Forskningsrådet

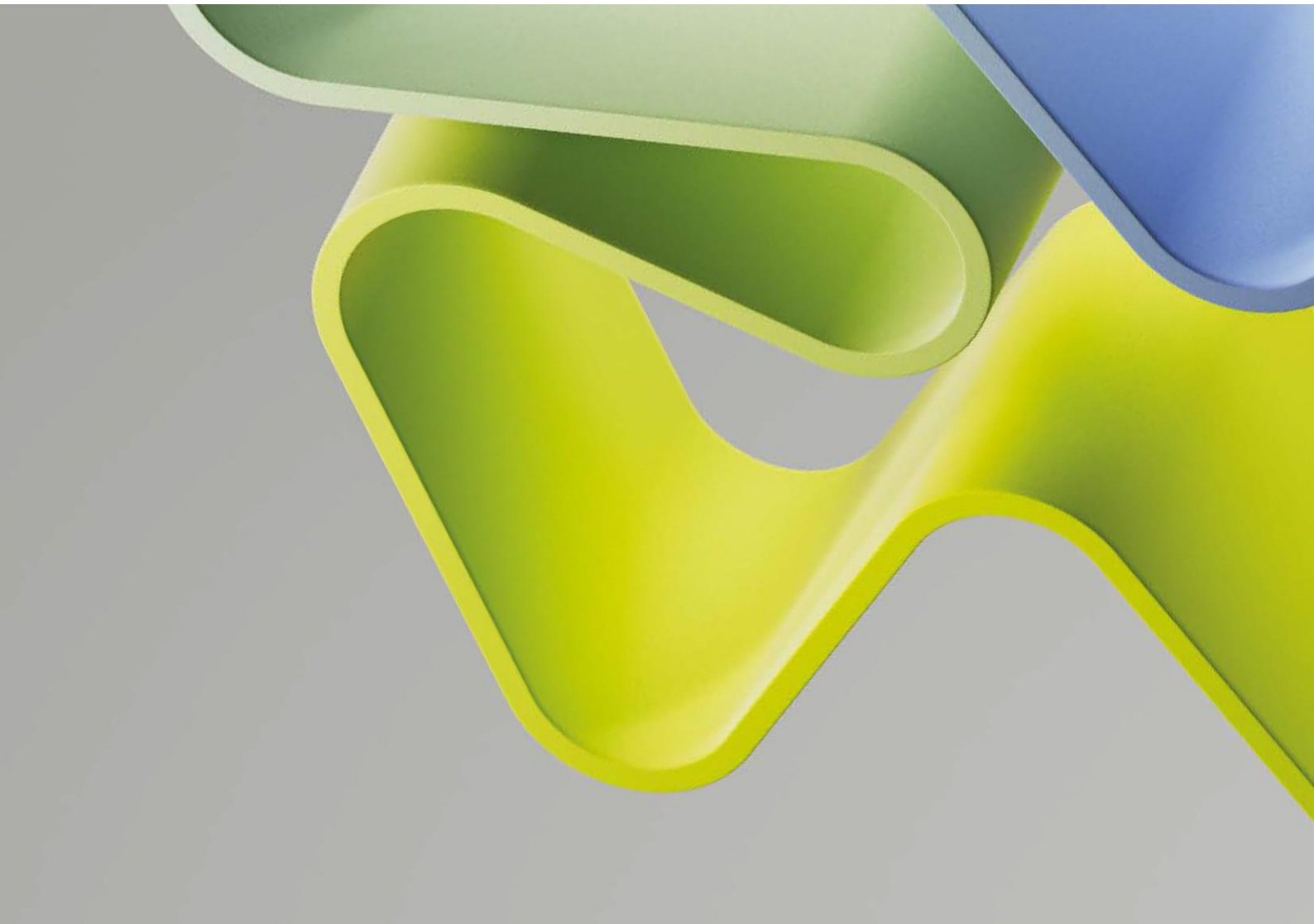
Evaluation of Life Sciences 2022-2024

Evaluation of medicine and health 2023-2024

Evaluation report

ADMIN UNIT: Department of Community Medicine
INSTITUTION: UiT Arctic University of Norway

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, NTNU
- Faculty of medicine and Health Sciences, 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 Community Medicine at UiT the Arctic University of Norway includes 32 professors (18 full time and 14 affiliated), 24 associate professors (12 full-time and 12 part time), 30 researchers, and 1 full time and 18 part-time lecturers/senior lecturers. Beyond this, they have 8 postdoctoral fellows and 34 PhD students with an office at the Department and 26 PhD students with an external office. It is important to note that of these positions, the following numbers are affiliated with the externally funded centres; 8 professors, 2 associate professors, 19 researchers and 5 PhD students. Women occupy over 50% of the Department's R&D roles, and 89% of the PhD students are females.

The Department of Community Medicine had per 2023 eight research groups of various sizes: Epidemiology of Chronic Diseases, Systems Epidemiology, Health Services Research, Medical Humanities, Occupational Health in the North, General Practice, Arctic Health Research, and Welfare Medicine. Of these, the three largest research groups—Epidemiology of Chronic Diseases, Systems Epidemiology, and Health Services Research met the requirements of the RCN and thus have been evaluated.

The department is not expected to have an independent strategy but should align with UiT and their faculty's strategy. These emphasise that UiT/The Faculty of Health Sciences should contribute to solve major regional, national, and international societal challenges in health, create leading academic environments for knowledge production and prioritise knowledge development and innovative dissemination that promotes diversity. The administrative unit's research focus is dedicated to advancing public health, reducing health disparities, and ensuring the accessibility of data from the four extensive population-based studies for research purposes. Other important strategic objectives have been attracting and recruiting young, talented researchers, diversify the responsibility for grant proposal development across a broader segment of their team, and to amplify the quantity of externally funded projects under their leadership to enhance the department's ability to secure funding.

The administrative unit's partners in national and international networks are primarily other research institutions, government bodies, private sector entities, and non-profit organisations. The administrative unit encourages broad research collaborations to facilitate cross-sectorial and interdisciplinary research. These partnerships are not only instrumental in producing high-impact publications and strengthening research grant proposals but also in enhancing research capabilities and contributing to the public good. These contribute to quality, visibility, societal impact, stimulation of new ideas and securing funding. Collaborations are operationalised through formal agreements, joint committees, and regular communication channels, ensuring mutual goals are met and resources are optimally utilised.

According to its self-assessment, in the future, the administrative unit plans to leverage their skilled researchers, international network, and access to longitudinal data to secure competitive grants. Their strengths in life-course epidemiology and healthy aging align with global trends. They aim to fund a chronic disease 'epidemiological laboratory' and make cohort data accessible for broader research, paving the way for a Centre of Excellence and EU projects. The Arctic's geopolitical focus offers unique research opportunities. Horizon Europe's emphasis on big data and Norway's AI research investment further expand their research scope. However, the Department faces challenges such as a heavy administrative

load, centralised project administration, recruitment difficulties, financial uncertainty, increasing bureaucratic demands, and competition from other universities' MPH programmes, which collectively impact operations and growth.

Overall evaluation

The Department of community medicine is well established and has been very successful especially within the broad field of epidemiology. The number of publications is impressive and there is a continuous positive trend in research output. There is good support when it comes to all the different phases of research. The organisation of the Department seems to be adequate, and we have not identified any need for changes in that perspective.

There has been a focus on recruiting young talented researchers and this has been quite successful. There are however challenges in respect of recruitment and retaining staff. To some part the location, very far from Oslo and other big cities, contribute to this. The administrative unit seems to be aware of these challenges.

The focus on epidemiology is both a strength and a weakness. They have been able to use data of large population-based cohorts in an innovative way. The level of competence within epidemiology is very high. That has also been a positive factor both in recruitment and in establishing international collaboration within the field of epidemiology.

This strong focus on epidemiology might also be a disadvantage. To have greater impact on society when it comes to guidelines regarding treatment, prevention or other relevant topics, it is necessary to support the findings from the current epidemiological studies with results from repeated clinical follow-up examination to conduct high quality longitudinal studies, but above all from randomised controlled studies. The committee understands the difficulties in recruiting enough participants, but this type of study can also be a collaboration between several research centres. Moreover, while the administrative unit hosts several other groups that do not have epidemiology as its main focus, it is not clear to the committee to what extend these other groups have valuable expertise that could contribute to the unit’s translational activities.

International collaboration is necessary to continue the successful research but also to achieve more international funding. The importance of international grants is not only financial. These grants constitute a stamp of quality that makes it easier to recruit outstanding researchers.

In the Terms of References, the Department describe different aspects that the committee has taken into account. The first aspect is that research should be important for the society and the researchers at the Department have largely succeeded in doing that.

Recommendations

The evaluation committee wishes to extend the following recommendations to the administrative unit.

- An important success factor is to increase the number of international grants. To help the individual researchers with this, research services with a clear focus on ensuring strong applications can be an appropriate measure. An important part of this process is to help identify strong collaboration partners. This can also benefit from active participation in international networks and increased opportunities for exchange with other research environments.
- Take active steps to facilitate the recruitment of international researchers. Such measures are intended to help the recruiting research group but also the researcher to be recruited.
- Ensure competence within certain areas that are crucial like bioinformatics and that these competencies are accessible to all relevant research groups. To achieve this more collaboration with other units within the university could be recommended e.g. Department of mathematics and statistics.
- If you decide to conduct more randomised controlled studies, and to involve other groups in translation of research findings with the aim to impact society, on your own or together with other research centres, you should create a structure for this. In this way, it is easier for the researchers who are to conduct this type of study. Moreover, internal collaboration with the different groups and disciplines can give access to a broader spectrum of (mixed) designs for translational studies and may give additional starting points for seeking international collaboration.

1. Strategy, resources and organisation of research

1.1 Research strategy

The administrative unit states in the self-assessment that they are not expected to have an independent strategy document but should align with the university and faculty strategy. In the university strategy for 2022-2030 it is stated that the university should: "*provide research-based education of high quality, perform artistic development and carry out research of the highest international quality standards in the entire range from basic to applied".* The latest version from the faculty strategy for the period 2018-2022 states: *"Helsefak aims to develop knowledge about basic mechanisms behind disease development, potential drug targets, disease prevention and control, marine resources as a basis for new drugs, and how social development, environment, and climate in the northern regions affect public health. They also aim to be internationally leading in selected areas, especially related to population surveys, cancer, and antibiotic resistance (AMR), and to further develop collaboration with Helse Nord and the University Hospital of North Norway".*

The department has within these strategies had the objective to attract and recruit young talented researchers. This has been quite successful in the last 10 years. This has been achieved by advertising positions for younger, promising researchers, but also by creating an attractive infrastructure for research and facilitating access to, for example, high-quality register data.

In the Terms of References (ToR), the Department of Community Medicine highlight four different aspects that the committee has taken into account. The first is knowledge production relevant for a diverse population and a society with increasing needs for disease prevention. The department has succeeded in publishing a high number of articles and several of these are very fulfilling these goals. The second aspect is Biomarker research. For many years, the department has been very successful in this area and now participates in several EU-funded projects in biomarker research. The third aspect is the impact of *Healthy Choices* research support. Healthy Choices is a project that *"aims to expand knowledge about how policy and interventions could improve population health and reduce health inequalities between groups, geographic areas and gender".* It received funding from the Research Council of Norway. In the project, they collaborate with several different actors from Norway but also France and Great Britain. Several articles have been published and they have a good way of disseminating the results. The fourth aspect is the research infrastructure. In this area, the clearest changes over the past 10 years are reported, where, for example, accessibility has been increased for all cohorts. This applies to researchers both within the department and external partners.

The committee's evaluation

The department has succeeded in recruiting young, talented researchers. The Department has chosen to focus on epidemiology and has built a strong environment with several cohorts that has yielded a lot of high-quality research. There is strong administrative support to help the researchers especially within the field of epidemiology. It may also be easier to, for example, complete doctoral studies within the prescribed time frame with epidemiological studies.

The committee's recommendations

- The department should continue to focus on epidemiological studies where they have very good competence. Other forms of study should be seen as a complement.
- To better be able to contribute to *"knowledge production relevant for a diverse population and a society with increasing needs for disease prevention"*, the committee recommends that the research groups do more studies that can directly influence

guidelines for prevention, diagnosis and treatment of disease states. For this purpose, randomised controlled studies would be required, as would other designs (qualitative, mixed methods, action oriented).

- Ensure competence within certain areas that are crucial like bioinformatics and that these competencies are accessible to all relevant research groups. To achieve this more collaboration with other units within the university could be recommended e.g. with the department of mathematics and statistics.
- One way to increase the possibility of EU grants regarding various projects is of course to have several cooperation partners within different EU countries. This applies not least to the project *Healthy Choices* where at the moment there is only one EU partner according to what the committee has understood. An increased number of EU partners and preferably from different geographical parts of the EU could increase the possibility of EU grants. The department may consider investing in identifying and connecting to European partners for this purpose. Otherwise, the extensive international collaboration provides a good starting point for this.

1.2 Organisation of research

The Department of Community Medicine comprises of eight research groups. These are Epidemiology and Chronic diseases, Systems Epidemiology, Health Services Research, Medical Humanities, Occupational Health in the north, General Practice, Global and Environmental Health and Welfare Medicine. One group was terminated in 2024. The group of Global and Environmental Health was established in 2024. Two groups Occupational Health in the north and Welfare Medicine has been established since the last evaluation.

The size of the groups differs very much. The three largest are Epidemiology of Chronic Diseases, Systems Epidemiology, and Health Services Research. The department also hosts four research centres that are funded externally. These are the National Centre in Complementary and Alternative Medicine (NAFKAM), National Centre of Rural Medicine (NSDM), Centre for Sami Health Research (SSHF), and the General Practice Research Unit. Their obligation is to develop professional knowledge in their respective fields and to conduct research within these areas. As the committee understands the four centres are hosted but not managed by the department.

In total there are around 230 employees. The department's research staff includes 32 professors (18 full time and 14 affiliated), 24 associate professors (12 full-time and 12 part time), 30 researchers, and 1 full time and 18 part-time lecturers/senior lecturers. Beyond this, there are 8 postdoctoral fellows and 34 PhD students with an office at the department and 26 PhD students with an external office. The research staff includes expertise in medicine, nursing, nutrition, statistics, physiotherapy, health economics, chemistry, biology, philosophy, sociology and anthropology.

Women occupy over 50% of R&D roles, and 89% of the PhD students are females. There are good opportunities for international exchange (e.g. sabbatical) for research personnel. While recruitment of research talent is sometimes a challenge, also due to the university’s geographical location, the universities reputation helps. Nevertheless, special efforts are made to attract and retain researchers and their families.

The committee’s evaluation

The research committee finds that the main research field of epidemiology is also reflected in which research groups are part of the department. The contribution of the other research groups and disciplines to the administrative unit’s overall research is not entirely clear, nor how collaboration between the research groups is organised or facilitated and to what extend each of the groups are involved in priority setting and decision making.

The way in which mobility is facilitated is very good. It is important for the development of the individual employees but also for networking and creating collaboration opportunities for the department. Support for the (new) researchers and their families is seen as important and is provided, although mostly on a rather informal basis.

The committee's recommendations

- It is important to maintain (and formalise) the support system for researchers (and their families) and continue the possibilities for mobility and to encourage its use to build networks for international research collaboration.
- The role of the four research centres should be clarified and perhaps to a greater degree stimulate collaborations with the research groups. Considering the growing importance of transdisciplinary research, a clear strategy to enhance collaboration between the different groups/disciplines may be put in place.

1.3 Research funding

The department has a variety of funding sources. The external funding accounts for approximately 50% of the total budget. Six large projects are funded from the Research Council of Norway. Projects are also funded from several other Norwegian funds. Research groups from the department partnered six EU-funded projects 2018-2022 totalling 1.140 MEUR.

The committee's evaluation

The researchers have been quite successful in receiving grants within Norway including from the highly competitive Research Council of Norway. There are relatively few grants from international funds and the amounts have also been smaller.

The committee´s recommendations

- The committee suggests that greater focus be placed on increasing international grants in general and EU grants in particular. Here, the department has the opportunity to help the individual researchers with applications. They can coordinate and perhaps create fewer but stronger applications and (further) invest in connecting to existing and new international partners for this purpose. Furthermore, the department can have a role early in the application process, or on its own long before it starts, to mediate collaborative contacts with other strong research environments, especially with different EU countries.

1.4 Use of infrastructures

The department participates or have participated in four national research infrastructures: Biobank Norway, the Norwegian Primary Care Network, the National Health Analysis Platform, and Health Registries for research. The Department is the host of the Norwegian EPIC-centre (EPIC: European Prospective Investigation into Cancer and Nutrition) and thereby part of The International Agency for Research on Cancer (IARC). Through Biobank Norway, UiT is member of the European biobank research infrastructure, Biobanks and BioMolecular Research Infrastructure that is part of the ESFRI roadmap. UiT has an educational webpage about aspects of FAIR data storage. Regular courses are offered about the FAIR principles. It is mandatory for PhD students to have a data management plan. The department has ensured that all parts of FAIR (Findable, Accessibility, Interoperability and Reusability) can be maintained for databases within the department.

The committee's evaluation

The participation in different infrastructures is well described. There may be other suitable infrastructures within the EU or globally, but the Committee has not identified any such infrastructure at this time.

The committee´s recommendations

- The Committee has no recommendations for direct proposals for changes. It is important to monitor the environment to know if there are other infrastructures that you should be part of.

1.5 Collaboration

The department encourages active engagement with a diverse range of partners, including academic institutions, government bodies, private sector entities, and non-profit organisations, to facilitate cross-sectorial and interdisciplinary research. The department describes the collaboration with ten different Norwegian institutions. Among these are several universities, a few registry institutions, but also one hospital and one municipality (both in Tromsø). There are also strong international networks with other research institutions and government bodies. It is described that the collaborations involving government bodies enhances the societal impact of research. Among foreign universities, there are universities in various EU countries but also in Russia, Australia, Canada and Great Britain.

The committee's evaluation

The committee finds that the collaboration is extensive both within Norway and with international partners. The described international collaborations should provide good opportunities for fruitful collaborations and hopefully also for joint successful grant applications. The importance of national collaborations should not be underestimated either. Such collaborations naturally improve the possibilities for cutting-edge research but also for writing grant applications of the highest quality.

The committee´s recommendations

- If one starts from a desire to increase the number of large international grants, it is important for the institution to stimulate and facilitate this type of collaboration. This can be done by mediating contacts, but also e.g. by reducing bureaucratic obstacles that can sometimes hinder international collaborations.
- The committee particularly emphasises the possibility of different forms of EU grants and thus the importance of cooperation with different universities within the EU and preferably within different geographical parts of the EU. Examples of measures could be a research service unit within the department, focused specifically on international grants.
- Other measures could be to specifically stimulate mobility with different EU countries. With increased personal networks among the researchers, it will be easier to bring about collaborations around international grant applications.

1.6 Research staff

The department's research staff includes 32 professors (18 full time and 14 affiliated), 24 associate professors (12 full-time and 12 part time), 30 researchers, and 1 full time and 18 part-time lecturers/senior lecturers. Beyond this, there are 8 postdoctoral fellows and 34 PhD students with an office at the Department and 26 PhD students with an external office. The research staff includes expertise in medicine, nursing, nutrition, statistics, physiotherapy, health economics, chemistry, biology, philosophy, sociology and anthropology. Women occupy over 50% of all R&D roles, and 89% of the PhD students are females. There are good opportunities for international exchange for research personnel. This applies not only to permanent employees, but also to doctoral students and postdocs.

The committee's evaluation

There is a gender imbalance where men make up only 11% of all doctoral students. There are rather few PhD-students, less than one per professor/associative professor/senior lecturers. From a European perspective it is rather low.

The committee´s recommendations

- The committee suggests an increase in the number of PhD-students. If possible, try to increase the proportion of men among PhD-students.

1.7 Open Science

UiT's goal is to make all academic publications accessible in open access journals or repositories. They actively encourage open access publication and more than 90% of the publications are now open access.

The committee's evaluation

The number of publications in open access journals has increased which is expected since the proportion of the journals that are open access has increased. The Department has been successful in this matter and less than 10% of articles are not Open Access. This is very good. All data cannot be openly accessed by everyone (A in Accessibility) due to “regulatory and data privacy constraints”. There are different levels of open access to research data, e.g. Selective data sharing and Conditional data sharing. The reason for what category is not entirely clear.

The committee´s recommendations

- Regarding open access to data, it would be good to have clear guidelines on what is required for this to be possible. In cases where this is not possible, what restrictions are necessary. Otherwise, there is a risk that the individual researchers will not release the data for safety's sake.

2. Research production, quality and integrity

Introduction

The scientific focus areas are studies using the population-based cohorts and biobanks, as well as national registries, with a particular emphasis on health registries. The research is carried out in many different areas. Most often it is in the form of epidemiological studies, but other types of studies are also carried out. At the university, they are committed to upholding the highest standards of research integrity, guided by national and international ethical norms as outlined by the Norwegian National Research Ethics Committees. The researchers and students are expected to be well-versed in these norms and to apply them diligently within their respective fields.

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: Epidemiology of Chronic disease

The research group seems to have a very good composition for achieving its goal, but a high turnover of leaders and recent retirements of senior scientific staff might pose a challenge. The access to important research infrastructure like panel data from the Tromsø study and linked biobank information, creates stability and support the long-term goals of the group. Also, the benchmark statement reflects traditional items of high research quality, but they are rather general in nature which makes it difficult to evaluate the degree of achievement. The low level of international funding might reflect somewhat limited opportunities for international mobility. The host institution seems to provide very adequate support in terms of basic funding, administrative support and by facilitating access to important infrastructure. The research group has been successful in attracting external funding from Norwegian sources. The research group seems to have used the funding in a very effective way for achieving their research goals, during the past ten years. The research group lives up to high expectations regarding its relevance to the host institution. They have been engaged in several international collaborations but have not taken on leading roles in those. There is little information about user involvement.

Research group: Health Services Research

This is a research group with a dynamic strategy for obtaining funding, leading projects and collaborating on projects, including European ones. It has a real strategy of international partnerships. That is particularly relevant in view of the wide range of research topics covered and the relatively low critical mass of the group. The investment in junior researchers (2 PhD graduates/year on average) is outstanding. The research group conducts high-quality research with thematic and methodological contributions published in top journals. The group's transfer activity is remarkable, thanks to its participation in policymaking, and the large number of communications to stakeholders, including the general public. However, the level of user involvement in the research process is not specified.

Research Group: System Epidemiology

The research group's organisation and support and its composition seem very adequate. The strategy also seems very well developed. The benchmarks could be developed a bit further to become more useful for evaluation. The group is to high degree involved with education and supervision of student on advanced and research level, as well as of postdocs. The international collaboration of the group could be further developed along the lines of their strategy. The support from the host organisation seems fully adequate. The group has been successful in attracting external funding, from RCN and lately form international sources. Especially the latter could probably be increased. The research group seems to contribute very well to the goals of the host institution. The research of the group is in certain areas at the international forefront and has contributed to move important knowledge forward. Multidisciplinary approaches have played an important role as well as national as well as international collaboration. Access to unique data as well as crucial competence have contributed to develop collaborative research. The listed user-oriented publications have most likely contributed to an increased knowledge regarding some causes of NCDs. However, the transfer of knowledge has been according to rather traditional means and very little of evidence for involving non-academic stakeholders in the research process is found in the self-assessment document.

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

The evaluation of the three research groups is generally very positive. There are successful research groups with many publications. A common recommendation is increased international cooperation, not least to be able to receive international funding.

3. Diversity and equality

The department follows the university’s action plan for equality, diversity and inclusion. The university's action plan targets gender diversity and inclusion, recognising the need for clear goals, responsibility, and knowledge development in these areas. The department maintains a zero-tolerance policy towards harassment and discrimination based on ethnicity, nationality, language, religion, ability, sexual orientation, or gender identity. The university has an action plan for equality, diversity and inclusion. There is a guide for preventing sexual harassment. Since 2020, the university has established a specialised recruitment unit with expert knowledge to support the Departments and ensure adherence to regulations and guidelines, a function previously managed by the department until that year.

The committee's evaluation

The university has taken measures to increase knowledge about equality, discrimination, sexual harassment, etc. There is a very clear zero-tolerance policy towards harassment and discrimination. However, as pointed out in section 1.6 there is some concern about the current gender balance and action plan might be considered.

The committee´s recommendations

- The action plan adopted by the university is good. Going forward, it is important that staff are regularly reminded of this action plan and, not least, that new employees as well as new managers receive an extra review of the action plan.

4. Relevance to institutional and sectorial purposes

Both research and teaching at the department is conducted at a high international level. The department conducts research and teaching of great importance to society. They participate in the teaching of future personnel in healthcare. Researchers actively participate in groups where guidelines for healthcare are discussed based on science. They thus contribute to the development of future guidelines for the prevention, investigation and treatment of disease. Innovation is encouraged. Very clear examples of how commercialisation is stimulated have not been presented.

The committee's evaluation

The committee considers that the department carries out teaching and research that is highly relevant to the surrounding society. The department has a positive attitude in general towards innovations and commercialisation as well as cooperation with external parties such as companies. Examples of such collaborations have not been presented. Such examples could also constitute encouraging good examples for other employees at the institution.

The committee´s recommendations

- Highlight collaboration with other parts of society on the institution's website and in all kinds of presentations. It would increase knowledge of that type of collaboration both externally and within the institution.
- Design a strategy to facilitate the development and commercialisation of innovations. Review if there is a need for a special support function within the department or at the faculty level.

4.1 Higher education institutions

The department is committed to dynamic teaching and supervision. Master's theses are often designed around the different research group's focus areas, utilising data from cohorts and surveys. The department has been active in by coordinating and participating in national and international research schools. These are research schools in population-based epidemiology, Nutrition, General practice, and Global health.

According to Norwegian law, the department is not allowed to engage students in voluntary research activities unless it is part of their educational degree. Still, master students at the Faculty of Health Sciences have numerous opportunities to become involved in research. Each year they offer a large number of research topics as master's degree projects for Cand.med. students, master students in Public Health and master students in Clinical Nutrition. The students have the chance to take part in all steps of a research project. “Scientific Competence” is part of the curriculum throughout the medical programme. There is a progression in the teaching of all years of study in scientific competence.

The committee's evaluation

The committee’s evaluation is that there are good possibilities for students to become involved in research. This applies to students on the various programmes. There is a clear path to progress from advanced level education to doctoral studies.

The committee´s recommendations

- The Committee has no specific recommendations for improvement. On the contrary, it is clear that the department is purposeful when it comes to providing good opportunities for education linked to research and to continue with doctoral studies. The committee's recommendation is to continue on the path taken.

5. Relevance to society

Introduction

There are numerous examples of how research results are fed back into the surrounding society and the results can be used immediately. For example, research based on population-based health surveys contribute with monitoring of temporal trends of risk factors and disease frequencies in Norway, which benefit the Norwegian as well as the global society. In the cases present several very clear examples of how the research is relevant to society.

- This applies to controllable risk factors for non-communicable diseases. As a group, these diseases are common and affect both morbidity and mortality. With the new knowledge, evidence-based guidelines and recommendations can be delivered.
- In studies on atrial fibrillation, results have been obtained that influence clinical guidelines and have formed the basis of clinical intervention studies.
- In the work to create measuring methods for health outcomes, new knowledge has been contributed that allows studies to be compared and added together so that decision makers can have a more evidence-based basis for decisions.
- The scientific collaboration with the introduction of birth registers in Georgia has been able to contribute to improved maternal and child health care in Georgia. It has also resulted in joint doctoral students and scientific cooperation between Norway and Georgia.
- Studies on persistent organic pollutants have, for example, in addition to great media interest, led to new guidelines for several substances in consumer products.

Additionally, researchers from the department are frequently called upon to serve on expert committees, providing guidance to the government, municipalities, legal entities, and the public on matters related to health, nutrition, and healthcare spending. Several of the researchers have also contributed their expertise to the research portfolio boards of the Norwegian Research Council.

The committee`s comments on impact case 1: Disease prevention through surveillance and analyses of non-communicable diseases and modifiable risk factors in population-based cohorts

The research on non-communicable diseases (NCDs) and modifiable risk factors, derived from extensive population-based cohorts, informs stakeholders and shapes public health policies, national guidelines, and public resources. This work not only enhances public health but also fortifies the national understanding of NCDs and their preventable risks. The target NCD risk reduction conducted at the Department of Community Medicine (ISM) in collaboration with national and international partners, drawing primarily on data from the Tromsø Study and the Norwegian Women and Cancer (NOWAC) Study. Key modifiable risk factors following the Norwegian Institute of Public Health's guidelines have been categorised. This research, part of diverse ISM projects, including postdoctoral and PhD work, has notably influenced public health policies on tobacco use, diet, blood pressure, and overall NCD risk management.

The department's comprehensive research into NCDs and associated risk factors has yielded insights into incidence, trends, and the combined impact of modifiable risk factors on NCDs, highlighting opportunities for prevention. Leveraging the extensive longitudinal population-based studies at the department, the research has informed public health through accessible science communication, shaping guidelines and recommendations, influencing public health policy, driving technological innovation such as the development of self-help and monitoring applications, and contributing to expert panels at both national and international levels.

The committee`s comments on impact case 2 - Unravelling atrial fibrillation: Sex-specific insights and proactive prevention strategies from the Tromsø Study

This research in the Epidemiology of Chronic Diseases research group has transformed the understanding of atrial fibrillation (AF). Analysing Tromsø Study data, the team identified sex-specific AF risk factors, emphasising blood pressure in women and body mass index (BMI) in men. These findings challenge current treatment norms and drive personalised prevention strategies. Internationally recognised, the research sparks discussions on sex-specific blood pressure targets, influencing clinical guidelines. Crucially, it paves the way for ongoing AF intervention trials (e.g., NEXAF) and collaborative projects in screening (e.g., AFFECT-EU) and genetics (GENAF), shaping the trajectory of AF research and clinical approaches.

The underpinning research conducted at ISM in collaboration with local (Department of Clinical Medicine, School of Sport Sciences, and Department of Psychology at UiT), national (University of Bergen, University of Oslo, and Baerum Hospital) and international partners (Monash University, Australia; Sahlgrenska Academy - University of Gothenburg, Sweden; University of Groningen, Netherlands; University Heart and Vascular Centre Hamburg, Germany) focused on unravelling the natural history of AF through extensive analysis of the large population based longitudinal Tromsø Study data. Spanning several years, this research sought to comprehensively investigate AF incidence trends, risk factors including genetic risk factors, and their impact on the population's health focusing on sex differences and AF subtypes.

The epidemiological research on AF in the Tromsø Study has contributed to new knowledge regarding AF incidence, risk factors and AF subtypes in women and men contributing to the understanding of AF natural history, pathophysiology and risk stratification. The findings have been far-reaching, shaping clinical practice and improving patient care both nationally and internationally, influencing guidelines, and fostering collaborative initiatives. An impactful outcome of the research was evident in the 2016 European Guidelines on cardiovascular disease prevention in clinical practice, where one of the departments professors was invited to provide insights on AF. Subsequently, the group has contributed to other guidelines and position papers addressing AF prevention.

The committee`s comments on impact case 3 - Measuring health outcomes for priority setting decisions

Decisions on healthcare resources allocation and priority setting are increasingly being based on cost-effectiveness analysis, whereby effectiveness is measured in terms of gained QALYs (quality-adjusted life years). However, immense challenges are involved in this generic health measure. This research has made important methodological impacts on measuring health-related quality of life, and how to account for equity. This research has impacted Norwegian guidelines for priority setting and health technology assessment, as well as the use of patient-reported measures in clinical quality registries and clinical trials. By including quality of life in population health studies, new insights on health inequalities are provided.

In collaboration with the Knowledge Center (now part of the Norwegian Institute of Public Health) the research group initiated a comprehensive review on how QALYs had been measured in all cost-effectiveness analyses published in 2010 (Wisløff et al 2012). They identified six generic health state utility (HSU) instruments, with EQ-5D holding a strongly dominant position. Following this work, a professor at the department had a pivotal role in designing the largest ever research project on comparing these generic HSU-instruments and their relationships with some widely used disease specific instruments. This Multi-Instrument-Comparison project (‘MIC-Study’) had surveys in six countries on a total of 8,000 subjects (mostly people living with prevalent chronic conditions).

The extensive work in this case study has been motivated by the need for a generic measure of health-related quality of life, that is methodologically convincing and relevant across different settings, be that health technology assessments (HTA), clinical quality registries or population health surveys.

For healthcare decisions on resource allocation and priority setting, there is a pressing need for applying a commensurable measure of health outcomes. Given the principal health policy objective of maximising health for all, decision makers must be able to compare competing technologies in terms of how much health improvement each programme claim to produce. For example, how much QALY-gains can be expected by increasing the capacity in low back surgery, as compared to spending the same slice of the budget to increase the capacity to treat depression? In Norway, decisions made by The Decision Forum on whether to prescribe new medical products are based on HTAs, in which the estimation of QALY-gains is a most challenging variable.

The committee`s comments on impact case 4 - Improving maternal and child health in Georgia through health registries and surveillance

The Department of Community Medicine (ISM) collaborated with the United Nations International Children's Emergency Fund (UNICEF) to design and implement the Georgian Birth Registry (GBR) in 2016, becoming the nation's exclusive source of official birth data. Since it’s initiation, ISM has been involved in quality control of the registry, research projects addressing maternal and child health, and supervision of local PhD students utilising the registry. This has significantly enhanced Georgia's epidemiological competence, leading to local research addressing high caesarean section rates and revealing system-related shortcomings. The GBR not only offers legal identity documentation from birth but also facilitates public health initiatives and disease tracking. The registry's integration into a broader digital health platform fosters synergy with initiatives such as hepatitis C, COVID registries and lead surveillance, promoting comprehensive healthcare efforts in Georgia.

Historically, several important associations between exposures and outcomes that might affect pregnancy and childbirth have been established through systematic and meticulous analyses of medical birth registry data. For example, associations between advanced maternal age and birth defects, spinal birth defects and vitamin use and the importance of adequate and timely antenatal care to avoid adverse outcomes. To combat seemingly high perinatal mortality, inflated caesarean section rates and frequent maternal morbidity, Georgia decided to create their own birth registry. In September 2014, the Department of community medicine (ISM) was contacted by UNICEF with a request to plan, create and implement a national digital birth registry for the republic of Georgia. Initially, this was commissioned research where one researcher from ISM was hired to complete the assignment in 24 months. Thirteen months of planning and creating the electronic modules, 4-5 months of implementation and 6-7 months of quality assurance and quality control.

The former Minister of Health and former Director of the NCDC has been involved in these projects and it was made clear that competence building in epidemiology and statistics was crucial for Georgia to handle all the new collected digital data. The first project to accommodate this was the Georgian Norwegian Collaborative in Public Health, funded by The Norwegian Directorate for Higher Education and Skills (HKDir) (2015-2019), it encompassed both Master and PhD levels. Besides the competence building, it was important to keep the activities and students in Georgia to avoid brain drain. Today, two of the PhD students are employed both at NCDC and the University of Georgia, three more are currently employed as 4-year PhD students with 25% time at NCDC. The end goal is that all stay on to contribute locally.

The committee`s comments on impact case 5 - Investigations of human exposure to environmental contaminants

The research in the field of human biomonitoring of POPs using novel designs and unique samples from the Department's cohorts has been used to shape international regulations of contaminants and evaluate food safety. The researchers have also co-authored reports through the Arctic Monitoring and Assessment Programme, which supports regulatory bodies. They have contributed to efforts to protect human and environmental health by demonstrating the dynamic nature of human exposure to POPs, demonstrated exposures of emerging concern and the effectiveness of regulatory measures in reducing this exposure. Finally, they have been used as experts in several national media with large audiences.

They provide examples of the underpinning research on environmental contaminants conducted at the Department of Community Medicine (ISM) in collaboration with national and international partners, drawing primarily on data from the Tromsø Study, the Norwegian Women and Cancer (NOWAC) Study and the MISA study. The research has focused on assessing emerging pollutants including non-persistent compounds in humans and describing changes in human exposure to persistent organic pollutants (POPs) over time. The work was initiated by an associate professor at the department and performed by PhD students and postdoctoral fellows under his supervision. These projects represent a collaboration between the Department of Community Medicine and the Norwegian Institute for Air Research (NILU), the Fram Centre, Tromsø, Norway, but has also involved the University Hospital of Northern Norway, Tromsø, Norway, University of Laval, Quebec, Canada, Institut national de santé publique du Québec (INSPQ), Quebec, Canada and the Arctic Monitoring and Assessment Programme (AMAP).

The extensive use of parabens in cosmetic products has been massively debated because of their endocrine disrupting properties. Of major concern has been exposure of newborns and babies below the age of six months. The number of epidemiological studies assessing human exposure to parabens have been limited and this study was one of the first larger studies from a general population. The study was important when assessing likely exposure scenarios on humans, and because of this it was extensively referenced in the first assessment of the overall risk for all parabens and later in the assessment of propylparabens. The research has contributed to establishing new guidelines for several parabens in consumer products. In the same period, they were actively involved in public dissemination of the results in several media, also national television. More recently, the studies of precursor compounds to PFAS exposures have represented a similar potential future impact parallel to the past efforts on parabens. The results are so far communicated from the EU project in a podcast series.

Appendices

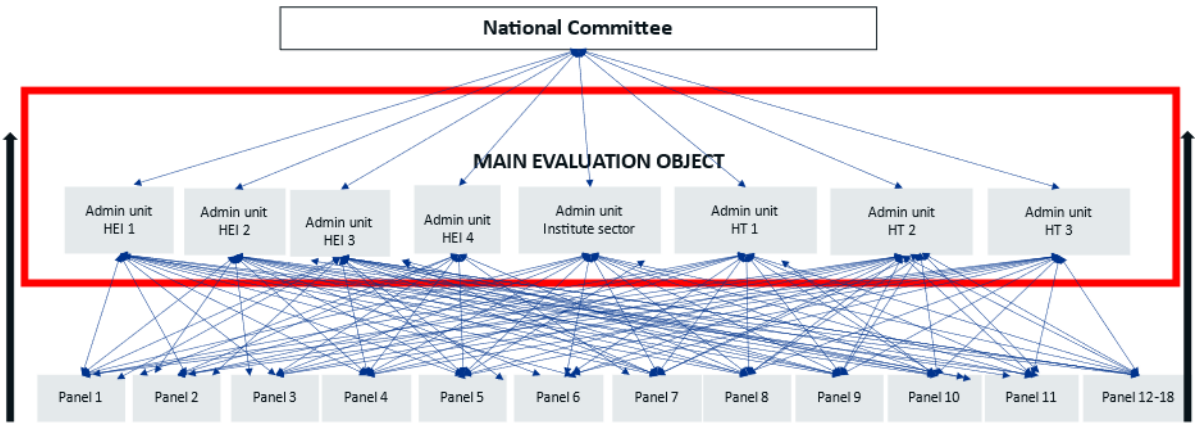
Evaluation of Medicine and health 2023-2024

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 (forskningsradet.no)]

Forskningsrådet

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 (hovedevalueringsobjektet 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.

Forskningsrådet

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

Digitalt informasjonsmøte 15. mai 2023, kl. 14.00-15.00.
Forskningsrådet 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
Forskningsrådet vil opprette en nettside på www.forskningsradet.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@forskningsradet.no eller mobil 40 92 22 60.

Med vennlig hilsen
Norges forskningsråd

Ole Johan Borge	Hilde G. Nielsen
avdelingsdirektør	spesialrådgiver
Helse	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

The Research Council of Norway

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

The Research Council of Norway
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The report can be downloaded at
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Oslo, 5 April 2022

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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.

Administrative unit	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.
Research group	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 Reference[1] 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 colleges[2]

- 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 sector[3] 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 (RHFs) in Norway. They are responsible for the specialist health service in their respective regions. The RHFs 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 (HFs), 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 mains 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.

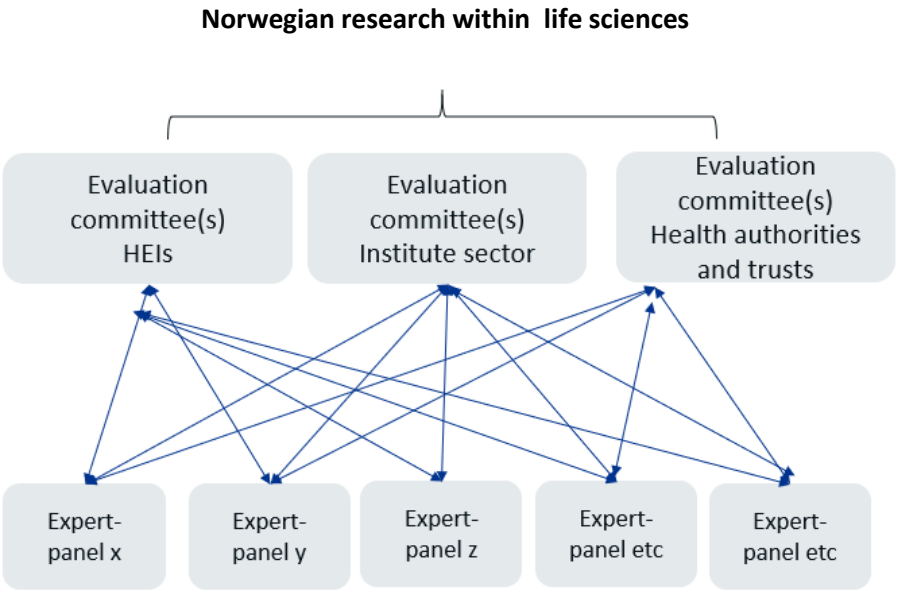

Figure 1. Evaluation committees and expert panels

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	*Data related to:* *Benchmark defined by administrative unit*	*Data related to:* *Strategic goals and specific tasks of the admin. unit*

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):_____

Content

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 from. **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
UiT	Department of Community Medicine	Epidemiology of Chronic diseases	Panel 4e
UiT	Department of Community Medicine	Health Services Research	Panel 4c
UiT	Department of Community Medicine	System Epidemiology	Panel 4e

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 leadin**g 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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