadmap

Please give a description of up to 5 participations that have been most important to your administrative unit.

Social sciences and the humanities				
Name	ESFRI-project	Summary of participation	Period (from year to year)	Link

d) Access to research infrastructures

Describe access to relevant national and/or international research infrastructures for your researchers. Considering both physical and digital infrastructure.

e) FAIR- principles

Describe what is done at the unit to fulfil the FAIR-principles.

3.Diversity and equality

Describe the policy and practices to protect against any form of discrimination and to promote diversity in the administrative unit.

Table 8. Administrative unit policy against discrimination

Give a description of up to 5 documents that are the most relevant. If the administrative unit uses the strategies, policies, etc. of a larger institution, then these documents should be referred to. Please delete lines which are not in use.

No.	Name	Valid period	Link
1			

4.Relevance to institutional and sectorial purposes

4.1 Sector specific impact

Describe whether the administrative unit has activities aimed at achieving sector-specific objectives or focusing on contributing to the knowledge base in general. Describe activities connected to sector-specific objectives, the rationale for participation and achieved and/or expected impacts. Please refer to chapter 2.4 in the [evaluation protocol](#).

- Alternatively, describe whether the activities of the administrative unit are aimed at contribution to the knowledge base in general. Describe the rationale for this approach and the impacts of the unit's work to the knowledge base.

4.2 Research innovation and commercialisation

- a) Describe the administrative unit's practices for innovation and commercialisation.
- b) Describe the motivation among the research staff in doing innovation and commercialisation activities.
- c) Describe how innovation and commercialisation is supported at the administrative unit.

Table 9. Policies for innovation including IP policies, new patents, licenses, start-up/spin-off guidelines

Describe up to 5 documents of the administrative unit's policies for innovation, including IP policies, new patents, licenses, start-up/spin-off guidelines, etc., that are the most relevant. If the administrative unit uses the strategies, policies, etc. of a larger institution, then present these documents. Please delete lines which are not in use.

No.	Name	Valid period	Link
1			

Table 10. Administrative description of successful innovation and commercialisation results

Please describe up to 10 successful innovation and commercialisation results at your administrative unit in the period 2012-2022. Please delete lines which are not in use.

No.	Name of innovation and commercial results	Link	Description of successful innovation and commercialisation result.
1			

4.3 Higher education institutions

a) Reflect how research at the administrative unit contributes towards master and PhD-level education provision, at your institutions and beyond.

b) Describe the opportunities for master students to become involved in research activities at the administrative unit.

c) **ONLY** for administrative units responsible for the Cand.med. degree programme, cf. [Evaluation of the Professional programme in Medicine \(NOKUT\)](#).

- Reflect on how research at the administrative unit contributes towards the quality of the Cand.med. degree programme at your institutions and beyond.
- Describe the different opportunities for students on the Cand.med. degree programme to become involved in research activities at the administrative unit, and the extent to which students use those opportunities.

4.4 Research institutes

a) Describe how the research and innovation activities/projects at the administrative unit contribute to the knowledge base for policy development, sustainable development, and societal and industrial transformations more generally.

b) Describe the most important research activities with partners outside of research organisations.

4.5 Health trusts

a) Reflect on how the administrative unit's clinical research, innovation and commercialisation contribute towards development, assessment and implementation of new diagnostic methods, treatment, and healthcare technologies.

b) Reflect on how research at the unit contributes towards the quality of relevant education programme at your institutions or beyond.

c) Describe the different opportunities for students on relevant educational programmes to become involved in research activities at the administrative unit, and the extent to which students use those opportunities.

5.Relevance to society

Reflect on the administrative unit's contribution towards the Norwegian Long-term plan for research and higher education, societal challenges more widely, and the UN Sustainable Development Goals.

5.1 Impact cases

Please use the attached template for impact cases. Each impact case should be submitted as an attachment (pdf) to the self-assessment.

Impact case guidelines

Each case study should include sufficiently clear and detailed information to enable the evaluation committee to make judgements based on the information it contains, without making inferences, gathering additional material, following up references or relying on members' prior knowledge. References to other sources of information will be used for verification purposes only, not as a means for the evaluation committee to gather further information to inform judgements.

In this evaluation, impact is defined as an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia.

Timeframes

- The impact must have occurred between 2012 and 2022
- Some of the underpinning research should have been published in 2012 or later
- The administrative units are encouraged to prioritise recent cases

Page limit

Each completed case study template will be limited to **five pages** in length. Within the annotated template below, indicative guidance is provided about the expected maximum length limit of each section, but institutions will have flexibility to exceed these so long as the case study as a whole remains no longer than **five pages** (font Calibri, font size 11). Please write the text into the framed template under the sections 1–5 below. The guiding text that stands there now, can be deleted.

Maximum number of cases permitted per administrative unit

For up to 10 researchers: one case; for 10 to 30 researchers: two cases; for 30-50 researchers: three cases; for 50-100 researchers: four cases, and up to five cases for units exceeding 100 researchers.

Naming and numbering of cases

Please use the standardised short name for the administrative unit, and the case number for the unit (1,2,3, etc) in the headline of the case. Each case should be stored as a separate PDF-document with the file name: [Name of the institution and name of the administrative unit] [case number]

Publication of cases

RCN plans to publish all impact cases in a separate evaluation report. By submitting the case the head of the administrative units consents to the publication of the case. Please indicate below if a case may not be made public for reasons of confidentiality.

If relevant, describe any reason to keep this case confidential:

Please write the text here

[Name of the institution and name of the administrative unit] [case number]

Institution:
Administrative unit:
Title of case study:
Period when the underpinning research was undertaken:
Period when staff involved in the underpinning research were employed by the submitting institution:
Period when the impact occurred:

1. Summary of the impact (indicative maximum 100 words)

This section should briefly state what specific impact is being described in the case study.

2. Underpinning research (indicative maximum 500 words)

This section should outline the key research insights or findings that underpinned the impact, and provide details of what research was undertaken, when, and by whom. This research may be a body of work produced over a number of years or may be the output(s) of a particular project. References to specific research outputs that embody the research described in this section, and evidence of its quality, should be provided in the next section. Details of the following should be provided in this section:

- The nature of the research insights or findings which relate to the impact claimed in the case study.
- An outline of what the underpinning research produced by the submitted unit was (this may relate to one or more research outputs, projects or programmes).
- Dates of when it was carried out.
- Names of the key researchers and what positions they held at the administrative unit at the time of the research (where researchers joined or left the administrative unit during this time, these dates must also be stated).
- Any relevant key contextual information about this area of research.

3. References to the research (indicative maximum of six references)

This section should provide references to key outputs from the research described in the previous section, and evidence about the quality of the research. All forms of output cited as underpinning research will be considered equitably, with no distinction being made between the types of output referenced. Include the following details for each cited output:

- Author(s)
 - Title
 - Year of publication
 - Type of output and other relevant details required to identify the output (for example, DOI, journal title and issue)
 - Details to enable the panel to gain access to the output, if required (for example, a DOI or URL).
- All outputs cited in this section must be capable of being made available to panels. If they are not available in the public domain, the administrative unit must be able to provide them if requested by RCN or the evaluation secretariate.

4. Details of the impact (indicative maximum 750 words)

This section should provide a narrative, with supporting evidence, to explain:

- How the research underpinned (made a distinct and material contribution to) the impact;
- The nature and extent of the impact.

The following should be provided:

- A clear explanation of the process or means through which the research led to, underpinned or made a contribution to the impact (for example, how it was disseminated, how it came to influence users or beneficiaries, or how it came to be exploited, taken up or applied).

- Where the submitted administrative unit's research was part of a wider body of research that contributed to the impact (for example, where there has been research collaboration with other institutions), the case study should specify the particular contribution of the submitted administrative unit's research and acknowledge other key research contributions.
- Details of the beneficiaries – who or what community, constituency or organisation has benefitted, been affected or impacted on.
- Details of the nature of the impact – how they have benefitted, been affected or impacted on.
- Evidence or indicators of the extent of the impact described, as appropriate to the case being made.
- Dates of when these impacts occurred.

5. Sources to corroborate the impact (indicative maximum of ten references)

Institution	Administrative unit	Name of research group	Expert panel
UiB	Department of Clinical Science I	Bergen Multiple Sclerosis Research Group	Panel 3b-1
UiB	Department of Clinical Science I	Centre for Cancer Biomarkers CCBIO	Panel 3a-2
UiB	Department of Clinical Science I	DECODE-PD	Panel 3b-1
UiB	Department of Clinical Science I	Renal research group (RRG)	Panel 3b-2
UiB	Department of Clinical Science I	Section of Nutrition	Panel 4b

Scales for research group assessment

Use whole integers only – no fractions!

Organisational dimension

Score	Organisational environment
5	An organisational environment that is outstanding for supporting the production of excellent research.
4	An organisational environment that is very strong for supporting the production of excellent research.
3	An organisational environment that is adequate for supporting the production of excellent research.
2	An organisational environment that is modest for supporting the production of excellent research.
1	An organisational environment that is not supportive for the production of excellent research.

Quality dimension

The quality dimension consists of two judgements: 1) Research and publication quality, and 2) Research group's contribution. The first judgement is defined as follows:

Score	Research and publication quality	Supporting explanation
5	Quality that is outstanding in terms of originality, significance, and rigour.	The quality of the research is world leading in terms of quality, and is comparable to the best work internationally in the same area of research. The publications submitted provide evidence that the work of the group meets the highest international standards in terms of originality, significance, and rigour. Work at this level should be a key international reference in its area.
4	Quality that is internationally excellent in terms of originality, significance and rigour but which falls short of the highest standards of excellence.	The quality of the research is internationally excellent. The research is clearly of an international standard, with a very good level of quality in terms of originality, significance, and rigour. Work at this level can arouse significant interest in the international academic community, and international journals with the most rigorous standards of publication (irrespective of the place or language of publication) could publish work of this level.
3	Quality that is recognised internationally in terms of originality, significance and rigour.	The quality of the research is sufficient to achieve some international recognition. It would be perceived nationally as strong and may occasionally reach an internationally recognised level in terms of originality, significance and rigour. Internationally recognised journals could publish some work of this level.
2	Quality that meets the published definition of research for the purposes of this assessment.	The international academic community would deem the research to be nationally acceptable, but below world standards. Legitimate nationally recognised peer-reviewed journals could publish work of this level.
1	Quality that falls below the published definition of research for the purposes of this assessment ¹ .	The quality of the research is well below international level, and is unpublishable in legitimate peer-reviewed research journals.

¹ A publication has to meet all of the criteria below:

Societal impact dimension

The societal impact dimension is also composed of two judgements, defined as presented in the table below.

Score	Research group's societal contribution, taking into consideration the resources available to the group	Score	User involvement
5	The group has contributed extensively to economic, societal and/or cultural development in Norway and/or internationally.	5	Societal partner involvement is outstanding – partners have had an important role in all parts of the research process, from problem formulation to the publication and/or process or product innovation.
4	The group's contribution to economic, societal and/or cultural development in Norway and/or internationally is very considerable given what is expected from groups in the same research field.	4	Societal partners have very considerable involvement in all parts of the research process, from problem formulation to the publication and/or process or product innovation.
3	The group's contribution to economic, societal and/or cultural development in Norway and/or internationally is on par with what is expected from groups in the same research field.	3	Societal partners have considerable involvement in the research process, from problem formulation to the publication and/or process or product innovation.
2	The group's contribution to economic, societal and/or cultural development in Norway and/or internationally is modest given what is expected from groups in the same research field.	2	Societal partners have a modest part in the research process, from problem formulation to the publication and/or process or product innovation.
1	There is little documentation of contributions from the group to economic, societal and/or cultural development in Norway and/or internationally.	1	There is little documentation of societal partners' participation in the research process, from problem formulation to the publication and/or process or product innovation.



Methods and limitations

Methods

The evaluation is based on documentary evidence and online interviews with the representatives of Administrative Unit.

The documentary inputs to the evaluation were:

- Evaluation Protocol Evaluation of life sciences in Norway 2022-2023
- Administrative Unit's Terms of Reference
- Administrative Unit's self-assessment report
- Administrative Unit's impact cases
- Administrative Unit's research groups evaluation reports
- Panel reports from the Expert panels
- Bibliometric data (*NIFU Nordic Institute for Studies of innovation, research and education*)
- Personnel data (*Statistics Norway (SSB)*)
- Funding data – The Research Council's contribution to biosciences research (*RCN*)
- Extract from the Survey for academic staff and the Student Survey (*Norwegian Agency for Quality Assurance in Education (NOKUT)*)

After the documentary review, the Committee held a meeting and discussed an initial assessment against the assessment criteria and defined questions for the interview with the Administrative Unit. The Committee shared the interview questions with the Administrative Unit two weeks before the interview.

Following the documentary review, the Committee interviewed the Administrative Unit in an hour-long virtual meeting to fact-check the Committee's understanding and refine perceptions. The Administrative Unit presented answers to the Committee's questions and addressed other follow-up questions.

After the online interview, the Committee attended the final meeting to review the initial assessment in light of the interview and make any final adjustments.

A one-page summary of the Administrative Unit was developed based on the information from the self-assessment, the research group assessment, and the interview. The Administrative Unit had the opportunity to fact-check this summary. The Administrative Unit approved the summary without adjustments. ***(Adjust the text if the AU asked for corrections. Include the AU request and explain what adjustments were made).***

Limitations

(Choose one of the three options below and delete the others. Feel free to elaborate slightly if necessary. For example, if you choose option 3, explain the missing information. Note that the Committee can provide detailed feedback and suggestions on improving the evaluation in the Memorandum to the RCN. This section has to remain concise and only summarise whether the information was or was not sufficient.)

- (1) The Committee judged the information received through documentary inputs and the interview with the Administrative Unit sufficient to complete the evaluation.

- (2) The Committee judged that the Administrative Unit self-assessment report was insufficient to assess all evaluation criteria fully. However, the interview with the Administrative Unit filled gaps in the Committee's understanding, and the information was sufficient to complete the evaluation.
- (3) The Committee judged that the Administrative Unit's self-assessment report was insufficient to assess all evaluation criteria fully, and some information gaps remained after the interview with the Administrative Unit.

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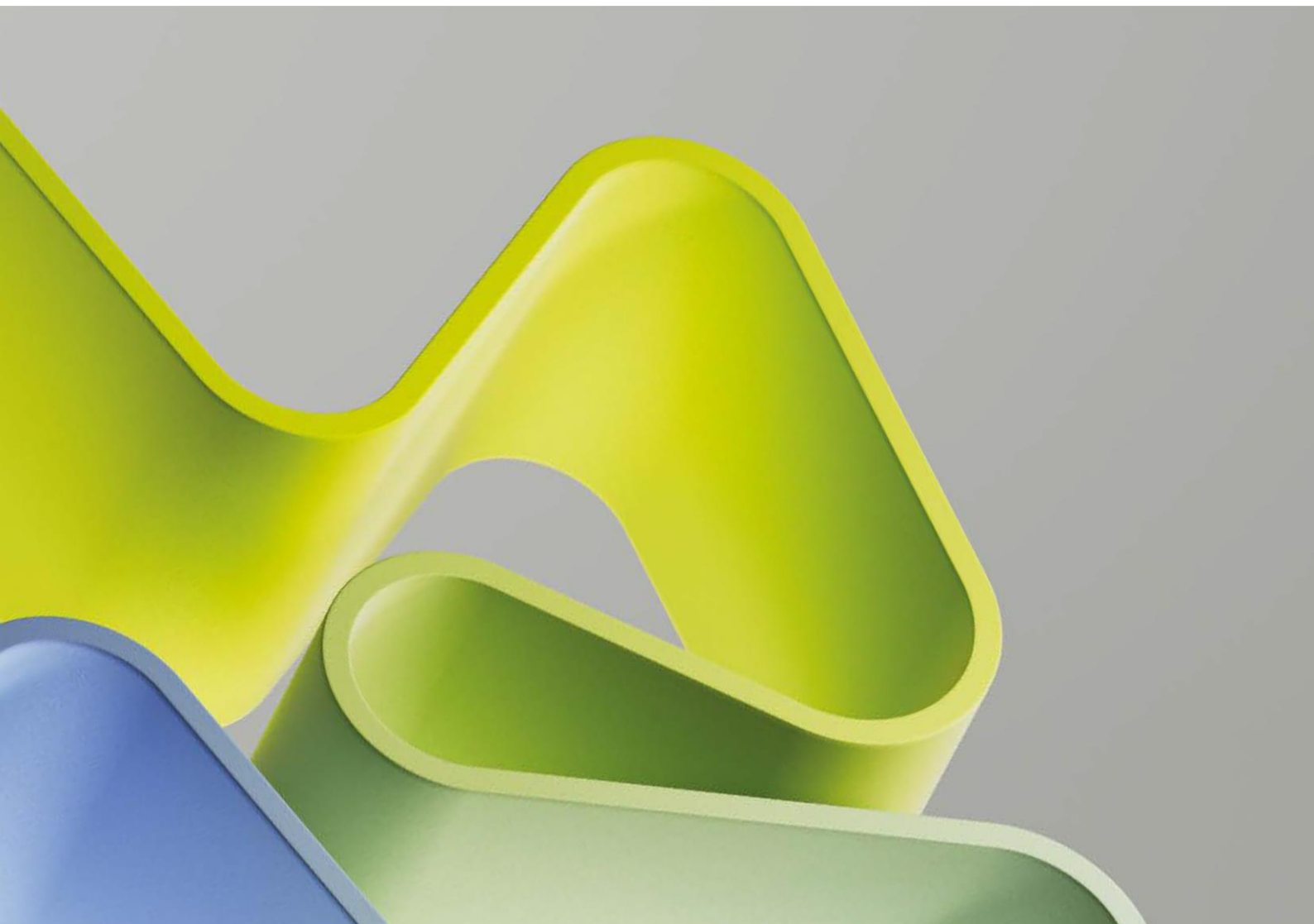
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Design: [design]

Foto/ill. omslagsside: [fotokreditt]

ISBN 978-82-12-04100-4 (pdf)



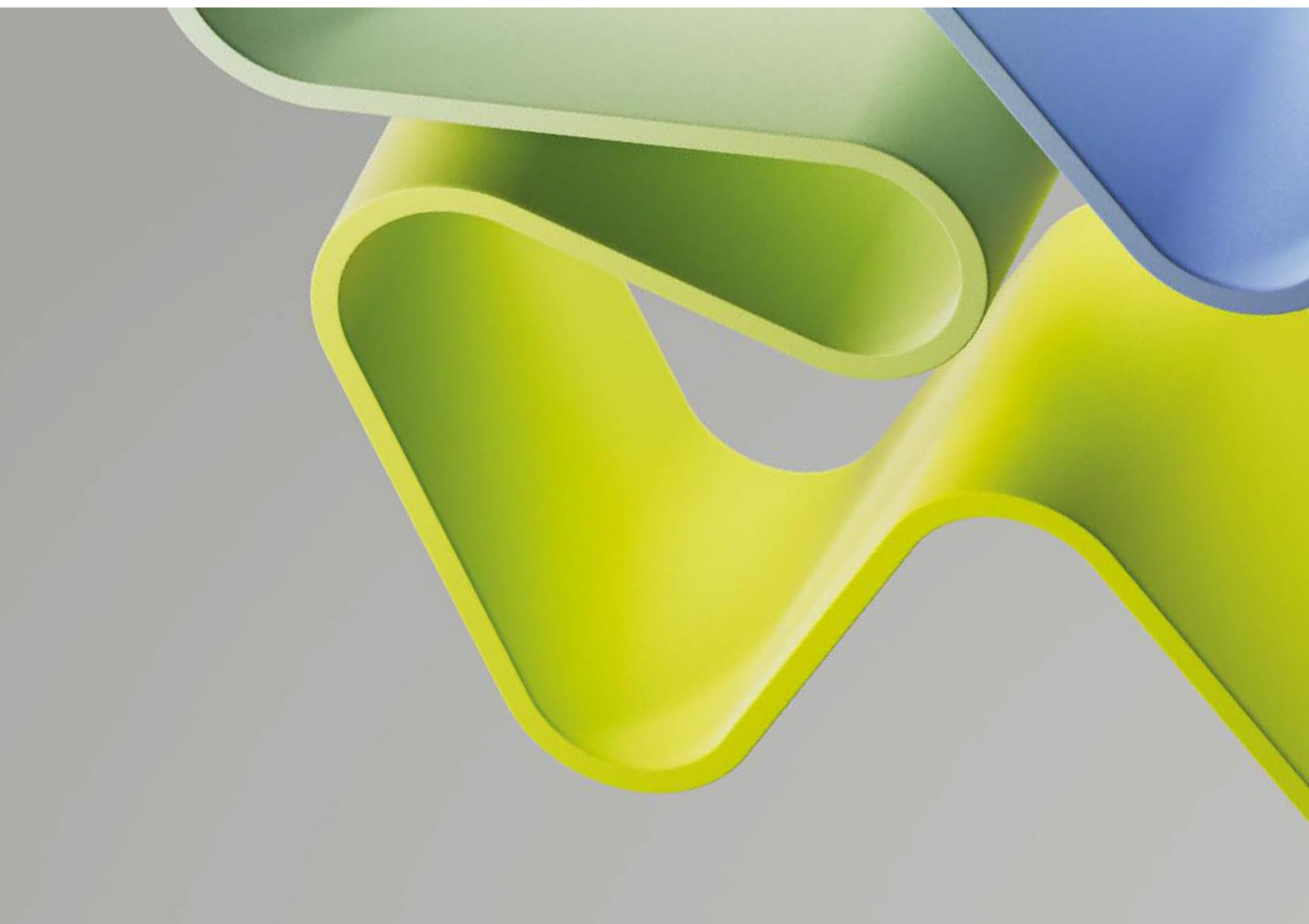
Evaluation of Life Sciences 2022-2024

Evaluation of medicine and health 2023-2024

Evaluation report

ADMIN UNIT: Department of Clinical Science II
INSTITUTION: University of Bergen (UiB)

December 2024



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Statement from Evaluation Committee Higher Education Institutions 3

This report is from Evaluation Committee Higher Education Institutions 3 which evaluated the following administrative units representing the higher education sector in the Evaluation of medicine and health 2023-2024:

- Department of Clinical medicine, UiT Arctic University of Norway
- Department of Pharmacy, UiT Arctic University of Norway
- Department of Biomedicine, University of Bergen (UiB)
- Department of Clinical Science I, University of Bergen (UiB)
- Department of Clinical Science II, University of Bergen (UiB)
- Department of Pharmacy, University of Oslo (UiO)
- Institute of Basic Medical Sciences, University of Oslo (UiO)
- Centre for Molecular Medicine Norway (NCMM), University of Oslo (UiO)

The conclusions and recommendations in this report are based on information from the administrative units (self-assessment), digital meetings with representatives from the administrative units, bibliometric analysis and personnel statistics from the Nordic Institute for Studies of Innovation, Research, and Education (NIFU) and Statistics Norway (SSB), and selected data from Studiebarometeret (NOKUT). The digital interviews took place in Autumn 2024.

This report is the consensus view from Committee Higher Education Institutions 3. All members of the committee agree with the assessments, conclusions and recommendations presented here.

Evaluation Committee Higher Education Institutions 3 consisted of the following members:

Professor Søren Brunak (Chair)

Novo Nordisk Foundation Center for Protein Research, University of Copenhagen

Professor Jouni Hirvonen

University of Helsinki

Professor Ruth Palmer

University of Gothenburg

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Åbo Akademi University

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Anoushka Dave, Technopolis Group, was the Committee Secretary.

Oslo, December 2024

Profile of the administrative unit

The Department of Clinical Science (K2) has 16 research groups. The research groups are located in different university and hospital buildings across the Haukeland campus. Group members are also based in Stavanger, Haugesund and Førde. All researchers are part of at least one research group. In addition, teaching staff is organised in teaching groups (17 in total). The administrative unit consists of 245 researchers, including 80 professors, 52 associate professors, and 55 PhD fellows, among others. Many of the professors and associate professors are employed in part-time positions, and in addition to the 55 PhD fellows employed by the university, several PhD fellows employed by the university hospital are enrolled in the PhD programme at the department. Women are the majority in all positions, except for professors.

K2 is comprised of 16 research groups, of which nine have been included in the evaluation: Pharmacology and pharmaceuticals group, Paediatric Follow-up Group, Precision Oncology Group, Oncology, Bergen respiratory research group, Mohn Centre for diabetes precision medicine, Research group for infection and microbiology, Broegelmann Research Laboratory (BRL) and Endocrine Medicine.

K2's current research strategy covers the period 2021-24 and contributes to the thematic area of health in the Norwegian long-term plan for research and higher education, and the UN's Sustainable Development Goals. It aims to provide high quality and accessibility in research and higher education, ensure healthy lives, promote well-being for all at all ages, deliver quality education, and reduce inequalities. K2 conducts research, expert guidance, and teaching at a high international level to achieve the faculty's vision "new knowledge for better health". The administrative unit's researchers focus on curiosity-driven, high-impact international research on common and rare diseases which requires advanced and expensive infrastructure, state-of-the-art methods, and specialised expertise. An important research output is high-impact publications.

K2 supports and encourages collaboration both at local, national, and international level, and its goal is to increase and improve collaboration across all levels. K2 researchers collaborate with world-leading institutions, enabling both junior and senior staff to undertake stays abroad and engage in joint proposals and projects, which in turn facilitates publications in high-profile journals. In Norway, K2 researchers collaborate with other parts of the University of Bergen (UiB) and Haukeland University Hospital. Outside Bergen, their most important national collaborators are Oslo University Hospital, University of Oslo, Helse Stavanger/Stavanger University Hospital, Norwegian Institute of Public Health and the Norwegian University of Science and Technology (NTNU). Furthermore, K2 maintains extensive partnerships with leading Nordic and international universities and collaborates with the pharma industry and private companies.

According to the self-assessment, in the future, the administrative unit may take more advantage of its state-of-the-art research infrastructure, core facilities, biomedical informatics, highly skilled staff, societally relevant research, extensive national and international collaborations, and student integration. The administrative unit may also benefit from having reasonably stable basic funding, a closely integrated laboratory and clinic, and co-location that fosters close collaboration. The administrative unit faces several challenges, including limited funding, heavy teaching loads, and a lack of full-time researchers with medical background. However, there are opportunities for growth through national and international collaborations, advancements in artificial intelligence (AI), and increased focus on personalised medicine. Improving online visibility and fostering innovation could also enhance its prospects.

Overall evaluation

Department of Clinical Science II (K2) is a large and well-established administrative unit, conducting translational and clinical research and teaching at the Faculty of Medicine, University of Bergen (UiB). Their research and educational activities are closely related with the clinicians at Haukeland University Hospital, which is instrumental for the collaborative projects requiring access to patient material, clinical data, clinical trial units, biobanks among other hospital infrastructure. Their vision is described as “new knowledge for better health”, and the research projects are curiosity driven with an aim to reach the highest possible international level. The medical fields covered by this administrative unit are many and include endocrinology, infectious and immunological diseases, oncology as well as cardiology and cardiovascular diseases. The teaching duties of the administrative unit are broad in medicine and pharmacy, odontology, dental hygienist and nutrition, and the staff is responsible for medical doctor education in Western Norway, partly at hospitals outside Bergen, i.e. Stavanger, Haugesund and Forde. This decentralised education model brings logistic challenges to the researchers and clinicians but also expands the access to patient material and clinical data.

The administrative unit hosts two research schools, Research School of Clinical Medical Research and Bergen Research School in Inflammation, and they also run four core facilities for providing services in Genomics, Flow Cytometry, Metabolomics and Health Surveys.

The evaluation committee considered the Terms of Reference, self-assessment, and an oral interview provided by the administrative unit, together with background documents provided by the Research Council of Norway (RCN) and research group evaluation reports in evaluating the Department of Pharmacy. As per the Terms of Reference, the committee has made a qualitative assessment of K2 as a whole and offered recommendations on future strategy considering available resources and competence.

Both the research and teaching activities have been of high international standard and visibility, which has attracted researchers in basic science and clinicians to successfully collaborate on the well-defined expert areas within this administrative unit.

During the current research strategy period of 2021-2024, the administrative unit has been very successful in publishing in top international journals and raising competitive external funding from national and international sources. To maintain the high-level performance in research and teaching activities, it is important to secure investments for the recruitment and retention of staff as well as the development and maintenance of state-of-the-art infrastructure.

Public outreach and societal impact of the administrative unit are already well taken care of but could be further increased and developed according to the needs of the society undergoing changes in the educational and health care sectors in Norway.

Recommendations

To ensure a positive continuation and further development of the administrative unit, the leaders of the administrative unit, together with the department and university officials should carefully consider the main concerns and threats raised in the SWOT analysis. Particular focus should be given to recruiting early-career scientists from outside Norway and in broadening the scope of collaborative initiatives beyond academia. The committee recommends developing a leadership programme in which junior and senior staff jointly take on leadership of different organisational tasks. This could also improve the gender balance within the professor category.

In terms of development of a long-term funding strategy for research infrastructure in close collaboration with faculty and other administrative units, it would be important to explore opportunities for new shared technology platforms.

More emphasis on (international) talent-based personal funding schemes is warranted and a support structure for ERC applicants should be established where candidates who are ranked at the top level but do not get funded are recognised and rewarded, thereby helping to further their careers.

1. Strategy, resources and organisation of research

1.1 Research strategy

The Department of Clinical Science II (K2) is one of five departments at the Faculty of Medicine, University of Bergen (UiB). This administrative unit comprises 16 research groups that are involved in clinical and translational research in close collaboration with clinicians, especially at Haukeland University Hospital. The administrative unit was established in 2013 as the result of reorganisation of the Faculty of Medicine, forming the Department of Clinical Science I (K1) and the Department of Clinical Science II (K2). Although both departments teach clinical disciplines, they have distinct educational responsibilities and research topics.

The Department of Clinical Science II follows the strategy of the Faculty of Medicine (Strategy 2023–2030) which has four main aims: 1) To host powerful and robust research environments, 2) To obtain solid financing, 3) To serve as attractive research partners, and 4) To stimulate students to become research-active. The administrative unit lists in alphabetical order 15 different medical specialities that are covered by the researchers and their teaching curricula: 1) Cardiology, 2) Endocrinology and Endocrine Surgery, 3) Geriatrics, 4) Gynaecology and Obstetrics, 5) Haematology, 6) Immunology, 7) Infectious Medicine and Microbiology, 8) Medical Biochemistry, 9) Medical Genetics, 10) Oncology, 11) Paediatrics, 12) Pharmacy and Pharmacology, 13) Respiratory Medicine, 14) Rheumatology, and 15) Thorax and Cardiovascular Surgery. The researchers are engaged in research on a broad variety of common and rare diseases, and they aim at reaching the highest international level within many of their research areas, especially childhood diabetes and other endocrinological disease, preparedness for pandemics and other emerging threats, heart disease in women, and oncology. The ambitious and successful research performance within the administrative unit is evident from their high-quality publications and competitive external funding sources, including European Research Council and other EU programmes as well as projects funded by NIH and the Wellcome Trust. This has resulted in establishing a highly modern research environment of advanced infrastructure and expert networks, which in turn enables employment of state-of-the-art methods and technologies.

The vision of the research teaching activities of the administrative unit is “new knowledge for better health”. The administrative unit has two research schools: Research School of Clinical Medical Research and Bergen Research School of Inflammation. In addition to these local research schools, the administrative unit is a founding member of the National Graduate School in Infection Biology and Antimicrobials funded by the RCN. The teaching curriculum of the administrative unit covers education of medical doctors, master's degree students, and PhD trainees in medicine and pharmacy. It is notable that they teach in the decentralised medical doctor education courses at affiliated hospitals in Western Norway, such as hospitals in Stavanger, Haugesund and Forde. This intimate relationship between teaching and research activities expands the repertoire of the patient samples and epidemiological data well beyond the Bergen area, thereby facilitating clinical and translational studies within their expert research fields.

The main societal impact of the administrative unit is 1) to provide both disciplinary and interdisciplinary education for health professionals, 2) to perform innovative curiosity-driven research for understanding the mechanisms of common and rare diseases as well as for developing future diagnostics and therapies, and 3) to disseminate new knowledge to the society. Specifically, the relevance to society is highlighted by their research approaches to provide evidence-based strategies for preventing, detecting and treating diseases, which is key for improved healthcare and reduced burden on the society in general.

The committee's evaluation

The Department of Clinical Science II is a translational research administrative unit where the research is intimately linked to the clinical work. This requires an extensive teaching portfolio and clinical duties, which in turn is the reason why medical doctors and pharmacists have joint positions (mostly 20% full-time equivalent with K2) with affiliated hospitals in the Bergen region and elsewhere in Western Norway. The combination of laboratory-based translational research approaches with the clinical expertise of the administrative unit is a strong asset for the researchers in their efforts to improve both diagnostics and treatment strategies for common and rare diseases. The research strategy has strongly benefited from several large and longitudinal diabetes and cardiovascular registries based in Bergen. These are a few examples of unique patient samples and databases that could be used for even more versatile analyses in future. However, intensive curiosity-driven biomedical research at the highest international level is increasingly competitive and rapidly developing, which requires considerable investments from human and material resources, including advanced infrastructure. Considering the limited funding, especially for basic research, and recruitment policies that are described as complicated and time-consuming administrative processes, the administrative unit is facing severe challenges to maintain and further develop its performance in the future.

The committee's recommendations

Both the research and teaching activities have been of high international standard and visibility, which has attracted researchers in basic science and clinicians to successfully collaborate on the well-defined expert areas within this administrative unit. To ensure positive continuation and further development of the administrative unit, the committee recommends the leaders of the administrative unit, together with the department and university officials, to carefully consider and take strong measures to address the main concerns and threats raised in the SWOT analysis.

1.2 Organisation of research

The Department of Clinical Science II comprises 16 research groups that are involved in clinical, translational, and basic research in close collaboration with clinicians. According to the transdisciplinary nature of their activities, the research groups are distributed in several university and hospital buildings across the Haukeland campus of UiB, and they also operate outside the Bergen area at hospitals in Stavanger, Haugesund and Forde. In addition to the transdisciplinary research groups, the 17 teaching groups represent classical specialities in medicine and pharmacy, covering 15 specialities as listed in section 1.1.

The profile of research personnel at the administrative unit includes 30 full-time professors (29 full-time professors and 1 full-time associate professor) as well as 70 part-time professors (29 professors with 50-80% positions and 41 professors with 10-30% positions). Currently, the gender balance is not optimal, since only 30% of the professors are female, but the situation may improve given that 56% of the 52 associate professors are female. There seems to be no category of assistant professors in the administrative unit. It is also notable that both professors and associate professors divide their time approximately 50:50 between their teaching and research activities. Although the teaching load is considerable, the recruitment criteria for professors and associate professors are mainly based on research merits, which increases the pressure for advancement of associate professors and successful funding possibilities for all researchers within the professor category of this administrative unit. The administrative unit hosts a number of early-career researchers, including 23 postdoctoral fellows and more than 100 PhD trainees in addition to the PhD fellows employed at the university hospital, and approximately 40 PhDs graduate annually at the administrative unit.

The administrative unit participates in the UiB initiatives for researcher career opportunities and competence development through a career centre for early-stage researchers and the Momentum Career Development Programme. The early-career researchers employed by the Faculty of Medicine are obligated to participate in some teaching, supervision and/or administrative tasks. Academic staff are entitled to take a 1-year sabbatical leave after 6 years of service (3 years for female associate professors), and annually 2-3 professors are on research leave supported by UiB. The Faculty of Medicine provides mobility grants for laboratory visits of early-career researchers abroad.

Due to their diverse repertoire of research topics, the researchers belong to several regional or national thematic centres, and the administrative unit hosts four core facilities: 1) Genomics Core Facility, 2) Flow Cytometry Core Facility, 3) Metabolomics Core Facility, and 4) Research Administrative unit for Health Surveys. There are also other core facilities at the Faculty of Medicine, the services of which are available for the researchers of this administrative unit. All these services are of outmost importance for conducting and further developing the high-impact research within this administrative unit.

The administrative unit enrolls the technical staff of 50 persons of which nine are involved in the core facilities listed above and ten belong to the administrative staff.

The committee's evaluation

The organisation is partly based on the seemingly random division between K1 and K2 which results in the lack of a recognisable identity for the administrative unit. The academic career opportunities and their attractiveness would benefit from an increased diversity in academic roles and closer interaction between staff members in different stages of their careers. This could for example be used to coach and stimulate junior researchers and associate professors towards a quicker transition to leadership roles.

The committee's recommendations

The committee recommends developing a leadership programme in which junior and senior staff jointly take on leadership of different organisational tasks. This could also improve the gender balance within the professor category.

1.3 Research funding

The overall annual budget for the Department of Clinical Science II is 223 MNOK of which approximately 170 MNOK is allocated to research. Basic funding comes from the Ministry of Education and Research and totalled 111,6 MNOK in 2022, i.e. approximately 50% of the total budget. External funding from various national and international sources contributed 111,4 MNOK in 2022. A great majority (approximately 90%) of the external grants are awarded by national funding sources, including RCN, Cancer Society, Childhood Cancer Society and several private foundations. The most important international funding sources (approximately 9%) are EU (ERC), NIH, Gates, NNF. A minor funding source is commercial companies.

The basic funding covers the salaries of the permanent staff and the costs associated with teaching as well as some running costs. It is noteworthy that the basic funding has decreased since 2019. This is alarming when considering that the basic funding does not cover research infrastructure which is an increasingly important part of the research activities of the administrative unit. Furthermore, rental costs for office and laboratory space are partly covered by the Faculty of Medicine and partly by the administrative unit.

The committee's evaluation

Although the committee acknowledges that the administrative unit has been well funded, the external funding level is relatively high and the basic funding has been quite stable, there is space for improvement. The funding of important infrastructures lacks a structural component to make it sustainable for the future and is largely dependent on external funding sources. This generates a potential threat to the sustainability of the infrastructure administered and maintained by the administrative unit. Attempts should be made to increase external funding from private enterprises and companies, both national and international.

The committee's recommendations

The committee recommends developing a more sustainable long-term funding strategy for the research infrastructure in close collaboration with the faculty and other administrative units.

Explore opportunities for an increase in shared technology platforms.

More emphasis on (international) talent-based personal funding schemes is warranted and the support structure for ERC applicants should include recognising and rewarding candidates that achieve high ranking for their proposals but do not get funded.

1.4 Use of infrastructures

The Department of Clinical Science II hosts four core facilities: 1) Genomics Core Facility, 2) Flow Cytometry Core Facility, 3) Metabolomics Core Facility, and 4) Research Unit for Health Surveys. The Genomics Core Facility and provides high-throughput genomic services on genome structure, dynamics and function (Illumina NGS) and is a partner in the Norwegian Consortium for Sequencing and Personalized Medicine. The administrative unit manages the Molecular Imaging Centre that belongs to the Norwegian Molecular Imaging Infrastructure. The administrative unit also participates in two national infrastructures: Biobank Norway (Biobanking of clinical samples) and NorCRIN (Norwegian clinical research infrastructure network).

The administrative unit actively participates in several international infrastructures of European platforms (ERICs), including BBMRI (Biobanking), EATRIS (Translational medicine), and ELIXIR (Biological data and methods).

The committee's evaluation

The Genomics and imaging infrastructures contribute to the outstanding research output of the administrative unit. There are also other core facilities at the Faculty of Medicine, the services of which are available for the researchers of this administrative unit. All these services are of outmost importance for conducting and further developing high-impact research within this administrative unit.

The existing infrastructure and core technology platforms have challenges in terms of obtaining future proof funding and keeping the technological advantage the region needs.

The committee's recommendations

The committee strongly recommends a long-term strategy to further invest in infrastructural innovation programmes, including upgrading and maintenance of the equipment of the current core facilities and especially taking care of the training of the operative staff.

1.5 Collaboration

Like all active research administrative units conducting modern medical and biomedical research, the Department of Clinical Science II encourages collaborations at local, regional, national, and international level. Their strategy is also to increase and improve collaborative projects across all these categories. In the self-assessment, the collaborations with four top-level medical universities in UK are highlighted: University of Cambridge, University of Oxford, University College London, and Imperial College London. In addition, several major collaborations in other Nordic universities are listed, such as Karolinska Institutet and Uppsala University in Sweden, Rigshospitalet in Denmark, and University of Helsinki in Finland. Finally, it is worth noting that researchers in this administrative unit have long-term collaborations going on in the US, including Harvard Medical School, MIT, and Stanford University. All these collaborations have been instrumental and resulted in a myriad of high-impact publications, and they have also contributed to successful grant applications from external funding sources.

In Norway, the main collaborators are found with other administrative units of UiB and Haukeland University Hospital as well as the universities and university hospitals in Oslo and Stavanger.

The committee's evaluation

The administrative unit exhibits an impressive collaborative record, both qualitative and quantitative, with national and international partners, resulting in outstanding research output that reflects the multi- and interdisciplinary nature of the research fields represented in the administrative unit. The mix of national and international collaborations provide a healthy basis for the development of high-quality research. Collaborations with private companies seem to be underdeveloped and could be strengthened to further increase the scientific impact, both inside and outside academia.

The committee's recommendations

The committee acknowledges the high value of the long-term and broad collaboration that has been and continues to be the key for the successful research performance of the administrative unit. A similar performance is highly recommended for the future.

Develop a departmental strategy to increase collaborations with industry and other (international) private partners ideally in medical technologies. If this is more centrally driven it could increase the size and impact of the collaborations.

The Norwegian language requirement for these types of collaborations should ideally be dropped as that seems counterproductive.

1.6 Research staff

The research staff consists of 30 full-time professors (29 full-time professors and 1 full-time associate professor) as well as 70 part-time professors (29 professors with 50-80% positions and 41 professors with 10-30% positions). No category of assistant professors is indicated. Both professors and associate professors divide their time approximately 50:50 between their teaching and research activities. The administrative unit hosts 23 postdoctoral fellows and more than 100 PhD trainees in addition to the PhD fellows employed at the university hospital, and annually approximately 40 PhDs are produced. In addition to the research staff, the administrative unit enrolls a technical staff of 50 persons of which nine are involved in the core facilities and ten are administrative staff.

The committee's evaluation

The ratio of early-career researchers to professors and associate professors at the administrative unit seems appropriate and ensures efficient supervision capacity. However, the teaching load is heavy on some academic staff, which limits their time to be devoted to research and supervision. The gender distribution up to the professor category seems to be in line with the national average in medical research but the number of female professors is low and should be increased in future.

The committee's recommendations

The committee recommends the administrative unit to further develop a fellowship programme for early-career researchers to be trained in excellent research groups abroad where they can fully focus on their research projects free from teaching or administrative duties. In addition, a proactive programme for gender diversity in leadership positions could be initiated. This is an important point to be improved when the recruitment policy is revisited and possibly revised.

1.7 Open Science

The University of Bergen (UiB) has an Open Science policy that is based on the guidelines from EU, RCN and Norwegian government. Accordingly, the research and research processes are to be “as open as possible and as closed as necessary”. The administrative unit follows guidelines of the Data Protection Officer at UiB to perform the data management so that the data protection and privacy issues are appropriately controlled and in accordance with FAIR- principles.

Researchers are encouraged to publish in Open Access (OA) journals whenever possible and they are trained by the UiB Library on OA publication and research data. The library also has some funding for publication fees in OA journals. Manuscripts submitted since December 2022 are available in Bergen Open Research Archive (BORA).

The committee's evaluation

The administrative unit has optimally developed their OA policies and the share of their Gold OA publications has increased from 27% to 50% during 2013-2022. The share is likely to increase in future. However, as pointed out in the self-assessment, high-quality OA journals are not always available in all research fields covered by the researchers in this administrative unit. This is a major concern and requires a change in scientific publishing policies, which is an issue well beyond this specific administrative unit.

The committee's recommendations

The committee recommends expansion of the open science and OA publication policy where and when applicable.

2. Research production, quality and integrity

According to the committee, the quality of the research conducted within the administrative unit is internationally excellent, both in quality and quantity. However, the repertoire of research fields covered by the administrative unit is very diverse, ranging from cardiology and respiratory systems to endocrinology, pharmacology as well as toxicology, which at least partly explains why the scientific contributions are not uniform. The administrative unit has set clear research goals, and ambitious but realistic metric-based benchmarks. The panel acknowledges that the administrative unit has been very successful with recruiting skilled researchers and that the external funding level has been high. A major challenge for the forthcoming years is to secure the funding level, especially when the basic funding seems to be declining in Norway. The recruitment policy for internationally renowned research staff is another threat for the continued success of the administrative unit. Nevertheless, the administrative unit expresses an ambition to maintain and grow their research funding, output and impact. To this end, the administrative unit would greatly benefit from participating in, or leading on, more extensive national and international research collaborations, involving many European state-of-the-art infrastructure platforms.

2.1 Research quality and integrity

This section presents the overall assessment of each research group that the administrative unit has entered in the evaluation. Each overall assessment has been written by one of the 18 expert panels that were responsible for evaluating the research groups entered in EVALMEDHELSE. The evaluation committee had no involvement in the evaluation of the research group(s).

Research group: Bergen respiratory research group (G7)

Strengths of the Bergen Respiratory Research Group are their clear strategy and appropriate benchmarks, the good funding portfolio – a good mix of public and private funding and the fact that funding has increased significantly (by 50%) over the last 5 years. The research group also has good national and international links, provides a good contribution to education and has excellent quality outputs that are nationally leading and internationally competitive. Finally, the group has played a role in national guidelines, shows clear evidence of disciplined leadership and is a leading respiratory group nationally. Weaknesses relate to the fact that there is no statement on whether the benchmarks are reached, over half of the income is from the host institutions and there is no mention of public and patient outreach in the self- assessment. There is also a lack of evidence of patient involvement in research design and conduct (co-creation). Staff and PhD students have high clinical loads which restricts research activity, and the research group is geographically spread.

Research group: Broegelmann Research Laboratory (BRL)

The level of research of the Broegelmann Research Laboratory is of the highest quality, given the size of the group and its financial resources. Unfortunately, the report lacks clear information on many aspects. This makes it difficult to judge the number of outcomes, and resources. This is a clear shortcoming of the group's self-assessment.

Research group: Centre for Pharmacy (Pharmacology and pharmaceuticals group)

The Centre for Pharmacy is a central focus point at UoB for pharmacological research at the border between medical and pharmaceutical science. This is a very good central and bridging position, which could be further strengthened in the coming years. The research output is at a high national and international level but will be even higher after reorganisation of the group. The group could focus more on the clinical pharmacology or pharmacokinetics, while the field of pharmaceuticals (which is more related to formulation and galenical work) could be reduced. Focusing on the central position of pharmacology /

pharmacokinetic is required. It would be helpful for the research group if the central administration of UoB could support the group for powering the infrastructure and research. The overall strategy of the group is interesting, but it remains unclear how pharmacology and pharmaceuticals will be integrated in one research group. No detailed information is given regarding which strategies are planned for the next recruitment of professors. In particular, it remains unclear who is expert in pharmaceuticals (which is part of the designation of the research institution – pharmacology and pharmaceuticals). For successful research, the organisation of the group seems suitable, but in the medium-term, the next recruitments will be crucial to establish a strong research environment.

Research group: Endocrine Medicine (Endo)

The level of research of the Endocrine Medicine research group is reasonable. The group is not well described as a group. It appears as if several research groups or even individual researchers are incorporated into this network, but the strategy, the description of the infrastructure and the organisation of the group are not clear. The report lacks clear information on many aspects of the self-assessment questions, which makes it difficult to easily judge the quality of the group. For example, it is difficult to understand the real entity of the funding received by the Endocrine Medicine Unit. While the text under the heading “Research group’s resources” reports several notable grants, both national and international, Table 2, that should report these funding in detail, reports completely different information. On the same line, the choice of publications in Table 5 does not fully reflect the quality of the papers actually produced in the observation period. One has to open the provided link to fully appreciate the scientific production.

Research group: Infection and Microbiology

As evidenced by their leadership of high-impact publications (including nature medicine) and several international grants, the Infection and Microbiology research group should be considered world-class in terms of research quality. Their influence on WHO guidelines indicates their strong contribution to societal impact. This is despite a light technological environment (which explains the essential need for the group to externally collaborate). The organisation does, however, facilitate good clinical integration and cohort support.

Research group: Mohn Center for diabetes precision medicine (PRESISE-DIA)

This is a high-quality group that is conducting world-leading research and producing outputs that are of the highest standard. The research environment is outstanding and enables the group to lead on and conduct pioneering studies that is at the forefront of their scientific discipline that extends across the globe. The output profile is of outstanding quality with some landmark studies published in a range of high-profile multi-disciplinary and top-tier speciality journals. The group have made an extensive contribution to the economic and societal development in Norway and internationally and has active user involvement across their research activities. The grading shows the performance of the group is of high quality and well-balanced across all dimensions.

Research group: Oncology

The main strength of this group is the ability to carry out and publish excellent quality translational research contributing to improve the knowledge based on well established technologies: ctDNA, organoids as cancer models, DNA methylation, single cell genomics, among others. They refer also to a very relevant clinical trial on the use of PARP inhibitors in triple negative breast cancer developed as a national academic trial, which has been published in a very high impact factor journal. The researchers of this group have a strong leadership and a good level of collaboration with other national groups. To make this sustainable, it may be critical that they open themselves for a more international network of cooperation. Their main weakness is the scarcity of internationally funded projects. The societal impact of their research is clear; however, some improvement must be done on

how to involve patients and patient advocacy groups in the planning and development of future studies.

Research group: Paediatric Follow-up Group (PFUG)

This is an excellent research group which has to be commended for world class performance in clinical studies. Their objective is the development of safe medicines for children. They pursue this by a unique culture and practice of clinical studies, constituting an international paragon. The scientific productivity is high, and the scientific quality is very good as judged by their many high-impact journals. The funding per professor is average. The contribution to their universities in Bergen and Stavanger is excellent. However, the relation to the paediatric hospitals in Bergen and Stavanger is ill defined. Leadership positions in the health care system should not be considered solely time-consuming but as a prerequisite of translational medicine. This excellent group with international leadership will be able to develop novel models for physician/scientist career options respecting work life balance. The strategic goals should also include evaluation of the impact of research on child health in Norway. They need to define the grand challenges in the field and how to address them with which priorities. The strengths should be highlighted in the evaluation's national assessment of the area.

Research group: Precision Oncology Group

This is an outstanding research group with a focus on identifying mechanisms involved in the etiology, diagnosis, prognosis and potential novel therapeutic targets in cancer. The group has built a comprehensive collection of methodologies and biological resources, including patient biobanks, samples, and patient-derived cell and xenograft lines that have generated high- quality research output and involvement in several important studies and clinical trials. With a solid support by the host institution and a strong funding portfolio, the group has been able to produce high-quality research published in high-impact journals. The engagement in educational activities from undergraduate and master's students to postdoc level makes the group well integrated in the Medical Faculty at the host institution. The group has had a great societal impact by holding several patents and introducing new compounds as well as being initiators of spin-off company for commercialization of research innovations. The group is encouraged to continue to work for long-term internal funding to ensure an increasing number of permanent academic positions.

3. Diversity and equality

The administrative unit's actions to protect against discrimination and ensure equal treatment and opportunities for its employees are well taken care of and follow the institutional guidelines. This includes the University of Bergen's action plan for diversity, inclusion and equality 2023-2025, the policy for bullying, harassment and conflict, ethical guidelines for relationships between supervisors and students or candidates as well as a tailored equality action plan of the faculty of medicine. The latter is intended to stimulate employees to express their vision to ensure diversity, equality, and inclusion. The presence of a Health, Safety and Environment (HSE) action plan 2023-2026 targets diversity, openness, and inclusion as measures to ensure that the University develops a culture in which health, safety, the environment, and emergency preparedness are preventative and health-promoting as well as stimulate workplace wellbeing.

The committee's evaluation

The diversity and equality issues do not seem to be concerning, as the administrative unit adequately follows institutional policies. Gender diversity in the leadership positions requires constant attention and should be improved whenever imbalance is noted.

The committee's recommendations

Although the institutional policies are adequately followed, the administrative unit should raise the employees' awareness of these policies by using anonymously filled questionnaires and/or by arranging in-person meetings.

4. Relevance to institutional and sectorial purposes

The main objective of the administrative unit of the Department of Clinical Science K2 at the University of Bergen is to contribute to the research-based knowledge within their focus areas as described in the self-assessment. The administrative unit conducts high-quality research, guidance, and teaching according to the vision “new knowledge for better health”. Together with the Department of Clinical Medicine K1, the administrative unit is an essential part of the institutional clinical science landscape with a strong regional and national impact.

The Bergen area substantially contributes to the medical advancements and biomedical technology development in Norway. Moreover, their focus on translating research into clinical practice has the potential to lead to innovative and cost-effective healthcare solutions, which aims at improving the quality and reducing the financial burden on the entire healthcare system.

The administrative unit encourages innovation and has appointed an innovation leader who is part of their leadership team and the Innovation Leader Forum. The students and researchers participate in and contribute to innovation courses, e.g. Innovation and Entrepreneurship. Dedicated innovation advisors are involved in guiding the processes in IPR issues and in the early phases of commercialisation processes. These actions follow the common practice in many hospitals and are supported by the University of Bergen’s administration.

The committee's evaluation

Although the administrative unit provides support for increasing opportunities of innovation and commercialisation to improve patient care, more emphasis could be directed towards these efforts to reach the goals described in the self-assessment. The economic impact could be further amplified by strengthening collaboration with entrepreneurs, both nationally and internationally. This way the administrative unit would increase its visibility and attractiveness, which in turn would facilitate and widen both the recruitment and funding opportunities.

The committee’s recommendations

The administrative unit is encouraged to increase its economic impact through engaging with the private sector in their geographical region and also beyond, both nationally and internationally. The translational and clinical research activities are of high societal impact and of high scientific standard, which should promote wide interest among investors worldwide.

4.1 Higher Education Institutions

Specifically, the education is organised in programmes of medicine and pharmacy, odontology, dental hygiene, and nutrition. In addition, K2 offers courses for MSc degrees in immunology and vaccinology.

The administrative unit is organised in 17 teaching groups, and it hosts two research schools, i.e. Research School of Clinical Medical Research and Bergen Research School in Inflammation. Moreover, the administrative unit is also a founding member of the National Graduate School in Infection Biology and Antimicrobials that is funded by RCN.

K2 and its sister department, K1, form one of the largest medical educational institutions in Western Norway. The strong emphasis on educational activities is reflected in the large and growing number of medical students being trained in collaboration with the local and regional hospitals.

The committee's evaluation

The administrative unit's impact and contribution to (bio)medical education are strong. It is also obvious that the research and teaching staff dedicate a major part of their efforts to maintain and further develop high-standard research-based education within the focus areas of the administrative unit. This is clearly challenged by the great variety of courses that have to be delivered by individuals who are also responsible for a major part of the scientific research conducted within the administrative unit.

The committee's recommendations

Since the educational duties of the administrative unit are many and cover a broad variety of (bio)medical disciplines, thereby limiting the time that the research staff can dedicate for cutting-edge research, a critical evaluation of teaching priorities for course planning and implementation is warranted.

5. Relevance to society

In line with the Norwegian Long-term plan for research and higher education, the administrative unit contributes to the thematic area of health, according to the vision “new knowledge for better health”. The main societal impact of the administrative unit is 1) to provide both disciplinary and interdisciplinary education for health professionals, 2) to perform innovative curiosity-driven research for understanding the mechanisms of common and rare diseases as well as for developing future diagnostics and therapies, and 3) to disseminate new knowledge to the society.

In line with the UN Sustainable Development Goals (SDG), the administrative unit contributes to ensure 1) healthy lives and well-being for all at all ages (SDG3), 2) quality education (SDG4), and 3) reduced inequalities (SDG10).

Comments on impact case 1: Catching the Rhythms (2015-2022)

This impact case study on measuring free hormones (adrenal steroids) within their target tissues, is an example of translational research in endocrinology based on the comprehensive registries and biobank samples that are derived from carefully phenotyped patients. Together with their international multi-disciplinary collaborators, representing clinical experts and specialists in biochemistry and clinical chemistry as well as mathematicians and engineers, the members of the Endocrine Medicine group have been developing simple and cost-effective methods to monitor hormone rhythms in a clinical setting. For this purpose, they were funded by the EU Horizon-2020 programme. In 2023, the 24-hour continuous adrenocortical hormone profiles of healthy subjects were published in Science Translational Medicine where the paper was also highlighted by an editorial. More papers are in progress, which indicates that this line of research is very topical and of high interest within the international endocrinological community and beyond.

Comments on impact case 2: Changing Clinical Practice in Childhood Diabetes by Precision Medicine (2012-2022)

This impact case describes novel disease mechanisms in childhood diabetes which is still poorly understood despite substantial research efforts worldwide. Childhood diabetes is mostly type 1 (T1D) and characterised by an autoimmune destruction of insulin-producing beta-cells in the pancreas. In contrast, type 2 diabetes (T2D) is a multi-factorial and heterogeneous disease, which is mostly associated with obesity and other metabolic syndromes developed later in life. However, there seem to be additional types of diabetes, including Maturity-Onset Diabetes of the Young (MODY) that has a very broad range of onset from 6 months to 25-35 years of age. PRECISE-DIA, which is a large centre and clinical unit with 67 researchers, representing experts in clinical medicine, genomics, epigenetics, statistical genetics, bioinformatics, proteomics, biochemistry, structural biology, stem cell biology and animal models, has a long-standing goal to reveal the mechanisms underlying the different subtypes of MODY, which are key for providing much needed knowledge to formulate new diagnostic and prognostic strategies for patient care in childhood diabetes. The research strategy relies on precision medicine, including both precision diagnosis and precision treatment. This research programme has wide impact on the development of basic science, translational research and clinical practices in Norway and beyond, as indicated in research papers published in international top journals, including both general and specialty journals, and outreach to hospitals and patient organisations as well as various media, e.g. local and national newspapers and broadcasting channels. Overall impact of this programme is clearly excellent.

Comments on impact case 3: Heart Disease in Women (2002-2022)

This impact case focuses on cardiovascular diseases, including sex differences in valvular heart disease (aortic valve stenosis), the effect of hypertension on the aorta, aortic valve and the heart muscle, non-obstructive coronary artery disease in women, role of inflammation for heart disease in women, and sex differences in hypertensive and obese heart disease. The long-term research programme has led to multiple international collaborations and publications in the top journals within the field of hypertension and cardiology. In 2020, they also established the Centre for Research on Cardiac Disease in Women at UiB, which has clearly expanded their research, training and conference activities. According to the national official report that was published in 2023, this programme has the potential to reform the current health professional education programmes and healthcare services, which in turn has a broad impact on the entire society.

Comments on impact case 4: Pandemic Preparedness: the COVID-19 Case (2020-2022)

This impact case on the COVID-19 pandemic is based on 30-year bench-to-bedside research that has been conducted as a collaboration between clinicians and experimental scientists who have been involved in clinical trials (phase I-IV), placebo controlled randomised clinical trials and prospective longitudinal cohort studies within the fields of immunology and infection diseases, before the pandemic broke out in February 2020. The epidemiological, clinical and immunological findings regarding the infections caused by SARS-CoV-2 and its variants, ranging from short-term to long-term symptoms, such as in long COVID, have emphasised the need for comprehensive healthcare services. This is evident when developing and coordinating anti-viral clinical trials and rehabilitation of long COVID intervention studies. In addition to a multitude of scientific publications, the impact case has provided knowledge for national and international advisory organisations involved in educating the general public, which is fundamental to recognise the knowledge-based information from disinformation. The work also has impact on future pandemic preparedness, and they have established a national network focusing on research strategies to prevent post-sequelae complications after viral infections.

Appendices

Evaluation of Medicine and health 2023-2024

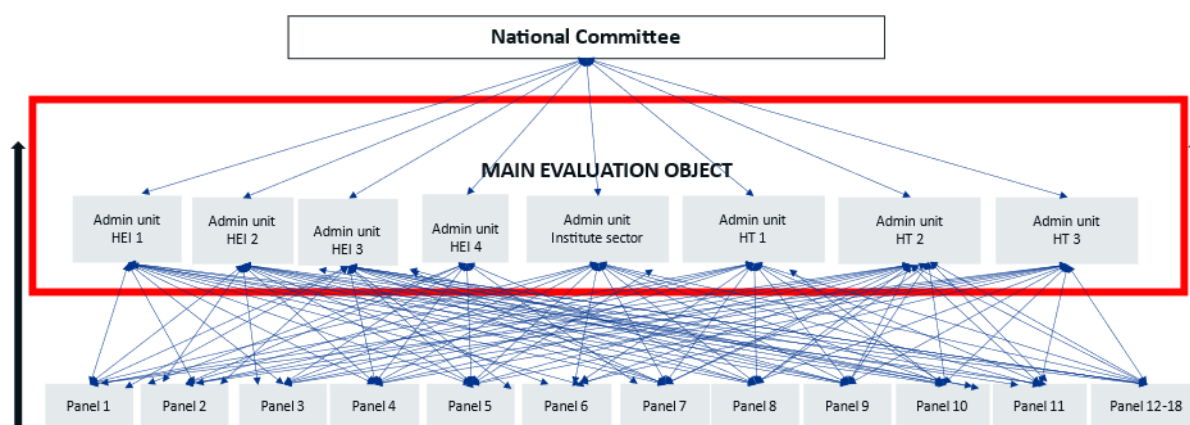
By evaluating Norwegian research and higher education we aim to enhance the quality, relevance, and efficiency. In accordance with the statutes of the Research Council of Norway (RCN), the RCN evaluates Norwegian professional environments to create a solid and up-to-date knowledge base about Norwegian research and higher education in an international perspective.

The evaluation of life sciences is conducted in 2022-2024. The evaluation of medicine takes place in 2023-2024. The evaluation of biosciences was carried out in 2022-2023. The primary aim of the evaluation of life sciences is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), the institute sector and the health trusts. The evaluation shall result in recommendations to the institutions, the RCN and the ministries.

Evaluation of medicine and health (EVALMEDHELSE) 2023-2024

The evaluation of medicine and health includes sixty-eight administrative units (e.g., faculty, department, institution, center, division) which are assessed by evaluation committees according to sectorial affiliation and other relevant similarities between the units. The administrative units enrolled their research groups (315) to eighteen expert panels organised by research subjects or themes and assessed across institutions and sectors.

Organisation of evaluation of medicine and health 2023-2024



The institutions have been allowed to adapt the evaluation mandate (Terms of Reference) to their own strategic goals. This is to ensure that the results of the evaluation will be useful for the institution's own strategic development. The administrative unit together with the research group(s) selects an appropriate benchmark for each of the research group(s).

The Research Council of Norway has commissioned an external evaluation secretariat at Technopolis Group for the implementation of the evaluation process.

Each institution/administrative unit is responsible for following up the recommendations that apply to their own institution/administrative unit. The Research Council will use the results from the evaluation in the development of funding instruments and as a basis for advice to the Government.

The web page for the evaluation of medicine and health 2023-2024: [Evaluation of medicine and health sciences \(forskingsradet.no\)](https://forskingsradet.no)

Se vedlagte adresseliste

Vår saksbehandler / tlf.	Vår ref.	Deres ref.	Sted
Hilde G. Nielsen/40922260	23/3056	[Ref.]	Lysaker 28.4.2023

Invitasjon til å delta i fagevaluering av medisin og helsefag (EVALMEDHELSE) 2023-2024

Vi viser til varsel om oppstart av nye evalueringer sendt institusjonenes ledelse 9. november 2021 (vedlegg 2).

Porteføljestyret for livsvitenskap har vedtatt å gjennomføre fagevaluering av livsvitenskap 2022-2024 som to evalueringer:

- Evaluering av biovitenskap (EVALBIOVIT) (2022-2023)
- Evaluering av medisin og helsefag (EVALMEDHELSE) (2023-2024)

Hovedmålet med fagevalueringen av livsvitenskap 2022-2024 er å vurdere kvalitet og rammebetingelser for livsvitenskapelig forskning i Norge, samt forskningens relevans for sentrale samfunnsområder. Evalueringen skal resultere i anbefalinger til institusjonene, til Forskningsrådet og til departementene. Den forrige fagevalueringen av biologi, medisin og helsefag ble gjennomført i 2010/2011 (vedlegg 3).

Fagevaluering av livsvitenskap retter seg mot UH-sektor, helseforetak og instituttsektor (vedlegg 4). Forskningsrådet forventer at aktuelle forskningsmiljøer deltar i evalueringene, selv om beslutning om deltagelse gjøres ved den enkelte institusjon. Videre ber vi om at deltakende institusjoner setter av tilstrekkelig med ressurser til å delta i evalueringsprosessen, og at institusjonen oppnevner minst én representant som kontaktperson for Forskningsrådet.

Invitasjon til å delta i fagevaluering av medisin og helsefag (2023-2024)

Fagevaluering av medisin og helsefag er organisert over to nivåer (vedlegg 4, side 11). Internasjonale ekspertpaneler vil evaluere forskergrupper på tvers av fag, disiplin og forskningssektorer (UH, institutt og helseforetak) etter kriteriene beskrevet i kapittel 2 i evalueringsprotokollen (vedlegg 4).

Panelrapporten(e) for forskergruppene vil inngå i bakgrunnsdokumentasjonen til forskergruppen(e)s administrative enhet (hovedevalueringsobjektet i evaluering), og som vil bli evaluert i internasjonale

sektorspesifikke evalueringskomiteer. Evalueringskriteriene for administrative enheter er beskrevet i kapittel 2 i evalueringsprotokollen (vedlegg 4).

Innmelding av administrative enheter og forskergrupper – frist 6. juni 2023

Administrative enheter (hovedevalueringssubjektet i evalueringen) – skjema 1

Forskningsrådet inviterer institusjonene til å melde inn sine administrative enhet/er ved å fylle ut skjema 1. Definisjonen av en administrativ enhet i denne evalueringen er å finne på side 3 (kap 1.1) i evalueringsprotokollen (vedlegg 4). Ved innmelding av administrativ/e enhet/er anbefaler Forskningsrådet institusjonene til å se innmelding av administrativ enhet/er i sammenheng med tilpasning av mandat for den administrative enheten (Appendix A i evalueringsprotokollen).

Forskergrupper – skjema 2

Forskningsrådet ber de administrative enheter om å melde inn forskergrupper i tråd med forskergruppedefinisjonen (kap 1.1) og minimumskravene beskrevet i kapittel 1.2 i evalueringsprotokollen. Hver administrative enhet melder inn sin/e forskergruppe/r ved å fylle ut Skjema 2. Vi ber også om at forskergruppene innplasseres i den tentative fagpanelinndelingen for EVALMEDHELSE (vedlegg 5).

Forskningsrådet vil ferdigstille panelstruktur og avgjøre den endelige fordelingen av forskergruppene på fagpaneler etter at alle forskergrupper er meldt inn. Mer informasjon vil bli sendt i slutten av juni 2023.

Invitasjon til å foreslå eksperter – skjema 3

Forskningsrådet inviterer administrative enheter og forskergrupper til å spille inn forslag til eksperter som kan inngå i evalueringskomitéene og i ekspertpanelene. Hver evalueringskomité vil bestå av 7-9 komitémedlemmer, mens hvert ekspertpanel vil bestå av 5-7 eksperter.

Obs. Det er to faner i regnearket:

- FANE 1 – forslag til medlemmer til evalueringskomitéene. Medlemmene i evalueringskomitéene skal inneha bred vitenskapelig kompetanse, både faglig kompetanse og andre kvalifikasjoner som erfaring med ledelse, strategi- og evalueringsarbeid og kunnskapsutveksling.
- FANE 2 – forslag til medlemmer til ekspertpanelene. Medlemmene i ekspertpanelene skal være internasjonalt ledende eksperter innen medisin og helsefaglig forskning og innovasjon.

Utfylte skjemaer (3 stk):

- innmelding av administrative enhet/er (skjema 1)
- innmelding av forskergruppe/er (skjema 2)
- forslag til eksperter (skjema 3)

sendes på epost til evalmedhelse@forskningsradet.no **innen 6. juni 2023.**

Tilpasning av mandat – frist 30. september 2023

Forskningsrådet ber med dette administrative enheter om å tilpasse mandatet (vedlegg 4) ved å opplyse om egne strategiske mål og andre lokale forhold som er relevant for evalueringen.

Tilpasningen gjøres ved å fylle inn de åpne punktene i malen (Appendix A). Utfylt skjema sendes på epost til evalmedhelse@forskningssradet.no innen 30. september 2023.

Digitalt informasjonsmøte 15. mai 2023, kl. 14.00-15.00.

Forskningssrådet arrangerer et digitalt informasjonsmøte for alle som ønsker å delta i EVALMEDHELSE.

Påmelding til informasjonsmøtet gjøres her: [Fagevaluering av medisin og helsefag \(EVALMEDHELSE\) - Digitalt informasjonsmøte \(pameldingssystem.no\)](#) .

Nettsider

Forskningssrådet vil opprette en nettside på www.forskningssradet.no for EVALMEDHELSE hvor informasjon vil bli publisert fortløpende. [Her](#) kan dere lese om Fagevaluering av biovitenskap (EVALBIOVIT) 2022-2023. Fagevaluering av medisin og helsefag vil bli gjennomført etter samme modell.

Spørsmål vedrørende fagevaluering av medisin og helsefag kan rettes til Hilde G. Nielsen, hgn@forskningssradet.no eller mobil 40 92 22 60.

Med vennlig hilsen
Norges forskningsråd

Ole Johan Borge
avdelingsdirektør
Helse

Hilde G. Nielsen
spesialrådgiver
Helse

Dokumentet er elektronisk godkjent og signert og har derfor ikke håndskrevne signaturer.

Kopi

Helse- og omsorgsdepartementet
Kunnskapsdepartementet

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2. Nye fagevalueringer – varsel om oppstart november 2021
3. Erfaringer med oppfølging av fagevaluering av biologi, medisin og helsefag 2010/2011
4. Fagevaluering av livsvitenskap 2022-2024 – Evalueringsprotokoll
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8. Skjema 3 – Forslag til internasjonale eksperter til evalueringskomiteene og ekspertpanelene
9. Appendix A – word format

Evaluation of life sciences in Norway 2022-2023

LIVSEVAL protocol version 1.0

By decision of the Portfolio board for life sciences April 5., 2022

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The report can be downloaded at
www.forskningsradet.no/publikasjoner

Oslo, 5 April 2022

ISBN 978-82-12-Klikk her for å fylle ut (xxxxx-x). (pdf)

1 Introduction

Research assessments based on this protocol serve different aims and have different target groups. The primary aim of the evaluation of life sciences is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), and by the institute sector and regional health authorities and health trusts. These institutions will hereafter be collectively referred to as Research Performing Organisations (RPOs). The assessments should serve a formative purpose by contributing to the development of research quality and relevance at these institutions and at the national level.

1.1 Evaluation units

The assessment will comprise a number of *administrative units* submitted for evaluation by the host institution. By assessing these administrative units in light of the goals and strategies set for them by their host institution, it will be possible to learn more about how public funding is used at the institution(s) to facilitate high-quality research and how this research contributes to society. The administrative units will be assessed by evaluation committees according to sectoral affiliation and/or other relevant similarities between the units.

The administrative units will be invited to submit data on their *research groups* to be assessed by expert panels organised by research subject or theme. See Chapter 3 for details on organisation.

<i>Administrative unit</i>	An administrative unit is any part of an RPO that is recognised as a formal (administrative) unit of that RPO, with a designated budget, strategic goals and dedicated management. It may, for instance, be a university faculty or department, a department of an independent research institute or a hospital.
<i>Research group</i>	Designates groups of researchers within the administrative units that fulfil the minimum requirements set out in section 1.2. Research groups are identified and submitted for evaluation by the administrative unit, which may decide to consider itself a single research group.

1.2 Minimum requirements for research groups

- 1) The research group must be sufficiently large in size, i.e. at least five persons in full-time positions with research obligations. This merely indicates the minimum number, and larger units are preferable. In exceptional cases, the minimum number may include PhD students, postdoctoral fellows and/or non-tenured researchers. *In all cases, a research group must include at least three full-time tenured staff.* Adjunct professors, technical staff and other relevant personnel may be listed as group members but may not be included in the minimum number.

- 2) The research group subject to assessment must have been established for at least three years. Groups of more recent date may be accepted if they have come into existence as a consequence of major organisational changes within their host institution.
- 3) The research group should be known as such both within and outside the institution (e.g. have a separate website). It should be able to document common activities and results in the form of co-publications, research databases and infrastructure, software, or shared responsibilities for delivering education, health services or research-based solutions to designated markets.
- 4) In its self-assessment, the administrative unit should propose a suitable benchmark for the research group. The benchmark will be considered by the expert panels as a reference in their assessment of the performance of the group. The benchmark can be grounded in both academic and extra-academic standards and targets, depending on the purpose of the group and its host institution.

1.3 The evaluation in a nutshell

The assessment concerns:

- research that the administrative unit and its research groups have conducted in the previous 10 years
- the research strategy that the administrative units under evaluation intend to pursue going forward
- the capacity and quality of research in life sciences at the national level

The Research Council of Norway (RCN) will:

- provide a template for the Terms of Reference¹ for the assessment of RPOs and a national-level assessment in life sciences
- appoint members to evaluation committees and expert panels
- provide secretarial services
- commission reports on research personnel and publications based on data in national registries
- take responsibility for following up assessments and recommendations at the national level.

RPOs conducting research in life sciences are expected to take part in the evaluation. The board of each RPO under evaluation is responsible for tailoring the assessment to its own strategies and specific needs and for following them up within their own institution. Each participating RPO will carry out the following steps:

- 1) Identify the administrative unit(s) to be included as the main unit(s) of assessment
- 2) Specify the Terms of Reference by including information on specific tasks and/or strategic goals of relevance to the administrative unit(s)

¹ The terms of reference (ToR) document defines all aspects of how the evaluation committees and expert panels will conduct the [research area] evaluation. It defines the objectives and the scope of the evaluation, outlines the responsibilities of the involved parties, and provides a description of the resources available to carry out the evaluation.

- 3) The administrative unit will, in turn, be invited to register a set of research groups that fulfil the minimum criteria specified above (see section 1.2). The administrative unit may decide to consider itself a single research group.
- 4) For each research group, the administrative unit should select an appropriate benchmark in consultation with the group in question. This benchmark can be a reference to an academic level of performance or to the group's contributions to other institutional or sectoral purposes (see section 2.4). The benchmark will be used as a reference in the assessment of the unit by the expert panel.
- 5) The administrative units subject to assessment must provide information about each of their research groups, and about the administrative unit as a whole, by preparing self-assessments and by providing additional documentation in support of the self-assessment.

1.4 Target groups

- Administrative units represented by institutional management and boards
- Research groups represented by researchers and research group leaders
- Research funders
- Government

The evaluation will result in recommendations to the institutions, the RCN and the ministries. The results of the evaluation will also be disseminated for the benefit of potential students, users of research and society at large.

This protocol is intended for all participants in the evaluation. It provides the information required to organise and carry out the research assessments. Questions about the interpretation or implementation of the protocol should be addressed to the RCN.

2 Assessment criteria

The administrative units are to be assessed on the basis of five assessment criteria. The five criteria are applied in accordance with international standards. Finally, the evaluation committee passes judgement on the administrative units as a whole in qualitative terms. In this overall assessment, the committee should relate the assessment of the specific tasks to the strategic goals that the administrative unit has set for itself in the Terms of Reference.

When assessing administrative units, the committees will build on a separate assessment by expert panels of the research groups within the administrative units. See Chapter 3 'Evaluation process and organisation' for a description of the division of tasks.

2.1 Strategy, resources and organisation

The evaluation committee assesses the framework conditions for research in terms of funding, personnel, recruitment and research infrastructure in relation to the strategic aims set for the administrative unit. The administrative unit should address at least the following five specific aspects in its self-assessment: 1) funding sources, 2) national and international cooperation, 3) cross-sector and interdisciplinary cooperation, 4) research careers and mobility, and 5) Open Science. These five aspects relate to how the unit organises and actually performs its research, its composition in terms of leadership and personnel, and how the unit is run on a day-to-day basis.

To contribute to understanding what the administrative unit can or should change to improve its ability to perform, the evaluation committee is invited to focus on factors that may affect performance.

Further, the evaluation committee assesses the extent to which the administrative unit's goals for the future remain scientifically and societally relevant. It is also assessed whether its aims and strategy, as well as the foresight of its leadership and its overall management, are optimal in relation to attaining these goals. Finally, it is assessed whether the plans and resources are adequate to implement this strategy.

2.2 Research production, quality and integrity

The evaluation committee assesses the profile and quality of the administrative unit's research and the contribution the research makes to the body of scholarly knowledge and the knowledge base for other relevant sectors of society. The committee also assesses the scale of the unit's research results (scholarly publications, research infrastructure developed by the unit, and other contributions to the field) and its contribution to Open Science (early knowledge and sharing of data and other relevant digital objects, as well as science communication and collaboration with societal partners, where appropriate).

The evaluation committee considers the administrative unit's policy for research integrity and how violations of such integrity are prevented. It is interested in how the unit deals with research data, data management, confidentiality (GDPR) and integrity, and the extent to which independent and critical pursuit of research is made possible within the unit. Research integrity relates to both the scientific integrity of conducted research and the professional integrity of researchers.

2.3 Diversity and equality

The evaluation committee considers the diversity of the administrative unit, including gender equality. The presence of differences can be a powerful incentive for creativity and talent development in a diverse administrative unit. Diversity is not an end in itself in that regard, but a tool for bringing together different perspectives and opinions.

The evaluation committee considers the strategy and practices of the administrative unit to prevent discrimination on the grounds of gender, age, disability, ethnicity, religion, sexual orientation or other personal characteristics.

2.4 Relevance to institutional and sectoral purposes

The evaluation committee compares the relevance of the administrative unit's activities and results to the specific aspects detailed in the Terms of Reference for each institution and to the relevant sectoral goals (see below).

Higher Education Institutions

There are 36 Higher Education Institutions in Norway that receive public funding from the Ministry for Education and Research. Twenty-one of the 36 institutions are owned by the ministry, whereas the last 15 are privately owned. The HEIs are regulated under the Act relating to universities and university colleges of 1 August 2005.

The purposes of Norwegian HEIs are defined as follows in the Act relating to universities and university colleges²

- provide higher education at a high international level;
- conduct research and academic and artistic development work at a high international level;
- disseminate knowledge of the institution's activities and promote an understanding of the principle of academic freedom and application of scientific and artistic methods and results in the teaching of students, in the institution's own general activity as well as in public administration, in cultural life and in business and industry.

In line with these purposes, the Ministry for Research and Education has defined four overall goals for HEIs that receive public funding. These goals have been applied since 2015:

- 1) High quality in research and education
- 2) Research and education for welfare, value creation and innovation
- 3) Access to education (esp. capacity in health and teacher education)
- 4) Efficiency, diversity and solidity of the higher education sector and research system

The committee is invited to assess to what extent the research activities and results of each administrative unit have contributed to sectoral purposes as defined above. In particular, the committee is invited to take the share of resources spent on education at the administrative units into account and to assess the relevance and contributions of research to education, focusing on the master's and PhD levels. This assessment should be distinguished from an

² <https://lovdata.no/dokument/NLE/lov/2005-04-01-15?q=universities>

assessment of the quality of education in itself, and it is limited to the role of research in fostering high-quality education.

Research institutes (the institute sector)

Norway's large institute sector reflects a practical orientation of state R&D funding that has long historical roots. The Government's strategy for the institute sector³ applies to the 33 independent research institutes that receive public basic funding through the RCN, in addition to 12 institutes outside the public basic funding system.

The institute sector plays an important and specific role in attaining the overall goal of the national research system, i.e. to increase competitiveness and innovation power to address major societal challenges. The research institutes' contributions to achieving these objectives should therefore form the basis for the evaluation. The main purpose of the sector is to conduct independent applied research for present and future use in the private and public sector. However, some institutes primarily focus on developing a research platform for public policy decisions, others on fulfilling their public responsibilities.

The institutes should:

- maintain a sound academic level, documented through scientific publications in recognised journals
- obtain competitive national and/or international research funding grants
- conduct contract research for private and/or public clients
- demonstrate robustness by having a reasonable number of researchers allocated to each research field

The committee is invited to assess the extent to which the research activities and results of each administrative unit contribute to sectoral purposes and overall goals as defined above. In particular, the committee is invited to assess the level of collaboration between the administrative unit(s) and partners in their own or other sectors.

The hospital sector

There are four regional health authorities (RHF) in Norway. They are responsible for the specialist health service in their respective regions. The RHF are regulated through the Health Enterprises Act of 15 June 2001 and are bound by requirements that apply to specialist and other health services, the Health Personnel Act and the Patient Rights Act. Under each of the regional health authorities, there are several health trusts (HF), which can consist of one or more hospitals. A health trust (HF) is wholly owned by an RHF.

Research is one of the four main tasks of hospital trusts.⁴ The three other main tasks are to ensure good treatment, education and training of patients and relatives. Research is important if the health service is to keep abreast of stay up-to-date with medical developments and carry out critical assessments of established and new diagnostic methods,

³ [Strategy for a holistic institute policy \(Kunnskapsdepartementet 2020\)](#)

⁴ Cf. the Specialist Health Services Act § 3-8 and the Health Enterprises Act §§ 1 and 2

treatment options and technology, and work on quality development and patient safety while caring for and guiding patients.

The committee is invited to assess the extent to which the research activities and results of each administrative unit have contributed to sectoral purposes as described above. The assessment does not include an evaluation of the health services performed by the services.

2.5 Relevance to society

The committee assesses the quality, scale and relevance of contributions targeting specific economic, social or cultural target groups, of advisory reports on policy, of contributions to public debates, and so on. The documentation provided as the basis for the assessment of societal relevance should make it possible to assess relevance to various sectors of society (i.e. business, the public sector, non-governmental organisations and civil society).

When relevant, the administrative units will be asked to link their contributions to national and international goals set for research, including the Norwegian Long-term Plan for Research and Higher Education and the UN Sustainable Development Goals. Sector-specific objectives, e.g. those described in the Development Agreements for the HEIs and other national guidelines for the different sectors, will be assessed as part of criterion 2.4.

The committee is also invited to assess the societal impact of research based on case studies submitted by the administrative units and/or other relevant data presented to the committee. Academic impact will be assessed as part of criterion 2.2.

3 Evaluation process and organisation

The RCN will organise the assessment process as follows:

- Commission a professional secretariat to support the assessment process in the committees and panels, as well as the production of self-assessments within each RPO
- Commission reports on research personnel and publications within life sciences based on data in national registries
- Appoint one or more evaluation committees for the assessment of administrative units.
- Divide the administrative units between the appointed evaluation committees according to sectoral affiliation and/or other relevant similarities between the units.
- Appoint a number of expert panels for the assessment of research groups submitted by the administrative units.
- Divide research groups between expert panels according to similarity of research subjects or themes.
- Task the chairs of the evaluation committees with producing a national-level report building on the assessments of administrative units and a national-level assessments produced by the expert panels.

Committee members and members of the expert panels will be international, have sufficient competence and be able, as a body, to pass judgement based on all relevant assessment criteria. The RCN will facilitate the connection between the assessment levels of panels and committees by appointing committee members as panel chairs.

3.1 Division of tasks between the committee and panel levels

The expert panels will assess research groups across institutions and sectors, focusing on the first two criteria specified in Chapter 2: 'Strategy, resources and organisation' and 'Research production and quality' The assessments from the expert panels will also be used as part of the evidence base for a report on Norwegian research within life sciences (see section 3.3).

The evaluation committees will assess the administrative units based on all the criteria specified in Chapter 2. The assessment of research groups delivered by the expert panels will be a part of the evidence base for the committees' assessments of administrative units. See figure 1 below.

The evaluation committee has sole responsibility for the assessments and any recommendations in the report. The evaluation committee reaches a judgement on the research based on the administrative units and research groups' self-assessments provided by the RPOs, any additional documents provided by the RCN, and interviews with representatives of the administrative units. The additional documents will include a standardised analysis of research personnel and publications provided by the RCN.

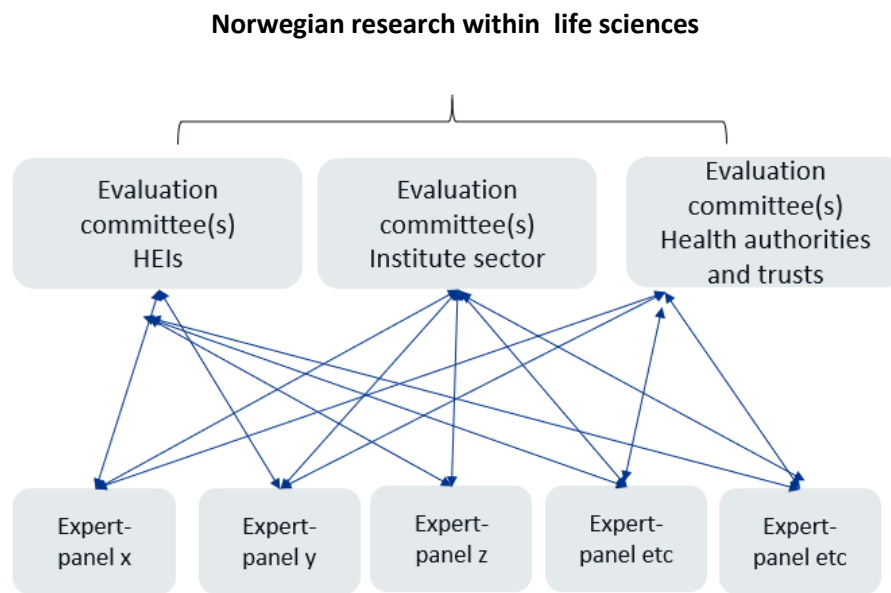


Figure 1. Evaluation committees and expert panels

The evaluation committee takes international trends and developments in science and society into account when forming its judgement. When judging the quality and relevance of the research, the committees shall bear in mind the specific tasks and/or strategic goals that the administrative unit has set for itself including sectoral purposes (see section 2.4 above).

3.2 Accuracy of factual information

The administrative unit under evaluation should be consulted to check the factual information before the final report is delivered to the RCN and the board of the institution hosting the administrative unit.

3.3 National level report

Finally, the RCN will ask the chairs of the evaluation committees to produce a national-level report that builds on the assessments of administrative units and the national-level assessments produced by the expert panels. The committee chairs will present their assessment of Norwegian research in life sciences at the national level in a separate report that pays specific attention to:

- Strengths and weaknesses of the research area in the international context
- The general resource situation regarding funding, personnel and infrastructure
- PhD training, recruitment, mobility and diversity
- Research cooperation nationally and internationally
- Societal impact and the role of research in society, including Open Science

This national-level assessment should be presented to the RCN.

Appendix A: Terms of References (ToR)

[Text in red to be filled in by the Research-performing organisations (RPOs)]

The board of [RPO] mandates the evaluation committee appointed by the Research Council of Norway (RCN) to assess [administrative unit] based on the following Terms of Reference.

Assessment

You are asked to assess the organisation, quality and diversity of research conducted by [administrative unit] as well as its relevance to institutional and sectoral purposes, and to society at large. You should do so by judging the unit's performance based on the following five assessment criteria (a. to e.). Be sure to take current international trends and developments in science and society into account in your analysis.

- a) Strategy, resources and organisation
- b) Research production, quality and integrity
- c) Diversity and equality
- d) Relevance to institutional and sectoral purposes
- e) Relevance to society

For a description of these criteria, see Chapter 2 of the life sciences evaluation protocol. Please provide a written assessment for each of the five criteria. Please also provide recommendations for improvement. We ask you to pay special attention to the following [n] aspects in your assessment:

- 1. ...
- 2. ...
- 3. ...
- 4. ...
- ...

[To be completed by the board: specific aspects that the evaluation committee should focus on – they may be related to a) strategic issues, or b) an administrative unit's specific tasks.]

In addition, we would like your report to provide a qualitative assessment of [administrative unit] as a whole in relation to its strategic targets. The committee assesses the strategy that the administrative unit intends to pursue in the years ahead and the extent to which it will be capable of meeting its targets for research and society during this period based on available resources and competence. The committee is also invited to make recommendations concerning these two subjects.

Documentation

The necessary documentation will be made available by the **life sciences** secretariat at Technopolis Group.

The documents will include the following:

- a report on research personnel and publications within life sciences commissioned by RCN
- a self-assessment based on a template provided by the life sciences secretariat
- **[to be completed by the board]**

Interviews with representatives from the evaluated units

Interviews with the **[administrative unit]** will be organised by the evaluation secretariat. Such interviews can be organised as a site visit, in another specified location in Norway or as a video conference.

Statement on impartiality and confidence

The assessment should be carried out in accordance with the *Regulations on Impartiality and Confidence in the Research Council of Norway*. A statement on the impartiality of the committee members has been recorded by the RCN as a part of the appointment process. The impartiality and confidence of committee and panel members should be confirmed when evaluation data from **[the administrative unit]** are made available to the committee and the panels, and before any assessments are made based on these data. The RCN should be notified if questions concerning impartiality and confidence are raised by committee members during the evaluation process.

Assessment report

We ask you to report your findings in an assessment report drawn up in accordance with a format specified by the life sciences secretariat. The committee may suggest adjustments to this format at its first meeting. A draft report should be sent to the **[administrative unit]** and RCN by [date]. The **[administrative unit]** should be allowed to check the report for factual inaccuracies; if such inaccuracies are found, they should be reported to the life sciences secretariat no later than two weeks after receipt of the draft report. After the committee has made the amendments judged necessary, a corrected version of the assessment report should be sent to the board of **[the RPO]** and the RCN no later than two weeks after all feedback on inaccuracies has been received from **[administrative unit]**.

Appendix B: Data sources

The lists below shows the most relevant data providers and types of data to be included in the evaluation. Data are categorised in two broad categories according to the data source: National registers and self-assessments prepared by the RFOs. The RCN will commission an analysis of data in national registers (R&D-expenditure, personnel, publications etc.) to be used as support for the committees' assessment of administrative units. The analysis will include a set of indicators related to research personnel and publications.

- **National directorates and data providers**
- Norwegian Directorate for Higher Education and Skills (HK-dir)
- Norwegian Agency for Quality Assurance in Education (NOKUT)
- Norwegian Agency for Shared Services in Education and Research (SIKT)
- Research Council of Norway (RCN)
- Statistics Norway (SSB)

National registers

- 1) R&D-expenditure
 - a. SSB: R&D statistics
 - b. SSB: Key figures for research institutes
 - c. HK-dir: Database for Statistics on Higher Education (DBH)
 - d. RCN: Project funding database (DVH)
 - e. EU-funding: eCorda
- 2) Research personnel
 - a. SSB: The Register of Research personnel
 - b. SSB: The Doctoral Degree Register
 - c. RCN: Key figures for research institutes
 - d. HK-dir: Database for Statistics on Higher Education (DBH)
- 3) Research publications
 - a. SIKT: Cristin - Current research information system in Norway
 - b. SIKT: Norwegian Infrastructure for Bibliometrics
(full bibliometric data incl. citations and co-authors)
- 4) Education
 - a. HK-dir/DBH: Students and study points
 - b. NOKUT: Study barometer
 - c. NOKUT: National Teacher Survey
- 5) Sector-oriented research
 - a. RCN: Key figures for research institutes
- 6) Patient treatments and health care services
 - a. Research & Innovation expenditure in the health trusts
 - b. Measurement of research and innovation activity in the health trusts
 - c. Collaboration between health trusts and HEIs
 - d. Funding of research and innovation in the health trusts
 - e. Classification of medical and health research using HRCS (HO21 monitor)

Self-assessments

1) Administrative units

- a. *Self-assessment covering all assessment criteria*
- b. Administrative data on funding sources
- c. Administrative data on personnel
- d. Administrative data on the division of staff resources between research and other activities (teaching, dissemination etc.)
- e. Administrative data on research infrastructure and other support structures
- f. SWOT analysis
- g. Any supplementary data needed to assess performance related to the strategic goals and specific tasks of the unit

2) Research groups

- a. *Self-assessment covering the first two assessment criteria (see Table 1)*
- b. Administrative data on funding sources
- c. Administrative data on personnel
- d. Administrative data on contribution to sectoral purposes: teaching, commissioned work, clinical work [will be assessed at committee level]
- e. Publication profiles
- f. Example publications and other research results (databases, software etc.)
The examples should be accompanied by an explanation of the groups' specific contributions to the result
- g. Any supplementary data needed to assess performance related to the benchmark defined by the administrative unit

The table below shows how different types of evaluation data may be relevant to different evaluation criteria. Please note that the self-assessment produced by the administrative units in the form of a written account of management, activities, results etc. should cover all criteria. A template for the self-assessment of research groups and administrative units will be commissioned by the RCN from the life sciences secretariat for the evaluation.

Table 1. Types of evaluation data per criterion

Criteria \ Evaluation units	Research groups	Administrative units
Strategy, resources and organisation	Self-assessment Administrative data	Self-assessment National registers Administrative data SWOT analysis
Research production and quality	Self-assessment Example publications (and other research results)	Self-assessment National registers
Diversity, equality and integrity		Self-assessment National registers Administrative data
Relevance to institutional and sectoral purposes		Self-assessment Administrative data
Relevance to society		Self-assessment National registers Impact cases
Overall assessment	<i>Data related to: Benchmark defined by administrative unit</i>	<i>Data related to: Strategic goals and specific tasks of the admin. unit</i>



Evaluation of Medicine and Health (EVALMEDHELSE) 2023-2024

Self- assessment for administrative units

Date of dispatch: **15 September 2023**
Deadline for submission: **31 January 2024**

Institution (name and short name): _____

Administrative unit (name and short name): _____

Date: _____

Contact person: _____

Contact details (email): _____

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Introduction

The primary aim of the evaluation is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), the institute sector and the health trusts. These institutions will henceforth be collectively referred to as research performing organisations (RPOs). The evaluation report(s) will provide a set of recommendations to the RPOs, the Research Council of Norway (RCN) and the responsible and concerned ministries. The results of the evaluation will also be disseminated for the benefit of potential students, users of research and society at large.

You have been invited to complete this self-assessment as an administrative unit. The self-assessment contains questions regarding the unit's research- and innovation related activities and developments over years 2012-2022. All submitted data will be evaluated by international evaluation committees. The administrative unit's research groups will be assessed by international expert panels who report their assessment to the relevant evaluation committee.

Deadline for submitting self- assessments to the Research Council of Norway – 31 January 2024

As an administrative unit you are responsible for collecting completed self-assessments for each of the research groups that belong to the administrative unit. The research groups need to submit their completed self-assessment to the administrative unit no later than 26 January 2024. The administrative unit will submit the research groups' completed self-assessments and the administrative unit's own completed self-assessment to the Research Council within 31 January 2024.

Please use the following format when naming your document: name of the institution and short name of the administrative unit, e.g. *NTNU_FacMedHealthSci* and send it to evalmedhelse@forskningsradet.no within 31 January 2024.

For questions concerning the self-assessment or EVALMEDHELSE in general, please contact RCN at evalmedhelse@forskningsradet.no.

Thank you!

Guidelines for completing the self-assessment

- Please read the entire self-assessment document before answering.
- The evaluation language is English.
- Please be sure that all documents which are linked to in the self- assessment are in English and are accessible.
- The page format must be A4 with 2 cm margins, single spacing and Calibri and 11-point font.
- The self-assessment follows the same structure as the [evaluation protocol](#). In order to be evaluated on all criteria, the administrative unit must answer all questions.
- Information should be provided by link to webpages i.e. strategy and other planning documents.
 - Provide information – provide documents and other relevant data or figures about the administrative unit, for example strategy and other planning documents.
 - Describe – explain and present using contextual information about the administrative unit and inform the reader about the administrative unit.
 - Reflect – comment in a reflective and evaluative manner how the administrative unit operates.
- Data on personnel should refer to reporting to DBH on 1 October 2022 for HEIs and to the yearly reporting for 2022 for the institute sector and the health trusts. Other data should refer to 31 December 2022, if not specified otherwise.
- Questions in 4.3c should **ONLY** be answered by administrative units responsible for the Cand.med. degree programme, cf. [Evaluation of the Professional programme in Medicine \(NOKUT\)](#).
- It is possible to extend the textboxes when filling in the form. **NB!** A completed self- assessment cannot exceed 50 pages (pdf file) excluding question 4.3.c. The evaluation committees are not requested to read more than the maximum of 50 pages. Pages exceeding maximum limit of 50 pages **might not** be evaluated.
- Submit the self- assessment as a pdf (max 50 pages). Before submission, please be sure that all text are readable after the conversion of the document to pdf. The administrative unit is responsible for submitting the self-assessment of the administrative unit together with the self-assessments of the belonging research group(s) to evalmedhelse@forskningsradet.no within **31 January 2024**.

Please note that information you write in the self- assessment and the links to documents/webpages in the self- assessment are the only available information (data material) for the evaluation committee.

In exceptional cases, documents/publications that are not openly available must be submitted as attachment(s) to the self- assessment (pdf file(s)).

1.Strategy, resources and organisation

1.1 Research strategy

Describe the main strategic goals for research and innovation of the administrative unit. You may include the following:

- How are these goals related to institutional strategies and scientific priorities?
- Describe how the administrative unit's strategies and scientific priorities are related to the "specific aspects that the evaluation committee should focus on" indicated in your Terms of Reference (ToR)
- Describe the main fields and focus of research and innovation in the administrative unit
- Describe the planned research-field impact; planned policy impact and planned societal impact
- Describe how the strategy is followed-up in the allocation of resources and other measures
- Describe the most important occasions where priorities are made (i.e., announcement of new positions, applying for external funding, following up on evaluations)
- If there is no research strategy – please explain why

Table 1. Administrative unit's strategies

For each category present up to 5 documents which are most relevant for the administrative unit. Please delete lines which are not in use.

Research strategy		
No.	Title	Link
1		
2		
3		
4		
5		
Outreach strategies		
No.	Title	Link
1		
2		
3		
4		
5		
Open science policy		
No.	Title	Link
1		
2		
3		
4		
5		

1.2 Organisation of research

a) Describe the organisation of research and innovation activities/projects at the administrative unit, including how responsibilities for research and other purposes (education, knowledge exchange, patient treatment, researcher training, outreach activities etc.) are distributed and delegated.

b) Describe how you work to maximise synergies between the different purposes of the administrative unit (education, knowledge exchange, patient treatment, researcher training, outreach activities etc.).

1.3 Research staff

Describe the profile of research personnel at the administrative unit in terms of position and gender. Institutions in the higher education sector should use the categories used in DBH, <https://dbh.hkdir.no/datainnhold/kodeverk/stillingskoder>.

RCN has commissioned reports from Statistics Norway (SSB) on personnel for the administrative units included in the evaluation. These reports will be made available to the units early November 2023.

Only a subset of the administrative units submitted to the evaluation is directly identifiable in the national statistics. Therefore, we ask all administrative units to provide data on their R&D personnel. Institutions that are directly identifiable in the national statistics (mainly higher education) are invited to use the figures provided in the report delivered by Statistics Norway. Please delete lines which are not in use.

Table 2. Research staff

	Position by category	No. of researcher per category	Share of women per category (%)	No. of researchers who are part of multiple (other) research groups at the admin unit	No. of temporary positions
No. of Personell by position	Position A (Fill in)				
	Position B (Fill in)				
	Position C (Fill in)				
	Position D (Fill in)				

1.4 Researcher careers opportunities

- a) Describe the structures and practices to support researcher careers and help early-career researchers to make their way into the profession.
- b) Describe how research time is distributed among staff including criteria for research leave/sabbaticals (forskningstermin/undervisningsfri).
- c) Describe research mobility options.

1.5 Research funding

- a) Describe the funding sources of the administrative unit. Indicate the administrative unit's total yearly budget and the share of the unit's budget dedicated to research.
- b) Give an overview of the administrative unit's competitive national and/or international grants last five years (2018-2022).

Table 3. R&D funding sources

Please indicate R&D funding sources for the administrative unit for the period 2018-2022 (average NOK per year, last five years).

For Higher Education Institutions: Share of basic grant (grunnbevilgning) used for R&D ¹ For Research Institutes and Health Trusts: Direct R&D funding from Ministries (per ministry)	
Name of ministry	NOK

National grants (bidragsinntekter) (NOK)	
From the ministries and underlying directorates	
From industry	
From public sector	
Other national grants	
Total National grants	
National contract research (oppdragsinntekter) ² (NOK)	
From the ministries and underlying directorates	
From industry	

¹ Shares may be calculated based on full time equivalents (FTE) allocated to research compared to total FTE in administrative unit

² For research institutes only research activities should be included from section 1.3 in the yearly reporting

From public sector	
Other national contract research	
Total contract research	
International grants (NOK)	
From the European Union	
From industry	
Other international grants	
Total international grants	
Funding related to public management (forvaltningsoppgaver) or (if applicable) funding related to special hospital tasks, if any	
Total funding related to public management/special hospital tasks	
Total all R&D budget items (except basic grant)	

1.6 Collaboration

Describe the administrative unit's policy towards national and international collaboration partners, the type of the collaborations the administrative unit have with the partners, how the collaboration is put to practice as well as cross-sectorial and interdisciplinary collaborations.

- Reflect of how successful the administrative unit has been in meeting its aspirations for collaborations
- Reflect on the importance of different types of collaboration for the administrative unit: National and international collaborations. Collaborations with different sectors, including public, private and third sector
- Reflect on the added value of these collaborations to the administrative unit and Norwegian research system

Table 4a. The main national collaborative constellations with the administrative unit

Please categorise the collaboration according to the most important national partner(s): 5-10 institutions in the period 2012-2022. Please delete lines which are not in use.

National collaborations

Collaboration with national institutions – 1 -10	
Name of main collaboration or collaborative project with the admin unit	
Name of partner institution(s)	
Sector of partner/institution(s)/sectors involved	
Impacts and relevance of the collaboration	

Table 4b. The main international collaborative constellations with the administrative unit

Please categorise the collaboration according to the most important international partner(s): 5-10 international institutions in the period 2012-2022. Please delete lines which are not in use.

International collaborations

Collaboration with international institutions – 1-10	
Name of main collaboration or collaborative project with the admin unit	
Name of partner institution(s)	
Sector of partner/institution(s)/sectors involved	

Impacts and relevance of the collaboration	
--	--

1.7 Open science policies

a) Describe the institutional policies, approaches, and activities to the Open Science areas which may include the following:

- Open access to publications
- Open access to research data and implementation of FAIR data principles
- Open-source software/tools
- Open access to educational resources
- Open peer review
- Citizen science and/or involvement of stakeholders / user groups
- Skills and training for Open Science

b) Describe the most important contributions and impact of the administrative unit's researchers towards the different Open Science areas cf. 1.7a above.

c) Describe the institutional policy regarding ownership of research data, data management, and confidentiality. Is the use of data management plans implemented at the administrative unit?

1.8 SWOT analysis for administrative units

Instructions: Please complete a SWOT analysis for your administrative unit. Reflect on what are the major internal Strengths and Weaknesses as well as external Threats and Opportunities for your research and innovation activities/projects and research environment. Assess what the present Strengths enable in the future and what kinds of Threats are related to the Weaknesses. Consider your scientific expertise and achievements, funding, facilities, organisation and management.

Internal	Strengths	Weaknesses
External	Opportunities	Threats

2. Research production, quality and integrity

2.1 Research quality and integrity

Please see the bibliometric analysis for the administrative unit developed by NIFU (available by the end of October, 2023).

a) Describe the scientific focus areas of the research conducted at the administrative unit, including the unit's contribution to these areas.

b) Describe the administrative unit's policy for research integrity, including preventative measures when integrity is at risk, or violated.

2.2 Research infrastructures

a) Participation in national infrastructure

Describe the most important participation in the national infrastructures listed in the Norwegian roadmap for research infrastructures (Norsk veikart for forskningsinfrastruktur) including as host institution(s).

Table 5. Participation in national infrastructure

Please present up to 5 participations in the national infrastructures listed in the Norwegian roadmap for research infrastructures (Norsk veikart for forskningsinfrastruktur) for each area that were the most important to your administrative unit.

Areas in roadmap	Name of research infrastructure	Period (from year to year)	Description	Link to website

b) Participation in international infrastructures

Describe the most important participation in the international infrastructures funded by the ministries (Norsk deltakelse i internasjonale forskningsorganisasjoner finansiert av departementene).

Table 6. Participation in international infrastructure

Please describe up to 5 participations in international infrastructures for each area that have been most important to your administrative unit.

Project	Name	Period (from year to year)	Description	Link to infrastructure

c) Participation in European (ESFRI) infrastructures

Describe the most important participation in European (ESFRI) infrastructures (Norske medlemskap i infrastruktur i ESFRI roadmap) including as host institution(s).

Table 7. Participation in infrastructures on the ESFRI Roadmap

Please give a description of up to 5 participations that have been most important to your administrative unit.

Social sciences and the humanities				
Name	ESFRI-project	Summary of participation	Period (from year to year)	Link

d) Access to research infrastructures

Describe access to relevant national and/or international research infrastructures for your researchers. Considering both physical and digital infrastructure.

e) FAIR- principles

Describe what is done at the unit to fulfil the FAIR-principles.

3. Diversity and equality

Describe the policy and practices to protect against any form of discrimination and to promote diversity in the administrative unit.

Table 8. Administrative unit policy against discrimination

Give a description of up to 5 documents that are the most relevant. If the administrative unit uses the strategies, policies, etc. of a larger institution, then these documents should be referred to. Please delete lines which are not in use.

No.	Name	Valid period	Link
1			

4.Relevance to institutional and sectorial purposes

4.1 Sector specific impact

Describe whether the administrative unit has activities aimed at achieving sector-specific objectives or focusing on contributing to the knowledge base in general. Describe activities connected to sector-specific objectives, the rationale for participation and achieved and/or expected impacts. Please refer to chapter 2.4 in the [evaluation protocol](#).

- Alternatively, describe whether the activities of the administrative unit are aimed at contribution to the knowledge base in general. Describe the rationale for this approach and the impacts of the unit's work to the knowledge base.

4.2 Research innovation and commercialisation

- a) Describe the administrative unit's practices for innovation and commercialisation.
- b) Describe the motivation among the research staff in doing innovation and commercialisation activities.
- c) Describe how innovation and commercialisation is supported at the administrative unit.

Table 9. Policies for innovation including IP policies, new patents, licenses, start-up/spin-off guidelines

Describe up to 5 documents of the administrative unit's policies for innovation, including IP policies, new patents, licenses, start-up/spin-off guidelines, etc., that are the most relevant. If the administrative unit uses the strategies, policies, etc. of a larger institution, then present these documents. Please delete lines which are not in use.

No.	Name	Valid period	Link
1			

Table 10. Administrative description of successful innovation and commercialisation results

Please describe up to 10 successful innovation and commercialisation results at your administrative unit in the period 2012-2022. Please delete lines which are not in use.

No.	Name of innovation and commercial results	Link	Description of successful innovation and commercialisation result.
1			

4.3 Higher education institutions

a) Reflect how research at the administrative unit contributes towards master and PhD-level education provision, at your institutions and beyond.

b) Describe the opportunities for master students to become involved in research activities at the administrative unit.

c) **ONLY** for administrative units responsible for the Cand.med. degree programme, cf. [Evaluation of the Professional programme in Medicine \(NOKUT\)](#).

- Reflect on how research at the administrative unit contributes towards the quality of the Cand.med. degree programme at your institutions and beyond.
- Describe the different opportunities for students on the Cand.med. degree programme to become involved in research activities at the administrative unit, and the extent to which students use those opportunities.

4.4 Research institutes

a) Describe how the research and innovation activities/projects at the administrative unit contribute to the knowledge base for policy development, sustainable development, and societal and industrial transformations more generally.

b) Describe the most important research activities with partners outside of research organisations.

4.5 Health trusts

a) Reflect on how the administrative unit's clinical research, innovation and commercialisation contribute towards development, assessment and implementation of new diagnostic methods, treatment, and healthcare technologies.

b) Reflect on how research at the unit contributes towards the quality of relevant education programme at your institutions or beyond.

c) Describe the different opportunities for students on relevant educational programmes to become involved in research activities at the administrative unit, and the extent to which students use those opportunities.

5.Relevance to society

Reflect on the administrative unit's contribution towards the Norwegian Long-term plan for research and higher education, societal challenges more widely, and the UN Sustainable Development Goals.

5.1 Impact cases

Please use the attached template for impact cases. Each impact case should be submitted as an attachment (pdf) to the self-assessment.

Impact case guidelines

Each case study should include sufficiently clear and detailed information to enable the evaluation committee to make judgements based on the information it contains, without making inferences, gathering additional material, following up references or relying on members' prior knowledge. References to other sources of information will be used for verification purposes only, not as a means for the evaluation committee to gather further information to inform judgements.

In this evaluation, impact is defined as an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia.

Timeframes

- The impact must have occurred between 2012 and 2022
- Some of the underpinning research should have been published in 2012 or later
- The administrative units are encouraged to prioritise recent cases

Page limit

Each completed case study template will be limited to **five pages** in length. Within the annotated template below, indicative guidance is provided about the expected maximum length limit of each section, but institutions will have flexibility to exceed these so long as the case study as a whole remains no longer than **five pages** (font Calibri, font size 11). Please write the text into the framed template under the sections 1–5 below. The guiding text that stands there now, can be deleted.

Maximum number of cases permitted per administrative unit

For up to 10 researchers: one case; for 10 to 30 researchers: two cases; for 30-50 researchers: three cases; for 50-100 researchers: four cases, and up to five cases for units exceeding 100 researchers.

Naming and numbering of cases

Please use the standardised short name for the administrative unit, and the case number for the unit (1,2,3, etc) in the headline of the case. Each case should be stored as a separate PDF-document with the file name: [Name of the institution and name of the administrative unit] [case number]

Publication of cases

RCN plans to publish all impact cases in a separate evaluation report. By submitting the case the head of the administrative units consents to the publication of the case. Please indicate below if a case may not be made public for reasons of confidentiality.

If relevant, describe any reason to keep this case confidential:

Please write the text here

[Name of the institution and name of the administrative unit] [case number]

Institution:
Administrative unit:
Title of case study:
Period when the underpinning research was undertaken:
Period when staff involved in the underpinning research were employed by the submitting institution:
Period when the impact occurred:

1. Summary of the impact (indicative maximum 100 words)

This section should briefly state what specific impact is being described in the case study.

2. Underpinning research (indicative maximum 500 words)

This section should outline the key research insights or findings that underpinned the impact, and provide details of what research was undertaken, when, and by whom. This research may be a body of work produced over a number of years or may be the output(s) of a particular project. References to specific research outputs that embody the research described in this section, and evidence of its quality, should be provided in the next section. Details of the following should be provided in this section:

- The nature of the research insights or findings which relate to the impact claimed in the case study.
- An outline of what the underpinning research produced by the submitted unit was (this may relate to one or more research outputs, projects or programmes).
- Dates of when it was carried out.
- Names of the key researchers and what positions they held at the administrative unit at the time of the research (where researchers joined or left the administrative unit during this time, these dates must also be stated).
- Any relevant key contextual information about this area of research.

3. References to the research (indicative maximum of six references)

This section should provide references to key outputs from the research described in the previous section, and evidence about the quality of the research. All forms of output cited as underpinning research will be considered equitably, with no distinction being made between the types of output referenced. Include the following details for each cited output:

- Author(s)
 - Title
 - Year of publication
 - Type of output and other relevant details required to identify the output (for example, DOI, journal title and issue)
 - Details to enable the panel to gain access to the output, if required (for example, a DOI or URL).
- All outputs cited in this section must be capable of being made available to panels. If they are not available in the public domain, the administrative unit must be able to provide them if requested by RCN or the evaluation secretariate.

4. Details of the impact (indicative maximum 750 words)

This section should provide a narrative, with supporting evidence, to explain:

- How the research underpinned (made a distinct and material contribution to) the impact;
- The nature and extent of the impact.

The following should be provided:

- A clear explanation of the process or means through which the research led to, underpinned or made a contribution to the impact (for example, how it was disseminated, how it came to influence users or beneficiaries, or how it came to be exploited, taken up or applied).

- Where the submitted administrative unit's research was part of a wider body of research that contributed to the impact (for example, where there has been research collaboration with other institutions), the case study should specify the particular contribution of the submitted administrative unit's research and acknowledge other key research contributions.
- Details of the beneficiaries – who or what community, constituency or organisation has benefitted, been affected or impacted on.
- Details of the nature of the impact – how they have benefitted, been affected or impacted on.
- Evidence or indicators of the extent of the impact described, as appropriate to the case being made.
- Dates of when these impacts occurred.

5. Sources to corroborate the impact (indicative maximum of ten references)

Institution	Administrative unit	Name of research group	Expert panel
UiB	Department of Clinical Science II	Bergen respiratory research group	Panel 3b-2
UiB	Department of Clinical Science II	Broegelmann Research Laboratory (BRL)	Panel 3b-3
UiB	Department of Clinical Science II	Endocrine Medicine (Endo)	Panel 3b-3
UiB	Department of Clinical Science II	Mohn Center for diabetes precision medicine	Panel 3b-2
UiB	Department of Clinical Science II	Oncology	Panel 3a-2
UiB	Department of Clinical Science II	Paediatric Follow-up Group	Panel 3a-1
UiB	Department of Clinical Science II	Pharmacology and pharmaceuticals group	Panel 1b
UiB	Department of Clinical Science II	Precision Oncology Group	Panel 3a-2
UiB	Department of Clinical Science II	Research group for infection and microbiology	Panel 3b-3

Scales for research group assessment

Use whole integers only – no fractions!

Organisational dimension

Score	Organisational environment
5	An organisational environment that is outstanding for supporting the production of excellent research.
4	An organisational environment that is very strong for supporting the production of excellent research.
3	An organisational environment that is adequate for supporting the production of excellent research.
2	An organisational environment that is modest for supporting the production of excellent research.
1	An organisational environment that is not supportive for the production of excellent research.

Quality dimension

The quality dimension consists of two judgements: 1) Research and publication quality, and 2) Research group's contribution. The first judgement is defined as follows:

Score	Research and publication quality	Supporting explanation
5	Quality that is outstanding in terms of originality, significance, and rigour.	The quality of the research is world leading in terms of quality, and is comparable to the best work internationally in the same area of research. The publications submitted provide evidence that the work of the group meets the highest international standards in terms of originality, significance, and rigour. Work at this level should be a key international reference in its area.
4	Quality that is internationally excellent in terms of originality, significance and rigour but which falls short of the highest standards of excellence.	The quality of the research is internationally excellent. The research is clearly of an international standard, with a very good level of quality in terms of originality, significance, and rigour. Work at this level can arouse significant interest in the international academic community, and international journals with the most rigorous standards of publication (irrespective of the place or language of publication) could publish work of this level.
3	Quality that is recognised internationally in terms of originality, significance and rigour.	The quality of the research is sufficient to achieve some international recognition. It would be perceived nationally as strong and may occasionally reach an internationally recognised level in terms of originality, significance and rigour. Internationally recognised journals could publish some work of this level.
2	Quality that meets the published definition of research for the purposes of this assessment.	The international academic community would deem the research to be nationally acceptable, but below world standards. Legitimate nationally recognised peer-reviewed journals could publish work of this level.
1	Quality that falls below the published definition of research for the purposes of this assessment ¹ .	The quality of the research is well below international level, and is unpublishable in legitimate peer-reviewed research journals.

¹ A publication has to meet all of the criteria below:

Societal impact dimension

The societal impact dimension is also composed of two judgements, defined as presented in the table below.

Score	Research group's societal contribution, taking into consideration the resources available to the group	Score	User involvement
5	The group has contributed extensively to economic, societal and/or cultural development in Norway and/or internationally.	5	Societal partner involvement is outstanding – partners have had an important role in all parts of the research process, from problem formulation to the publication and/or process or product innovation.
4	The group's contribution to economic, societal and/or cultural development in Norway and/or internationally is very considerable given what is expected from groups in the same research field.	4	Societal partners have very considerable involvement in all parts of the research process, from problem formulation to the publication and/or process or product innovation.
3	The group's contribution to economic, societal and/or cultural development in Norway and/or internationally is on par with what is expected from groups in the same research field.	3	Societal partners have considerable involvement in the research process, from problem formulation to the publication and/or process or product innovation.
2	The group's contribution to economic, societal and/or cultural development in Norway and/or internationally is modest given what is expected from groups in the same research field.	2	Societal partners have a modest part in the research process, from problem formulation to the publication and/or process or product innovation.
1	There is little documentation of contributions from the group to economic, societal and/or cultural development in Norway and/or internationally.	1	There is little documentation of societal partners' participation in the research process, from problem formulation to the publication and/or process or product innovation.

Methods and limitations

Methods

The evaluation is based on documentary evidence and online interviews with the representatives of Administrative Unit.

The documentary inputs to the evaluation were:

- Evaluation Protocol Evaluation of life sciences in Norway 2022-2023
- Administrative Unit's Terms of Reference
- Administrative Unit's self-assessment report
- Administrative Unit's impact cases
- Administrative Unit's research groups evaluation reports
- Panel reports from the Expert panels
- Bibliometric data (*NIFU Nordic Institute for Studies of innovation, research and education*)
- Personnel data (*Statistics Norway (SSB)*)
- Funding data – The Research Council's contribution to biosciences research (*RCN*)
- Extract from the Survey for academic staff and the Student Survey (*Norwegian Agency for Quality Assurance in Education (NOKUT)*)

After the documentary review, the Committee held a meeting and discussed an initial assessment against the assessment criteria and defined questions for the interview with the Administrative Unit. The Committee shared the interview questions with the Administrative Unit two weeks before the interview.

Following the documentary review, the Committee interviewed the Administrative Unit in an hour-long virtual meeting to fact-check the Committee's understanding and refine perceptions. The Administrative Unit presented answers to the Committee's questions and addressed other follow-up questions.

After the online interview, the Committee attended the final meeting to review the initial assessment in light of the interview and make any final adjustments.

A one-page summary of the Administrative Unit was developed based on the information from the self-assessment, the research group assessment, and the interview. The Administrative Unit had the opportunity to fact-check this summary. The Administrative Unit approved the summary without adjustments. ***(Adjust the text if the AU asked for corrections. Include the AU request and explain what adjustments were made).***

Limitations

(Choose one of the three options below and delete the others. Feel free to elaborate slightly if necessary. For example, if you choose option 3, explain the missing information. Note that the Committee can provide detailed feedback and suggestions on improving the evaluation in the Memorandum to the RCN. This section has to remain concise and only summarise whether the information was or was not sufficient.)

- (1) The Committee judged the information received through documentary inputs and the interview with the Administrative Unit sufficient to complete the evaluation.

- (2) The Committee judged that the Administrative Unit self-assessment report was insufficient to assess all evaluation criteria fully. However, the interview with the Administrative Unit filled gaps in the Committee's understanding, and the information was sufficient to complete the evaluation.
- (3) The Committee judged that the Administrative Unit's self-assessment report was insufficient to assess all evaluation criteria fully, and some information gaps remained after the interview with the Administrative Unit.

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Publikasjonen kan lastes ned fra
www.forskningsradet.no/publikasjoner

Design: [design]

Foto/ill. omslagsside: [fotokreditt]

ISBN 978-82-12-04107-3 (pdf)

