

Terms of reference for the midterm evaluation of SFF-IV

Background

The Norwegian Centres of Excellence scheme (*Sentre for fremragende forskning – SFF*) was initiated in 2002 and is the Research Council's most prestigious funding instrument.

The objective of the scheme is to give Norway's best researchers the opportunity to organise their research activities in centres that seek to achieve ambitious scientific objectives through collaboration. The research conducted at the centres must be innovative and have major potential to generate ground-breaking results that advance the international research frontier. The centres must work with ambitious ideas and complex problems that require coordinated, long-term research activities within or across disciplines to achieve their objectives.

Ten Centres of Excellence (CoE) were started between September and December 2017. These centres were selected in the fourth call for CoEs and are in Norwegian referred to as SFF-IV. These centres receive 13 - 17 million NOK per year in financing from the Research Council over a project period that currently is 6+4 years, contingent on the outcome of a midterm evaluation. Their first (six-year) financing period will thus end between September and December 2023. The centres will be midterm evaluated in the Spring of 2023.

The 10 centres, denoted by their acronym and the current centre leader's surname, are presented in Table 1. The headings indicate the overall research field of the centres and their geographic locations.

	Life Sciences	Physical sciences and Engineering	Social Sciences and Humanities
Trondheim		<i>PoreLab</i> (Hansen) <i>QuSpin</i> (Brataas)	
Oslo	<i>CanCell</i> (Stenmark) <i>Hybrid Technology Hub</i> (Krauss) <i>Fertility and Health</i> (Håberg)	<i>RocS</i> (Carlsson) <i>Hylleraas</i> (Helgaker)	<i>RITMO</i> (Refsum Jensenius)
Bergen			<i>FAIR</i> (Tungodden) <i>SapienCE</i> (Henshilwood)

Appendix 1 contains relevant extracts from the centre contracts and the attached "Requirements and guidelines" that are relevant for the midterm evaluation of the Research Council's CoEs.

Purpose of the evaluation

The primary objective of the midterm evaluation is to form the basis for the decision regarding whether to continue the financing of each individual centre for the remainder of the total 10-year period or to terminate the centre's SFF funding and status after six years. This was stated in the 2016 call and in the SFF-IV contract between the Research Council and the host institution for each centre.

An evaluation committee will be appointed specifically for each centre. Based on the background material provided by the centre and information gathered from a site visit, the evaluation committee will write a midterm evaluation report. The report will assess how well the centre meets the three midterm evaluation criteria (1 Research, 2 Organization, 3 Plans for the last (4-year) centre period).

Each centre will also be assigned one of seven grades between “Poor” and “Exceptional” for each of the evaluation criteria.

The midterm evaluation report will also include a list of concrete suggestions from the committee to the centre. Some centres may receive recommendations regarding issues that are particularly important to correct for the functioning of the centre.

Based on the evaluation committee’s report, the administration of the Research Council will make a recommendation regarding continued funding of the centre to the Executive Board of the RCN. The recommendation will be one of these three:

1. Continue the centre for the last four years.
2. The centre must take corrective actions in order to follow up the committee’s recommendations. After 6 months, the actions and plans will be evaluated as sufficient or not, and the centre will be recommended to be continued or terminated.
3. Terminate the centre.

Based on these recommendations the Executive Board of the RCN will make the formal financing decisions.

Evaluation questions

The centres will be evaluated both with respect to their achievements so far and with respect to their plans for the last four-year period.

Evaluation criteria:

Research:

- *To what extent has the centre produced ground-breaking results?*
- *To what extent is the centre's scientific output a result of collaboration within the centre?*
- *To what extent has the centre's research output had (or likely will have) significant impact on international research themes and research methods?*
- *To what extent has the research at the centre been beyond the state of the art (e.g. novel concepts and approaches, development of novel methodology or development across disciplines)?*

Organisation:

- *To what extent is the centre organized to facilitate ground-breaking research?*
- *To what extent is the centre organized to foster research collaboration across the centre?*

Organisation and leadership

- *To what extent has the centre director(s) demonstrated sound leadership of the centre (research and training)?*
- *To what extent is the expertise in the centre suitable for the most ground-breaking research?*
- *To what extent are changes in the original research plan well justified scientifically?*
- *If relevant, to what extent have the contractual partner institutions been integrated and involved in the research at the centre?*

- *To what extent is the physical organisation of the centre optimal for the research?*
- *To what extent has the centre's popular science dissemination activities been of an appropriate level and quality?*
- *If relevant, to what extent have the plans to support development of research talents of the under-represented gender towards qualification for more senior-level positions been effective?*

Training

- *To what extent is the researcher training considered to be at a high international level?*
- *To what extent has the centre created an environment that attracts and develops excellent research talents?*

Societal/industrial impact (*Societal/industrial impact is not a goal for the SFF funding scheme and can only count positively. Hence, the lack of such impact must not be held against the centre.*)

- *To what extent has the centre led to societal and/or industrial impact?*

Indicators defined in the contract

- *Has the centre fulfilled its expectations regarding the number of Horizon 2020/Europe, ERC or other international grants to be submitted? Is the centre exploring opportunities appropriately?*
- *Has the centre trained the number of PhDs/postdocs indicated in the contract?*

Financing and costs

- *Has the centre attracted the expected level of external funding?*
- *If the centre was awarded funding of "particularly high operating expenses", has this funding been spent as intended in the SFF-IV call for proposals?*
- *If the centre has a contractual partner institution that receives funding from the RCN's SFF contribution, is the partner's contribution to the centre's research appropriate to the level of funding?*
- *If an international contractual partner institution receives funding from the RCN's SFF contribution – to what extent does this strengthen the quality of research based in Norway?*

Plans for the last (4-year) centre period

Evaluation criteria for the research plans:

- *To what extent are the proposed research and objectives ambitious, with the potential to achieve ground-breaking results?*
- *To what extent does the proposed research address important research challenges that will have a high impact on international research themes and research methods?*
- *To what extent is the outlined scientific approach for the second period feasible?*
- *To what extent is the successful accomplishments of the main research objectives dependent on the research collaboration in the centre?*

- *To what extent are changes from the original the research plan well justified scientifically?*

Exit strategy

- *Does the centre have clear information from the host institution about the host institution's plans regarding funding (e.g. permanent positions) or other arrangements after the centre period? Predictability will be evaluated, not the level of funding.*

Background material for the evaluation committee

The background material is specified in Appendix 2. In short, it will consist of:

- Annual report 2022 (with specified contents)
- Self-evaluation from the centre – a document from the centre director to the evaluators (with specified contents)
- Written statement from the host institution describing its commitments for funding or other arrangements for the research after the centre ends
- The financing and costs of the centre
- Report from each contractual partner institutions
- Research plan for the last four years of the centre
- Relevant excerpts from the contract (Paragraph 8, provided by the RCN)
- The project description (as attached to the contract, provided by the RCN)
- List of partners (provided by the RCN)
- SFF-IV phase 2 call text from 2016 (provided by the RCN)
- Midterm evaluation site-visits

In addition, other material e.g. openly available on the internet may be assessed by the evaluators.

Organisation and work process

Evaluation committee

The evaluation committee for each centre consists of 4 members:

- Two internationally recognized experts in the research field(s) of the centre.
- Two generalists – foreign professors with broad experience in research and management of research groups/centres.

The two experts will be specific for each centre. In total there will be 20 experts covering the 10 centres. The generalists will visit several centres each. The generalists will therefore get an overview over the operation of five centres and be able to compare the different centres.

The members of the evaluation committee for each specific centre will receive the background material (see next section) two months before the site visit. The committee members are asked to:

- Read the background material submitted by the centre. Other information available through websites, science indexes, journals etc. may also be assessed for a fuller picture.
- Prepare a pre-assessment report and formulate questions for the site-visit

- Attend site visit(s) organised and attended by RCN staff.
- Write a joint evaluation report.
- Correct any factual mistakes after consulting the centre.
- If the centre is asked to take corrective actions (given a "yellow light") – participate in a re-evaluation.

Final decision

The Executive Board of the Research Council of Norway will make the formal decision whether or not to approve the evaluation process, and, for each centre, whether or not the funding will be continued for the remainder of the project period.

If the Board's decision is that a centre must take corrective actions before a final decision is made, the centre's actions will be evaluated after 6 months. The administration of the Research Council may call upon the evaluation committee, or additional expertise, for the evaluation of the actions in those cases where such expertise is of importance. The administration will recommend continuation or termination of the centre. The Executive Board of the Research Council of Norway will make the formal decision. The centre will not be terminated before this decision, even if the 72-month first period is exceeded.

Time schedule for the midterm evaluation

Nov 2022	The centres are informed about the midterm evaluation criteria, required background material, timeline and procedure.
Nov 2022	Centres may suggest up to 4 impartial experts in their field(s). The administration may appoint one of them to the evaluation committee.
Jan-Feb 2023	Appointment of evaluation committees
March 1 st 2023	Submission deadline for self-evaluation and annual report for 2022
March 2023	Material is sent to the evaluation committee
May-June 2023	Evaluation committee performs site visits
June 2023	Evaluation report from the evaluation committee is finished and sent to the centres for fact check
Sep 2023	Research Council deadline for submitting the Evaluation Report to the Executive Board
Oct 2023	Executive Board meeting
April 2024	Evaluation committee evaluates corrective actions taken to follow up the suggested adjustments (if necessary)
May 2024	Executive Board meeting (if necessary)

Deliverables

The individual evaluation committees will write an evaluation report for each individual centre (see Purpose of the evaluation). These individual reports will be collated into a consolidated report.

The evaluation report will be made public.

Appendix 1: Relevant parts of the SFF-IV contract for the mid-term evaluation

This appendix contains extracts that are relevant for the midterm evaluation, cut from the contract text and its attachment "Requirements and guidelines". The document "Requirements and guidelines" ("Krav og retningslinjer SFF-IV", dated 2nd August 2022) is a part of the SFF-IV contract between the Research Council and the host institution for each centre and was also published in the 2016 call.

From the contract:

Article 5: Project period

The initial project period is six years from the starting date: (date)

Conditional to a positive outcome of the mid-term evaluation a prolongation of an additional four years will be granted in which case the date of completion will be: (date)

See Attachment 1 for more details. [Attachment 1 is "SFF - Requirements and Guidelines"]

Article 8: Other special terms of contract and deviations from the General Terms and Conditions for R&D Projects

The following special conditions shall apply to this project:

Mid-term evaluation

A mid-term evaluation of the centre will be conducted under the auspices of the Research Council approximately 5 years after start-up. See the SFF – Requirements and Guidelines. If the evaluation has a negative outcome, the centre's funding will be discontinued 6 years after the start-up date.

From "Requirements and guidelines":

5.1 Pledge for a period of 6 + 4 years

The R&D Project Agreement Document provides a pledge of funding for 6 + 4 years, contingent on a positive midterm evaluation. The attachment to the R&D Project Agreement Document containing the project description, budget and description of particularly high operating expenses applies to the entire 10-year period. This attachment specifies both basic funding and estimated supplementary funding for the centre.

If the Research Council concludes, on the basis of the midterm evaluation, that the centre can be continued, a new contract will be signed for the centre's final four-year period. This contract must include an updated project description and updated cost and funding plans for the project period.

The Research Council's share of basic funding for the first six-year period may be maximum 60 per cent of the Council's planned funding for the entire 10-year period of operation.

7.2 Midterm evaluation

About 5 years after the centre is established, the Research Council will conduct a midterm evaluation. The Research Council will draw up a mandate for the midterm evaluation.

The Research Council will use a panel of specialists in the subject areas covered by the individual centre to assess the scientific aspects of that centre. Generalists will be used to view the centres in relation to one another. The midterm evaluation will be based on the same assessment criteria employed in the application review process. The main focus will be on the most important (ground-breaking) scientific results generated by the centre thus far. Importance will also be attached to the other assessment criteria from the application review process.

The potential of current research activities will be discussed. Any scientific changes to the centre's ongoing research made underway and in the work plan for the final four-year period of operation will also be assessed. Organisational and administrative factors will primarily be assessed on the basis of how well they support outstanding research and researcher training at the centre.

The midterm evaluation will also assess how well the centre has achieved the supplementary funding described in the application and whether it has achieved other internally defined performance targets described in the project description under "How to measure centre success after 4/10 years".

On the basis of the midterm evaluation, the Research Council will decide whether the centre will receive funding for the final four-year period or whether the centre will be discontinued at the end of the first period. The report from the midterm evaluation will be made publicly available.

Appendix 2: Background material to be sent to the evaluation committee

The centre director, the host institution and the partner institutions are kindly requested, before March 1st 2023, to prepare the following material for the assessment committee.

Annual ("glossy") report

The annual report for 2022 must be submitted to the Research Council by March 1st 2023. The generalists will need an overview of the centres. The contents of all Annual Reports must therefore include the following standard contents (in addition to any self-chosen headlines and pages):

- Scientific highlights (published results, software, datasets etc. from the first six-year period) (1 page)
- Other highlights (books, prizes, training, major conferences arranged etc. from the first six-year period) (1 page)
- Impact on international research themes and research methods (2 pages)
- Organisational chart of the centre (1 page)
- Research groups or areas (Theme, current members: Research leaders (PIs), researchers, postdocs, PhDs and technicians) (2 pages per group)
- Research collaboration between research groups in the centre (Main publications and scientific results) (2 pages)
- Researcher training (list the Current PhDs in the centre– PhD in the centre , current postdocs, organisation of PhD and postdoc training, courses, organized summer schools etc, (2 pages)
- Completed PhD dissertations (and Master Theses, if relevant) (1 page)
- Gender balance (If relevant) (If the researcher team is/was characterized by gender imbalance, describe actions that have supported development of research talents of the under-represented gender towards qualification for more senior-level positions) (2 pages)
- Outreach (main dissemination and communication actions) (2 pages)
- Important societal impact or innovation/industrial impact (If relevant). Aim for concrete results only (for example reports for policy making, patents and their use by enterprises, spin-off companies, permanent impact on education beyond the Centre). General statements (for example "the research results will be important for future innovation/environment/economy/societal structure etc.) are not equally valuable. (2 pages)
- Scientific Advisory Committee (1 page)
- Centre board (if relevant) (1 page)
- Publications (separate clearly between peer reviewed journal publications, books, anthologies, peer reviewed conference proceedings etc.; there is no need for a very long list; less important publications may be skipped and instead summed up by a section with numbers etc.)
- Members (provide a full list of present and previous personnel at the centre)

The major scientific results and research projects of the centre so far should also be presented, but it is up to the centre to decide where it fits into the annual report.

Self-evaluation report from the centre

The self-evaluation should contain seven parts indicated by (a) – (g) in what follows.

(a) The centre's ten most important scientific publications or other scientific outputs (1/2 pages per publication)

For each publication: Describe how the result is ground-breaking or has an impact on international themes or research methods. Describe each of the centre researchers' contribution to each publication.

What was the Centres' role in this research? (Where did the idea come from? Was this research initiated at the Centre? Which parts of the research were conducted at the host institution? Which parts of the research were conducted at the contractual partner institutions? Were any parts of the research conducted by international or other collaborators?)

(b) How can the evaluators identify the centre publications and the centre output?

Define how the evaluators can identify the centre's scientific production in Web of Science, SCOPUS, Google Scholar, archives etc.

New research may not yet have achieved breakthrough results. Please describe between zero and four of the most promising research projects in progress (< one half page each). Describe the hypotheses, the research so far, preliminary results, plans and realistic outcome (including possible breakthrough results) of the research. Where or how will the future results most probably be published?

(c) Changes in research/research objectives (1 page)

How well have the original objectives been reached? Have the objectives or the research plans been changed? In that case: Describe the changes and the motives for the changes. Describe the process for deciding on changes in the strategy.

(d) Scientific advisory committee (< 1 page)

List the scientific advisory committee meetings (dates, participants virtual/physical)? Briefly sum up comments and advice from the committee. Has the centre made changes to the research after these discussions? Why or why not?

(e) Changes in core competence (< 1 page)

Did the centre lose any of its core members (PIs) since the application phase? Why? Did this have consequences, e.g. for the collaboration in the centre or the planned research? Will any of the research leaders (Principal Investigators) be retired in the second period? Which actions have been taken to replace current or future missing competence? Are there scientific arguments for substituting lost/retired competence with a researcher from a different field?

(f) Organisation of the research, management and administration (< 1 page)

Describe how the centre promotes the most ground-breaking research in the centre. How does the centre facilitate collaboration across the centre? If relevant, include a description of how the contractual partner institutions contribute to the research at the centre.

(g) Applications submitted

Include a list showing which applications were submitted to Horizon 2020/Europe, ERC etc and how they fared.

Financing and costs at the host institution (~1 page text plus Excel spread sheet)

- The Excel spread sheet showing financing for the first 6 years (2017, 2018, 2019, 2020, 2021, 2022) for the whole centre (use template "Senternavn Finansiering og personell 2022" as in the progress reports)
- Amount of the RCN SFF-contribution spent at each contractual partner institution (if relevant)
- A brief description of the amount (NOK) and use of funds allocated to "particularly high operating costs" so far (if relevant)

Written statement from the host institution describing its commitments for funding or other arrangements for the research after the centre ends

Describe briefly the host institution's plans for the centres' most important research after the centre period is ended (commitments for funding, positions or other arrangements).

Report from each contractual partner, including centre-related financing and costs (if relevant) (per partner: ~1 page)

- Major cost elements at the partner institution in the first period
- Describe the partner's main contributions to the research in the centre

Research plan for the last four years of the centre (about 6 pages)