Forskningsrådet

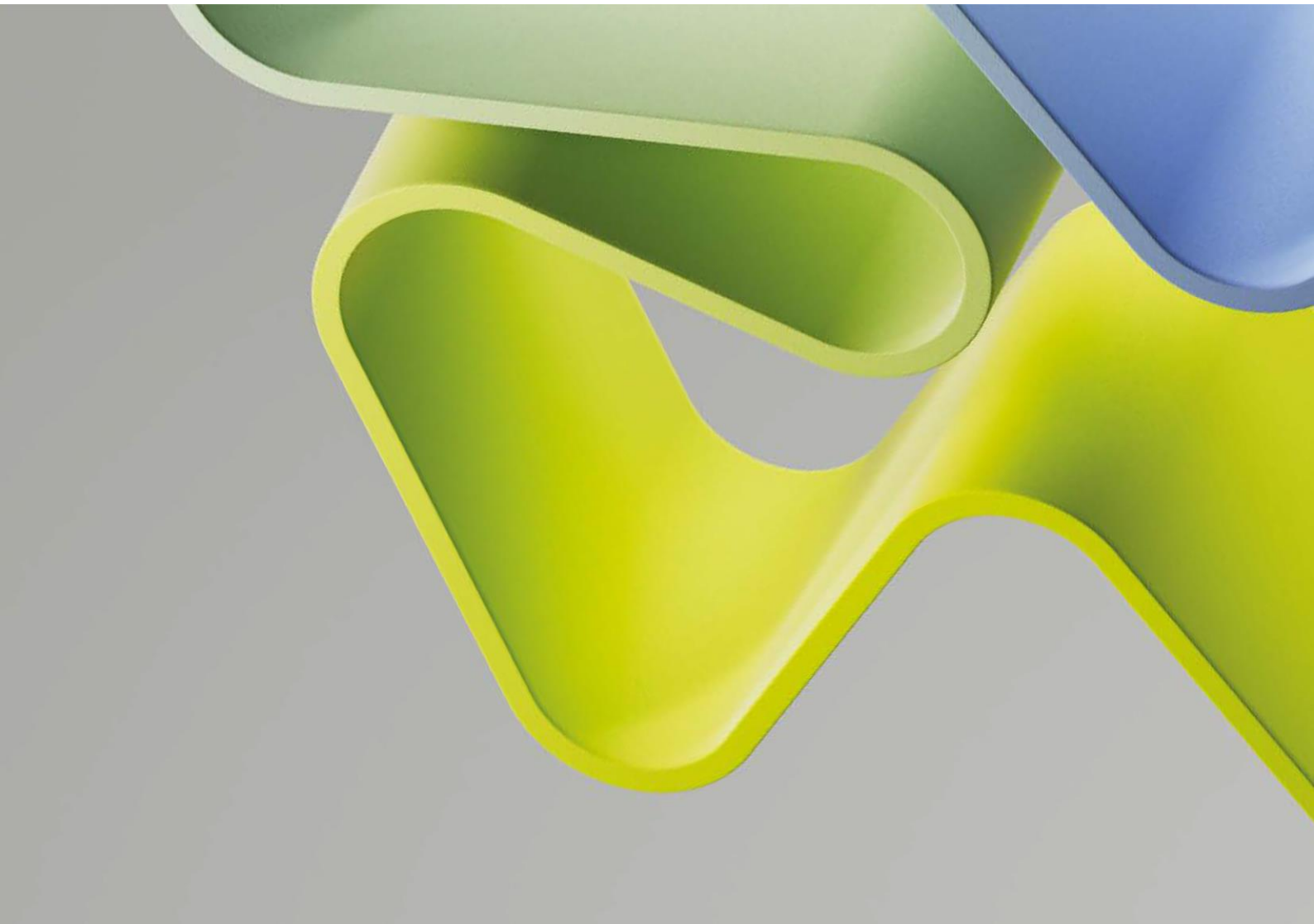
Evaluation of Life Sciences 2022-2024

Evaluation of medicine and health 2023-2024

Evaluation report

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

December 2024



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Statement from Evaluation Committee Higher Education Institutions 3

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

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

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

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

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

Professor Søren Brunak (Chair)

Novo Nordisk Foundation Center for Protein Research, University of Copenhagen

Professor Jouni Hirvonen

University of Helsinki

Professor Ruth Palmer

University of Gothenburg

Professor Lea Sistonen

Åbo Akademi University

Associate Professor Simona Lodato

Humanitas University

Professor Ron Heeren

Maastricht University / Maastricht Multimodal Molecular Imaging Institute

Anoushka Dave, Technopolis Group, was the Committee Secretary.

Oslo, December 2024

Profile of the administrative unit

The research at the Department of Clinical Medicine (IKM) is organised in thematic research groups. The head of department delegates the responsibility of the day-to-day administration of the groups to the group leaders. The IKM has 517 researchers, which mainly consist of professors, associate professors, postdoctoral fellows, and PhD students. Among these categories, women represent less than 30% of professors, 45% of associate professors, 14% of postdocs and 63% of PhD candidates.

The IKM is comprised of 24 research groups as of November 2024. The following six research groups were selected for evaluation: The Children and Youth Health Research Group (BUH), Translational Cancer Research Group, Brain and Circulation Research Group (BrainCirc), Thrombosis Research Group (TREC), Cardiovascular Research group, Clinical Psychiatry Research Group.

The main strategic goal of IKM is to deliver high quality research with strong clinical and translational relevance. The research strategy covers a broad range of research but is unified by a clinical focus. By combining the institutional strategies and scientific priorities of both UiT and the Northern Norway Regional Health Authority, IKM aims to contribute to sustainable development and stabilisation of the health system for the entire population in the region. IKM allocates funds for PhDs and postdocs to projects in alignment with the research strategy. Researchers who have a relevant clinical project, but have not been able to secure funding from other sources, are also allocated funds for a PhD candidate if the research project aligns with the strategy of the department. The research groups conducting laboratory-based research are also allocated an engineer position for technical assistance. Furthermore, to maintain continuity, scientific positions are allocated if needed.

UiT is a small university, located in a geographic area with a low population density. Sufficient recruitment to large population-based studies on more rare diseases and large and clinical trials can be challenging, thus collaboration is key to success. The research groups at IKM report that collaboration is pivotal to develop new techniques, methods and procedures. Collaboration offers the opportunity to exchange students, to collaborate on grant applications and research stays abroad. Several research groups are actively collaborating with other research groups both locally and with other Departments and Faculties at UiT, in addition to national and international collaborations. If using co-authorship as a measure of collaboration, approximately 50% of the publications from IKM are co-published with international collaborators, and approximately 60% with national collaborators.

According to its self-assessment, in the future, IKM may take advantage of its strong basic and clinical research, user-involved clinical research, and advanced research infrastructure. The plan for research field impact is to continue to deliver high quality research which results in improved treatment for an ageing population. In the future, IKM will have a particular focus on continued collaboration with the University Hospital of North Norway, with emphasis on anchoring the projects. Additionally, IKM sees an opportunity to increase the number of national and international collaborative partner institutes. There will be an increased focus on applications to the EU and Research Council of Norway (RCN) to increase externally funded projects. This may be of importance, as there is strong national and international competition for research funds, limited internal funding allocated to research activities and administration, and decreased income from relevant ministries for the higher education and research sectors. Other challenges include a shortage of qualified researchers and technical personnel.

Overall evaluation

The Department of Clinical Medicine is an administrative unit with a very broad scope covering eessentially all medical specialties. Strategic goals are formulated via a bottom-up approach where the research groups somewhat independently define their direction and priorities. This model reflects the diversity of healthcare domains and the differences across these. The structure is highly heterogeneous, including having staff outside formal research groups. The committee felt that the administrative unit should formulate a strategy which could co-exist with the broad scope that is a given and which reflects the medical research needed to advance modern healthcare. Moving away from the reactive model to a proactive one could secure faster prioritisation and implementation compared to the current model which uses an opportunistic approach. Cross-cutting efforts around themes like precision medicine, multimorbidities or artificial intelligence (AI) would be warranted. Cross-cutting infrastructure needs or teaching priorities could also fit this model. The terms of reference mention registry-based research which is fine but backwards looking. Research involving deep phenotypes for precision medicine is increasingly based on data directly extracted in real-time from live electronic patient record systems that also can be used to organise randomised clinical trials in new ways. The administrative unit should incorporate these developments in its strategies. The current collaborative landscape nationally and internationally is very strong. The quality of research is generally high, but a more active strategy for the formation of new groups in emerging areas would likely enhance preparedness, competitiveness and productivity. The administrative unit ticks a lot of boxes in the societal relevance category. It is securing presence of medical staff in the north of Norway where many of those trained are retained after they end their medical training. Going forward it is recommended that formal strategies in several areas are created, and that matching funding is obtained such that future societal challenges can be met.

Recommendations

The recommendations reflect suggestions for bettering the internal strategy of the administrative unit as well as coordination externally with the clinical sector. A change towards a more proactive strategy is recommended.

- Work out a forward-looking research strategy that to a higher degree would steer the direction for the administrative unit. This strategy should consider contemporary cross-cutting themes in evidence-based medicine that would be compatible with the broad disease scope of the administrative unit.
- Make a plan for timely creation of new research groups. This plan could at the same time increase the succession planning effort across the administrative unit and use the opportunity to define new priorities and longer-term strategies.
- Diversify the fundraising strategy towards obtaining more funding from international sources.
- Conduct a survey that clarifies the advantages of having funding administered by the hospital rather than via the university and increase the coordination with the regional hospitals around this matter. At the same time, increase innovation and the protection of intellectual property.
- Work out a strategy for how the administrative unit should engage in infrastructures and data management, especially whether complementary initiatives could be taken that would increase the productivity of the research groups. This could also be linked to obtaining funding for the department in new ways.

1. Strategy, resources and organisation of research

1.1 Research strategy

The administrative unit does not currently have a detailed research strategy with scientific priorities. The main strategic goal for research and innovation is to broadly deliver high quality research with strong clinical and translational relevance. Defining strategy and priority is in practice mostly left to the research group leaders, who each have expertise in different medical specialties, and also typically work as clinicians at the hospitals. As expected, there is a strong focus on synergy with the regional health authority, and especially that healthcare needs in the northern part of Norway must be prioritised both by the institution and the administrative unit. The department is following that scheme.

While there is no current detailed research strategy there has however been some focus at the department on prioritising global health threats via resource allocation. This has been done through the establishment of several strong research groups for common population health issues in psychiatry, cancer, paediatric diseases, venous thrombosis, and health challenges in the adolescent indigenous Sami population. This is not equivalent to a forward-looking strategy, but it is evidence of top-down efforts to set the direction.

The teaching represents a considerable part of the planned societal impact coming from the administrative unit. The department organises education given to medical students through 32 teaching sections. Each teaching section has the responsibility of its medical specialty and subspeciality and the teaching sections reflect the “clinic structure” at UNN, Nordland Hospital (Nordlandssykehuset) and Finnmark Hospital (Finnmarkssykehuset). At the interface between research and teaching, the leaders for the teaching units oversee further employment of physicians who can contribute to the teaching of medical students, perform research and supervision as senior researchers (supervise PhD students and medicine master students) or PhD fellows.

A lot of the research at the department involves patients and therefore represents user involvement. The department discuss common interests with patient organisations, such as representatives from the Norwegian Cancer association and users from the Norwegian Association for persons with Intellectual Disabilities.

The committee's evaluation

While the department by design essentially covers all medical specialties, not having a formal research strategy presumably leads to a non-optimal research effort. Moving away from the more reactive model to a proactive one could secure faster prioritisation of research topics and their translational implementation compared to the model that is currently using an opportunistic approach.

Cross-cutting efforts around themes like precision medicine or multimorbidities (just to mention two broad areas) are warranted in the department. The general concept of precision medicine would naturally be an area that could enter into the formulation of a more general strategy. Shared actionable and specific efforts would presumably also be of great value in relation to cross-cutting aspects for the research groups. The theme is not mentioned in the self-assessment report from this overarching angle. It is however described in one of the impact cases.

The committee’s recommendations

Work out a forward-looking research strategy that would steer the direction of the department to a greater degree.

1.2 Organisation of research

The research at the administrative unit is organised in thematic research groups. The number has grown considerably during the review period, from 12 in 2012 to 23 currently. There are also staff outside the formal groups, the reason for which is somewhat unclear. Some research group members are part of more than one group. The size of the research groups varies considerably, which is understandable given the distribution of the research group leaders over career stages.

The research themes of the groups cover a very large fraction of medical research, also including newer themes like “clinical bioinformatics”. The department head has generally delegated the responsibility of the day-to-day administration of the groups to the group leaders. This includes delegation of knowledge exchange, researcher training and outreach activities. Regular meetings between the department head and the group leaders take place currently, but over the review period this has varied with an on-demand model followed at times.

The research staff are generally hired in permanent positions (except for full professors where close to 50% are temporary). The average age of full professors is 58 years and 41% are over 62. There is one female professor.

Importantly, the department has many 20% positions. These include positions as professor II, associate professor II, and university lecturer II. These are not permanent per se, but subject to renewal approximately every 3rd year.

A staff category that is important for the research activities at the administrative unit is external PhD students, who are mainly physicians not employed at the administrative unit but admitted to a PhD programme with funding from the Northern Norway Regional Health Authority (Helse Nord/HN). There are currently around 70 of these. The same model applies to researchers and postdocs with similar funding. The head of department approves midway evaluations for PhD students and can be involved in follow-up when needed.

Resources are devoted to career opportunity planning. Managers and employees meet annually to clarify ambitions, evaluate development, adjust directions, and create new plans. To promote independent careers, postdocs are not allowed to work under their former PhD adviser. All postdocs must have a development plan and should include a research stay abroad if this has not been accomplished during the PhD. These plans include discussions of sabbaticals, educational leave etc.

The committee's evaluation

Collectively the research groups undertake important research, but the formation of groups still appears to be opportunistic even if there are exceptions. Nonetheless, this is evidence of a more fluid department that adapts, which is positive. Some research group members are part of more than one group, which is excellent as all competences cannot be present everywhere. Changing the opportunistic approach to research group formation could be combined with working out more transparent succession plans. The seniority of the leading researchers is relatively high. It also must be acknowledged that, due to the large number of 20% positions, decisions on available staff are also taken outside the department even if there is a great deal of interaction.

Mobility funding is available, which is very positive.

The committee´s recommendations

Increase the succession planning effort across the department and use the opportunity to define new priorities and longer-term strategies.

1.3 Research funding

In the five-year period from 2018 to 2022, the average yearly income for the administrative unit has been approximately 63 MNOK. This amount consists of the general funding the department receives through basic grants and based on performance indicators from the Norwegian Ministry of Education and Research. General income from external projects and the funding for PhD/postdoc positions is also included in this amount. Approximately 40,2 MNOK (≈64%) from the total 63 MNOK was dedicated to research with most expenses related to salaries for research and technical staff.

Overall, the department predominantly has national funding with little international funding. The department has been encouraging staff to apply for external funding from RCN and the EU, thereby anchoring the funding at the department, and to collaborate with the university hospital during the application process. However, due to competition with the hospital, the department has only partly succeeded in this strategy. Overall, the department receives external grants that exceed the UiT goal of at least 25% external funding. The approval rate for grants is also higher. The international funding is still relatively low.

The committee's evaluation

The report does not clarify why the staff prefer to have the hospital administering the grants. Potentially, this could be related to overheads and/or more freedom in relation to hiring, since the clinical domain is often linked to higher salaries. The administration of grants seems to be a structural problem which is being addressed using a bottom-up strategy (i.e. encouraging staff to apply for external funding) instead of through institutional agreements that could benefit the department.

The committee’s recommendations

Work out a strategy that could put the department in a better position financially after reviewing the pros and cons of having funding administered by the hospital rather than the university department

1.4 Use of infrastructures

The administrative unit’s actual use of infrastructures is not completely clear owing to indirect use of essential methodology via double affiliations, and the way the self-assessment is written. In terms of national infrastructures, NorSeq, the Genomics support centre under ELIXIR-Norway and the Tromsø Study appear to be the key infrastructure used. There is no use of international infrastructures, except when sequencing data are deposited in the EMBL repository. However, through some of the administrative unit’s core facilities there is participation in the ESFRI infrastructure ELIXIR Europe, and in EATRIS-ERIC.

The administrative unit provides access to other core facilities, such as the UiT Biobank, the Advanced Microscopy Core Facility, the Preclinical PET Core Facility, the Proteomics and Metabolomics Core Facility. At the TSD, Services for sensitive data available for data processing and storage in secure environments are available. TSD is a cloud with high level of security and a full set of services for the collection, storage and analysis of sensitive research data. TSD is developed and operated by UiO and is used by researchers at several national research institutions

The committee's evaluation

Many groups seem to be served well either by access provided by the administrative unit, or alternative routes via other affiliations. It does not seem like there is an actual strategy around infrastructures, and the model appears to be mostly opportunistic. The FAIR

principles are mentioned in the institutional policies, but the administrative unit acknowledges that adherence is not uniform.

The committee's recommendations
Work out a strategy for how the administrative unit should engage in infrastructures and data management, especially whether complementary initiatives could be taken that would increase the productivity of the research groups. This could also be linked to obtaining funding for the department in new ways.

1.5 Collaboration
The collaborative landscape for the administrative unit is quite extensive, both nationally and internationally (Nordics, Europe, Australia, USA). In addition, the research groups are actively collaborating with each other locally, and with other departments and faculties at UiT. This is evidenced by co-authorship statistics, where approximately 50% of the publications from the administrative unit are co-published with international collaborators, and approx. 60% with national collaborators. The number of co-publications has been steadily increasing. However, from the NIFU statistics it appears that the author share is relatively low, which could mean that a limited number of collaborations have the administrative unit as the main driver.

The committee's evaluation
The administrative unit is clearly engaged in numerous excellent collaborations across the world. As it does not maintain large scale infrastructures, these are not the basis for initiating collaborations. It seems that collaborations are based primarily on personal contacts and funding available. The question is whether more formal collaboration with other, similar departments within clinical medicine would be advantageous, for example in the Nordic countries. Since the administrative unit mainly receives national funding, entering into international collaboration between similar institutes could add a new dimension.

The committee's recommendations
Consider developing a strategy for institutional collaborations to complement the existing collaborative landscape.

1.6 Research staff
The department has an excellent gender balance in relation to the group leaders (45% female), while the proportion of females among the full and 20% full-time equivalent (FTE) professors is 29% and 23%, respectively. Among the full and the 20% FTE associate/assistant professors, female staff account for 45% and 42%, respectively. Women comprise 56-57% of lecturers, 14% of postdocs, and about 50% of researchers.

The committee's evaluation
Overall, the seniority of the leading researchers is relatively high, and the female fraction is lower. However, compared to other research environments the gender distribution is reasonable. A higher number of male full professors (compared to female) is common across the health and natural sciences. It should be noted that decisions on staff are also taken outside the department even if there is a great deal of interaction between the university and healthcare leadership.

The committee's recommendations
Continue to work for a diverse staff composition in terms of age, gender and scientific domains.

1.7 Open Science

The administrative unit follows the relevant institutional policies with regard to Open Science rather than have its own formalised strategy. In 2020, the majority (92%) of the publications from the department were open access publications. There is a lot of emphasis on Open Science currently and policies are in place, both at the institutional and the administrative unit levels.

The committee's evaluation

The open science effort is excellently planned and handled. A formalised strategy could be developed though. There is also a financial aspect to open access as it is generally more costly for the authors. This must be factored in in the departmental budgets.

The committee´s recommendations

Consider developing a formalised strategy for Open Science and clarify its financial consequences.

2. Research production, quality and integrity

The scientific focus of the administrative unit is to deliver high quality research with strong clinical and translational relevance, as previously stated. According to the NIFU report, the distribution of publications is mostly within the following research fields in descending order: Cardiovascular and Respiratory Systems; Biomedicine; Oncology; Public, Environmental and Occupational Health; Multidisciplinary Natural Sciences, and Neurology. The increased number of publications during the evaluation period 2013-2022, from 94.6 to 234.9 (modified author shares), reflect an active and productive research staff (NIFU report). The department is publishing more scientific articles than the national mean for comparable institutions. They also focus on open access journals and research communication to the public through various media platforms. The preventive measures when integrity is at risk, or violated, are following institutional guidelines.

2.1 Research quality and integrity

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

Research group: Brain and Circulation Research Group (BrainCirc)

BrainCirc is an interdisciplinary research group integrating clinical, epidemiological and health services with contributions to national and local disease and quality registries. The epidemiological studies on stroke have contributed to important updates on longitudinal trends in stroke incidence and risk factors in Norway and globally. The research group is developing neuroimaging tools in collaboration with industrial partners. The organisation and strategies provided are suitable for conducting the proposed research activities. The participation in international clinical and epidemiological research covering the treatment of acute stroke, use of artificial intelligence (AI) in acute stroke diagnostics, risk factors and prognosis of ischemic stroke, intracerebral haemorrhage, and aneurysmal subarachnoid haemorrhage (aSAH), prevalence, progression and prognosis of carotid atherosclerosis, and quality of treatment of degenerative spinal disease, has led to clinically important results. The organisational environment is adequate for supporting the production of excellent research. An organisational problem seems to be the high percentage of temporary academic positions within the research group. The employment of researchers in full-time tenured academic positions would improve the effectiveness of scientific projects. The research group`s contribution to societal development outside of Norway is considerable. User involvement is mainly local. This could be improved with more focused international cooperation.

Research group: Cardiovascular research group

The self-assessment form for this group was not well written and, in some places, lacked detail and this has contributed to the low grading. From the information provided, the research environment for this group is currently not supportive to enable the production of excellent research. The research group is taking part in several national and international trials. The input of cCVR appears rather limited. The group contributes to the research process at a low level and the output profile is consistent with quality that is nationally acceptable and meets the definition of research but falls well short of the highest standards of excellence. No specific detail was provided on societal impact/user involvement. The grading shows the performance of the group is, overall, well below the international level.

Research group: Children and Youth Health Research Group (BUH)
This is a solid research group which has to be commended for its translational and collaborative work. Being located in a sparsely populated region of Norway and at a relatively small university, the resources in means of number of researchers and patient populations are limited compared to other universities. They aim to compensate for this by focusing on “research- niches”, e.g. ethnic minorities, and by establishing strong collaboration with national and international research environments. The panel acknowledges the specific challenges of getting ethnic minorities involved in participation and empowerment. All subgroup leaders have international research networks and have spent periods abroad in collaborative research groups/institutes. Their strategic goals should include a comparative analysis of other small universities located in remote areas and their opportunities.

Research group: Clinical Psychiatry Research Group
This is an excellent group, which has a strong organisational environment to support high-quality research which is visible on an international level. As can be expected from a general department-based research structure, the level of research quality is somewhat heterogeneous, enabling less-developed as well as more established subunits to participate in an overall research endeavour. The group performs well in terms of organisational dimensions, however, there is a remarkable number of temporary positions. Societal impact could be further developed (at least this has not been sufficiently detailed in this self-assessment), and a formal patient and public involvement (PPI) concept is lacking.

Research group: Thrombosis Research Group (TREC)
TREC is a small, but successful research group in a focused area of activity. TREC is very efficient and has the position of an international opinion leader. The research findings are very well disseminated to the public and the group takes exemplary actions in lay education.

Research group: Translational Cancer Research Group (TCRG)
The main strength of this group is the ability to develop studies on digital pathology and on survivorship issues in testicular cancer. The main weakness is so limited funding. Working on digital pathology in lung cancer and survivorship in testicular cancer led them to some model of success. The panel would recommend staying focus in these two areas of research. The societal impact of their research is lower than other groups and it is not at all described in their self-assessment report. They should be also taking care in attracting more industry funded clinical trial. Improvement must be done on how to involve patients and patient advocacy groups in the planning and development of future studies. This would be also an important opportunity to raise funds and to improve on societal impact.

3. Diversity and equality

The administrative unit’s actions to protect against discrimination and ensure equal treatment and opportunities for its employees are satisfactory and follow the institutional models. There is mention of several documents that contain a framework for equality, diversity and inclusion, including an action plan for UiT. This entails, for example, preventing sexual harassment at UiT.

The department has some challenges with regard to recruitment that might impact diversity. Recruitment is focused on clinical academic researchers but the number of applications received is low. Often the department has had to recruit from alumni. There is a strong emphasis on recruiting successful young academics with clinical positions. Creating combined positions between the university and the university hospital is also part of the strategy. Recently the department has been successful in recruiting 10 young clinical academics (50% research and teaching; 50% clinical) with PhD and specialisation in different fields. Efforts are made to give salaries which are competitive with clinical positions.

The committee's evaluation
The handling of the diversity area seems to be adequate, with strong focus on both daily operations around harassment and the structural problems in establishing a balanced work force. The latter has to do with geographical challenges, and it is good to see the problems acknowledged and acted upon.

The committee´s recommendations
Consider whether the model with many 20% positions require additional coordination with the regional employers on the side of the university.

4. Relevance to institutional and sectorial purposes

The department not only applies current knowledge to improve patient outcomes but also generates new insights for research and education that expand the collective understanding of health and disease. The department is therefore directly engaged in producing a substantial amount of societal impact. This happens for example via performing clinical trials and other types of bedside clinical research, observational studies, and translational research. The academic staff including PhD, postdocs and medical students publish findings in peer-reviewed journals, books, and online platforms, sharing new knowledge with the broader medical community and the general public. Many members of the academic staff contribute to expert panels that develop clinical guidelines, shaping the standards of care based on the latest evidence. Others give advice on health policy decisions. Innovation activates also take place and there are signs that these are intensified.

The committee's evaluation
The administrative unit is highly active in research addressing societal challenges; the research is carried out in areas with unmet needs both in Norway and otherwise. The department staff contributes to the outreach and takes in many cases initiatives that go beyond basic publishing. The innovation component could be stronger. As remarked elsewhere, many staff have dual affiliations which also impacts where start-ups and IP are registered.

The department also follows the Action Plan for Innovation and entrepreneurship at UiT and supports researchers filing a Disclosures of Invention (DOFI). From 2012-2022, 9 Disclosures of Invention (DOFI) were filed. Yet, none of the DOFIs have resulted in successful innovation and commercialisation, but the attempts are important. Given the size of the department a higher level of filings could possibly be expected (less than one per year is rather low). However, as many employees are not full time and also have the possibly of filing via the hospital when patients are recruited, the report is possibly not giving the full picture.

The committee´s recommendations
Increase innovative effort and similarly the coordination with the regional hospitals.

Increase IP protection.

4.1 Higher education institutions
The department is engaged in a number of areas of high societal relevance. One of the recent developments has been that the Norwegian government and parliament have allocated funds for additional medical student admissions from 100 students in 2012 to 151 students in 2022 (181 in 2023). To keep and stabilise a large civil population in the northern region which is also important for strategic reasons in relation to security, there is a planned policy and political strategy to provide high quality education of medical doctors for the society at large (UN Sustainable Development Goals 3 and 4).

The administrative unit is highly productive in relation to institutional and societal purposes in terms of teaching. As the number of students now is increasing, the load will be even higher. The administrative unit is responsible for teaching all clinical modules in the Professional Programme in Medicine and the master's programme in Clinical Nutrition. During the years 2012-2022, UiT produced 1017 candidates with a medical degree (MD). Among these, about 60% of the compulsory master’s theses have been supervised by the unit. Among the 10 students per year taking a combined MD/PhD curriculum, about 75%

have supervisors from the administrative unit. Since 2012, about 20 PhD degrees have been awarded every year. There were 120 ongoing PhD projects in 2022. A few PhD students do a PhD curriculum with a clinical specialisation at the university hospital. As the teaching is research-based, the medical research at the administrative unit is highly important to master's and PhD-level education. The focus on needs in the northern region of Norway has already been mentioned above. It is impressive that about 50% of the students stay and work in the north after medical school. The MD degree programme is currently being evaluated by NOKUT (the Norwegian Agency for Quality Assurance in Education). Revisions may therefore be implemented.

The committee's evaluation
The administrative unit ticks a lot of boxes in the societal relevance category. It is securing medical staff presence in the north of Norway with many of those trained being retained in the region.

The committee´s recommendations
The Committee has no recommendations.

5. Relevance to society

The administrative unit has a considerable contribution towards the Norwegian Long-term plan for research and higher education, societal challenges more widely, and the UN Sustainable Development Goals. The impact cases are clearly of high quality and have in most cases changed guidelines and clinical practices.

Comments on impact case 1 – Anal incontinence: assessing symptoms, improving treatment and surveillance after treatment
A mapping of the prevalence of AI after obstetric sphincter tears repaired with different techniques, and the impact of ultrasonic post-repair extent of sphincter defects was carried out prior to 2012. This led up to a study comparing the traditional repair technique with anatomical sphincter repair showing favourable results after anatomical repair (R1). This technique is now implemented in national obstetric guidelines. The Norwegian registry of anal incontinence has changed clinical practice based on the study. The registry revealed an unexpected rise in infection rate after implant of sacral nerve stimulators at another hospital. The immediate feedback and consequent action taken at the hospital in order to prevent infections resulted in a documented return to a low infection rate.

Comments on impact case 2 – Towards precision medicine in inflammatory bowel disease (IBD)
Since biologic drugs introduced in IBD treatment were anti-tumor necrosis factors (anti-TNFs), it was natural to focus on TNF as a central cytokine in IBD. Observational studies indicated that TNF gene expression in colon mucosa can serve as a biomarker to indicate the risk of disease relapse upon biologic drug withdrawal. This led to a patent application, and a RCN-supported project for development of a commercial test-kit for TNF gene expression.

A first observation by Rismo et al. indicated that a possible biomarker role of mucosal TNF gene expression was in Crohn's disease. The basis for the study was to treat patients with Crohn's disease with anti-TNF till endoscopic remission (no ulcers) followed by withdrawal of the drug.

With financial support from RCN grants in the BIOTEK and FORNY calls, the researchers started a commercialisation process with a biotech company in Germany, Novatec GmbH. The aim was to develop a commercial test kit for measurement of TNF gene expression in biopsies from colon mucosa. Unfortunately, Novatec was taken over by Gold Standard Diagnostics in 2022 and the new owners closed our common project after 6 months – before the kit was quite ready.The status is that support from Norinnova and a technology transfer company in North Norway has been obtained, and that the researchers now have contact with a Norwegian company who may want to take over the kit development and marketing.

Comments on impact case 3 – Neonatal sepsis and antimicrobial stewardship strategies
Newborn infants are at high risk of severe infections. Many infants are therefore treated with antibiotics, but inappropriate antibiotic therapy has short- and long-term adverse effects. The case has reported safety data on important and "ecologically friendly" antibiotics and evaluated new tools to improve antimicrobial stewardship.

Comprehensive research led by Prof. Claus Klingenberg's team in the Research Group for Child and Adolescent Health Infection subgroup has contributed with new knowledge on epidemiology of neonatal sepsis, and strengthened national and international collaboration in neonatal sepsis research. Fjalstad published (as a PhD student) the first article with

nationwide data from the Norwegian Neonatal Network (NNN) in 2016. NNN contains granular data on all newborn infants admitted to all neonatal units in Norway. Here the team showed that as many as 2.6% of all term infants in Norway were treated with antibiotics, but only 0.05% had a culture-proven sepsis, reflecting overtreatment. There was no difference in mortality with narrow- vs broad-spectrum regimens. Subsequently Esaiassen, Fjalstad at al. (2017) systematically reviewed available evidence on harmful effects of antibiotics in newborn infants. They convincingly showed that prolonged antibiotic exposure in uninfected preterm infants was associated with an increased risk of necrotising enterocolitis and/or death, and that broad-spectrum antibiotic exposure was associated with an increased risk of fungal infections.

The research is also integrated in national and international neonatal sepsis guidelines. The research has paved the way for international studies and participation as a partner in European research.

Comments on impact case 4 – Somatic morbidity and mortality in persons with severe mental illness

The researchers aimed at investigating mortality, morbidity, risk factors and clinical measures in persons with severe mental illness. The project used data from several linked national registries, but also clinical cohorts and data from the longitudinal, population-based Tromsø Study. Further research development has expanded with new data linkages (e.g. with The Cancer Registry).

The research took place on the background of an internationally growing recognition of the highly increased burden of physical morbidity and mortality in persons with severe mental illness, and has strongly contributed to the national and international knowledge on prevention and treatment strategies in this vulnerable group of patients. The findings have been far-reaching, and have contributed to changing clinical practice. The findings and dissemination of results have also influenced Norwegian clinical guidelines and paved the way for further national and international research collaboration.

Comments on impact case 5 – Stroke: clinical and epidemiological perspectives

The underpinning research on stroke epidemiology and carotid atherosclerosis focused on time trends in incidence and risk factors of the three main stroke types, including comprehensive research on the occurrence, progression and risk factors for carotid atherosclerosis as well as the impact of carotid atherosclerosis on stroke and other cardiovascular diseases (CVD).The stroke research has led to important insights regarding trends in incidence and current risk factors for ischaemic stroke, intracerebral haemorrhagic stroke (ICH) and subarachnoid haemorrhage (SAH). The longitudinal population-based design with repeated cross-sectional surveys over five decades in a geographically defined area has provided a unique possibility to study time trends in risk factors and incidence of stroke subtypes, case-fatality and long-term mortality.

The stroke epidemiology research has contributed to new and updated knowledge on the incidence, risk factors and prognosis of each of the three stroke types. The Tromsø Study is one of very few epidemiological studies which has been carried out over several decades in a geographically defined area. Insights from stroke risk over time that can be compared directly to those arising in the contemporary population are important to understand the shifting factors that influence stroke risk. It was found that changes in cardiovascular risk factors accounted for 57% (95% CI, 28%–100%) of the decrease in ischaemic stroke incidence in people ≥30 years of age for the time period 1995 to 2012.

Appendices

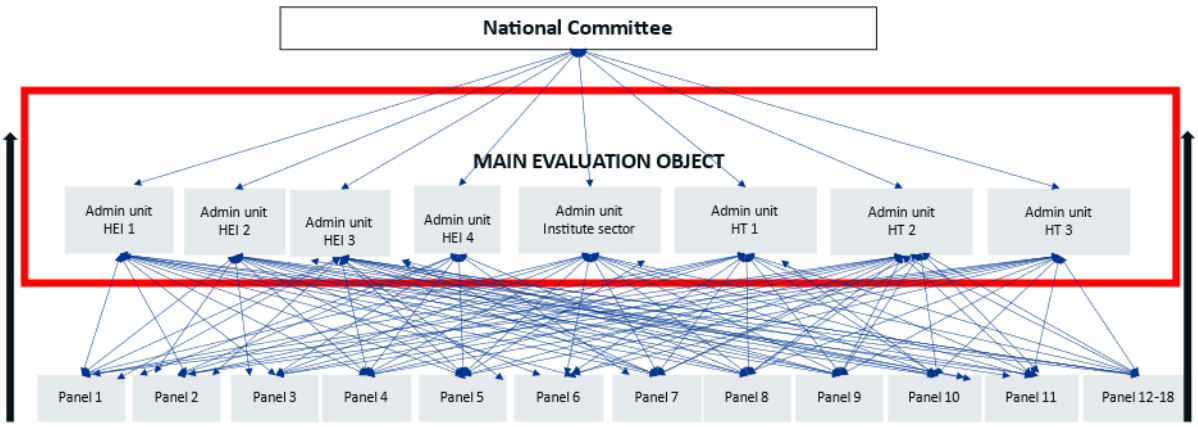
Evaluation of Medicine and health 2023-2024

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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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.

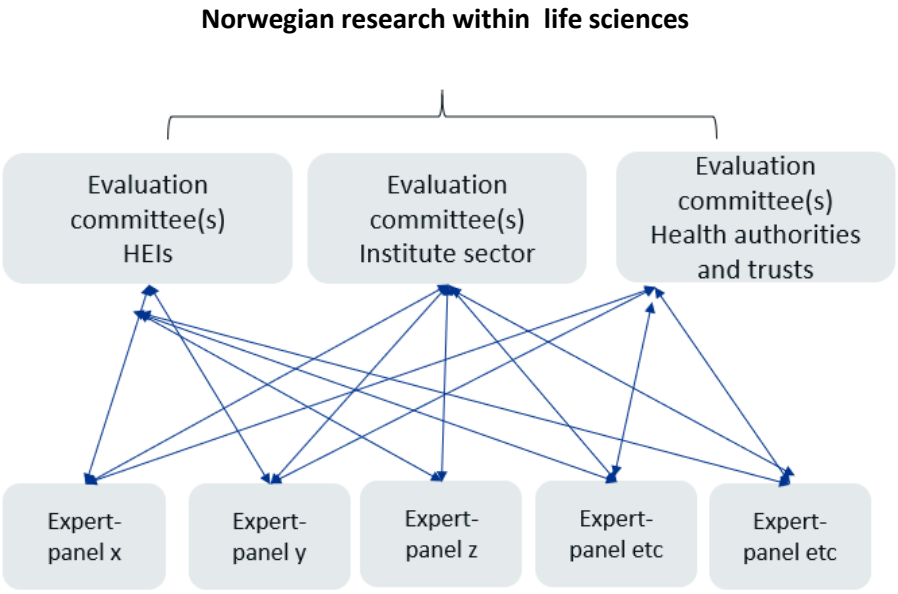

Figure 1. Evaluation committees and expert panels

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 Clinical Medicine	Brain and Circulation Research Group (BrainCirc)	Panel 3b-1
UiT	Department of Clinical Medicine	Cardiovascular research group	Panel 3b-2
UiT	Department of Clinical Medicine	Clinical Psychiatry Research Group	Panel 5a
UiT	Department of Clinical Medicine	The Children and Youth Health Research Group (BUH)	Panel 3a-1
UiT	Department of Clinical Medicine	Thrombosis Research Group (TREC)	Panel 3b-2
UiT	Department of Clinical Medicine	Translational Cancer Research Group	Panel 3a-2

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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