Evaluation of Natural Sciences 2022-2024

Evaluation report

UNIS

The University Centre in Svalbard (UNIS)

January 2024



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Statement from Evaluation Committee II

The members of this Evaluation Committee have evaluated the following administrative units at the higher education institutions within natural sciences in 2022-2023 and submitted a report for each administrative unit:

- Department of Chemistry, Norwegian University of Science and Technology
- Department of Physics, Norwegian University of Science and Technology
- Department of Chemical Engineering, Norwegian University of Science and Technology
- Department of Materials Science and Engineering, Norwegian University of Science and Technology
- Department of Geoscience, University of Tromsø
- Department of Chemistry, University of Tromsø
- Department of Physics and Technology, University of Tromsø
- Department of Energy Resources, University of Stavanger
- UNIS The University Centre in Svalbard

The members of the Evaluation Committee are in collective agreement with the assessments, conclusions and recommendations presented in this report. None of the Evaluation Committee members has declared any conflict of interest.

The Evaluation Committee has consisted of the following members:

Professor Amelie Hagelauer (chair)

Technical University of Munich, Germany

Dr. Eric Deville

IFP Energies Nouvelles, France

Federal Institutes of Technology ETH Zurich, Switzerland

Professor **Guido Mul** University of Twente, The Netherlands Professor **Sigridur Suman** University of Iceland, Iceland

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Description of the administrative unit

University Centre in Svalbard – UNIS

The administrative unit

The unit employs 65 FTE research staff out of which 13 are professors, 12 associate professors, 5 researchers, 10 postdocs, 15 PhD students and 10 adjunct professors. UNIS, as an educational institution and research community, aims to strengthen bonds within its current main focus research and educational areas in natural sciences and technology, and in addition establish new arenas for activities related to the current societal challenges in Arctic communities, and in Longyearbyen in particular.

The belonging research groups

UNIS consists of the following research groups – Sedimentology, Surface process, paleoclimate, structural geology research group, Middle and Upper Atmosphere research group, Air-Cryosphere-Sea Interaction research group and Cryosphere research group, Marine biology research group and Terrestrial biology research group.

The administrative unit works in relation to the unit's strategies

The Norwegian Government has identified a major role for research on Svalbard in solving the major challenges in society in relation to global change. Climate warming on Svalbard is approximately 4 times faster than on the continent, giving UNIS the opportunity to operate and use its surroundings as a laboratory. The purpose of UNIS is to provide higher education and conduct research based on Svalbard's geographical location in a high Arctic region.

The unit works in relation to the belonging sector

The purpose of UNIS is to provide higher education and conduct research based on Svalbard's geographical location in a high Arctic region. Through its activities, UNIS will contribute to the development of the society in Longyearbyen and in Svalbard in line with the overall goals of the Norwegian Svalbard policy. UNIS research focus is changing from a primarily fundamental science focus towards a stronger involvement of "users". Especially the strategic focus areas on Arctic safety and renewable energy are strongly involving end-users and innovation is achieved through this collaboration. UNIS has allocated internal funding to establish test facilities and supports user directed activities.

Where the unit will be in the future

The UNIS Strategy 2020-2025 identifies its research goals as follows:

- Be world-leading in research-based field education in high Arctic science and technology preparing students for future challenges
- Enhance UNIS` position as an innovative, high quality, cutting-edge Arctic research institution with significant local and global impact
- Further develop an efficient and professional organization, reflecting the main goals, tasks and working methods for the institution
- Offer modern infrastructure for operation and future growth
- Offer safe field- and laboratory activities and further develop the use of new technology, alternative and efficient solutions for that purpose

Overall assessment

UNIS aims to strengthen bonds within its current research and educational areas in natural sciences and technology, and in addition establish new arenas for activities related to the current societal challenges in Arctic communities, and in Longyearbyen in particular.

This administrative unit shows excellent dynamism and particularly important faculties for arctic studies. Its uniqueness and specialty are highly attractive for young PhD and early career researchers. The difficulties encountered by UNIS are inherent in its remoteness and relatively small size of this structure notably concerning funding of operation and maintenance of their infrastructures.

In view of the characteristics of UNIS, this research and teaching centre is expected to maintain relationships built up on a national and international scale, and to develop its capacity for mentoring young researchers by experienced scientists.

The Evaluation Committee considered the points raised by the unit in their Terms-of-Reference document and have commented on those throughout the report where applicable. What regards UNIS activities in regards to RCN polar programme, the Evaluation Committee concludes that UNIS research activities are coherent with the RCN Polar program. Collaborations with mainland universities in Norway and international institutions are efficient and they should be encouraged to maintain high level research coaching and lab capacities.

Recommendations

UNIS should maintain/develop field work closely with local community and expand/organize networks with much needed external competence to increase the involvement of mainland universities and international collaborations in centre development, most notably regarding lab capacities (in addition to student exchange). The Evaluation Committee recommends continuing and developing collaborations (research and education), particularly with the University of Tromso, but also with other Norwegian and international universities.

The Evaluation Committee recommends implementing new marine surveys notably through R/V Helmer Hansen (with more collaboration with UiT), and other boats (ex: Norwegian Coastguard, M/S Polarsyssel, R/V Kronprins Haakon).

The Evaluation Committee encourages a better involvement on the role of destabilization of gas hydrates in the Artic and its effects on climate changes, and potentially on marine slope destabilization, in particular by participating in marine studies including drilling with international collaborations like IODP.

The Evaluation Committee encourages developments in Carbon Capture & Sequestration, and also Geothermal Energy in Artic, which should contribute to better research funding.

Current efforts to develop joint societal and industrial work with local organizations are good and should be encouraged. This could be considered more formally in a way to be defined inhouse.

The research groups would benefit from increased financial support to host the MS level students arriving from the mainland universities. Support for costs of using lab space and instruments could improve the facilities and strengthen the groups own ability to conduct research.

1. Strategy, resources, and organisation of research

UNIS has well organized research groups with clearly defined expertise. It is a unique educational institution where its basis as a research station is important for collaborations, attracting adjuncts, and graduate students. A core number of staff and students are at UNIS year-round conducting research and in addition master's and PhD candidates conduct either all or parts of their research at UNIS in collaboration with other institutions in Norway. International collaborations bring researchers to UNIS from all over the world because of the unique opportunities the location offers. In this way, UNIS is very important as an integral part of the higher education in Norway as it brings prestige to the educational system as well as high quality research to UNIS.

The research strategy of the unit is focused on the uniqueness of the location as expected and aligns well with the UN SDG goals in the areas studied.

UNIS administrative resources are very good for Air-Cryo and Space Physics groups, but they appear lacking for others and lab space, and lack of analytical instrumentation were identified as a weakness. This concern influences specifically research groups that need physical lab space and use shared instrumentation potentially with demanding lab space teaching responsibilities. It is apparent that research is achieved in highly collaborative manner, tentatively performing analysis elsewhere.

1.1 Research Strategy

UNIS has an updated research strategy for the period 2019-2025. It is developed with a bottom-up approach and approved by the UNIS Board of Directors. It is updated every five years. This is a practical approach for UNIS because of rapid environmental and societal changes. UNIS also has a Green Strategy 2030 that outlines goals for reducing CO_2 emissions by 50% by 2030. The strategy is well defined and based on the capabilities and competencies of the research groups.

The aim of UNIS is to provide higher education and conduct research that takes advantage of Svalbard's geographical location in the High Arctic. UNIS's unique geographical location gives it a unique advantage in using the Arctic environment as a laboratory, and this arena is used for observations, data collection and analysis.

The Norwegian government has oriented geosciences at UNIS toward problems related to global changes which are 4 times faster than on the continent and it is indeed what UNIS has done in the last decade. UNIS has the ambition to develop high level research and education activities on Artic problems with the development of the necessary infrastructures, and collaboration with the Artic Earth Observing System (SIOS).

The ambitions of UNIS are to be a leader in research-based field education in Arctic science and technology, to further develop an efficient and professional organization, reflecting the institution's main objectives, tasks and working methods, to provide a modern infrastructure for operations and future growth, and to offer safe field and laboratory activities, and to develop the use of new technologies and alternative, efficient solutions.

Teaching at UNIS is at university level, complementing teaching at Norwegian universities. It is part of national or international university study programmes leading to examinations and diplomas at bachelor's, master's, and doctoral levels. The education has an international profile and is taught in English.

UNIS, as an educational institution and research community, aims to strengthen bonds within its current focus research and educational areas in natural sciences and technology, and in addition establish new arenas for activities related to the current societal challenges in Arctic communities,

and in Longyearbyen in particular. Through its activities, UNIS contributes to the societal development of Svalbard.

The global strategy of UNIS is very coherent and well-adapted to its unique geographical location and to the available facilities. The strategy of this unit is very efficient to attract PhD candidates and postdocs. Possible ways of progress may be to organize better interconnections with senior scientists in mainland Norway or internationally (by shared co-direction of PhD, call for tender to scientific projects, or other ways to be defined).

1.2 Organisation of research

The organization of UNIS covers wide domains of investigation. As such, the research done at UNIS is following very well the orientation defined by the government.

Research at UNIS is organized in a coherent way, with a director advised by a Research leader who is coordinating the research groups. UNIS is collaborating efficiently with the RCN Polar program.

The research at UNIS is largely important basic research with a long-term strategy that could have applications specifically towards results related to climate change, and energy. A large, applied research effort is described in impact case 1.

1.3 Research funding

The main funding sources of UNIS are the Ministry of Higher Education and the Research Council of Norway (RCN). There is very limited connection with industry, and limited commercialization of scientific results. Other academic/private sources of funding could be investigated, for instance with scientific drilling programmes or private structures interested in soil/slope stability problems.

Svalbard Science Forum funding from RCN of Arctic Field Grants and Svalbard Strategic Grants are a major source of support for PhD and young researcher field campaigns at UNIS and supporting international collaboration.

UNIS plays an important role as educators and they spend significant funding on fulfilling that role. They host students from national and international collaborators. Soe research groups participate in multiple EU projects and the Nansen legacy project but receive only a small amount of the total funding. Space physics and Cryosphere groups are well-funded from EU and RCN programmes, and private sponsors and have their own infrastructure fund grants.

From the outside it appears that UNIS is undervaluing the cost of hosting students, and their own costs in collaboration research. The collaborations and grants are there, but not in sufficient amounts.

Although UNIS is a member of several Centres of Excellence, they are not actively using them, except for the Birkeland center and iEarth program.

UNIS contributes into several national centres for excellence. These collaborations are excellent and should be maintained.

FACE-IT has been the most recently funded EU project. Being able to be granted by EU is good to favour collaborations and this demonstrates also the high quality of the project. UNIS is an active member in UArctic contributing to several thematic research networks.

1.4 Use of infrastructures

For UNIS, the direct access to nature, as a really wonderful laboratory, is definitively a strength but, taking into account its limited size, the unit has limited lab capacities for the geological and marine sciences, and this is compensated by efficient collaboration with other institutions. UNIS is trying to improve the infrastructure of the Svalbard Science Centre in cooperation with other institutions (notably the Kjell Henriksen Observatory and the SuperDARN radar). UNIS wishes also to develop effective digital solutions for communication and education, to work for access to a year-round vessel in Longyearbyen with educational, research and logistics capabilities.

1.5 National and international collaboration

Because of isolated geographical position there is a risk for UNIS to become partly disconnected from ongoing national and international research subjects. As pointed out in the self-assessment, geosciences at UNIS experience some difficulties of this kind due to rapid turn-over of key personnel, short historic memory, lack of project leader competence, that could contribute to difficulties of connection with other institutions. Overall research network could possibly be improved for instance by co-direction of students and postdoctoral researchers with other national and international researchers. The collaborations are a bit one-sided where UNIS hosts students (which is costly), and UNIS researchers travel to collaborate on analytical work or send their samples to collaborators. There is an opportunity to improve this with improved facility for the analytical work. By co-direction of students and postdocs both financial and location dependent operations could be shared.

The Svalbard Integrated Arctic Earth Observing System (SIOS) is a subsidiary of UNIS which manages most of the research infrastructure in Svalbard and provides services. It is a good platform to develop external connections, as well as SIOS InfraNor initiative which combines multi-disciplinary interests with other Norwegian universities and research institutes.

1.6 Research staff

With respect to the global population of Svalbard, the staff number in this unit is coherent, and the distribution of the staff professor/associate professors/postdocs/PhD is also coherent. The relatively high proportion of technical staff is probably necessary notably taking into account the field studies. Scientific staff is expected to divide its time between teaching and research in a ratio of 40/60, which is a good balance taking into account the needs of the unit. PhD candidates contribute to about 25% of their time to teaching assistant duties, which is a good help for UNIS and excellent to develop the skills of the students. This results in a total capacity dedicated to research of approximately 45 FTE which seems reasonable to fulfil the needs of UNIS.

Permanent staff is eligible to a period of research and educational leave of six months after two years of service, or 12 months after four years of service. Shorter periods of leave are also possible.

2. Research production, quality and integrity

The research productivity and quality vary between groups. The Cryosphere group and the Air-Cryosphere-Sea Interaction groups produced very high-quality research and publications in the evaluation period. Overall, the administrative unit has an average normalized citation score meaning their citation impact is average compared to other educational institutions in Norway. The unit's publication records show 80% of all publications result from collaborations as expected because of how research is organized. Out of these collaborations, about 75% are with top-ranking institutions. The UNIS citation score is just above the average in Norway which is not surprising given that the half of the groups are internationally recognized and respected. UNIS has increased its output almost twofold in the last 10 years but with only slightly higher FTE. That is quite an achievement.

2.1 Research quality and integrity

UNIS is a very dynamic institution with rising activity. This unit is getting progressively highly performing from a scientific point of view with a high increase of publications during the past decade (101 to 178), high activity in geosciences, publishing in good journals, and regular international and national collaborations.

UNIS researchers have a good ratio of number of publications per year versus FTE which is about 1.6.

Research group: Cryosphere Group

The University I Svalbard provides an outstanding organisational environment for supporting the production of excellent research. The Cryosphere Group at UNIS has an outstanding quality of research and publication with respect to originality, significance and rigour. The team's research contribution is outstanding in the entire research process from the definition of or overarching research goals, via the research activities to the preparation of publications. In terms of societal contribution, the group's contribution is very considerable, and the societal partners also have a very considerable role in all parts of the research process.

Research group: Air-Cryosphere-Sea Interaction Group

ACSI is a small group with an informal leadership structure, which seems to work well for them. They do everything that is expected from a group like this; their outreach programs and student education, as well as their data collection & sharing make Svalbard an important part of the international climate research community. There is the sense that they do not have enough access to ship time, and that they maybe feel marginalized in Norway, despite their efforts.

Research group: Space Physics

The Space Physics Group (SPU) at The University Centre in Svalbard (UNIS) strongly identify themselves with the Birkeland Centre for Space Science (BCSS). The major association of the group with Svalbard is their responsibility with regard to the ownership and operation of two important research infrastructures: the Kjell Henriksen Observatory (KHO) and the Svalbard SuperDARN radar. Apart from this very important responsibility, according to the self-assessment report the SPU research is organized according to the BCSS objectives and research strategy. Accordingly, the group does not seem to have an independent research strategy, but rather is tied to the BCSS, which renders the assessment of the group's research identity and vision not a straightforward task. The group receives considerable support from UNIS and has also attracted external funding from the RCN and from non-academic stakeholders. The group has published in reputable international journals, and the publications have attracted some attention.

Research group: Sedimentology, surface processes, paleoclimate, structural geology and geophysics

Strengths

- The sedimentology, surface processes, paleoclimate, structural geology and geophysics group provides all geological/Earth Science expertise within UNIS in respect to Svalbard and the surrounding seas.
- The approach to research development is well-articulated and makes good use of Svalbard's unique position.

- Group plays a very important role as guardians and hosts of key Svalbard sites, as facilitators for external groups who carry out fieldwork on Svalbard, as open-access data provider and as valued members of research teams utilising and accessing regional geology and data sets.
- Group members have, in collaboration with external / adjunct researchers, contributed to high quality papers on a range of topics.
- The wealth of geo-data generated is openly available to international collaborators, industry and local stake holders.
- The group's societal engagement is naturally centred on Svalbard and local stakeholders and on guarding Svalbard's unique geological and geo-environmental data.

Weaknesses:

- The small number of permanent staff, the flat group structure and the absence of a strategy for future staffing is a serious vulnerability of the group.
- Reported funding is to a large part from industry. Various other funding opportunities need to be explored in the future to ensure that the broad research goals can be achieved
- Larger research questions and research visions are not clearly articulated
- Training and mentoring of PhD students and early career researchers are not explained
- Difficult to discern how the research output feeds into a wider international context and how the group has taken a lead in this.
- It is not clear if research questions are developed jointly between group members and nonacademic partners

Research group: Marine Biology (MarBio)

Marine Biology has a unique strategic position supporting a key Norwegian research area in the Arctic, but it is a small group, with a low level of internal organization and no clear strategic goals. This makes it very fragile to changes in the global research context. Despite having a diversified financial portfolio, with some competitive funds, only a small number of the collaboration projects are carried out by Marine Biology, without relevant leaderships. This fragility is also visible in scientific publications in medium-cited journals, although the RG is very active in producing important research for Norway through the engagement of PhD students and post-doctoral workers. The modest organisational environment does not enhance excellent research production. The isolated location of the research infrastructure constrains societal involvement at the local level, but the growing societal interest in the importance of changes occurring in the polar zones could be used to promote the work of the RG on a national and international scale.

Research group: Terrestrial Biology (TerrBio)

The evaluation panel agrees that this 20-year old unit successfully straddles the dual role of undergraduate/graduate education and research. The Terrestrial Biology group has developed a high level of research and publication quality, as well as commendable early career mentoring. Their networks encompass a broad range of national and international visiting PhD students, post-doctoral and more senior researchers covering a variety of spatial and temporal scales in Arctic terrestrial (and freshwater) ecology. A suggestion is to augment its successful opportunistic approach to funding to a more strategic footing. This would ideally apply a longer-term view to better exploit its unique proximity to high Arctic ecosystems and aim for a stronger leadership role to reduce its dependence on external sources to support infrastructure. The panel also feels the group could engage more directly and substantively in the societal impact dimension with local actors and stakeholders. The solid research output of the unit belies its small size and remote location. It is well-placed to build on its successes to date and carve out an enviable niche in the realm of increasingly important high arctic biodiversity and climate change. Still, the panel felt that the self-assessment is rather defensive about

the specific role the group can play and its disadvantages, rather than providing a clear strategy of how to exploit this special position and its organisational advantages. It seems they do not fully take the opportunity (at least, not in their self-assessment report).

2.2. Open Science

UNIS is increasing progressively open access. Archived and gold OA is reaching about 80%. OA publication is expensive, and if Norway's public research policies encourage OA, this must be accompanied by funding that matches needs. Open courses are also offered yearly for students and the general public. UNIS shares within the CRISTIN database available nationally in Norway as a minimum for open access sharing. They also have access to specialized data bases internationally and nationally for research specific data sharing.

3. Diversity and equality

UNIS takes adequate action to fulfil fair principles. However, there are difficulties for women to access to the position of full professor (31% versus 58% for associate professor). But there is a high percentage of women post-doc fellows (70%). UNIS has created a gender equality plan. At present, the distribution is not perfect and could be progressively improved. The self-assessment describes the policies in place. The Fair principles policy is adhered to with guidance from the RCN. Diversity and equality are approached top down with a faculty level documentation and training opportunities.

Future recruitments will need to strike a balance between gender equality, scientific quality and the ability to manage relatively young staff.

4. Relevance to institutional and sectorial purposes

The aim of UNIS is to provide higher education and conduct research based on Svalbard's geographical location in the High Arctic. UNIS's geographical location gives it a unique advantage in that it can use the Arctic environment as a laboratory. The education aims to have an international profile and the courses are taught in English.

Through its activities, UNIS contributes to the development of society in Longyearbyen and Svalbard, in line with the general objectives of Norwegian policy in Svalbard.

The focus of UNIS research is evolving from a fundamental scientific approach to a greater "user" involvement. UNIS has allocated internal funds to set up test facilities and support user-led activities. In 2020, an institutional research programme entitled "Strategic Pilot Project - UNIS SPP" was set up to stimulate interdisciplinary research aimed at tackling global and local challenges. It also includes the option of an internally funded PhD student position. The first UNIS SPP project, PermaMeteoCommunity began in 2021. The project received the prestigious Frederik Paulsen Arctic Academic Action Award.

5. Relevance to society

UNIS contributes to Norway's long-term plan for research and higher education, with a focus on the United Nations' Sustainable Development Goals. UNIS' aim is to help train the next generation of Arctic scientific experts. Every year, some 750 students from over 40 countries take courses at UNIS.

UNIS trains "climate ambassadors" to communicate the urgent need for action to prevent the Arctic ice from melting.

The sustainable solutions invented and implemented at UNIS are intended to be transferred worldwide through professional collaboration networks and the highly international student community. As a result, the impact of the UNIS green sustainability strategy can potentially migrate around the world with students.

Case 1 describes an important energy transition for Svalbard where Longyearbyen has been dependent on coal and thereby mining, for energy. Coal is an inefficient energy resource, polluting, and its mining is a health hazard. The project, if successful, will have positive impact on health of inhabitants and less pollution of the sensitive Arctic. Case 2 is highly modern and contributes to improved life outside in Svalbard since people will have the safety net of advance warning to get out of danger while moving around outside. Both are very strong societal impact projects. The case studies below illustrate the potential for societal impact.

Comments to impact case 1 - From CCS to Geothermal energy in the Arctic

The aim of the research at Longyearbyen's CO2 Lab was to investigate the possibilities of carbon capture and storage. The community's district heating system, powered by Norway's only coal-fired power plant, was the targeted energy source. The initial aim was to demonstrate the entire carbon capture and storage value chain. Now that coal is being phased out, this research has provided the basis for the design of the town's geothermal heating project, which is part of the local authority's green strategy. This work fits harmoniously into an energy transition perspective in synch with local societal interests. These studies have been ongoing since 2007 with the underpinning research completed by the researchers involved. Researchers from academia, institutes and private companies have participated and the work has received recognition from the public as well as the involved sectors. Publications have appeared throughout the project time period in well respected journals. As evidence for a lasting impact, in 2022 UNIS, Longyearbyen Community Council and SNSK signed an agreement to further develop the energy transition for Longyearbyen with the aim to supply the settlement with 100% renewable energy within 10 years. This is a good example illustrating how UNIS actions can impact Svalbard society.

Comments to impact case 2 - Arctic Safety Centre

UNIS research into natural hazards, avalanches in particular, formed the basis for the creation of the Arctic Safety Centre, which offers one semester course programme on Arctic safety for Master's, and PhD students as well as practical safety courses for local businesses and public authorities. The centre additionally provides avalanche forecasting services for the local community and the Governor of Svalbard, and study development of early warning technology based on IoT snow sensors. This work is clearly of direct and important benefit to the communities of Svalbard. Field studies are important for students at UNIS where backcountry skiing, snowmobiling, and dog sledging are routine undertakings. Avalanche risks are always present in these circumstances, and they have different styles and properties depending on weather conditions. The Arctic Safety Centre specializes in avalanche types and identifying risks associated with field trips. The underpinning research was conducted over two years by researchers with long-term experience in Svalbard climate research. The project team is built on national collaboration of universities in Norway and SINTEF. Publications describing the project and its progress have been published over the time period of 2011 to date where the underpinning research is well detailed. The importance and impact may be highlighted in the fact that in 2015 an avalanche hit ten buildings in Longyearbyen. A warning system is now in place

to protect people and infrastructure. This is an excellent example illustrating how UNIS research can have a good impact on cool areas in general.

Institution	Administrative Unit	Research Groups
The University Centre in	The University Centre in	Cryosphere Group
Svalbard	Svalbard	Air-Cryosphere-Sea Interaction
		Group
		Space Physics
		Sedimentology, surface processes, paleoclimate, structural geology and geophysics
		Marine Biology
		Terrestrial Biology

List of administrative unit's research groups

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 (see appendix Evaluation Protocol) that guided the process
- Terms of Reference
- Administrative Unit's self-assessment report
- Administrative Unit's impact cases
- Administrative Unit's research groups evaluation reports
- Bibliometric data
- Personnel and funding data
- Data from Norwegian student and teacher surveys

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 hourlong 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 with minor adjustments.

Limitations

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

Appendices (link to website)

- 1. Description of the evaluation of EVALNAT
- 2. Invitation to the evaluation including address list
- 3. Evaluation protocol
- 4. Self-assessment administrative units
- 5. Grading scale for research groups

Website: https://www.forskningsradet.no/tall-analyse/evalueringer/fag-tema/naturvitenskap/

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

Design: [design] Foto/ill. omslagsside: [fotokreditt]

ISBN 978-82-12-04016-8 (pdf)

