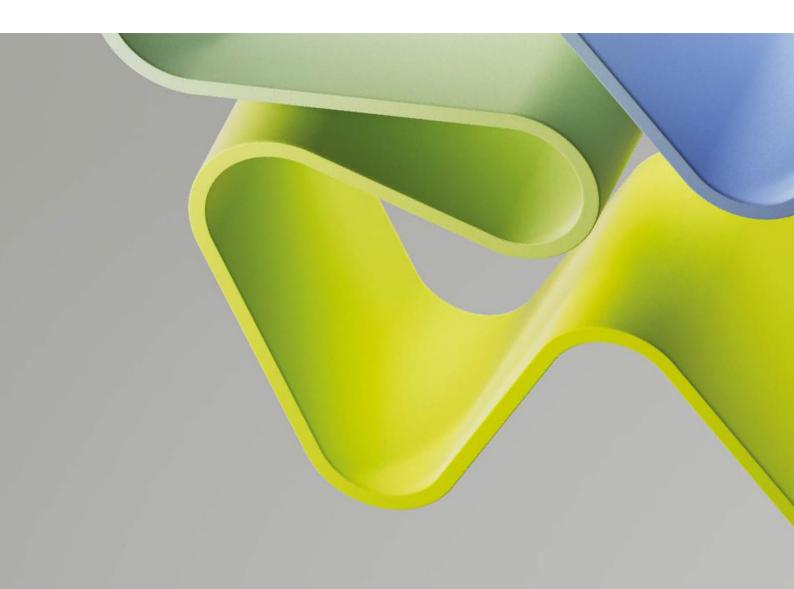


# Evaluation of Medicine and Health 2023-2024

Evaluation report – Panel 3b\_2

Research Group: Cardilogy research group (CRG) Administrative Unit: Stavanger University Hospital

Institution: Stavanger University Hospital



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## **Preface**

The Research Council of Norway (RCN) is given the task by the Ministry of Education and Research to perform subject-specific evaluations. The primary aim of the evaluation of medicine and health (EVALMEDHELSE) 2023-2024 is to reveal and confirm the quality and relevance of research performed at Norwegian Higher Education institutions, research institutions (the institute sector) and the health trusts, in an international perspective. Such knowledge is useful for the institutions that participate in the evaluation, for the Research Council who advice the authorities on how research should be developed further, and for the authorities, who set targets and frameworks for research and higher education. Research groups submitted by their administrative unit will be assessed by 18 expert panels organised by research subjects or themes. The expert panels will assess research groups across institutions and sectors based on research group's self-assessments and examples of scholarly output. These research reports will be part of the evaluation of their belonging administrative units.

## **Abstract**

The Cardiology Research Group (CRG) within Stavanger University Hospital is affiliated with the University of Bergen. There are 4 sub-groups (Heart failure; Myocardial infarction; Exercise training; Endurance training in leisure athletes). The goal is to conduct research including participation in large RCTs, expand the biobank and improve international cooperation. There is a focus on patient involvement in research and on contribution to and use of national registries. The group participates in large RCTs often relevant to guideline updates, and often as the national centre/lead. Quality of the research is excellent, as evidenced by research publications and influence on guidelines. The group contributes to the education of the next generation of doctors, academic cardiologists, research nurses and physiotherapists. They are very active in generation of Norwegian and European guidelines, so contributing to improved patient care and outcomes locally, nationally and internationally. They have a patient outreach activity (Heart Failure Information for Patients & Caregivers). They participate in congresses include hosting. They link to the press to relay information. Based on the evidence provided, this group is nationally leading and internationally competitive (but relatively small).

#### Overall assessment

Strengths of the Cardiology Research Group (CRG) concern their very strong funding portfolio (a good mix of sustained public and private funding), them being the National centre/lead for RCTs, their good international links and good contribution to education, good societal contribution. Furthermore, the group has a good patient (and public) outreach, excellent quality research outputs (internationally competitive/leading), their leadership in national and European guidelines and clear evidence of disciplined leadership. Weaknesses of the research group concern their small size (2 Professors, 2 Associate Professors plus 2 retired professors) and the fact that they have not yet identified a succession plan. The group also has some limitations in support from the host institution and a lack of evidence for patient involvement in research design and conduct.

#### Grading:

Dimensions	Score
Organisational dimension (How adequate the organisational environment is	4
in supporting the production of excellent research).	
Quality dimension (Research and publication quality/Research group's	5/5
contribution)	
Societal impact dimension (Research group's societal contribution/User	4/3
involvement)	

#### Recommendations

- The group is currently small and is ageing. If the group is to continue, a succession plan needs to be developed and discussed with the host institution. This is urgent.
- Consider ways to involve patients and the public in the design and conduct of the research (co-creation) – the view at the moment seems to be "research on patients" rather than "research with patients".

## 1. Strategy, resources and organisation

## 1.1 Research group's organisation and strategy

The Cardiology Research Group (CRG) within Stavanger University Hospital is affiliated with the University of Bergen. There are 4 sub-groups (Heart failure; Myocardial infarction; Exercise training; Endurance training in leisure athletes). The 4 sub-groups interact. They also link with Stavanger Heart Research which has four dedicated research nurses involved in clinical trials and has lab and biobanking facilities. There are good links with biochemistry, radiology (MRI, CT, nuclear imaging) and physiotherapy at Stavanger University Hospital. Academic staff number 4 (2 Professors and 2 Associate Professors) with two retired Professors still quite active. All academic staff are active clinicians. The goal of the group is to conduct research including participation in large RCTs, expand the biobank and improve international cooperation. There is an expectation that all research conducted is "internationally recognised".

Self-reported benchmarks relate to maintaining externally funded PhD student numbers at 8-10, succession planning, improving existing research collaborations, increasing use of international biobanks, maintaining high publication output (40-60/year), maintaining research activity, being the national lead for international trials, participation in writing guidelines, contributing to education, conferences and higher education programs, and improving funding. There is contribution to medical student teaching at the University of Bergen. There is a strong focus on PhD students – currently, there are 13 externally funded PhD students who are mostly 50% research and 50% clinical (cardiology). There is a history of supervising nurses to MSc or PhD level.

The host institution is highly supportive, providing a clinical research unit, biobanking services, medical statistics support, GCP training, admin support for grant applications, legal services, and promotion of international links. Nevertheless, Section 3 of the self-assessments lists several areas where the group feel greater support is needed.

## Evaluation based on the above

A strong and well-functioning research group that is well established and well supported with an excellent strategy and focus.

## Recommendations to the research group

 Be mindful of the need for succession planning (retired Professors are still making important contributions); identify likely candidates for faculty positions and work with the host institution to get these in place.

#### 1.2 Research group's resources

There are 4 sub-groups (Heart failure; Myocardial infarction; Exercise training; Endurance training in leisure athletes). Academic staff number 4 (2 Professors and 2 Associate Professors) with two retired Professors still quite active. All academic staff are active clinicians. There are affiliated research nurses and a good number of PhD students. There is a strong history of PhD student supervision (mainly cardiologists) and of supporting nurses to higher degrees (MSc, PhD).

There is a good funding portfolio, although the figures provided seem rough approximations rather than the reality. Total annual funding is currently approx. 10 million NOK, with 5 million NOK from industry and other private sources and 3.6 million NOK from national grant sources, in addition to 500K NOK basic funding (permanent research positions including technical and admin) and 500K NOK from RCN (clinical trial support). Thus, core support ("basic funding") makes up only 5% of research income. Funding is mostly for RCTs. There has been previous EU funding but none currently.

#### **Evaluation**

A small but active group that is doing well in establishing a mixed funding portfolio.

## Recommendations to the research group

• Continue to seek funding opportunities including at the EU level.

#### 1.3 Relevance to the institution

The research group seems to be important to the institution. Clearly, it makes a strong contribution to the institution's research activity and its academic output. It makes a significant contribution to the institution's local, national and international visibility enhancing esteem. It has leadership roles in the European Society of Cardiology, on guidelines committees and on patient-facing activities. The group participates in large RCTs relevant to guideline updates, often as the national centre or national lead. It hosts national and regional conferences (e.g. three times Norwegian Society of Cardiology). The group has many international links. The group makes a strong contribution to the Institution's education programme.

#### **Evaluation**

Significant contribution to the Institution's research, education and public outreach programmes.

## Recommendations to the research group

• Maintain the contribution but, once again, succession planning is key to this.

## 2. Research quality

## 2.1 Research group's scientific quality

The group participates in large RCTs often relevant to guideline updates, and often as the national centre or national lead. Each sub-group identifies participation in trials, often in collaboration with other centres; this reflects the funding profile described in a previous section. Ten projects are described in detail, although several of these are historic, rather than recent or current. These represent a mix of private and public-funded trials typically looking at biological and clinical outcomes of interventions (drugs, exercise). All completed trials have resulted in high impact publications (Circulation, Lancet, Eur Heart J, J Am Coll Cardiol, Am Heart J, NEJM). Publication output is high and has increased over the reporting period: 77 papers in PubMed in 2021. The quality of published papers is exceptional and internationally competitive. Mentioned publications include in Circulation, Lancet, Eur Heart J, J Am Coll Cardiol, Am Heart J, NEJM, J Am Heart Assoc, J Intern Med. Thus, both the quantity and quality of published output are very high. What is more, the group often lead the publications (first or senior authorship) and provides clear evidence of their role in this. Furthermore, they take a leading role in national and European quideline writing.

#### **Evaluation**

Excellent quality output that is internationally competitive/leading. The output depends upon sustained funding to conduct trials, so funding and output are linked.

## Recommendations to the research group

 Keep it up! Once again successful succession planning will be key to continued highlevel output.

## 2.2 Research group's societal contribution

The group contributes to the education of the next generation of doctors, academic cardiologists, research nurses and physiotherapists. They recruit from their own patient population into trials. They are very active in the generation of Norwegian and European guidelines, so contributing to improved patient care and outcomes locally, nationally and internationally. They have a patient outreach activity (Heart Failure Information for Patients & Caregivers). They participate in congresses including hosting. They link to the press to relay information to patients and the public.

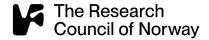
#### **Evaluation**

Overall, very good societal impact. There is no evidence provided of patient involvement in the design and conduct of research (co-creation).

#### Recommendations to the research group

• Keep up all the good things already being done. Consider a strategy for greater public and patient involvement in the design and conduct of research (co-creation).

## **Appendices**



## Evaluation of Life Sciences in Norway 2022-2024

#### Evaluation of Medicine and Health 2023-2024

## Mandate Expert panels

The Research Council of Norway (RCN) is given the task by the Ministry of Education and Research to perform subject-specific evaluations. The Portfolio board for Life Sciences in the Research Council of Norway has decided to carry out an evaluation of medicine and health in 2023-2024 as the second of two evaluations within Life Sciences. The evaluation of biosciences takes place in 2022-2023.

#### 1. The objective of the evaluation

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), by the institute sector and by health trusts.

The results of the evaluation will be used as recommendations to the institutions, the Research Council, and the ministries.

#### 2. Tasks of the expert panels

The panels are requested to:

- evaluate the strategy, resources and organisation of/for the research groups.
- evaluate research production and quality of the research groups.
- grade and write a short evaluation text to the evaluated research groups.

Each of the expert panels will write a brief report with evaluations of the different research groups as well as specific recommendations.

#### 3. Time schedule

Digital panel meetings will take place in the period March 15. - June 15. 2024.

Deadline for submitting panel report to the Research Council: June 15. 2024.

#### 4. Miscellaneous

Other important aspects of Norwegian life sciences research that ought to be given consideration.

## **EVALMEDHELSE 2023-2024 – Panel group description – January 2024**

Panel group	Description	Panel no.
Group 1 PHYSIOLOGY  Physiology-related disciplines (human physiology), including corresponding translational research	Anatomy, physiology, embryology, nutritional physiology, pathology, basic odontological research, exercise physiology, neurobiology, toxicology, pharmacology, medicinal chemistry, chemistry, biology, pathology.	Panel 1a Panel 1b
Group 2 MOLECULAR BIOLOGY  Molecular Biology, including corresponding translational research	Microbiology, bacteriology, inflammation and infection disease research, forensic medicine, genetics, immunology, vaccine development, microbiological diagnostics, pharmaceutical microbiology, cell biology, molecular medicine and -biophysics, medical biochemistry, omics, organoids, imaging, toxicology, pathology, drug development, cancer research, translational research, systems biology, personalized medicine, biomarkers, oncology, genetics, genomics, epigenetics, proteomics, bioinformatics-/statistics, computational science, Al, biology, virology, radiology, ionisation, molecular biology, microbiology, pharmacology, pharmacogenomics, regenerative medicine and related subjects.	Panel 2a Panel 2b Panel 2c
Group 3a CLINICAL RESEARCH	Clinical Research, including surgery and translational research within: paediatrics, women's health, gynaecology, otorhinolaryngology, head and neck surgery, oncology, haematology, radiology and medical imaging.	Panel 3a_1 Panel 3b_2
Group 3b CLINICAL RESEARCH	Clinical Research, including surgery and translational research within: general medicine, emergency medicine, anaesthesiology, neurology, geriatric medicine, rehabilitation medicine, cardiology, nephrology/urology, endocrinology, pulmonary medicine, orthopaedics, rheumatology, Infection, gastroenterology.	Panel 3b_1 Panel 3b_2 Panel 3b_3
Group 4 PUBLIC HEALTH  Public Health and Health- related Research	Public health, community research, epidemiology, preventive medicine, mental health, behavioural research and ethics, medical statistics, environment, nutrition, preventive medicine, physiotherapy, sports medicine, implementation research, public health, health care services research, global health, nursing	Panel 4a Panel 4b Panel 4c

	sciences, rehabilitation sciences, public health systems, digital health care services, ICT, HTA, health competence, genetic and epigenetic epidemiology, non-communicable diseases, pharmacology, nursing research, professional research, occupational medicine.	Panel 4d Panel 4e Panel 4f
Group 5 PSYCHOLOGY  Psychology and Psychiatry	Clinical psychology, personality psychology, developmental psychology, cognitive psychology, biological psychology and forensic psychology, psychiatry, including geriatric psychiatry, child and adolescent psychiatry and biological psychiatry, social, community- and workplace psychology, organizational psychology, developmental psychology, behavioural and health psychology, health promotion and well-being.	Panel 5a Panel 5b

## Panel group 3b CLINICAL RESEARCH

## Expert panel 3b\_2

Name	Title	Institution
Victor Gault (chair)	Professor	Ulster University
Christian Wilhelm Hamm	Professor	University of Giessen
Jolanta Malyszko	Professor	Medical University of Warsaw
Phillip Calder	Professor	University of Southampton



# Evaluation of Medicine and Health (EVALMEDHELSE) 2023-2024

# Self-assessment for research groups

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

Updated: 13. October 2023

Institution (name and short name):	
Administrative unit (name and short name):	
Research group (name and short name):	
Date:	
Contact person:	
Contact details (email):	

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## Introduction

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

You have been invited to complete this self-assessment as a research group. The self-assessment contains questions regarding the group's research- and innovation related activities and developments over the years 2012-2022. All submitted data will be evaluated by expert panels.

## Deadline for submitting the self- assessment to your administrative unit - 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 submit completed self- assessment to the administrative unit no later than 26 January 2024.

Please use the following format when naming your document: [short name of the institution]\_[short name of the administrative unit]\_[short name of the research group], e.g. *UiT\_DepPsy\_Short name of the research group*.

For questions concerning the self-assessment or EVALMEDHELSE in general, please contact RCN at <a href="mailto:evalmedhelse@forskningsradet.no">evalmedhelse@forskningsradet.no</a>.

Thank you!

## Guidelines for completing the self-assessment

- Please read the entire self-assessment document before answering.
- The evaluation language is English.
- Please link to websites/documents in the self-assessment where relevant.
- Please be sure that all documents linked to in the self- assessment are written 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 <u>evaluation protocol</u>. In order to be evaluated on the two evaluation criteria described in the evaluation protocol, the research group must answer <u>all questions</u>.
  - ⇒ Provide information provide documents and other relevant data or figures about the research group, for example strategy and other planning documents, as well as data on R&D expenditure, sources of income and results and outcomes of research
  - ⇒ Describe explain and present using contextual information about the research group and inform the reader about the research group.
  - ⇒ Reflect comment in a reflective and evaluative manner how the research group operates.
- Data on personnel should refer to data reported to DBH on 1 October 2022 for HEIs and to the
  yearly reporting for 2022 for the institute sector and the health authorities. Other data should
  refer to 31 December 2022 if not specified otherwise.
- It is possible to extend the textboxes when filling in the form. **NB!** A completed self- assessment form cannot exceed 25 pages (pdf file). Expert panels are not requested to read more than the maximum of 25 pages. Pages exceeding maximum limit of 25 pages **might not** be evaluated.
- Submit the self- assessment as a pdf (max 25 pages) to the administrative unit within **26 January 2024**. Before submission, please be sure that all text are readable after the conversion of the document to pdf. The self- assessment should be sent from the administrative unit to <a href="mailto:evalmedhelse@forskningsradet.no">evalmedhelse@forskningsradet.no</a> within **31 January 2024**.

Please note that information your write in the self assessment and the links to documents/websites in the self-assessment are the only available information for the expert panel.

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

## 1. Organisation and strategy

## 1.1 Research group's organisation

Describe the establishment and the development of the research group, including its leadership (e.g. centralised or distributed etc.), researcher roles (e.g. technical staff, PhD, post docs, junior positions, senior positions or other researcher positions), the group's role in researcher training, mobility and how research is organised (e.g. core funding organisation versus project based organisation etc.).

#### Table 1. List of number of personnel by categories

**Instructions:** Please provide number of your personnel by categories. For institutions in the higher education sector, please use the categories used in DBH,

https://dbh.hkdir.no/datainnhold/kodeverk/stillingskoder. Please add new lines or delete lines which are not in use.

	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 Personnel	Position A (Fill in)				
by position	Position B (Fill in)				
	Position C (Fill in)				
	Position D (Fill in)	A			

## 1.2 Research group's strategy

a) Describe the research group's main goals, objectives and strategies to obtain these (e.g. funding, plans for recruitment, internationalization etc.) within the period 2012-2022.

b) Please describe the benchmark of the research group. The benchmark for the research group should be written by the administrative unit in collaboration with the research group. The benchmark can be a reference to an academic level of performance (national or international) or to the group's contributions to other institutional or sectoral purposes.

Example: A benchmark for a research group is related to the research groups' aim which again is included in the strategy for the administrative unit. A guidance for the administrative unit to set a benchmark for the research group(s) can e.g. be: What do the administrative unit expect from the research group(s)?

- c) Describe the research group's contribution to education (master's degree and/or PhD).
- d) Describe the support the host institution provides to the research group (i.e., research infrastructure, access to databases, administrative support etc.).

## 1.3 Relevance to the institutions

Describe the role of the research group within the administrative unit. Consider the research group's contribution towards the institutional strategies and objectives, and relate the research group's benchmark to these.

## 1.4 Research group's resources

Describe the funding portfolio of the research group for the last five years (2018-2022).

**Table 2.** Describe the sources of R&D funding for the research group in the period 2018-2022.

	2018 (NOK)	2019 (NOK)	2020 (NOK)	2021 (NOK)	2022 (NOK)
Basic funding					
Funding from industry and other					
private sector sources					
Commissioned research for public					
sector					
Research Council of Norway					
Grant funding from other national					
sources					
International funding e.g. NIH, NSF,					
EU framework programmes					
Other					

## 1.5 Research group's infrastructures

Research infrastructures are facilities that provide resources and services for the research communities to conduct research and foster innovation in their fields. These include major equipment or sets of instruments, knowledge-related facilities such as collections, archives or scientific data infrastructures, computing systems communication networks. Include both internal and external infrastructures.

- a) Describe which national infrastructures the research group manages or co-manages.
- b) Describe the most important research infrastructures used by the research group.

## 1.6 Research group's cooperations

**Table 3.** Reflect on the current interactions of the research group with other disciplines, non-academic stakeholders and the potential importance of these for the research (e.g. informing research questions, access to competence, data and infrastructure, broadening the perspectives, short/long-term relations).

Interdisciplinary (within and beyond the group)	About 1/3 page
Collaboration with other research sectors e.g. higher education, research institutes, health trusts and industry.	About 1/3 page
Transdisciplinary (including non academic stakeholders)  Transdisciplinary research involves the integration of knowledge from different science disciplines and (non-academic) stakeholder communities with the aim to help address complex societal challenges.	About 1/3 page

## 2. Research quality

## 2.1 Research group's scientific quality

Describe the research profile of the research group and the activities that contribute to the research group's scientific quality. Consider how the research group's work contributes to the wider research within the research group's field nationally and internationally.

Please add a link to the	research group`s website:
CN	

## **Table 4. List of projects**

**Instructions:** Please select 5-10 projects you consider to be representative/the best of the work in the period 1 January 2012 – 31 December 2022. The list may include projects lead by other institutions nationally or internationally. <u>Please delete tables that are not used.</u>

Project 1 -10:	Project owner(s) (project leaders organisation)	
Project title/Project period	leaders organisation;	
(year from – year to)	Total budget and share allocated to research group	
	Objectives and outcomes (planned or actual) and link to website	

## Table 5. Research group's contribution to publications

**Instructions:** Please select 5-15 publications from the last 5 years (2018-2022) with emphasis on recent publications where group members have a significant role. **If the publication is not openly available, it should be submitted as a pdf file attached to the self-assessment.** We invite you to refer to the Contributor Roles Taxonomy in your description: <a href="https://credit.niso.org/">https://credit.niso.org/</a>.

*Cf. Table 1. List of personell by categories:* Research groups up to 15 group members: 5 publications. Research groups up to 30 group members: 10 publications. Research groups above 30 group members: 15 publications.

Please delete tables that are not used.

Publication 1 -15:	Authors (Please highlight group members)	
Project title/Journal/Year/DOI/URL	Short description	
	Research group's contribution	

## Table 6. Please add a list with the research group's monographs/scientific books.

Please delete lines which are not used.

1	Title - Authors (Please highlight group members)- link to webpage (if possible)	
2		

## 2.2 Research group's societal contribution

Describe the societal impact of the research group's research. Consider contribution to education, economic, societal and cultural development in Norway and internationally.

Table 7. The research group's societal contribution, including user-oriented publications, products (including patents, software or process innovations Instructions: Please select 5–10 of your most important user-oriented publications or other products from the last 5–10 years with emphasis on recent publications/products. For each item, please use the following formatting. Please delete lines which are not used.

# 3. Challenges and opportunities

Information about the strengths and weaknesses of the research group is obtained through the questions above. In this chapter, please reflect on what might be the challenges and opportunities for developing and strengthening the research and the position of the research group.





## Scales for research group assessment

## Organisational dimension

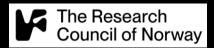
Score	Organisational environment
5	An organisational environment that is outstanding for supporting the production of excellent research.
4	An organisational environment that is very strong for supporting the production of excellent research.
3	An organisational environment that is adequate for supporting 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

Score	Research and publication quality	Score	Research group's contribution Groups were invited to refer to the Contributor Roles Taxonomy in their description <a href="https://credit.niso.org/">https://credit.niso.org/</a>
5	Quality that is outstanding in terms of originality, significance and rigour.		The group has played an outstanding role in the research process from the formulation of overarching research goals and aims via research activities to the preparation of the publication.
4	4 Quality that is internationally excellent in terms of originality, significance and rigour but which falls short of the highest standards of excellence.		The group has played a very considerable role in the research process from the formulation of overarching research goals and aims via research activities to the preparation of the publication.
3	Quality that is recognised internationally in terms of originality, significance and rigour.		The group has a considerable role in the research process from the formulation of overarching research goals and aims via research activities to the preparation of the publication.
2	Quality that meets the published definition of research for the purposes of this assessment.		The group has modest contributions to the research process from the formulation of overarching research goals and aims via research activities to the preparation of the publication.
1	Quality that falls below the published definition of research for the purposes of this assessment.		The group or a group member is credited in the publication, but there is little or no evidence of contributions to the research process from the formulation of overarching research goals and aims via research activities to the preparation of the publication.

## Societal impact dimension

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.		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.		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.		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.		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.		There is little documentation of societal partners' participation in the research process, from problem formulation to the publication and/or process or product innovation.



#### Norges forskningsråd

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Design: [design]

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