Forskningsrådet

Evaluation of Life Sciences 2022-2024

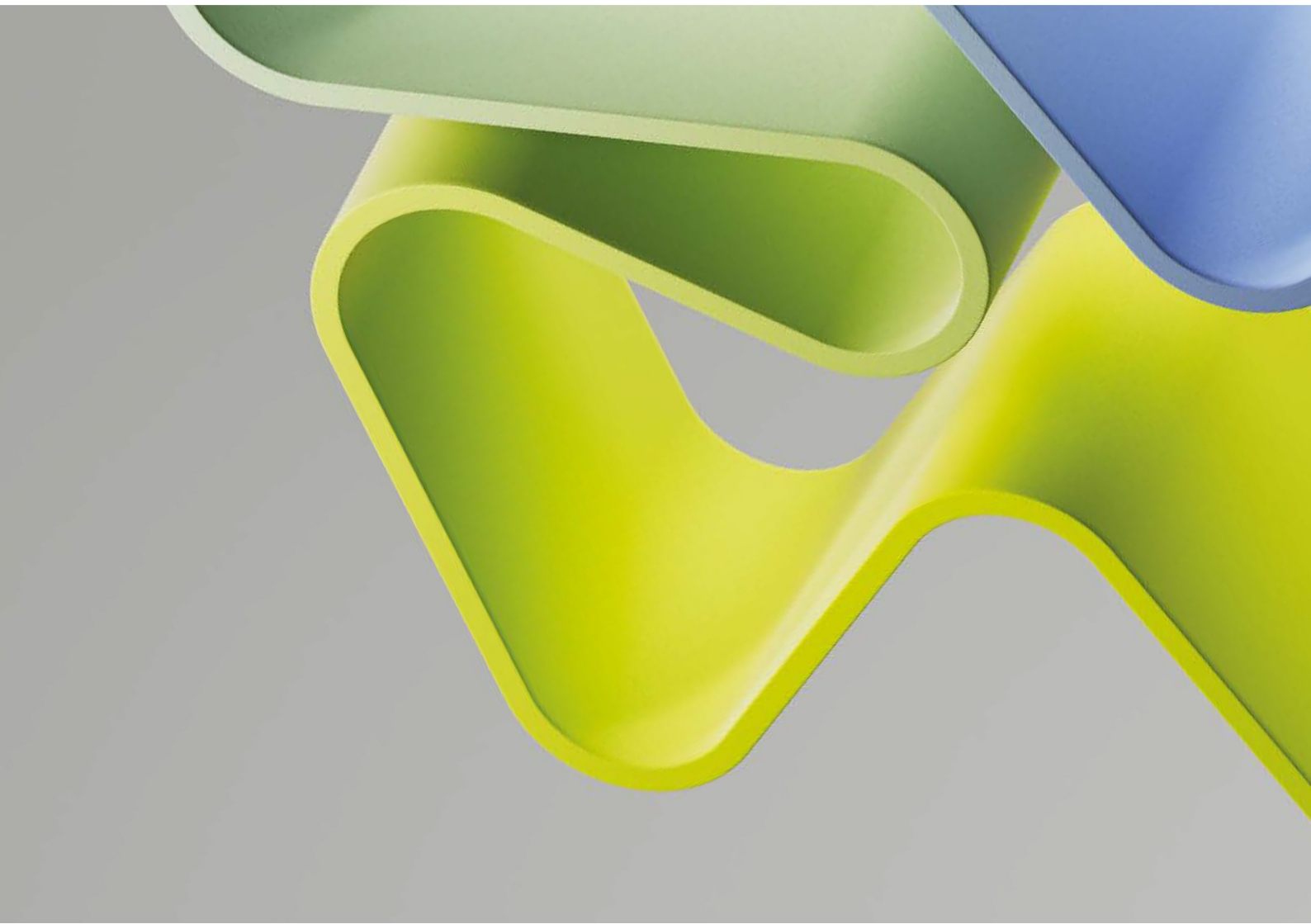
Evaluation of medicine and health 2023-2024

Evaluation report

ADMIN UNIT: Division of Head, Neck and Reconstructive Surgery, HHA

INSTITUTION: Oslo University Hospital and University of Oslo

December 2024



Contents

Statement from Evaluation Committee Hospital trust 1

This report is from Evaluation Committee Health trust 1 which evaluated the following administrative units representing the hospital trust in the Evaluation of medicine and health 2023-2024:

- Regional Centre for Child and Adolescent, Regional Center for Child Adolescent Mental Health East and South
- Center for Psychopharmacology, Diakonhjemmet Hospital
- Center treatment of Rheumatic and Musculoskeletal Diseases (REMEDY), Diakonhjemmet Hospital
- Division of Paediatric and Adolescent Medicine, Oslo University Hospital and University of Oslo
- Division of head, neck and reconstructive surgery (HHA), Oslo University Hospital and University of Oslo
- Division of Mental Health and Addiction, Oslo University Hospital and University of Oslo
- Division of Gynaecology and Obstetrics, Oslo University Hospital and University of Oslo
- Modum Bad, Research Institute of Modum Bad
- Department of Research, SunnaasRehabilitation Hospital

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 Health trust 1. All members of the committee have agreed with the assessments, conclusions and recommendations presented here.

Evaluation committee Health trust 1 consisted of the following members:

Professor Johan Hellgren (Chair)
University of Gothenburg

Professor Oskari Heikinheimo,
Helsinki University Hospital

Professor Nick Hardiker,
University of Huddersfield

Professor Fiona Gaughran,
King's College London

Professor Claudi Bockting,
Amsterdam University Medical Centre

Professor Li Felländer-Tsai,
Karolinska Institute

Professor Ertan Mayatepek,
University Hospital Düsseldorf

Dr Reda Nausedaite, Technopolis Group, was the committee secretary.

Oslo, December 2024

Profile of the administrative unit

The Division of Head, Neck and Reconstructive surgery is made up of five departments, the department of Ophthalmology, Otorhinolaryngology, Plastic and Reconstructive Surgery, Maxillofacial surgery and Children's surgery ward. The research staff at the division consists of ten professors, 17 senior physicians, three physicians, 17 researchers and postdocs and 16 PhD students. Women represent a minority in two out of five categories, professors and senior physicians.

The Division of Head, Neck and Reconstructive Surgery is comprised of nine research groups, five in Ophthalmology, two in Otorhinolaryngology, one in Plastic surgery and one in Children Surgery ward.

The goal of the administrative unit is to be the leading clinic for research in their field, with research and innovation being core tasks. They aim to conduct research of high quality throughout their fields of interest, which are Ophthalmology, Otorhinolaryngology, Maxillofacial surgery and Plastic and Reconstructive surgery. They aim to contribute to more knowledge-based treatment and use research results in diagnosis and patient treatment, while utilising quality indicators and a quality register to improve their practice. Moreover, the administrative unit aims to contribute to strengthened collaboration between departments in their institutions as well as increase national and international cooperation.

According to its self-assessment, the administrative unit has a willingness to collaborate with different departments and university clinics in Norway and other parts of Europe. Collaborations with other departments include the departments of cardiology, radiology, oncology and paediatrics, to mentor doctors pursuing their PhD degree. Since 2016, their clinic has seen a significant increase in the number of published articles, with approximately 50% now featuring co-authors from their departments. This co-authorship serves as an indicator of both national and international collaboration. Additionally, the shared research administration between the HHA clinic and the University of Oslo in these fields is a notable advantage.

The administrative unit aims to be a national leader in health research, closely linked to the University of Oslo, and an attractive partner for academia and industry. According to its self-assessment, significant clinical activity and scientific expertise are expected to drive healthcare improvements. User involvement and integrating research into patient care are key focuses. The administrative unit may further benefit from research commercialisation through Inven2 AS. Challenges include limited resources for planning studies, insufficient infrastructure, and uncertain career paths for researchers. Recruitment issues and inadequate leadership tools also pose problems. Also mentioned is significant competition for funding, prioritisation conflicts, insufficient IT solutions, and lower industry funding compared to other Nordic countries. Temporary positions and reduced salaries for research doctors continue to pose significant challenges. Opportunities lie in developing international collaborations, securing EU funding, and leveraging government goals to double clinical trials by 2025. Strengthening innovation and industry collaboration is promising.

Overall evaluation

The Division of Head, Neck and Reconstructive Surgery (HHA) is organised as a combination of 4 different specialities within the same clinical area of the head & neck. This holds a potential for close collaboration within research and clinic. The HHA has access to substantial core facilities within the University Hospital and the University and receives an average amount of 13 million NOK/year in competitive funding. The research strategy is to be the leading hospital in their field in Norway and in Europe, including research and innovation of high quality and contributing to evidence-based medicine. Given the strategy, resources and organisation.

The HHA published 103 papers in relevant peer-reviewed journals in 2022. The research includes register based studies and randomised controlled trials and there is both an extensive national and international research collaboration. Results from several projects have been implemented in regular health care to the benefit of the patients.

The HAA follows the OUS aim that all employees are given equal rights and opportunities for professional development regardless of ethnicity, functional ability, age, gender and sexual orientation. There is an “Action plan for Equality, Inclusion and Diversity” outlining specific measures, divided into the following focus areas: 1) Competence and tools 2) Communication and language (non-discriminatory language) 3) Recruitment, inclusion and employer branding.

Innovation is a focus area for the research at the HHA. There is good infrastructure to develop innovations through Inven2, which is one of Norway’s biggest technology transfer offices, and a limited liability company owned by the University of Oslo (UiO) and Oslo University Hospital (OUS). The Innovation Unit in OUS offers advice and practical assistance for employees who are going to carry out innovation projects. The HHA reports at least 10 ongoing innovative projects.

The HHA reports the clinical and academic benefits of their research in the area of the patients being treated. Examples are given. Head, neck and reconstructive surgery plays a crucial role in society by addressing various medical conditions and improving patients' quality of life.

The HHA has several strengths and weaknesses. While the combination of different specialities within the same AU is a potential strength, the departments are not geographically located at the same place and the current division is comparatively recently established. Most researchers combine clinical work and research which adds to the relevance of both the research and the clinical issues addressed, however the recruitment to research has been challenging due to competitive needs from the clinic, better career opportunities in surgery than in research and lower salaries for academic compared to clinical work.

The academic output in peer-reviewed articles is comparatively high and there is also research being done within the innovative sector, however, few of these have reached implementation. EU projects and funding are lacking. The strategy of the HHA to become the leading hospital in their field in Norway and in Europe can potentially be reached with the organisation and work at the HHA. Having a large clinical base at the largest hospital in Europe, integration between research and clinical positions and the combination of 5 closely related specialities/hospital units creates opportunities for unique studies that can be extended to national and international collaborations within the field. Poor integration between the different

units, obstacles in the recruitment of qualified researchers and competition with clinical production could potentially hamper this development.

Future prospects. The HHA should further develop the integration and collaboration between the different departments in the HHA and strive for clinically relevant common research projects of rare and highly specialised patient groups. The HHA should continue the efforts to establish positions with 50% academic work and develop career opportunities for researchers combining clinical work. The HHA should maintain a high output of publications in relevant high-impact medical journals and focus on bringing the innovative projects to clinical use. In accordance with the research strategy, it is advised that the HHA increase the national and international collaboration and as a result focus on obtaining more international funding such as EU grants.

Recommendations

The HHA has a good and well-defined organisation that encloses a large number of employees. It also includes several autonomous departments with individual clinical and research objectives. For the research organisation to be effective and to reach the ambitiously formulated goals of the HHA, the expert group suggests the following:

- There is a need to better define if “being leading hospital in their field in Norway and in Europe” means that the HHA utilises its combined potential of common research projects and collaborations within the framework of having similar patients and medical/surgical questions *or* if it means performing excellence within each individual department only.
- In the former case, a strategy and tactics to achieve a higher degree of integration between the 5 units should be formulated and implemented, including the setup and conduction of collaborative research and interaction.
- In the latter case, a strategy and tactics should be implemented to achieve optimal use of common resources, such as core facilities and in-between research group meetings and assessment of planned and conducted research to increase the quality, relevance and output of each individual research group.
- The expert group suggest that the HHA has an increased focus on obtaining external innovative funding as well as EU grants and collaborations.
- The expert group suggests that the HHA promote the improvement of incentives for researchers in order to facilitate the recruitment of qualified and skilled researchers to the HHA.

1. Strategy, resources and organisation of research

1.1 Research strategy

The strategy of the HHA is to be the leading hospital in their field in Norway and in Europe. The research focus is based on the patients with special medical needs who are treated at the HHA, contributing to evidence based medicine. Research and innovation are among core tasks and to do research of high quality throughout the fields of interest. Also to have quality indicators and quality register to improve the practice. To contribute to a strengthened collaboration between departments in the institutions as well as increase national and international cooperation.

The strategy is for the HHA is referred to the following documents:

- Oslo University Hospital – Research Strategy 2021-2025
- Research Strategy 2021-2025 Oslo University Hospital –
- Action plan Research and Innovation 2024-2027 Action Plan –
- Research and Innovation 2024-2027
- Strategy for The Faculty of Medicine
- Strategy for The Faculty of Medicine -Faculty of Medicine (uio.no)
- HHA Annual Report, Research Activity 2021 arsmelding-hha-2017.pdf (uio.no)
- Strategy 2030 Knowledge – responsibility –commitment: For a sustainable world UiO
- In the HHA Annual Report, Research Activity 2021 the following topics are outlined as main research aims:
- Interdisciplinary health research combining medicine and health science
- Registry-based quality control - and research based on large patient volume
- Translation research focusing on "tissue engineering"
- Clinical studies of high quality and relevance for our clinical activity
- Collaboration with industry (pharmaceutical industry and medical technical equipment suppliers) on specific research projects innovation

The committee's evaluation

The research strategy to be leading in their field in Norway and in Europe is ambitious. Being located at the largest hospital in Europe with large access to patients with unique and complicated medical and surgical conditions should create good opportunities to follow the outlined strategy. The availability of core facilities on a larger scale and the integration between clinical and academic work in the organisation further enhances these possibilities. At the same time, the merger between individual clinical units based on different specialities and areas of interest offers great opportunities for collaboration and reinforcement, however, large organisations with diverse priorities can also cause ineffective leadership and limit the manoeuvrability in the individual research groups.

The committee´s recommendations

- It is recommended that the HHA further explores the benefits of being a combined unit and emphasises on collaboration and combined research projects within mutual areas of interest such as head and neck, maxillofacial surgery and

Plastic and reconstructive surgery. Also, core facilities within the HHA unit are optimised such as shared statistical support, grant application, validation of projects etc. Finally, the HHA searches further collaborations within broad international research projects such as EU projects.

1.2 Organisation of research

This administrative unit is The Division of Head, Neck and Reconstructive Surgery (HHA) which is made up of five departments, the department of Ophthalmology, the department of Otorhinolaryngology, the department of Plastic and Reconstructive Surgery, the department of Maxillofacial surgery and the department of Children's surgery ward.

There are nine research groups within the HHA, four different specialities and 1000 employees. The head of each department is responsible both for the clinical work and the research/education. The Head of the division of HHA and the Head of research HHA both have combined positions and organises the research in collaboration with the research group leaders in common research meetings, developing strategic plans and action plans, disseminate information regarding research, administering research personnel, lead recruitment of researchers and research support personnel.

The research group leaders are not the clinical leaders for the researchers. This requires a close collaboration between the research leadership and the clinical leadership and is sometimes a challenge. The different departments are not all located at the same geographical spot which is highlighted as an obstacle for collaboration. Education of medical students and health personnel is coordinated in a similar way as well as innovation and the HHA have several ongoing innovation projects with collaboration with industry partners.

The committee's evaluation

The organisation of research is based on integration between the clinical and academic work within the university hospital setting. This should be well suited for research regarding patients with specific needs in line with the research strategy of the HHA. It also poses a challenge when academia competes with the clinic, especially when clinical production is prioritised and resources are limited. The organisation is designed to keep both the clinical and academic leaders in close contact and the researchers have combined positions. Recruitment of new research staff has been pointed out as a challenge.

The committee´s recommendations

- A closer geographical allocation between the different departments is planned for the coming 10 years which is likely to facilitate a closer collaboration between the departments. Maintaining and developing the collaboration between the departments is a way to strengthen the HHA regarding both education and research.

1.3 Research funding

Research funding is partly provided through hospital funding as a part of the budget. This is used for salaries in relation to R&D activities. The main competitive research

funding sources for the HHA is research grants from the regional health authorities (Helse Sør-Øst) and The Research Council of Norway/EEA grants as well as other national sources such as The Norwegian Association of the Blind and Partially Sighted, Blindmission IL and Jon S Larsen stiftelsen. The average competitive funding is around 13 million NOK/year for the HHA where almost 50% comes from the regional health authorities. Around 1000 000 NOK/year comes from the industry and 300 000 NOK from international grants and there are no grants from the EU. Examples of funding coming from the industry is Cochlea Implantation manufacture Med-El company and OtoJig company.

The committee's evaluation

The research funding originates both from the hospital budget and from competitive funding sources. International grants only represent a minority of funding. These sources for external research funding could potentially be increased.

The committee´s recommendations

- To focus on international collaborations that could open possibilities to apply for EU funding. To develop the innovative research in order to attract more industrial external funding through clinical trials and innovations.

1.4 Use of infrastructures

There is a close relationship between the University Hospital and the University of Oslo. Infrastructure such as laboratories, equipment, core facilities, biobanks, comparative medicine and other important support for research and innovation, such as biostatistics, clinical trial unit and administrative and statistical support etc are provided by both the university and the hospital in close collaboration.

The infrastructure is associated with the national infrastructure, Biobank Norway, and the European Biobanking and Biomolecular Resources Research Infrastructure (BBMRI), the national clinical trial infrastructure and core facility for bioinformatics.

The committee's evaluation

There are core facilities in place for advanced clinical research such as laboratories, biobanks, bioinformatics, clinical trial facilities etc. The close collaboration between the University and the Hospital, that both offer research infrastructure within the same facility (the University Hospital) should enable easy access for the researchers.

The committee´s recommendations

- Since this HHA is located within several surgical departments the use of bio-material for research is likely to be readily accessible and thus offers a unique possibility for biobanking and advanced laboratory analyses in relation to rare diseases.

1.5 Collaboration

OUS and UiO - especially the Faculty of Medicine - have a very close collaboration through common research groups and with many scientists having shared positions.

Most of the publications (approximately 70 per cent) have combined addresses of OUS and the Faculty of Medicine, reflecting the close collaboration. In the HHA it is about 50% co-authorship as an indicator of national and international collaboration. The HHA collaborates with other departments in different fields of work e.g., departments of cardiology, radiology, oncology and paediatrics on mentoring doctors for the PhD degree. The HHA reports a substantial number of national collaborations, most of them in the Oslo area. Further international collaborations amongst Europe, Sweden, Denmark, Germany, Switzerland and Australia. In addition, the Department of Ophthalmology reports a high number of collaborations, national and international.

Examples of collaborations are:

- Nytt behandlingsprinsipp ved ASA intoleranse? In collaboration with the University hospital in Stavanger.
- Paediatric Postoperative Pain Management in Surgical Wards - an Intervention Study in collaboration with Peter Forde Hougaard, PhD, MSSc, Paediatric Nurse, Department of Nursing and Health Promotion, Faculty of Health Sciences
- Minimally invasive cochlear implantation via mini-stereotactic frame guided surgery – a cadaver study monitored by fluoroscopy imaging in collaboration with Department of Otolaryngology, Hannover Medical School, Hannover, Germany

The committee's evaluation

The HHA has a network of research collaborations both national and international. A majority of the national collaborations are in the Oslo, the capital area.

The committee´s recommendations

- The committee recommends an extended collaboration with national institutions in the health care regions of Norway. For instance, within head & neck cancer the patient cohort is limited and the disease heterogenous why there is an inherent need in that research to collaborate in order to reach statistical power in the studies. This is probably also relevant for several other rare diseases studied within the HHA. Also to promote international collaborations with leading research institutes and to obtain international research grants such as EU grants.

1.6 Research staff

The HHA has 10 professors/associate professors, 17 researchers and 16 PhD students. Women dominate in the latter category and men in the two former. Two out of ten positions were temporarily not occupied in 2022.

There is a postdoc programme, leadership programmes, and a 2-year innovation program.

Researchers with combined positions have 2 days per week allocated to research and teaching of which 25% is teaching (half day) and 1,5 half is research. However, it is difficult to get this due to clinical priorities.

The head of the department ultimately decides how the resources are utilised. All the heads of departments except the department of maxillofacial surgery have an academic background. There is a plan for new combined positions with a higher

percentage of research (50%) and where also salaries are increased. It has already been implemented at the Department of Ophthalmology.

It is a challenge who to employ, and to decide if research merits or clinical merits are more important. It is also a challenge to decide if younger or more experienced colleagues should be hired. Those who have just got their speciality have been identified as the most suitable. Obtaining a PhD provides an additional salary incentive; however, colleagues concentrating on clinical work have a better opportunity for salary growth. University positions have lower salaries than clinical ones (especially during the PhD student time). There are several nurses with a PhD and also as PhD students. The research nurses do not have combined positions with 40% for teaching and research. They, however, have the same salary as other nurses during their PhD time. Visiting other institutions is encouraged but there is no formalised program.

The committee's evaluation

A majority of the researchers have combined positions promoting integration between the clinic and academia. Recruitment of researchers is a challenge due to the competition with surgery and because lower salary and career opportunities.

The committee´s recommendations

- To enforce the research at the HHA, career opportunities and salaries for researchers should be reviewed and improved in relation to clinical career opportunities at the HHA.

1.7 Open Science

The HHA follows the UiO and OUS recommendations that all employees select publications in journals that allow the article to be openly available. These may be either Open Access journals or those that permit articles to be deposited and made openly available in an institutional repository. A national repository for scientific publications will be available for all sectors in 2024. UiO has further adopted a rights retention policy to strengthen the

opportunity for employees and students to freely choose which channels they publish in, while at the same time, the publications can be made openly available.

UiO and OUS aim to manage research data according to international standards, such as the FAIR principles https://www.ub.uio.no/english/writing-publishing/data-archiving/fair-principles.html. The OUS OA-policy follows the "as open as possible, as closed as necessary" principle in terms of access to research data.

Two quality registers are being deployed for H&N cancer and tonsil surgery. The goal is to include all H&N cancer patients diagnosed and treated at Oslo University Hospital in the quality register. The department of Otorhinolaryngology also participates in the national register for tonsil surgery and complications. This is the most common surgical procedure in children and adults within the Ear Nose and Throat speciality.

The committee's evaluation

The HHA promotes the use of open science in publications and participates in key quality registers.

The committee´s recommendations

- Open access sometimes comes with high publication fees also in well-established papers. Financial support for publication in open access can facilitate more publications in open access. Quality registers can generate both clinical quality of care data and research data from large populations and over time. Participating in these quality registers and maintaining a high adherence to them should be a priority.

2. Research production, quality and integrity

Introduction

The HHA makes interdisciplinary health research that combines medicine and health sciences, register-based quality assurance - and research based on large patient volumes, translational research with a focus on "tissue engineering", high-quality clinical studies that are directly relevant to the clinical operations, collaboration with the industry (Pharmaceutical Industry and Medical Technical Equipment suppliers) and external institutions on specific research projects, research-driven innovation.

Throughout the last few years, there has been an increase in research activity, and in 2022, the HHA published 103 papers in peer-reviewed journals. There is collaboration with other departments in different fields of work e.g., departments of cardiology, radiology, oncology and pediatrics on mentoring doctors for the PhD degree.

For quality and integrity control the HHA refers to that UiO and OUS recommend that all employees select journals that allow the article to be openly available. UiO and OUS aim to manage research data according to the FAIR principles. Both OUS and UiO have Standard for Research Integrity - For employees - University of Oslo (uio.no) and Guideline_research_ethics_and_integrity_OUS.pdf (ous-research.no). Guidelines for the handling of cases concerning potential violations of recognised norms of research ethics, with the appointment of The Commission on Research Integrity for the Institute of Clinical Medicine at the Faculty of Medicine, University of Oslo, Oslo University Hospital and Akershus University Hospital: The Commission on Research Integrity - Faculty of Medicine (uio.no). The Research ombudsman: The research ombudsman is a service to employees at the University of Oslo, Institute of Clinical Medicine, Akershus University Hospital and Oslo University Hospital, as well as other researchers and students without employment who conduct research at these institutions.

Scientific staff receive training in research ethics in various ways, including as part of the PhD program where both PhD candidate and supervisor must participate together.

Research integrity and the responsibilities of leaders and project leaders is regularly discussed in meetings between the hospital management and the management teams in the clinical divisions.

2.1 Research quality and integrity

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

Department of Ophthalmology

Very strong research group with a high-quality output, which is reflected in the high scores for both organisation and quality. The group certainly has the potential for

publishing reports in journals with higher impact. The goals of the group are set high but primarily related to internal structure and organisation while there is little information on how to develop the research field itself, or how the group could act to strengthen Norway's position internationally (aspects which should follow the national leadership the group aims for). Work on national guidelines as well as two patents coming from the group are important contributions to society. However, there are no convincing examples or documentation of the group's efforts related to user involvement in the research process.

3. Diversity and equality

The HAA follows the OUS aim that all employees are given equal rights and opportunities for professional development regardless of ethnicity, functional ability, age, gender and sexual orientation. There is an “Action plan for Equality, Inclusion and Diversity” outlining specific measures, divides into the following focus areas: 1) Competence and tools 2) Communication and language (non-discriminatory language) 3) Recruitment, inclusion and employer branding.

The HHA refers to adherence to the following documents:

- Action plan for equality, inclusion and diversity, Oslo University Hospital
- OUS Action plan for equality, inclusion and diversity (ousresearch.no)
- UiO's policy for diversity, equality and inclusion UiO's policy for diversity, equality and inclusion - University of Oslo
- UiO Action plan for diversity, equality and inclusion
- The faculty of Medicine’s action plan for diversity, equality and inclusion

A majority of the senior researchers are men and a majority of the PhD students are women. This reflects the historic recruitment of medical doctors into the profession. The HHA reports having several researchers from minorities in leading research positions.

The committee's evaluation

The HHA follows the action plans recommended by the University of Oslo. There is an imbalance among researchers in relation to sex.

The committee´s recommendations

- The HHA could consider formulating a strategy for diversity and equality based on the University guidelines but taking the local conditions at the HHA into consideration. The current imbalance among researchers with regard toa sex is likely to change over the coming years which in turn is likely to generate new imbalances why a long-term strategy should be established to obtain the goals. This should also include other minority aspects such as ethnicity.

4. Relevance to institutional and sectorial purposes

The HHA highlights the advancement with 3D printing for reconstruction in Head & Neck surgery as well as the development in endoscopic and minimally invasive surgery.

Innovation is a focus area for the research at the HHA. There is good infrastructure to develop innovations through Inven2, which is one of Norway's biggest technology transfer offices and a limited liability company owned by the University of Oslo (UiO) and Oslo University Hospital (OUS). Inven2 administers the commercial potential of inventions and work results of OUS and UiO and all the health trusts in the South-Eastern Norway Regional Health Authority. The Growth House supports researchers, students and other staff in maturing early-stage ideas through tailored counselling, seed funding, meeting places, innovation mentor programme, student internship and more. The Innovation Unit in OUS offers advice and practical assistance for employees who are going to carry out innovation projects. The HHA reports at least 10 ongoing innovative projects.

The committee's evaluation

Innovation is a research focus area and the infrastructure is good.

The committee´s recommendations

- Maintain and expand the innovative research in line with the research strategy.

4.1 Health trusts

The administrative units often support and facilitate research initiatives in the field of head and neck. They provide funding, infrastructure, and regulatory support for research studies, clinical trials, and the development of innovative surgical techniques and technologies. Administrative units foster collaborations and networking among different healthcare institutions, researchers, and healthcare professionals involved in head and neck surgery, reconstructive surgery and ophthalmology. The HHA clinic can contribute to regulatory processes, securing funding and developing strategies for bringing new technologies to marked through Inven2.

Professors at the HHA clinic is employed both by the University of Oslo and by Oslo University Hospital, in that way they contribute with academic knowledge into the clinic and to the clinicians working as well as young colleagues in specialisation.

There has been a major increase in the number of PhD projects during the evaluation period. In addition, a steady number of medical students and master´s students have been supervised during the period.

Master students are invited to participate in the interprofessional research group of children's surgical department. The HHA clinic has seven clinical PhD fellows founded by the University of Oslo and supported and mentored by staff in the HHA clinic.

Several medical students also are connected to the HHA clinic through the research program at the institute of medicine The HHA often support and facilitate research

initiatives in the field of head and neck. They provide funding, infrastructure, and regulatory support for research studies, clinical trials, and the development of innovative surgical techniques and technologies. They also foster collaborations and networking among different healthcare institutions, researchers, and healthcare professionals involved in head and neck surgery, reconstructive surgery and ophthalmology. The HHA clinic can contribute to regulatory processes, securing funding and developing strategies for bringing new technologies to marked through Inven2.

The committee's evaluation

The HHA has a leading position within its field and disseminates the results in their clinical work, education and interaction with the institutions and sectors. The HHA contributes to the quality of the relevant educational programs with students involved in research projects and master programs. Researchers are teachers and clinicians bringing evidence-based medicine into the educational programmes.

The committee´s recommendations

- The HHA should continuously evaluate how the combination of closely related departments and clinical disciplines can be used in collaboration regarding education, research and the clinic. Maintaining a high number of PhD students and Master projects. Develop educational collaboration within the HHA and with other institutions.

5. Relevance to society

The HHA reports clinical and academic benefits of their research in the area of the patients being treated. Examples are given.

Head, neck and reconstructive surgery plays a crucial role in society by addressing various medical conditions and improving patients' quality of life.

Treatment of Head and Neck Cancer: Head and neck surgeons play a key role in diagnosing and treating cancers. Their expertise in surgical techniques helps in the removal of tumours, reconstructive procedures, and postoperative care, thereby improving patients' chances of survival and recovery. The HHA has conducted several studies on patients' quality of life on this topic.

Restoration of Function: Head and neck surgery aims to restore and preserve the function of important structures such as the throat, mouth, vocal cords, and salivary glands.

Facial Reconstruction: Head and neck surgeons and Plastic surgeons help restore patients' appearance, daily functions enhancing their self-esteem and facilitating their reintegration into society.

Airway Management: Head and neck surgeons manage airway obstructions, such as those caused by tumors or anatomical abnormalities and diagnosis of children's breathing difficulties like stridor in infancy.

Management of Chronic Diseases: Conditions like chronic sinusitis, tonsillitis, recurrent epistaxis and Obstructive Sleep Apnea. Collaborations and Multidisciplinary Approaches: Head and neck surgery often requires collaboration with other healthcare professionals, including oncologists, radiologists, pathologists, speech therapists, and psychologists. This multidisciplinary approach ensures comprehensive, personalised care for patients.

Ongoing ophthalmology research is crucial for enhancing eye care, preserving vision, and ultimately improving quality of life.

The committee´s comments to impact case 1 - LUCAS impact case study

The Lucentis Compared to Avastin Study (LUCAS) was a randomised controlled trial treating exudative AMD (nAMD) with Lucentis (ranibizumab) versus Avastin (bevacizumab) following an "inject and extend" protocol. 432 patients with previously untreated nAMD were included from 10 sites in Norway and randomised to either Avastin or Lucentis and followed up for two years. The study showed that an off-label treatment of nAMD with the cheaper drug Avastin was equally effective and safe as Lucentis. It also showed that treatment intensity could be individualised. This has led to significant cost savings in ophthalmology internationally.

Neovascular age-related macular degeneration (nAMD) has been the most common cause of serious visual loss and blindness in the elderly population in Western countries. There was no effective treatment until anti-VEGF drugs became available. Avastin was approved for cancer treatment but was introduced as an intravitreal treatment for nAMD by Professor Philip J. Rosenfeld in 2005. In 2007, Lucentis was approved for intravitreal treatment for nAMD but at a much higher cost than Avastin. Because of the high cost of Lucentis and a very large patient group with a chronic disease that required repeated intravitreal injections for an extended period, there

was a great need to perform a randomised controlled trial comparing Avastin and Lucentis. LUCAS (Lucentis Compared to Avastin Study) was designed and performed without any contribution from the pharmacy industry and financed by the Ullevål University Hospital. The study was the first randomised, multicentre prospective trial designed with the treat and extend treatment modality, which maximises cost-effectiveness. 432 patients with previously untreated nAMD were included from 10 sites in Norway and randomised to either Avastin or Lucentis and followed up for two years. The results showed that both drugs improved vision equally, the number of injections were similar between the drugs, the treatment was safe, and interval between injections could be extended from 4 up to 12 weeks.

The committee´s comments to impact case 2 - Pharmaceutical compounding of prefilled syringes for intravitreal injection.

This is a good impact case because it improves the quality and cost-effectiveness of the intravitreal injection procure.

Researchers have developed and validated a compounding procedure that has become national gold standard and has been implemented internationally in several different departments through a Inven2-based collaboration with the Dutch company SJJ Solutions to develop a line of products for pharmaceutical compounding of prefilled syringes for intravitreal injection, Zero Residual, which includes two different syringes: the Zero Residual 0.3-mL low-silicone-oil syringe and the Zero Residual 0.2-mL silicone-oil-free syringe.

The research has shown that the compounding procedure is not associated with an increased risk of post-injection endophthalmitis and that splitting of vials can be carried out safely. Accordingly, improvements of the quality and cost-effectiveness of the intravitreal injection procure have the potential for large impact.

The committee´s comments to impact case 3 - Randomised clinical trials on intraocular lens (IOL) dislocation surgery - improving outcome for a common eye condition in society

This is a good impact case because it has had a significant impact on how this condition is being understood, treated and communicated to the patients, both nationally and internationally.

Two randomised clinical trials of the eye condition late in-the-bag intraocular lens (IOL) dislocation and its surgical treatment. Two different operation methods were compared and several clinical parameters were measured with a follow-up of two years in both trials.

The first randomised clinical trial in 2013 104 patients were enrolled in the study and randomised to either IOL repositioning by suturing of the dislocated lens to the eye wall or IOL exchange with removal of the dislocated lens and placement of a new lens clipsed to the iris (iris-claw IOL).

A second randomised clinical trial – LION – in 2017, 100 patients were enrolled by new PhD candidates, and operated by the same surgeon as the previous trial, and the study patients were followed for two years. The focus was intraocular inflammation measured with a laser flare instrument.

The results have had a significant impact on how this condition is being understood, treated and communicated to the patients, both nationally and internationally. The

studies have also increased the focus and attention towards this condition both in the scientific community and in society.

The committee´s comments to impact case 4 - The impact of ethnicity on cochlear implantation in Norwegian Children

This is a good impact case because it shows that ethnicity of the parents affects when children receive their cochlear implant (CI).

The objective of the study was to explore the impact of parental ethnicity on cochlear implantation in children in Norway concerning incidence rates of cochlear implants (CIs), comorbidities, age at onset of profound deafness, age at first implantation, uni- or bilateral CI, and speech recognition. This retrospective cohort study included all children (N = 278) aged <18 years in Norway who received their first CI during the years 2004-2010. 86 children (30.9%) in our study sample had parents of non-Nordic ethnicity, of whom 46 were born in Nordic countries with two non-Nordic parents. The paper is valuable in that it indicates that parents' ethnicity was affected when the children were receiving a cochlear implant (CI) during the years 2004 - 2010. When born deaf or hard of hearing, implantation at a young age is important to gain the best benefit of the CI. At OUH the recommended surgery age is 8 months when all other factors for surgery is OK. A replicate of the study should be done for the same data in the recent period, 2010-2022.
The paper also documents characteristics of the paediatric CI group; additional abilities, non-use of CI, etc, which are important data. The paper was used as a reference in an important government investigation/report, NOU2023:20, “Tegnspråk for livet”. Ref: Høring - NOU 2023:20 Tegnspråk for livet. Forslag til en helhetlig politikk for norsk tegnspråk (https://www.regjeringen.no/no/dokumenter/nou-2023- 20/id2984187/).

Appendices

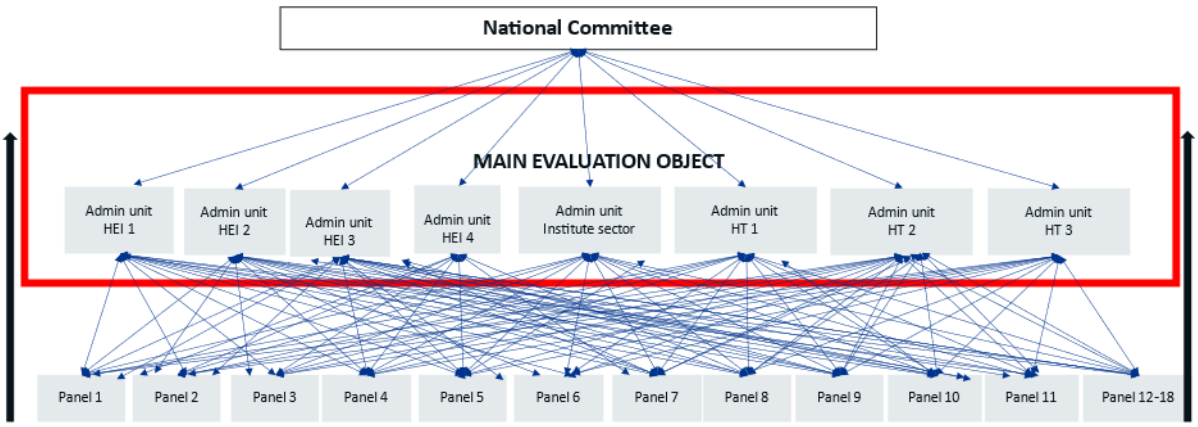
Evaluation of Medicine and health 2023-2024

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

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

Evaluation of medicine and health (EVALMEDHELSE) 2023-2024
The evaluation of medicine and health includes sixty-eight administrative units (e.g., faculty, department, institution, center, division) which are assessed by evaluation committees according to sectorial affiliation and other relevant similarities between the units. The administrative units enrolled their research groups (315) to eighteen expert panels organised by research subjects or themes and assessed across institutions and sectors.

Organisation of evaluation of medicine and health 2023-2024



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

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

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

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

Forskningsrådet

Se vedlagte adresseliste

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

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

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

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

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

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

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

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

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

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

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

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

Administrative enheter (hovedevalueringsobjektet i evalueringen) – skjema 1

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

Forskergrupper – skjema 2

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

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

Invitasjon til å foreslå eksperter – skjema 3

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

Obs. Det er to faner i regnearket:

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

Utfylte skjemaer (3 stk):

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

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

Tilpasning av mandat – frist 30. september 2023

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

Forskningsrådet

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

Digitalt informasjonsmøte 15. mai 2023, kl. 14.00-15.00.
Forskningsrådet arrangerer et digitalt informasjonsmøte for alle som ønsker å delta i EVALMEDHELSE.

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

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

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

Med vennlig hilsen
Norges forskningsråd

Ole Johan Borge	Hilde G. Nielsen
avdelingsdirektør	spesialrådgiver
Helse	Helse

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

Kopi
Helse- og omsorgsdepartementet
Kunnskapsdepartementet

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

The Research Council of Norway

Evaluation of life sciences in Norway 2022-2023

LIVSEVAL protocol version 1.0

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

The Research Council of Norway
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The report can be downloaded at
www.forskningsradet.no/publikasjoner

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.

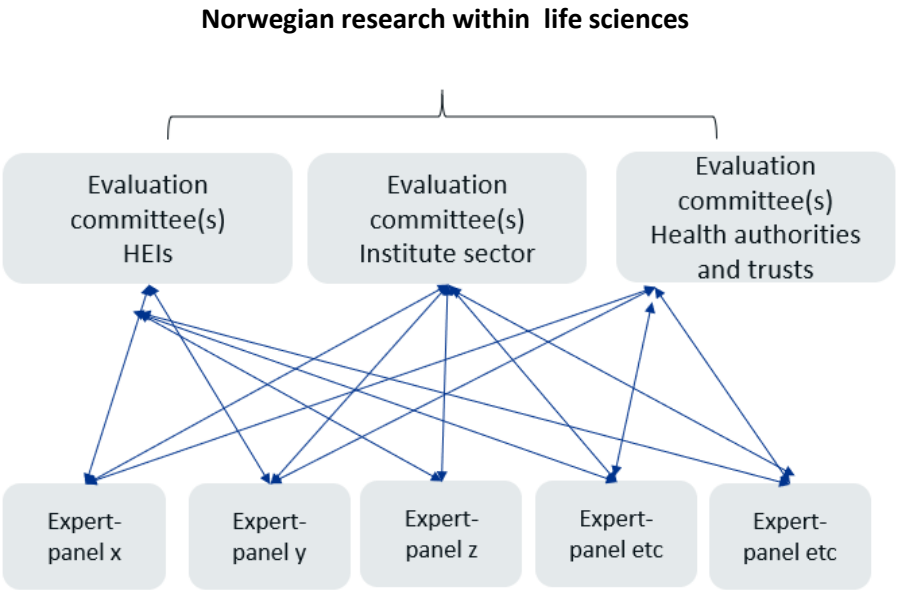

Figure 1. Evaluation committees and expert panels

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
Oslo University Hospital and University of Oslo	Division of head, neck and reconstructive surgery (HHA)	Department of Ophthalmology	Panel 3a-1

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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