

**Common appendices to all reports for administrative units**

# **Evaluation of Mathematics, ICT and Technology 2023-2024**

1. Description of the evaluation of EVALMIT
2. Invitation letter to the administrative unit including address list
3. Evaluation protocol
4. Template of self-assessment for administrative unit (*short-version*)

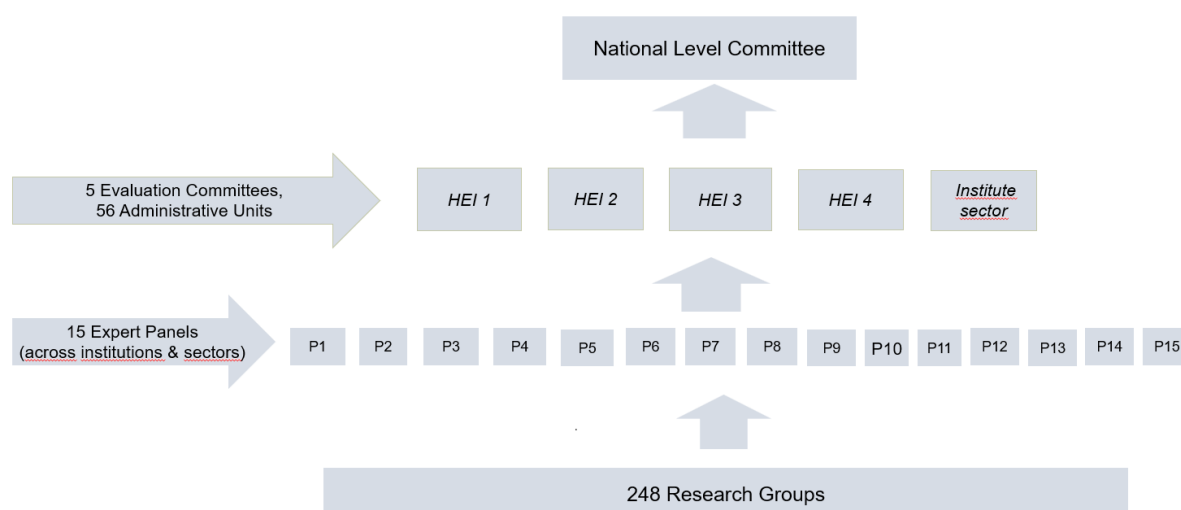
## Evaluation of Mathematics, ICT and Technology 2023-2025

In accordance with the statutes of the Research Council of Norway (RCN), the RCN evaluates Norwegian research at Higher Education Institutions (HEIs) and independent research institutes to create a solid and up-to-date knowledge base about Norwegian research and higher education in an international perspective. The evaluation of mathematics, ICT and technology sciences in Norway took place between 2023 and 2025.

The primary aim of the evaluation of mathematics, ICT and technology is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs) and by the Institute Sector. The evaluation shall result in recommendations to the institutions, the Research Council, and the Government.

The evaluation included 56 administrative units (e.g. faculty, department, institution) which were submitted for evaluation by the host institution and assessed by five evaluation committees according to sectorial affiliation and/or other relevant similarities between the units.

The administrative units were invited to submit their research groups (248) to be assessed by 15 expert panels organized by research subjects or themes. The expert panels assessed research groups across institutions and sectors.



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 strategic development. The administrative unit together with the research group(s) selected appropriate benchmarks for each of the research group(s).

The Research Council has commissioned an external 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. The Research Council will use the evaluation reports in the development of funding instruments and as basis for advice to the Government.

The web page for the evaluation of mathematics, ICT and technology 2023-2025:

[Evaluering av matematikk, IKT og teknologi](#)

Se vedlagte adresseliste til oppgitte kontaktpersoner<sup>1</sup>

Vår saksbehandler / tlf.	Vår ref.	Deres ref.	Sted
Marianne Grønsleth	21/11100	[Ref.]	Lysaker 10.05.2023

## **Invitasjon til å delta i fagevaluering av matematikk, IKT og teknologi (EVALMIT) 2023-2024**

Vi viser til varsel om oppstart av nye evalueringer sendt institusjonenes ledelse 9. november 2021 og tidligere invitasjon om å delta i fagevalueringer innenfor matematikk, IKT og teknologi i perioden 2022-2024, datert 11.11.2021, se nettsiden [Evaluering av naturvitenskap \(forskningssradet.no\)](https://forskningssradet.no).

Porteføljestyret for naturvitenskap vedtok i sitt møte 4. oktober 2021 å gjennomføre to fagevalueringer:

- Evaluering av naturvitenskap (EVALNAT) (2022-2023)
- Evaluering av matematikk, IKT og teknologi (EVALMIT) (2023-2024)

Hovedmålet med fagevaluering av matematikk, naturvitenskap og teknologi 2022-2024 er å vurdere kvaliteten på norsk forskning, rammebetingelsene for matematisk-naturvitenskapelig og teknologisk forskning i Norge, og forskningens relevans for sentrale samfunnsområder. Evalueringen skal resultere i anbefalinger til institusjonene, Forskningsrådet og departementene.

Forskningssrådet har benyttet resultatene fra tidligere evalueringer som grunnlag for forskningspolitiske råd til regjering og berørte departementer, og til å utvikle nye virkemidler som f.eks. senterordninger og Unge forskertalenter.

De to fagevalueringene retter seg mot UH-sektoren og instituttsektoren. Forskningsrådet forventer at aktuelle forskningsmiljøer deltar i evalueringene, selv om beslutning om deltagelse gjøres ved den enkelte institusjon. Det forventes at deltakende institusjoner setter av tilstrekkelig med ressurser til å delta i evalueringsprosessen, og at institusjonen oppnevner minst en representant som kontaktperson for Forskningsrådet.

Fagevaluering av matematikk, IKT og teknologi er organisert over to nivåer (vedlegg 1A, side 11). Internasjonale ekspertpaneler vil evaluere forskergrupper på tvers av fag, disiplin og forskningssektorer (UH – og instituttsektor) etter kriteriene beskrevet i kapittel 2 i evalueringsprotokollen (vedlegg 1A).

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<sup>1</sup> Dette brevet går til kontaktpersoner som ble oppgitt i forbindelse med foreløpig innmelding til fagevalueringene EVALNAT og EVALMIT i november 2021. Hvis endring av kontaktperson vennligst videresend og gi oss beskjed.

Panelrapporten(e) for forskergruppene vil inngå i bakgrunnsdokumentasjonen til forskergruppen(e)s administrative enhet (hoved-evalueringsobjektet i evalueringen), og som vil bli evaluert i internasjonale sektorspesifikke evalueringskomiteer. Evalueringskriteriene for administrative enheter er beskrevet i kapittel 2 i evalueringsprotokollen (vedlegg 1A).

## **Innmelding av administrative enheter og forskergrupper – frist 15. juni 2023**

### ***Administrative enheter (hoved-evalueringsobjektet i evalueringen) og forskergrupper (vedlegg 2)***

Forskingsrådet inviterer institusjonene til å melde inn sine administrative enhet/er ved å fylle ut skjemaet (vedlegg 2). Definisjonen av en administrativ enhet i denne evalueringen er å finne på side 3 (kap.1.1) i evalueringsprotokollen (vedlegg 1A). 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: Terms of Reference* i evalueringsprotokollen).

### ***Forskergrupper – samme vedlegg***

Forskingsrådet ber de administrative enhetene om å melde inn forskergrupper i tråd med definisjonen av forskergrupper beskrevet i kapittel 1.2 i evalueringsprotokollen. Hver administrativ enhet melder inn sine forskergrupper ved å fylle ut vedlegg 2. Vi ber om at de administrative enhetene plasserer sine forskergrupper i den tentative inndelingen av ekspertpaneler for EVALMIT (vedlegg 3). I skjemaet (vedlegg 2) gis det mulighet for å føre opp et førstevalg og et andrevalg for de forskergruppene hvor aktiviteten ikke passer inn i bare ett panel, og som kan være nyttig i forbindelse med justering av panelinndeling. Samtidig ber vi om at det oppgis noen stikkord som beskriver fag og tema til forskergruppen.

Vi ber om at utfylt skjema (vedlegg 2) sendes fra hver administrativ enhet til [\*\*evalmit@forskningsradet.no\*\*](mailto:evalmit@forskningsradet.no) innen 15. juni 2023.

Forskingsrådet vil ferdigstille panelstruktur med den endelige fordelingen av forskergrupper på fagpaneler **etter** at alle innmeldinger er mottatt.

## ***Forslag på eksperter (vedlegg 4) helst innen 15. juni, senest innen 15. august 2023***

Forskingsrådet ber administrative enheter og forskergrupper om å komme med forslag til internasjonale eksperter som kan inngå i ekspertpanelene og evalueringskomitéene. Hvert ekspertpanel vil bestå av 5-7 internasjonale eksperter, mens hver evalueringskomité vil bestå av 7-9 komitémedlemmer som også er internasjonale.

Medlemmer til ekspertpanelene skal være internasjonalt ledende eksperter innenfor de fagområdene som inngår i evalueringen.

Medlemmene i evalueringskomitéene skal i tillegg ha erfaring med ledelse, strategi- og evalueringsarbeid og kunnskapsutveksling.

Eksperter som foreslås må **ikke** være inhabile ift. norske forskere og norske forskningsmiljøer. Dette innebærer blant annet at de ikke har aktivt forskningssamarbeid, sampublisering siste tre år, nære relasjoner eller deltar i styrer og rådgivende fora for norske forskningsmiljøer.

Forslag til eksperter sendes på epost til [\*\*evalmit@forskningsradet.no\*\*](mailto:evalmit@forskningsradet.no)

## **Tilpasning av mandat/Terms of Reference (ToR) – frist 30. september 2023**

Forskningssrådet ber med dette administrative enheter om å tilpasse mandatet ved å opplyse om egne strategiske mål og andre lokale forhold som er relevant for evalueringen. Tilpasningen gjøres ved å fylle inn de åpne punktene i malen, word-format av ToR, vedlegg 1B

Utfylt skjema sendes på epost til [\*\*evalmit@forskningssradet.no\*\*](mailto:evalmit@forskningssradet.no) innen **30. september 2023**.

### **Digitalt informasjonsmøte 8. juni 2023, kl 12.00-13.00.**

I forkant av innmeldingsfristen vil Forskningssrådet arrangere et digitalt informasjonsmøte som retter seg mot de institusjonene som ønsker å delta i EVALMIT.

Påmelding til informasjonsmøtet gjøres her: [Informasjonsmøte EVALMIT \(pameldingssystem.no\)](https://pameldingssystem.no)

### **Nettside**

Forskningssrådet vil opprette en nettside på [www.forskningssradet.no](http://www.forskningssradet.no) for EVALMIT hvor informasjon vil bli oppdatert fortløpende.

Spørsmål som gjelder fagevalueringen, kan sendes på epost til [\*\*evalmit@forskningssradet.no\*\*](mailto:evalmit@forskningssradet.no) eller ved å kontakte:

Marianne Grønsløth, Epost: [magr@forskningssradet.no](mailto:magr@forskningssradet.no) eller mobil: 91889241

Terje Strand, Epost: [ters@forskningssradet.no](mailto:ters@forskningssradet.no) eller mobil: 90090026

Med vennlig hilsen  
Norges forskningsråd

Petter Helgesen  
avdelingsdirektør  
Banebrytende forskning

Marianne Grønsløth  
spesialrådgiver  
Banebrytende forskning

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

### **Kopi**

Kunnskapsdepartementet

### **Vedlegg**

- Vedlegg 1A: Fagevaluering av matematikk, IKT og teknologi 2023-2024 – Evalueringsprotokoll
- Vedlegg 1B: Mal for *Term of Reference*
- Vedlegg 2: Innmelding av administrativ enhet og forskergrupper
- Vedlegg 3: Tentativ panelinndeling EVALMIT 2023-2024
- Vedlegg 4: Forslag på eksperter til paneler og komiteer
- Vedlegg 5: Adresseliste

## Adresseliste - fagevaluering av matematikk, IKT og teknologi, EVALMIT 2023-2024

Institusjon	Fakultet/Avdeling	Institutter/underavdelinger
Universitetet i Bergen	Det matematisk-naturvitenskapelige fakultet	Institutt for fysikk og teknologi
Universitetet i Bergen		Institutt for informatikk
Universitetet i Bergen		Matematisk institutt
Universitetet i Oslo	Det matematisk-naturvitenskapelige fakultet	Institutt for informatikk
Universitetet i Oslo		Institutt for teknologisystemer
Universitetet i Oslo		Matematisk institutt
UiT - Norges arktiske universitet	Fakultet for ingeniørvitenskap og teknologi	Institutt for automasjon og prosesseteknologi
UiT - Norges arktiske universitet		Institutt for bygg, energi og materialteknologi
UiT - Norges arktiske universitet		Institutt for datateknologi og beregningsorienterte ingeniørfag
UiT - Norges arktiske universitet		Institutt for elektroteknologi
UiT - Norges arktiske universitet		Institutt for industriell teknologi
UiT - Norges arktiske universitet	Fakultet for naturvitenskap og teknologi	Institutt for fysikk og teknologi
UiT - Norges arktiske universitet		Institutt for informatikk
UiT - Norges arktiske universitet		Institutt for matematikk og statistikk
UiT - Norges arktiske universitet		Institutt for teknologi og sikkerhet
NMBU	Fakultet for realfag og teknologi	Institutt for matematikk
NMBU		Institutt for fysikk
NMBU		Institutt for datavitenskap
NMBU		Institutt for bygg- og miljøteknologi
NMBU		Institutt for maskinteknikk og teknologiledelse
NTNU	Fakultet for arkitektur og design	Institutt for arkitektur og teknologi
NTNU		Institutt for design
NTNU	Fakultet for informasjonsteknologi og elektroteknikk	Institutt for datateknologi og informatikk
NTNU		Institutt for elektroniske systemer
NTNU		Institutt for elkraftteknikk
NTNU		Institutt for IKT og realfag
NTNU		Institutt for informasjonssikkerhet og kommunikasjonsteknologi
NTNU		Institutt for matematiske fag
NTNU		Institutt for teknisk kybernetikk
NTNU	Fakultet for ingeniørvitenskap	Institutt for bygg- og miljøteknikk
NTNU		Institutt for energi- og prosesseteknikk
NTNU		Institutt for geovitenskap og petroleum
NTNU		Institutt for havromsoperasjoner og byggtteknikk
NTNU		Institutt for konstruksjonsteknikk
NTNU		Institutt for marin teknikk
NTNU		Institutt for maskinteknikk og produksjon
NTNU		Institutt for vareproduksjon og byggtteknikk
Universitetet i Agder	Fakultet for samfunnsvitenskap	Institutt for informasjonssystemer
Universitetet i Agder	Fakultet for teknologi og realfag	Institutt for informasjons- og kommunikasjonsteknologi
Universitetet i Agder		Institutt for ingeniørvitenskap
Universitetet i Agder		Institutt for matematiske fag
Høgskulen på Vestlandet	Fakultet for ingeniør- og naturvitenskap	Institutt for datateknologi, elektroteknologi og realfag
Høgskulen på Vestlandet		Institutt for maskin- og marinfag
OsloMet - storbyuniversitetet	Fakultet for teknologi, kunst og design	Institutt for bygg- og energiteknikk
OsloMet - storbyuniversitetet		Institutt for informasjonsteknologi
OsloMet - storbyuniversitetet		Institutt for maskin, elektronikk og kjemi
Universitetet i Stavanger	Det teknisk- naturvitenskapelige fakultet	Institutt for data- og elektroteknologi
Universitetet i Stavanger		Institutt for energi- og petroleumsteknologi
Universitetet i Stavanger		Institutt for maskin, bygg og materialteknologi
Universitetet i Stavanger		Institutt for matematikk og fysikk
Universitetet i Sørøst-Norge	Fakultet for teknologi, naturvitenskap og maritime fag	Institutt for elektro, IT og kybernetikk
Universitetet i Sørøst-Norge		Institutt for maritime operasjoner
Universitetet i Sørøst-Norge		Institutt for mikrosystemer
Universitetet i Sørøst-Norge		Institutt for prosess-, energi- og miljøteknologi
Universitetet i Sørøst-Norge		Institutt for realfag og industri systemer
Høgskolen i Østfold		Institutt for informasjonsteknologi og kommunikasjon
Høgskolen i Østfold		Institutt for ingeniørfag
Høgskolen Kristiania		School of Economics, Innovation, and Technology
NORCE Norwegian Research Centre		NORCE Teknologi
SINTEF		SINTEF Community
SINTEF		SINTEF Digital
SINTEF		SINTEF Industri
SINTEF		SINTEF Energi AS
SINTEF		SINTEF Ocean avd.Energi og transport
SINTEF Manufacturing		SINTEF Manufacturing Produksjonsteknologi
Norsk Regnesentral		
Stiftinga Vestlandsforskning		Big Data & Emerging Technologies
Institutt for energiteknikk (IFE)		
SIMULA Research Laboratory		
Forsvarets forskningsinstitutt (FFI)		
Sjøkrigsskolen		
Cyberingeniørskolen		
Høgskolen i Molde		
Statistisk Sentralbyrå (SSB)		

# **Evaluation of mathematics, ICT and technology in Norway 2022-2024**

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**EVALMIT protocol version 1.0**

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*By decision of the Portfolio board for Natural sciences and Technology April 5, 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 mathematics, ICT and technology is to reveal and confirm the quality and the relevance of research performed at Norwegian Higher Education Institutions (HEIs), and by the institute sector. 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.

<i>Administrative unit</i>	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.
<i>Research group</i>	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 mathematics, ICT and technology at the national level

The Research Council of Norway (RCN) will:

- provide a template for the Terms of Reference<sup>1</sup> for the assessment of RPOs and a national-level assessment in mathematics, ICT and technology 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 mathematics, ICT and technology 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

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<sup>1</sup> 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.

- 2) Specify the Terms of Reference by including information on specific tasks and/or strategic goals of relevance to the administrative unit(s)
- 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<sup>2</sup>

- 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

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<sup>2</sup> <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<sup>3</sup> 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 (only relevant for evaluation of medicine and health research)

There are four regional health authorities (RHF) in Norway. They are responsible for the specialist health service in their respective regions. The RHF 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 (HF), 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.<sup>4</sup> The three other main 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,

---

<sup>3</sup> [Strategy for a holistic institute policy \(Kunnskapsdepartementet 2020\)](#)

<sup>4</sup> 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 mathematics, ICT and technology 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 mathematics, ICT and technology (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.

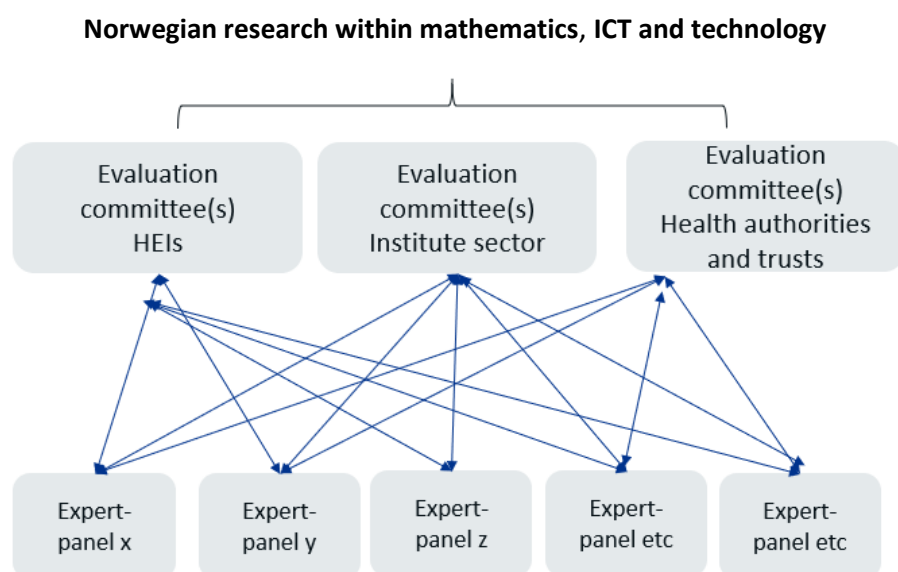


Figure 1. Evaluation committees and expert panels (Health authorities and trusts are only relevant for evaluation of medicine and health)

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 mathematics, ICT and technology 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 mathematics, ICT and technology 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 mathematics, ICT and technology secretariat at Technopolis Group.

The documents will include the following:

- a report on research personnel and publications within mathematics, ICT and technology commissioned by RCN
- a self-assessment based on a template provided by the mathematics, ICT and technology 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 mathematics, ICT and technology 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]. The [administrative unit] should be allowed to check the report for factual inaccuracies; if such inaccuracies are found, they should be reported to the mathematics, ICT and technology secretariat within the deadline given by the secretariat. 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 after all feedback on inaccuracies has been received from [administrative unit].

## Appendix B: Data sources

The lists below show 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.

### Data providers

- Norwegian Agency for Quality Assurance in Education (NOKUT)
- Research Council of Norway (RCN)
- Statistics Norway (SSB)
- Nordic institute for studies of innovation, research and education (NIFU)

### Available data material

#### 1) Administrative unit

##### a. Data from administrative units:

- Self-assessment covering all assessment criteria*
- Administrative data on funding sources*
- Administrative data on personnel*
- Administrative data on research infrastructure and other support structures*
- SWOT analysis*
- Impact cases*
- Any supplementary data needed to assess performance related to the Terms of Reference, strategic goals and specific tasks of the unit*

##### b. Data from expert panels

- Panel report for each expert panel in the evaluation*
- Assessment reports per participating research group*

##### c. Data from National data providers

- Publication and citation analysis (NIFU)*
- Statistics for use in the evaluations (SSB)*
- The Norwegian Research System (NIFU)*
- Bibliometrics Higher Education Sector (NIFU)*
- Bibliometrics Institute Sector (NIFU)*

##### d. Data from the Research Council of Norway

- Research Council of Norway contribution to the evaluation (RCN)*
- Extract from the Survey of academic staff (NOKUT)*
- Extract of the Student Survey (NOKUT)*

## 2) Research groups

### **b. Data from the research groups**

- i. Self-assessment covering the first two assessment criteria (see Table 1)*
- ii. Research group data on funding sources*
- iii. Research group data on personnel*
- iv. Publication profiles*
- v. 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*
- vi. Any supplementary data needed to assess performance related to the benchmark defined by the administrative unit*

### **c. Data from National data providers**

- i. Publication and citation analysis (NIFU)*

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 mathematics, ICT and technology secretariat for the evaluation.

Table 1. Types of evaluation data per criterion (changes may occur)

<b>Evaluation units</b> <b>Criteria</b>	<b>Research groups</b>	<b>Administrative units</b>
<b>Strategy, resources and organisation</b>	Self-assessment Data from National data providers	Self-assessment Terms of Reference Research groups assessment reports Data from National data providers and RCN
<b>Research production and quality</b>	Self-assessment Example publications (and other research results)	Self-assessment Research groups assessment reports Data from National data providers and RCN
<b>Diversity, equality and integrity</b>		Self-assessment Research groups assessment reports Data from National data providers and RCN
<b>Relevance to institutional and sectoral purposes</b>		Self-assessment Impact cases Data from National data providers and RCN
<b>Relevance to society</b>		Self-assessment Impact cases Data from National data providers and RCN
<b>Overall assessment</b>	<i>Data related to: Benchmark defined by administrative unit</i>	<i>Data related to: Strategic goals and specific tasks of the admin. unit</i>



# **Evaluation of Mathematics, ICT and Technology (EVALMIT) 2023-2024**

## **Self-assessment for administrative units**

Date of dispatch: 19 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.....	3
1. Strategy, resources and organisation .....	5
1.1 Research strategy .....	5
1.2 Organisation of research .....	6
1.3 Research staff .....	6
1.4 Researcher careers opportunities .....	7
1.5 Research funding .....	7
1.6 Collaboration .....	9
1.7 Open science policies .....	10
1.8 SWOT analysis for administrative units.....	10
2. Research production, quality and integrity .....	11
2.1 Research quality and integrity.....	11
2.2 Research infrastructures .....	12
3. Diversity and equality .....	16
4. Relevance to institutional and sectorial purposes .....	16
4.1 Sector specific impact.....	16
4.2 Research innovation and commercialisation .....	17
4.3 Higher education institutions .....	18
4.4 Research institutes .....	18
5. Relevance to society .....	18
5.1 Impact cases .....	18

# 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), and the institute sector. 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 the past 10 years (2012-2022). All the 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 submission of self- assessments to the Research Council of Norway - January 31, 2024.**

As an administrative unit, you are responsible for collecting the completed self-assessment for each of the research groups that belong to the unit. The research groups need to submit their completed self-assessment to the admin unit no later than January 26. 2024. The admin unit will submit the research group's completed self-assessments and the unit's own completed self-assessment to the Research Council no later than January 31. 2024.

Please use the following format when naming your document: [short name of the institution]\_[short name of the administrative unit] e.g. *NTNU\_DeptComputerScience* and send it to [evalmit@forskningsradet.no](mailto:evalmit@forskningsradet.no) no later than January 31, 2024.

For questions concerning the self-assessment or EVALMIT in general, please contact RCN at [evalmit@forskningsradet.no](mailto:evalmit@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 (most often this includes filling out specific forms) 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. 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 cannot exceed 50 pages (pdf file). Pages exceeding the maximum page limit of 50 **might not** be evaluated.
- Submit the self-assessment as a pdf document (max 50 pages). Before submission, please be sure that all text is 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 separate self-assessments of the belonging research group(s) (one document per research group) to [evalmit@forskningsradet.no](mailto:evalmit@forskningsradet.no) within **January 31, 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 may be submitted as 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 these goals are related to institutional strategies and scientific priorities
- Describe how the admin 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
- Describe the main fields and focus of research and innovation in the 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

*Please write the text here – about 1 page*

**Table 1. Administrative unit's strategies**

For each category present up to 5 documents which are the most relevant to 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 unit, including how responsibilities for research and other purposes (education, knowledge exchange, patient treatment, researcher training, outreach activities etc.) are distributed and delegated.

*Please write your text here – about 1 page*

b) Describe how you work to maximise synergies between the different purposes of the unit (education, knowledge exchange, patient treatment, researcher training, outreach activities etc.).

*Please write your text here – about 1/2 page*

## 1.3 Research staff

Describe the profile of research personnel at the 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>.

*Please write your text here – about ½ page*

Only a subset of the units submitted to the evaluation is directly identifiable in the national statistics. Therefore, we ask all units to provide data on their R&D personnel. Institutions that are directly identifiable in the national statistics (mainly higher education institutions) 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 temporary positions
No. of Personnel by position	Position A (Fill in)			
	Position B (Fill in)			
	Position C (Fill in)			
	Position D (Fill in)			

## 1.4 Research career opportunities

a) Describe the structures and practices to support researcher careers and help early-career researchers to make their way into the profession.

*Please write your text here – about ½ page*

b) Describe how research time is distributed among staff including criteria for research leave/sabbaticals (*forskningstermin/undervisningsfri*).

*Please write your text here – about ½ page*

c) Describe research mobility options.

*Please write your text here – about ½ page*

## 1.5 Research funding

a) Describe the funding sources of the admin unit. Indicate the admin unit's total yearly budget and the share of the unit's budget dedicated to research.

*Please write your text here – about ½ page*

b) Give an overview of the administrative unit's competitive national and/or international grants last five years (2018-2022).

*Please write your text here – about ½ page*

**Table 3. R&D funding sources**

Please indicate R&D funding sources for the admin unit for the period 2018-2022 (average NOK per year, last five years).

<b>For Higher Education Institutions: Share of basic grant (<i>grunnbevilgning</i>) used for R&amp;D<sup>1</sup></b>	
<b>For Research Institutes and Health Trusts: Direct R&amp;D funding from Ministries (per ministry) (NOK)</b>	
(Ministry)	
<b>National grants (<i>bidragsinntekter</i>) (NOK)</b>	
From the ministries and underlying directorates	
From industry	
From public sector	
From The Research Council of Norway	
Other national grants	
<b>Total National grants</b>	
<b>National contract research (<i>oppdragsinntekter</i>)<sup>2</sup> (NOK)</b>	
From the ministries and underlying directorates	
From industry	
From public sector	
Other types of national contract research	
<b>Total contract research</b>	
<b>International grants (NOK)</b>	
From the European Union	
From industry	
Other international grants	
<b>Total international grants</b>	
<b>Funding related to public management (<i>forvaltningsoppgaver</i>) or (if applicable) funding related to special hospital tasks, if any</b>	
<b>Total funding related to public management</b>	
<b>Total all R&amp;D budget items (except basic grant)</b>	

<sup>1</sup> Shares may be calculated based on full time equivalents (FTE) allocated to research compared to total FTE in unit

<sup>2</sup> For research institutes only research activities should be included from section 1.3 in the yearly reporting

## 1.6 Collaboration

Describe the 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 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

Please write your text here – about 1 page

**Table 4a. The main national collaborative constellations with the administrative unit**

Please categorise the collaboration according to the most important partner(s): national institutions (5-10 institutions) and international institutions (5-10 institutions) in the period 2012-2022.

### National collaborations

Collaboration with national institutions - 1	
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	
Collaboration with national institutions – X (up to 10 institutions)	
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 partner(s): national institutions (5-10 institutions) and international institutions (5-10 institutions) in the period 2012-2022.

### International collaborations

Collaboration with international institutions – 1	
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	
Collaboration with international institutions – X (up to 10 institutions)	
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

*Please write your text here – about 1/3 page*

b) Describe the most important contributions and impact of the unit's researchers towards the different Open Science areas cf. 1.7a above.

*Please write your text here – about 1/3 page*

c) Describe the institutional policy regarding ownership of research data, data management, and confidentiality. Is the use of data management plans implemented at the unit?

*Please write your text here – about 1/3 page*

## 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

<b>Internal Strengths</b>	<i>Please write the text here - about ½ page</i>
<b>Internal Weaknesses</b>	<i>Please write the text here - about ½ page</i>
<b>External Opportunities</b>	<i>Please write the text here - about ½ page</i>
<b>External Threats</b>	<i>Please write the text here - about ½ page</i>

## 2. Research production, quality and integrity

### 2.1 Research quality and integrity

Please see the bibliometric analysis for the admin 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.

*Please write your text here – about 1 page*

b) Describe the unit's policy for research integrity, including preventative measures when integrity is at risk, or violated.

*Please write your text here – about ½ page*

## 2.2 Research infrastructures

### a) Participation in national infrastructures

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).

Please write your text here – about ½ page

**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 are the most important to your administrative unit.

Areas in roadmap	Name of research infrastructure	Period (from year to year)	Description	Link to website
Bioresources				
Biotechnology				
E-infrastructure				
The humanities				
ICT				
Climate and the environment				
Environmentally friendly energy				
Maritime technology				
Medicine and health				
Nanotechnology and advanced materials				
Petroleum Technology				
Social sciences and welfare				
Other infrastructure needs in the natural sciences and technology				

**b) Participation in international infrastructures**

Describe the most important participations in the international infrastructures funded by the ministries  
(*Norsk deltakelse i internasjonale forskningsorganisasjoner finansiert av departementene*).

*Please write your text here – about ½ page*

**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 research unit.

Project	Name	Period (Year - Year)	Description	Link to infrastructure
CERN	European Organization for Nuclear Research			
EMBL/EMBC	European Molecular Biology Laboratory			
	The European Molecular Biology Conference			
ESRF	European Synchrotron Radiation Facility			
IARC	International Agency for Research on Cancer			
ESA	European Space Agency			
OECD Halden	Haldenprosjektet			

**c) Participation in European (ESFRI) infrastructures**

Describe the most important Norwegian participations in European (ESFRI) infrastructures (including as host institution(s)).

*Please write your text here – about ½ page*

**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 research unit.

Social sciences and the humanities				
Name	ESFRI-project	Summary of participation	Period (from year to year)	Link
<a href="#">CLARIN ERIC</a>	Common Language Resources and Technology Infrastructure			
<a href="#">ESSurvey ERIC</a>	European Social Survey			
<a href="#">CESSDA ERIC</a>	Council of European Social Science Data Archives			
Natural sciences and technology				
Name	ESFRI-project			
<a href="#">EISCAT 3D</a>	European Next Generation Incoherent Scatter radar			
Energy				
Name	ESFRI-project			
<a href="#">ECCSEL ERIC</a>	European Carbon Dioxide Capture and Storage Laboratory Infrastructure			
Climate and the environment				
Name	ESFRI-project			
<a href="#">Euro Argo ERIC</a>	European contribution to the Argo program			
<a href="#">EMSO ERIC</a>	European Multidisciplinary Seafloor and water column Observatory			
<a href="#">ICOS ERIC</a>	Integrated Carbon Observation System			
<a href="#">EPOS ERIC</a>	European Plate Observing System			
<a href="#">SIOS Svalbard AS</a>	Svalbard Integrated Arctic Earth Observing System			
Biology and medicine (Life sciences)				
Name	ESFRI-project			
ELIXIR (EMBL)	European infrastructure for biological information, supporting life science research and its translation to medicine, agriculture, bioindustries and society			
<a href="#">BBMRI ERIC</a>	Biobanking and Biomolecular Resources Research Infrastructure			

<a href="#">EATRIS ERIC</a>	European Advanced Translational Research Infrastructure in Medicine			
<a href="#">EU-OPENSOURCE ERIC</a>	European Infrastructure of Open Screening Platforms for Chemical Biology			
<a href="#">ECRIN ERIC</a>	European Clinical Research Infrastructures Network			
<a href="#">Euro-BioImaging ERIC</a>	Research Infrastructure for Imaging Technologies in Biological and Biomedical Sciences			
<a href="#">EMBRC ERIC</a>	European Marine Biological Resource Centre			
<b>Analysis</b>				
<b>Name</b>	<b>ESFRI-project</b>			
<a href="#">European Spallation Source ERIC</a>	European Spallation Source			
<a href="#">ESRF – EBS</a>	European Synchrotron Radiation Facility – Extremely Brilliant Source			

**d) Access to research infrastructures**

Describe access to relevant national and/or international research infrastructures for your researchers. Considering both physical and digital infrastructure.

*Please write your text here – about ½ page*

**e) FAIR- principles**

Describe what is done at the unit to fulfil the FAIR-principles.

*Please write your text here – about 1/3 page*

### 3. Diversity and equality

f) Describe the policy and practices to protect against any form of discrimination and to promote diversity in the administrative unit.

*Please write your text here – about ½ page*

**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.

No.	Title of document	Valid period	Link
1			
2			
3			
4			
5			

### 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 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.

*Please write your text here – about 1 page*

## 4.2 Research innovation and commercialisation

a) Describe the administrative unit's practices for innovation and commercialisation.

Please write your text here – about 1/3 page

b) Describe the motivation among the research staff in doing innovation and commercialisation activities.

Please write your text here – about 1/3 page

c) Describe how innovation and commercialisation is supported at the unit.

Please write your text here – about 1/3 page

**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.

No.	Title	Valid period	Link
1			
2			
X..			

**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			
2			
X..			

## 4.3 Higher education institutions

a) Reflect how research at the unit contributes towards master and PhD-level education provision, at your institutions and beyond.

Please write your text here – about ½ page

b) Describe the opportunities for master students to become involved in research activities at the unit.

Please write your text here – about ½ page

## 4.4 Research institutes

a) Describe more generally 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.

Please write your text here – about ½ page

b) Describe how users outside of research organisations are involved in research activities at the unit

Please write your text here – about ½ page

## 5. Relevance to society

Reflect on the unit's contribution towards the Norwegian Long-term plan for research and higher education, societal challenges more widely, and the UN Sustainable Development Goals.

Please write your text here – about 1 page

### 5.1 Impact cases

Please use the attached template for impact cases. Each impact case should be submitted as an attachment to the self-assessment form.