

Midterm evaluation of FORINNPOL centres 2020

R-Quest and OSIRIS Research for Research and Innovation Policy – FORINNPOL



About the Research Council of Norway

The Research Council of Norway (RCN) is the national funding agency for research and experimental development (R&D) and R&D-supported innovation. The Research Council intends to be an important research and innovation policy advisor nationally and internationally, a strategic investor, a visible and inclusive social actor and a knowledge-based advisor. Through these roles, we will facilitate the development of strong research and innovation communities that assert themselves in the international competition, create insight, contribute to value creation and to solve the social challenges facing Norway and the world community. The Research Council shall nurture new ideas, make cross-functional research and radical innovation possible and work for a society where research is used and shared.



Foreword

In this report we present the outcomes of the midterm evaluation of two centres established under the FORINNPOL initiative – Research for Research and Innovation Policy.

This initiative is very important for the Research Council as it concerns the very basis for our operations, both related to advice to Government and the organisation of our own work. In this report we present the initiative and the centres that are established with the hope that readers get inspired to follow the work more closely.

It takes a lot of work to carry out the research and to evaluate it. The centres themselves, their research partners and the user communities have all contributed to this effort. Not the least we have had valuable help from a very competent international panel of experts in evaluating what have been done so far, and in helping directing work for the final phase of the centres. I take this opportunity to thank all contributors for their efforts.

Frode Georgsen

Director Department for statistics and evaluation The Research Council of Norway

Contents

1 Introduction	5
2 Decisions on continuation of the work	6
3 The FORINNPOL initiative	7
4 Midterm evaluation framework and terms of reference	8
Purpose of the evaluation	
Evaluation questions	
Evidence base and methodology	
Appendix 1: Success criteria	9
5 Midterm Evaluation Report by Expert Panel for R-Quest	10
Introduction and Background	
Research activity	
Cooperation with and impacts on users	
Internationalisation	11
Researcher training and recruitment	11
Partners and funding	
Plans for final three years and post funding operations	
Conclusions and concluding remarks	
Appendix 2: Background information about the Panel Evaluation Process	
Appendix 3: R-Quest – Factsheet	13
6 Midterm Evaluation Report by Expert Panel for OSIRIS	15
Introduction and Background	
Research activity	
Cooperation with users	
Internationalisation	
Researcher training and recruitment	
Partners and funding	
Plans for final three years and post funding operations	
Concluding remarks	
Appendix 2: Background information about the Panel Evaluation Process	
Appendix 3: OSIRIS – Factsheet	

1. Introduction

In 2015 the FORINNPOL – Research for Research and Innovation Policy – initiative was established, financed by the Ministry of Education and Research. It aims for developing knowledge to support policymakers at all levels with high quality and relevant information about the research- and innovation system, and how good policy can be designed and applied. For this purpose three research centres with an operation period of eight years have been established, of which the final three years are contingent on a positive midterm evaluation. In this report the outcome of the midterm evaluations of two of the centres, R-Quest and OSIRIS, is reported.

Besides presenting the centres and their work, the report also makes the work and topics addressed in the FORINNPOL initiative visible – topics that are highly relevant also for the Research Council's own operations. For further details on the contents of the work undertaken by the centres, we refer to their websites, links are found in chapter 3.

The report is organised as follows:

- First the decision on continuation of the centres is addressed, taken by the Board of the Research Council.
- Next the FORINNPOL initiative is presented, followed by the framework and terms of reference for the midterm evaluations.
- Finally, the evaluation reports for each of the centres by the expert panel are presented.

All documents and appendices available to, and utilised by, the expert panel are listed. However, some of them are too large to include in this report. They will be made available on request.

2. Decisions on continuation of the work

The midterm evaluations were discussed by the Board of the Research Council of Norway in its meeting February 4, 2021. The Board concluded in line with the recommendations from the expert panel and the administration to continue financing the work for the final part of the operation period:

The Board decides to continue financing R-Quest and OSIRIS through the final 3 years of their operation period according the existing plans. The decision requires that the centres do follow up on the recommendations for further development of the work as pointed out by the expert panel.

3. The FORINNPOL initiative

The Research for Research and Innovation Policy (FORINNPOL) initiative was established in 2015 to expand and better target the knowledge base for use in the design and implementation of research and innovation policy by relevant actors. Two secondary objectives have been formulated to achieve this:

- 1. to generate research at a high international level of relevance to policy development
- 2. to promote the use of research and research results in policy development and implementation.

FORINNPOL aims at helping to create a knowledge platform that can supplement, link together and facilitate research already being conducted in the field, and to promote research that is innovative and useful across a variety of user groups. The Research Council is itself a core actor and user of updated knowledge for its own advisory activities and strategy development.

FORINNPOL also aims at creating a framework for activities in the field that can help developing focused research groups of high international calibre. Funding is allocated for the establishment of a set of time-limited centres, as well as for more traditional individual research projects. The programme also sets aside resources dedicated to expanding dialogue and interaction between researchers and users. The initiative focuses primarily on the following three thematic priority areas:

- Research quality
- Effects of research and research-based innovation
- Research and innovation for restructuring

Three centres are established, one for each of the thematic priority areas. Two of them were established in 2016 have now been mid-term evaluated. This includes R-Quest (Centre for Research Quality and Policy Impact Studies) hosted by Nordic Institute for Studies in Innovation, Research and Education (NIFU), and OSIRIS (Oslo Institute for Research on the Impact of Science) hosted by the University of Oslo (UiO). The third centre, INTRANSIT (Innovation Policy for Industrial Transformation, Sustainability and Digitalization) is also hosted by the University of Oslo. This centre was established in 2019 and therefore not due for mid-term evaluation in this round.

More information on the research activities of the centres can be found on their web sites:

- > <u>R-Quest</u>
- > <u>OSIRIS</u>
- > <u>INTRANSIT</u>

4. Midterm evaluation framework and terms of reference

Purpose of the evaluation

The purpose of the evaluation is twofold.

- First, the evaluation will form the basis for a decision made by the Research Council whether to continue the individual centre for the remainder of the overall eight-year term, or to wind it up after five years.
- Second, the evaluation will advise on how to improve and further develop the centres and the use of such centres as an instrument. The advice can involve actions taken by the centres or potential improvements in the organisation and administration of the centres by the Research Council. As part of this, the evaluation is to assess the plans for the centres' activities in the final three-year period.

Evaluation questions

The evaluation will review the progress of the centres, according to their project plans, recognising at which stage in their operation period the centres currently are. The main goal is to get an overview over the approach and measures taken so far by the individual centres to judge the quality and usefulness of their work, and potential for their long-term development towards a successful FORINNPOL centre. An assessment of the management of the centres is part of this.

A set of success criteria for FORINNPOL centres (Appendix 1) is the main basis for the evaluation and the full list of criteria and sub-items are to be addressed in the reporting. They cover the following topics:

- Research activity quality and relevance
- Co-operation with users
- Internationalisation
- Researcher training and recruitment
- Partners and funding

The evaluation may offer suggestions for remedial action to enhance the prospects for centre success directed towards the individual centres as well as the Research Council. As part of this the evaluation should comment on the present plans for activities for the centre's final three-year period and plans for the post-funding phase. The assessment of revised plans should reflect any need for adjusted goals and actions in light of finalised research, and in particular in light of new challenges for research and innovation policy as a result of internal or external developments.

Special attention should be given to the interaction between the individual centres and user interests in ministries and the Research Council itself. In particular, 10 % of the funding from the Research Council is set aside for co-operative projects with concrete contributions from both researchers, ministries and the Research Council. Positive and/or negative aspects and outcomes of this arrangement should be considered. A particular issue is if there seems to be role conflicts as a consequence of these institutions being both financers of the research activity, to a certain extent the object of the research, as well as users of the outcomes of the research.

The consequences, positive or negative, for the host institutions from hosting the centres should be given special attention. Likewise, host institutions' influence on the centres' ability to fulfill their aims should be addressed.

Evidence base and methodology

The following written material will form the background for the evaluation:

- Project descriptions
- Budget tables from The Research Council project data base
- Annual reports 2016, 2017, 2018 and 2019 from the centres
- Work plans for 2020 including tables for funding and costs
- Reports from the centres and their partners according to standardised templates:
- A. A self-evaluation of the centre including sections on research accomplishments, important industrial or societal results, progress towards realizing the centre's potential for policy advice, innovation, internationalisation, recruitment, financial aspects and organisation.
- B. Fact sheets including CVs for the management team, data for the staff working in the centre, lists of publications, PhD students, financial data and selected indicators.
- C. An assessment of the centre from the host institution.
- D. An assessment of the centre from each of the research partners.
- E. Present description/plan for the final three-year period, including a plan for the post-funding phase.
- Report(s) from Scientific Advisory Committees
- Documents describing the scheme (Research Council of Norway):
 - Research for Research and Innovation Policy (FORINNPOL).
 Work Program 2015-2022.
 - Research centres for research and innovation policy under the FORINNPOL initiative. Requirements and guidelines

In addition, one-day site visits/digital meetings with both centres will be organized. Interviews with a limited number of core users will be organized.

APPENDIX 1: Success criteria

Success criteria for Research centres for research and innovation policy under the FORINNPOL initiative

In addition to fulfilling the formal requirements, centres under the FORINNPOL initiative should be characterised by the following, which will also provide a basis for the midterm evaluation:

Research activity

- The centre has a visible profile, a strong identity and a successful collaboration with its partners.
- The centre has a distinct research profile, conducts long-term, relevant research of high international calibre in the fields specified in the project description, and demonstrates this through its scientific publications, papers for presentation at recognised international conferences and other forms of scientific dissemination, as well as through its contribution to researcher training.
- The centre utilises a multidisciplinary approach in its research activities; i.e. it forges close links between various subject areas.
- The centre has a clear focus on one or more of the three thematic priority areas described in the FORINNPOL work programme: research quality; impact of research and researchbased innovation; use of research and innovation for economic restructuring.
- Researchers from the host institution and research partners participate actively in the centre's research.
- The centre has been successful in launching new projects with external funding that help to enhance the quality and expand the volume of the centre's work. It has also been successful in establishing or further developing cooperative relations both nationally and internationally.

Cooperation with users

- The centre participates actively in national and international arenas in which research and innovation policy is developed and discussed.
- The centre carries out projects that are developed and implemented in close cooperation with user interest groups.
- The centre actively provides advisory services to key user interest groups and carries out shorter-term projects and studies on commission from users in relevant thematic areas.
- The centre actively disseminates research results to broader user groups and the public at large.

Internationalisation

- The centre engages in active and binding collaboration with international research groups and has contributed in other ways to the internationalisation of Norwegian research.
- The centre has been successful in international research cooperation, e.g. as an actor under the EU's framework programme, as a partner or a coordinating partner.
- The centre attracts outstanding international researchers, including research fellows and senior staff, as visiting researchers.

Researcher training and recruitment

- The centre helps to train and recruit researchers in its areas of specialisation.
- The centre is actively engaged in education, especially at the master's and doctoral levels, and promotes recruitment to its subject areas.
- The centre has achieved a satisfactory gender balance among the management staff and research fellows.

Partners and funding

- The centre receives long-term funding from the host institution and partners.
- The centre has been successful in securing other external funding.
- The centre has a realistic plan for continuation of the centre's activities after Research Council funding ceases.

5. Midterm Evaluation Report by Expert Panel for R-Quest

PANEL MEMBERS:

- Jonathan Adams, Visiting Professor, Policy Institute at King's College London; and Chief Scientist, ISI, United Kingdom
- Susan E. Cozzens, Professor Emerita; Georgia Institute of Technology, USA
- Maureen McKelvey, Professor, University of Gothenburg, Sweden
- **Pierre-Benoît Joly**, Directeur de recherche; INRAE, France
- Wolfgang Polt, Director, Institute for Economic and Innovation Research, JOANNEUM RESEARCH, Austria

Introduction and Background

The Research for Research and Innovation Policy (FORINNPOL) initiative of the Research Council of Norway (RCN), has selected and is funding the centre 'R-QUEST'. The panel has evaluated R-Quest, in accordance with the document "The Research Council of Norway: Midterm evaluation of FORINNPOL centres R-Quest and OSIRIS" (Appendix 1). The panel convened for this midterm evaluation in Fall 2020 (Appendix 2).

R-Quest (the Centre for Research Quality and Policy Impact Studies) was set up with the aim to understand the dynamics of research quality, the role of policy in developing outstanding research and the contribution of high-quality research to achieving broader societal goals. To achieve these goals, it aims to attract international collaboration with top-level researchers, attract and recruit highly competent PhD students and postdocs, establish long-term studies addressing the key research challenges, develop databases and methods combining micro and macro level data and engage in close collaboration with policy makers and users to ensure relevance and policy learning.

Partners are six research institutions with NIFU (Nordic Institute for Studies of Innovation, Research and Education) as the host of the centre: the <u>Department of Political Science</u>, <u>University of</u> <u>Oslo</u>; the <u>Danish Centre for Studies in Research and Research</u> <u>Policy (CFA), University of Aarhus, the Centre for Science and</u> <u>Technology Studies (CWTS), Leiden University; the Division of</u> <u>History of Science, Technology and Environment, KTH-Royal</u> <u>Institute of Technology, and the Manchester Institute of</u> <u>Innovation Research (MIoIR) of the University of Manchester</u>.

An information sheet about R-Quest is provided in Appendix 3, which gives an overview of key information found in background documentation and the self-evaluation report (Appendix 4). The panel conducted a virtual site visit with R-Quest on 20th October (Appendix 5). R-Quest centre runs 2016 to 2024. For this period the total funding is projected to 76, 7 MNOK, of which some 56 MNOK would come from The Research Council of Norway; dependent upon a positive decision for continuation in the aftermath of this midterm evaluation.

The drafting of this report was done by the panels' chairperson, Wolfgang Polt, who has used input from all members to write the report. The interaction and working process included two meetings on 20th October (directly after the site visit; 1 hour) and Friday November 6th November 2020 (3 hours), as well as a work plan including deadlines for comments, and multiple digital interaction conducted via Microsoft Teams and email, in order to complete the evaluation report. The competent technical support from RCN for these meetings is highly acknowledged. Acknowledging the character of this evaluation as an interim one and taking into account the limitations of the (remote) work of the panel due to the CORONA setting without the possibility to longer interactions with the centre and the stakeholders in the process, we focus our efforts on the ' formative' aspect of the evaluation, that is, to provide hints for improvement of the activities of the centre in the next years.

Research activity

The consortium, composed of six renowned research organizations in five countries, in our view brings together the necessary competences and capacities (research policy analysis and evaluation, R&D statistics, bibliometrics, social and political science) and has produced significant research and has a high potential to live up to the tasks and set goals. We concur with the self-assessment of the centre that it was successful in creating an attractive research environment for multidisciplinary research around an ambitious research agenda of potentially high value to users.

We also shared the impression that the starting point (state of the art, research agenda and policy challenges) of the project was well articulated and the centre's response to the call was very much to the point. This originally stated mission is still very valid and should be pursued (even re-emphasized) also in the next phase of the centre's activities.

We appreciate the approach to arrange the research work around a ,core project', to serve as a reference framework for the different research strands. It has to be noted, though, that this approach needed and still needs considerable coordination effort in aligning researchers and methodological approaches. Also, not all research strands seem to be equally well balanced (e.g., between core project and research strand 2a/b). It will be a continuous task of the centres' management and the research strand leaders to ensure that the different research strand and the core model are well articulated. The management and coordination structures of the centre should fully take up this task in the next phase.

Not least due to the difficulties in setting up the core project, there seems to have been a slow start into the work and slow progress in defining and setting up the 'core project'. This is understandable given the complexity of the task but promises a higher output in the next phase of the project, if the core project can be sufficiently capitalized upon. Especially, we suggest that the directors make clear the gaps or the opportunities in the existing knowledge base and then which of these the Centre will address and which it will leave to other researchers.

Also, the interchanges between quantitative and qualitative research strands seem to have intensified (as e.g., highlighted by some partners).

The scientific output so far is evaluated to be of good to very good quality. From the listings of output, the panel found it hard, though, to judge whether all the outputs listed were directly related and caused by the centre or rather products originating from other strands of work (though related in content). While we acknowledge the difficulties in drawing lines between different but related strands of research, we would like to see a more precise allocation of output to the work of the centre in future reporting, which can be achieved by better definition of the core and distinction of the core from other, associated activity.

While in quantitative terms, - mostly due to the set-up time of the core project and the slow start of the project - it is considerable, but not very high as of yet, there are further publications in the pipeline. We have good ground to believe that it can be expected that in the next phase of the centre's activities the volume will increase.

Cooperation with and impacts on users

Concerning the question of impact of the centre's activities on the users, we find that a number of channels (various outreach activities, policy briefs) have been set up to achieve this impact and that the goal of establishing an extensive communication and interaction with users was very much on the radar of the centre. From the users' side, it was stated that the establishment of the centre led to an enhancement of contacts and offered access to the research base and to current debates, which was highly valued as an 'option value'. Also, the research was perceived as feeding into and underpinning a number of commissioned research projects useful to the policy clients. The policy briefs were especially highlighted as being a useful way to communicate research findings in digestible forms.

From what we gathered through the documentation and the discussion with users, though, we have the impression that not all of these channels worked particularly well and should be improved in the future. The interaction with users – in our view – came across as a mostly 'one-way-street' and could benefit from more 'co-development' of issues and research agendas between the centre and the users. The User Forum

- at least in its current form - apparently did not live up to expectations and the exchanges on the 10% cooperation equally seem to have had limited effect in terms of real 'co-development'. Both have decreased in frequency over the lifetime of the centre (though recently also hampered by the current COVID crises). The issue here might well be on the demand side, as counterparts from the users changed and attendance and engagement were uneven. Hence, there seems to be an issue in user-producer interaction which should be a focus of efforts for improvement in the next phase (e.g., by involving users more intensely in the workshops and current exchanges of the centre). On the other hand, as said, the work of the centre seems to have fed into and informed quite a number of projects of commissioned research (especially at NIFU) and enhanced the capacity to address user needs in this way.

Internationalisation

R-Quest is set-up as an international centre, and has been able to enhance international collaboration among the partners. This has been achieved by establishing collaborations between Norwegian groups with groups in other countries, where each partner has a high relevance and strong interest in the core topics. A range of international researchers has been engaged in seminars and also PhD training, which indicates a value added especially to early career researchers and also interaction with users.

We find that R-Quest successfully meets the targets, but would encourage even further international outreach in the next phase of the activities of the centre, e.g., in linking to international experiences in the User Fora. We propose that R-Quest leadership also investigates how to increase mobilization towards making applications and bids for EU projects. This could be a means for further extending the centre, where a bid for EU Framework Programme within a more targeted and specified part of the agenda could be very powerful.

Researcher training and recruitment

Overall, we assess the record on capacity building and teaching quite positively: on the one hand, integration of the centre in teaching activities has been achieved at least with the Master Course at ISV (while such integration into the curricula was not successful at MIOIR), on the other hand, a considerable number of very engaged and enthusiastic Master/PHD Students have been associated to the centre. Especially at NIFU, this seems to have created considerable additionality, where R-Quest has proven to be a very good attractor of recruitment in Norway. By origin, these students also contribute to the internationalisation efforts of the centre.

Partners and funding

The consortium is composed of six renowned research organizations in five countries, with different positions in their respective 'mother organizations'. This positioning also was a major determinant of the scale and scope of collaboration, as the centre's topic was at the heart of the activities of some organization, while it was only a niche topic in others. The goal of intensifying the collaboration among partners seems to have been met, but maybe to a varying degree. From what we have read in the self-assessment and heard in the presentations, also some impact in terms of behavioural additionality (having done things differently, with greater intensity, with potentially lasting effects) especially at the host institution but also where a special research group has been established for the cooperation in the centre can be seen. The centre had a considerable 'focusing device' effect especially at the host institution, but also at other some partners. This effect was less pronounced in larger, more divers institutions where the research strand is just one among many than in those were the research agenda is more to the core of the institution. Also, there were some issues with the stability of teams, as researchers and students changed posts and affiliations, which has been flagged in some partner institutions with smaller team sizes. These questions of ,sustainable behavioural additionality' at least for some partners should be addressed in the next phase of work.

We also take it as a good sign of collaboration in a complex and demanding research setting that there were no conflicts needing moderation or settlement by the coordination council.

Plans for final three years and post funding operations

While we encourage the centre to build on the original mission and stick to the 'core project' approach', even further deepening it in better linking qualitative and quantitative research, we see a need to improve the plan for the next three years especially when it comes to the question of (societal and economic) impact, i.e., the impact of the research on the users.

Collectively, we see a lot of potential research strands that would fall well into the remit of the original mission of R-QUEST that are not taken up in the topics proposed as foci of work for the next years. E.g., such topics include the assessment of research quality with respect to societal goals of research, the role of basic research in mission-oriented research and innovation policy, epistemological ties / gaps between HEI and business research, and the like. We would advise to seek possibilities to incorporate such research topics in the future work plan, which would also, in our view, increase the practical relevance of the work for policy makers and research institutions alike.

In the same vein, more coordination between research strand leaders is to be recommended, more exchange on this level to even better integrate the different approaches and perspectives.

An issue brought up as a potential threat for the smooth working of the centre was the envisaged shift of research agenda and competences concerning R&D statistics away from NIFU. While the panel cannot assess in depth the effects such a move would have on the ability (especially of NIFU) to carry out the work in the centre as foreseen, it recommends that data accessibility and collaboration with the unit producing the R&D statistics in the future must be secured.

Conclusions and concluding remarks

- Overall, the panel assesses the work of the centre as being very ambitious, promising and with a high potential. By establishing a consortium with very good mix of competences, it has laid the ground for positive outputs also in the future. Hence, we recommend to fund the centre also for the final phase of its life span, but suggest some improvements, especially with respect to:
- Improvements of the interactions with the users with the aim to arrive at a real 'co-development' of research agendas and application areas. Establish fora for an intense exchange, bringing the demand side on board with the aim of re-directing the research agenda in the next phase closer to the needs of policy development of the different actors (HEI, agencies, policy, researchers ...). If possible, involve users already in the design for the next phase
- Further develop the methodological approach proposed for the next phase and (i) look into the possibility to continue and further develop the 'core project' approach by clearer distinction from existing work, as we suggested above, and the case study methodology, (ii) orient the work (much) more closely to the needs of policy and users
- Establish a more regular and frequent exchange at the level of the research strand leaders to better balance and articulate the different research strands with the core project
- Given the changes in affiliation of key researchers, the centre might want to consider changes in its organizational composition in order to cater for these changes. Now would be a good time in the project to do so.
- Although this is not a recommendation addressed to the centre, we would nevertheless point to the necessity to ensure access for the centre to R&D statistics and collaboration with the unit that will handle these statistics in the future.
- Look into the possibilities to streamline the administration of the co-funding requirements

On a more general level, we also had a positive impression of the programme as a whole. The FORINNPOL Centres address timely and important topics: 1) Research quality; 2) Effects of research and research-based innovation; and 3) Research and innovation for restructuring. From what we have seen and have been able to assess, we are confident that the FORINNPOL Centres so far established offer the possibility for multidisciplinary and path-breaking research on a long term basis with the potential to longer lasting effects on the research capacities in Norway.

Finally, we want to thank the colleagues from RCN for their impeccable technical support in the course of these effort.

Wolfgang Polt

JOANNEUM RESEARCH, Panel leader for R-Quest on behalf of the R-Quest Expert Panel for Midterm Evaluation *Date: 20 November 2020*

LIST OF APPENDICES:

- **Appendix 1:** "The Research Council of Norway: Midterm evaluation of FORINNPOL Centres R-QUEST and OSIRIS" (Not included)
- **Appendix 2:** Background information about the Panel Evaluation Process
- Appendix 3: R-Quest Factsheet 2020
- **Appendix 4:** Templates for Self-Evaluation (Not included)
- Appendix 5: Agenda for Site Visit at R-Quest (Not included)

APPENDIX 2:

Background information about the Panel Evaluation Process

The Research Council of Norway, Research for Research and Innovation Policy (FORINNPOL) initiative funds the centre R-Quest. FORINNPOL has been established to expand and better target the knowledge base for use in the design and implementation of research and innovation policy by relevant actors. Two secondary objectives have been formulated to achieve this: 1) to generate research at a high international level of relevance to policy development, and 2) to promote the use of research and research results in policy development and implementation.

The panel has evaluated R-Quest, in accordance with the document "The Research Council of Norway: Midterm evaluation of FORINNPOL Centres R-Quest and OSIRIS" (Appendix 1). Our evaluation is structured according to the five main areas for evaluation as stimulated.

In preparation for the site visit and evaluation, each panel member received ample material and many documents - e.g. self-evaluation report for midterm; original application; annual reports; partner reports; background material, etc. The material regarding the centre was received well in advance and each member prepared individually. Subsequently, our interactive work has been conducted digitally.

On Friday 2nd October, the panel chairpersons for R-Quest and OSIRIS met with representatives from the Research Council of Norway to discuss and plan the expectations, criteria and evaluation process for both centres. RCN has facilitated all interactions.

On Monday 12th October, the panel met for four hours, in the preparatory meeting. The agenda included: 1) Reviewing and discussing the expectations and criteria as set up by the Research Council of Norway for the FORINNPOL centres as well as roundtable; 2) Presentations by the chairpersons about initial evaluations of the two centres, respectively; 3) Discussions of each panel members' views for the R-Quest centre in order to identify points of agreement/disagreement and questions for the site visit; 4) Discussions of each panel members' views for the R-Quest centre in order to identify points of agreement or disagreement and questions for the site visit; 5) Practical issues organized by the RCN, such as site visit agenda, digital platforms, etc. Subsequent to this meeting, we circulated questions to the centres for the session involving post-doctoral scholars and PhD students.

On 20th October, the panel conducted the site visit with R-Quest (Appendix 4), lasting more than 4 hours. Liv Langfeldt, centre leader from NIFU, presented the main goals and future plans of the centre, and in remaining sessions, all the partners and a large number of researchers associated with the centre participated, presented, and gave comments in appropriate sessions. The two sessions with users and with PhD students/ post-doctoral scholars were conducted solely with the panel, to promote open and outspoken discussion.

The drafting of this report was done by the panel chairperson, Wolfgang Polt, who has used input from all members to write the report and posted on our collaborative Team sites. This interaction and working process included two meetings on October 20th (directly after the site visit; 1 hour) and Friday November 6th November 2020 (3 hours, for both centres), as well as a working plan including deadlines for comments, and multiple digital interaction conducted via Microsoft Teams and email, in order to complete the evaluation report.

APPENDIX 3: R-Quest – Factsheet

Full name:

R-Quest – Centre for Research Quality and Policy Impact Studies

Host institution:

NIFU – Nordic Institute for studies in Innovation, Research and Education

Centre director:

Research Professor Liv Langfeldt, NIFU

Partner institutions:

- Department of political science, University of Oslo
- Danish Centre for Studies in Research and Research Policy, University of Aarhus
- Centre for Science and Technology Studies (CWTS), Leiden University
- Division of History of Science, Technology and Environment, KTH – Royal Institute of Technology, Stockholm
- Manchester Institute of Innovation Research (MIoIR), The University of Manchester

Operation period:

2016-2024

Overall budget:

Funding plan, MNOK										
	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
NIFU self financed researcher-time (basic grant)	0.500	0.560	0.560	0.560	0.560	0.560	0.560	0.560	0.189	4.609
NIFU related projects ¹	0.688	1.213	1.213	1.213	1.213	1.213	1.213	1.213	0.404	9.583
UiO researcher/supervisor time	0.067	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.033	0.800
Sum Norwegian co-funding	1.255	1.873	1.873	1.873	1.873	1.873	1.873	1.873	0.626	14.992
CFA Self financed time	0.075	0.115	0.115	0.115	0.115	0.115	0.115	0.115	0.038	0.918
MIOIR self financed time Manchester	0.075	0.115	0.115	0.115	0.115	0.115	0.115	0.115	0.038	0.918
Leiden self-financed time	0.075	0.115	0.115	0.115	0.115	0.115	0.115	0.115	0.038	0.918
KTH self finaned time	0.075	0.115	0.115	0.115	0.115	0.115	0.115	0.115	0.038	0.918
Sum International co-funding (self financed time)	0.300	0.460	0.460	0.460	0.460	0.460	0.460	0.460	0.152	3.672
The Research Council of Norway	4.667	7.000	7.000	7.000	7.000	7.000	7.000	7.000	2.333	56.000
Totals	6.222	9.333	9.333	9.333	9.333	9.333	9.333	9.333	3.111	74.667

1 Less than 10% of our funding of Statistics and indicators, potentially much more will be affected.

Research topics and the state of the art

This is a proposal to establish a Centre for Research Quality and Policy Impact Studies (R-Quest). The overall aim of the centre is to strengthen Norwegian and international research on the research and innovation system in order to provide a relevant knowledge basis for research and innovation policy. The centre will do so by focusing on three closely related questions concerning research quality:

- 1. How are notions of research quality negotiated, established and practiced, and what are the mechanisms through which these notions affect policy?
- 2. What are the drivers of high quality research, and what is the role of policy in developing outstanding research?
- 3. What are the effects of high quality research on the society?

Publications and outreach activities

Full list of publications and outreach activities left out here but is available on demand.

6. Midterm Evaluation Report by Expert Panel for OSIRIS

PANEL MEMBERS:

- Jonathan Adams, Visiting Professor, Policy Institute at King's College London; and Chief Scientist, ISI, United Kingdom
- **Susan E. Cozzens**, Professor Emerita; Georgia Institute of Technology, USA
- Maureen McKelvey, Professor, University of Gothenburg, Sweden
- **Pierre-Benoît Joly**, Directeur de recherche; INRAE, France
- Wolfgang Polt Director POLICES, Institute for Economic and Innovation Research, JOANNEUM RESEARCH, Austria

Introduction and Background

The Research Council of Norway, Research for Research and Innovation Policy (FORINNPOL) initiative funds the centre OSIRIS. The panel has evaluated OSIRIS, in accordance with the document "The Research Council of Norway: Midterm evaluation of FORINNPOL Centres R-Quest and OSIRIS" (Appendix 1). The panel convened for this midterm evaluation in Fall 2020 (Appendix 2).

The overall objective of the OSIRIS Centre is to be an internationally leading centre, to study how and under what circumstances research produces effects in society at large – in a way that generates new insights and helps policymakers, users and research organisations to better contribute to generating impact. Thus, OSIRIS focuses upon research impact, with a conceptual framing of processes of knowledge exchange and utilisation, with an empirical focus to study knowledge absorption and utilisation by users in different spheres of society.

OSIRIS is a university-based centre at University of Oslo (UiO), under TIK (Centre for Technology, Innovation and Culture). Magnus Gulbrandsen is the Director and Taran Thune is the Deputy Director; Both professors at UiO. The research partners are Ingenio-CSIC-UPV (Spain); University of Manchester (MIOIR, UK; and their sub-partner Fraunhofer ISI, Germany); and Statistics Norway Research Dept (Norway).

An information sheet about OSIRIS is available (Appendix 3), which provides an overview of key information found in background documentation and in the self-evaluation report (Appendix 4). The panel conducted the site visit digitally with OSIRIS on Wednesday 14th October (Appendix 5). The OSIRIS centre runs from 2016 to 2024. We note that OSIRIS had a 40% budget cut, when approved, as compared to their application. Their total funding from the Research Council of Norway is projected to 40 million NOK; where 'projected' means dependent upon a positive decision following this midterm evaluation. Additional financing, including from partners, exists and has been reported.

The writing of this report was done by the panel chairperson, Professor Maureen McKelvey, who has used input from all members to write the report and posted versions for comments, on our collaborative Team sites. In addition to the site visit, his interaction and working process also included two meetings on Wednesday 14th October (directly after the site visit; 1 hour) and Friday November 6th November 2020 (3 hours), as well as a work plan including deadlines for comments, and multiple digital interaction conducted via Microsoft Teams and email, in order to complete the evaluation report. We have focused upon evaluation at the midterm, including suggestions for possible improvements for the second period.

Research activity

OSIRIS has a novel and relevant empirical and conceptual approach to developing cross-disciplinary program for understanding the impact of research as being channelled through social interactions with users. They bring together, and also influence four streams of research traditions relevant for their foci. To do so through a multi-disciplinary approach, OSIRIS starts with a broad definition of impact as: The direct and indirect 'influence' of research or its 'effect on' an individual, a community, or society as a whole, including benefits to our economic, social, human and natural capital (Harland and O'Connor 2015). Their research activities are organized through these work-packages: WP1: Research impact assessment tools; WP2: Identifying the economic impacts of research and innovation; WP3: Impact of research on public policy making; WP4: Impact of research in the health and care context. Across these WPs, OSIRIS focuses on two issues: 1) to investigate impact from a broad user perspective, and 2) to contribute to building bridges between different approaches and communities.

Our assessment is that OSIRIS is performing well in terms of anticipated research output, and also has the potential to develop their research even further in the next phase. At time of writing their self-evaluation report, OSIRIS listed 17 scientific journal articles, of which 14 are already published and an additional 3 articles under review. Moreover, an additional 19 publications are listed in the self-evaluation report, ranging from established working paper series (SPRU; Statistics Norway) to specialist and public science debates (Stat & Styring). Two special sections/issues of leading scientific journals have been edited as well as many presentations of conference papers. Thus, the centre has performed well in terms of level and scope of output, including, scientific journal publications as well as a wider impact through scientific

activities globally such as organizing special issues of scientific journals, workshops, and sessions of major conferences. The research activities of OSIRIS are clearly focused upon the topic of impact of research, and also mobilizes users / stakeholders to ensure that their own research has impact on especially policy debate. Our interpretation is that the centre functions successfully and continues the tradition of a university-based centre to enrich human capital, and train new scholars, and rather less according to a more hierarchical command-and-control model. On the one hand, we do agree with the advantages of this chosen governance form, specifically the long-term possibility to engage in truly novel research and train young researchers. On the other hand, we are somewhat concerned with the possible downsides and disadvantages. Some more coordination would be useful, in the next period. Otherwise, potential problems which could arise in the future could be multiple streams of research which are not interacting as well as having different, shorter case studies without the possibility to compare, if a rigorous research design is not enforced. For example, WP2 feels fairly disconnected from the other WPs - even though it follows standards of research within that subfield dominated by a quantitative approach. WP2 does not seem to adopt the users' perspective, whereas this perspective is claimed as the core originality of OSIRIS. We acknowledge that conducting multidisciplinary research is difficult, and that OSIRIS has a high ambition to combine many strands.

Hence, assuming continuing funding going forward, we urge more consideration of these factors. Reaching across too many disciplines and sub-disciplines may be a problem, if those researchers do not meet over key debates such as concepts or methodological protocols. Hence, a more focused conceptualization developed through dialogue amongst the partners, and also how to further implement this across the WPs would be beneficial. Moreover, we note that more work appears to be done on policy than on the two other areas (health; economic development). We concur with the priority areas identified by OSIRIS for the final period, as per documentation and discussions at site visit. In doing so, we have identified that OSIRIS should especially discuss and implement decisions pertaining to: 1) Specify and implement the uniting conceptual framework across all WPs and 2) Conduct truly comparative longitudinal case studies.

OSIRIS does unite partners, and they organize many human capital enhancing activities such as workshops, research protocols, discussions of key directions. By doing so, the centre acts as an entity to unite researchers across the partners (UK, Spain and partially Germany). The site visit was very insightful in understanding the importance of OSIRIS to not only partner organizations but also to individuals. The centre has also adapted to the current situation, where many individuals who previously travelled now do so regularly via digital platforms.

In summary, we find that OSIRIS focuses upon interesting and relevant topics with a high level of novelty in research activities. These activities bring together the partners, not only early

career scholars but also the established career scholars. OSIRIS has also obtained additional external funding, and in ways so that these projects can enrich their research agenda. We find also OSIRIS is performing well in terms of anticipated research output. This includes both scientific output in scientific journals and other scientific activities (such as special issues) as well as wider impact through public science. We suggest that OSIRIS also has the potential to develop their research even further in the next phase, by further focusing upon their identified priority topics in the coming years.

Cooperation with users

OSIRIS has cooperation with users, around their research focus upon the impact of research as being channelled through social interactions with users. Additional projects, as financed by users, have been obtained, as well as interaction by engaging in activities within the 10% budget allocated to this activity. The timeliness of their main foci on impact also facilitates interaction.

OSIRIS has interactions in different dimensions, depending upon the needs of the users. We also note that whom the 'user' is changing over time, often when people change jobs. The different dimensions of cooperation with users can be described as follows. On the one hand, OSIRIS has interactions, and research projects, which are directly developed with users, over a long time, with ongoing and recognized value from both partners. The current three "public" PhD students being conducted at the users/stakeholders are example as well as the Telenor collaboration. This type of interaction requires long-term relationships between people/organizations and that both sides are interested in collaboration over a long time period. On the other hand, OSIRIS members are also active in providing direct input through activities such as blogs, shorter interactions, one day discussion and many user-oriented seminars. This type of interaction requires short-term delivery, immediate feedback and inspiration. Many of the user-oriented seminars involve the participation of established scholars in the centre. Some of these activities exist over a longer period of time, especially digital interactions such as blogs, which may inspire and inform users where new people rotate into jobs and are interested in this type of input. OSIRIS is active towards government across the countries represented by partners and has chosen partners with strong networks and interesting input for policy interaction especially, which to some extent spills over to the other two areas of medicine and economic development.

In summary, we find that OSIRIS has a variety of types of cooperation with users, as outlined above. Longer term projects include activities both in the 10% allocated by RCN and also additional projects. Interaction extends to a variety of forms, such as seminars, digital interactions, etc. We propose that OSIRIS members discuss how to work more strategically about their cooperation with users, both in terms of further analysing the users' needs as well as further developing a structure to balance the differing needs of different kinds of users. Given that many established scholars are currently involved and have experience in collaboration with users, we suggest, for example, that OSIRIS could explore how to further develop skills in the early career researchers, which would give both immediate and long-term impacts on society.

Internationalisation

OSIRIS functions well as an international centre. The centre has been able to develop the complex governance structure required within the conditions of the grant, e.g. to have partners abroad. The existence of the centre per se represents an important step in the internationalisation of the partners' activities, and also brings benefits to Norwegian society. This internationalisation has been achieved through binding collaborations between Norwegian groups with groups in other countries, where each partner has a high relevance and strong interest in the core topics. There is a broad scope of activities involving internationalisation, and a range of international researchers has been engaged in seminars and also PhD training. This type of internationalisation is indicative of the value added of the centre, especially to early career researchers and also in interaction with users in various countries.

In summary, we find that OSIRIS fulfils the evaluation criterion of internationalisation. We propose that OSIRIS leadership investigate how to mobilization towards making applications and bids for EU projects. This could be a means for further extending the centre in the future, where a bid for EU Framework Programme within a more targeted and specified part of the agenda could be very powerful.

Researcher training and recruitment

OSIRIS is a university-based centre at University of Oslo, under TIK. From this institutional context, OSIRIS has fruitfully been able to leverage the advantages of being based at the university to train scholars, such as NORSI PhD courses, Masters programs. Through this university-based platform and also with leadership support from their institution (TIK/UiO), the centre is able to successfully recruit nationally and internationally.

OSIRIS benefits from being part of the TIK centre, and vice versa, in the sense that OSIRIS gives value added through training and other activities. to PhD students hired within the same academic environment. Established career scholars from across the partners are active in the researcher training activities, as well as early career scholars. We note that the partners have different national institutional context, which may explain whether or not they are able to have similar opportunities to develop training, in the home countries outside Norway. In this regard, international partners seem to contribute primarily in this regard to activities, as organized in Norway. We note that the NORSI PhD training mentioned above has recently been expanded to becoming Nordic rather than Norwegian, and this change suggests that in the next period, OSIRIS can reach more PhD students and postdocs through training activities. In the previous period, training / courses have also offered for policy makers, which the site visit indicated was highly appreciated.

In summary, we find that OSIRIS is heavily involved in researcher training and recruitment, especially in Norway and also involving partners. Our impression is that the centre has a

primarily academic approach to leadership, including creating meeting spaces, informal interactions has discursive, with a focus upon developing the skills of individuals involved also including mentoring. We suggest they could focus upon the need to implement the plans for the hiring processes as soon as feasible after the decision about the final period, due to time lags in the university environment. We also suggest that OSIRIS could further explore the possibility to retain researchers after completed PhD degree or postdoctoral position, either at partners or locally. Finally, we suggest an exploration into whether, and how, to prioritize training for policy-makers as well as academics. The past courses appear to be highly appreciated. So, finding a way to institutionalize the courses for policy-makers, so they may become a more regular training for Norwegian stakeholders may continue to add value for users in the future.

Partners and funding

OSIRIS is located at TIK, University of Oslo and has the partners Ingenio-CSIC-UPV (Spain); University of Manchester (MIOIR, UK and their sub-partner Fraunhofer ISI, Germany); and Statistics Norway Research Dept (Norway). As mentioned above, the centre had a 40% budget cut initially and subsequent needed to renegotiate contracts with partners, such as further focusing the centre when it was started. Subsequently, external / additional projects have been obtained, more in Norway than in partners. The organization of these centres – in line with RCN terms of contract – makes for a relative complex relationship, where UiO sends money to partners who in turn hire or allocate some percentages to the centre, and the partners should also obtain additional external projects.

TIK leadership was clearly positive to OSIRIS, both as a well-managed centre in this institutional context of a university, as well as playing an interesting role in creating dialogue on this relevant topic, which brought together diverse disciplines/ groups within TIK. OSIRIS has not managed to go over all disciplinary boundaries even internally between WPs. Our impression from the background material and the site visit is that the centre offers value added by providing a forum for debate across disciplines on their topic. Much institutional financing is in-kind (e.g. professor time), as well as additional external projects - as well as another very large centre (INTRANSIT), recently granted to TIK by professor Taran Thune, the Deputy Director. In both partner reports and the site visit, the partners argued for specific ways in which they could identify the relevance of the centre's activities, in relation to their other activities.

We note some issues related to management of this international structure across multiple partners, which the partners could continue to discuss in the next period. Some issues seem to arise through external factors beyond their immediate control and due to factors at an institutional level – such as mobility of researchers; long hiring processes at UiO; lack of continuous administrative support; not being able to recruit in specialized positions. In general, our impression is that the centre has handled many HR well, as also vouched for by the Director of TIK. In summary, we find that OSIRIS fulfils the evaluation criterion of partners and funding. Looking to the next period, we suggest somewhat additional focus being placed towards more formal management structures – such as biweekly meetings amongst partners, and planning of the long-term, longitudinal comparative research. As these types of activities go beyond the time-horizon of one PhD student or postdoctoral scholar, OSIRIS can engage in dialogue and coordination to further align partners and funding to the core research agenda for the future.

Plans for final three years and post funding operations

OSIRIS has outlined a plan for coming three years, which also fulfils this evaluation criterion. Given how far the centre has come in the first period, we find their plans appropriate, which is to continue to focus upon their key topics, with a few minor modifications. We propose that the leadership team across the partners continue to work together, in order to enact their proposed key focus and contributions in even more detail. For the final period, OSIRIS should continue to discuss their important goals, with examples being to further elaborate their longitudinal case studies; integrate the WPs; and refine their conceptual frameworks.

Past the period of funding by RNC, there are no current plans for continuation of the centre at this moment. Their current plans are due to the recognition that the centre relies upon large-scale public funding, in order to exist in its current form. We do agree that institutional contexts such as opportunity for similar centre funding differs in different countries and time periods. Moreover, impact, even without a new centre, does continue in academia through the continuation of personcentred networks. Expanding the number of 'public PhD students' may also be considered for the future, as this could be an activity which continues after the centre per se is funded. Moreover, we suggested above that OSIRIS explore other avenues for the future, specifically EU funding.

Concluding remarks

From the point of view of the panel, based upon our evaluation, we recommend the Research Council of Norway to continue funding the OSIRIS centre.

We welcome the initiative by the Research Council of Norway for funding these centres. The FORINNPOL Centres address these three timely and important topics: 1) Research quality; 2) Effects of research and research-based innovation; and 3) Research and innovation for restructuring. We are confident that your FORINNPOL Centres offer the possibility for multidisciplinary and path-breaking research, which can truly impact the global scientific and policy debates.

Maureen McKelvey,

Professor, University of Gothenburg, Sweden on behalf of the OSIRIS Expert Panel for Midterm Evaluation Alingsås, Sweden on *26 November*, *2020*

LIST OF APPENDICES:

- **Appendix 1:** The Research Council of Norway: Midterm evaluation of FORINNPOL Centres R-Quest and OSIRIS" (Not included)
- **Appendix 2:** Background information about the Panel Evaluation Process
- Appendix 3: OSIRIS Factsheet 2020
- **Appendix 4:** Templates for Self-Evaluation (Not included)
- Appendix 5: Agenda for Site Visit at R-Quest (Not included)

APPENDIX 2:

Background information about the Panel Evaluation Process

The Research Council of Norway, Research for Research and Innovation Policy (FORINNPOL) initiative funds the centre OSI-RIS. FORINNPOL has been established to expand and better target the knowledge base for use in the design and implementation of research and innovation policy by relevant actors. Two secondary objectives have been formulated to achieve this: 1) to generate research at a high international level of relevance to policy development, and 2) to promote the use of research and research results in policy development and implementation.

The panel has evaluated Osiris, in accordance with the document "The Research Council of Norway: Midterm evaluation of FORINNPOL Centres R-Quest and OSIRIS" (Appendix 1). Our evaluation is structured according to the five main areas for evaluation as stimulated.

In preparation for the site visit and evaluation, each panel member received ample material and many documents - e.g. self-evaluation report for midterm; original application; annual reports; partner reports; background material, etc. The material regarding the centre was received well in advance and each member prepared individually. Subsequently, our interactive work has been conducted digitally.

On Friday 2nd October, the panel chairpersons for R-Quest and OSIRIS met with representatives from the Research Council of Norway to discuss and plan the expectations, criteria and evaluation process for both centres. RCN has facilitated all interactions.

On Monday 12th October, the panel met for four hours, in the preparatory meeting. The agenda included: 1) Reviewing and discussing the expectations and criteria as set up by the Research Council of Norway for the FORINNPOL centres as well as roundtable; 2) Presentations by the chairpersons about initial evaluations of the two centres, respectively; 3) Discussions of each panel members' views for the R-Quest centre in order to identify points of agreement/disagreement and questions for the site visit; 4) Discussions of each panel members' views for the OSIRIS centre in order to identify points of agreement/disagreement and questions for the site visit; 5) Practical i ssues organized by the RCN, such as site visit agenda, digital platforms, etc. Subsequent to this meeting, we circulated questions to the centres for the session involving post-doctoral scholars and PhD students.

On Wednesday 14th October, the panel conducted the site visit with OSIRIS (Appendix 4), lasting 4 hours. Magnus Gulbrandsen, professor at UiO and centre leader, gave the OSIRIS presentations regarding main goals and also future plans, and in remaining sessions, all the partners and a large number of researchers associated with the centre participated, presented, and gave comments in appropriate sessions. The two sessions with users and with PhD students/post-doctoral scholars were conducted alone with the panel, to promote discussion.

The writing of this report was done by the panel chairperson, Professor Maureen McKelvey, who has used input from all members to write the report and posted on our collaborative Team sites. This interaction and working process included two meetings on Wednesday 14th October (directly after the site visit; 1 hour) and Friday November 6th November 2020 (3 hours, for both centres), as well as a working plan including deadlines for comments, and multiple digital interaction conducted via Microsoft Teams and email, in order to complete the evaluation report.

APPENDIX 3: OSIRIS – Factsheet

Full name:

OSIRIS - Oslo Institute for Research on the Impact of Science

Host institution:

University of Oslo, the TIK Centre for Technology, Innovation and Culture

Centre director:

Professor Magnus Gulbrandsen, University of Oslo

Partner institutions:

Statistics Norway, Research division Manchester Institute of Innovation Research INGENIO CSIC-UPV

Operation period:

2016-2024

Overall	budget	(NOK):
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Heading?										
	2016	2017	2018	2019	2020	2021	2022	2023	2024	Totals
RCN SSB	644 000	920 000	920 000	920 000	920 000	920 000	920 000	920 000	276 000	7 360 000
RCN Valencia	441 000	630 000	630 000	630 000	630 000	630 000	630 000	630 000	189 000	5 040 000
RCN Manchester	392 000	560 000	560 000	560 000	560 000	560 000	560 000	560 000	168 000	4 480 000
RCN TIK	2 023 000	2 890 000	2 890 000	2 890 000	2 890 000	2 890 000	2 890 000	2 890 000	867 000	23 120 000
Total from RCN	3 500 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	1 500 000	40 000 000
Co-funding SSB	210 000	300 000	300 000	300 000	300 000	300 000	300 000	300 000	90 000	2 400 000
Co-f. Valencia	111 000	157 000	157 500	157 500	157 500	157 500	157 500	157 500	47 000	1 260 000
Co-f. Manchester	122 000	173 000	173 000	174 000	174 000	174 000	174 000	174 000	52 400	1 390 000
Co-f. TIK	980 000	1 400 000	1 400 000	1 400 000	1 400 000	1 400 000	1 400 000	1 400 000	420 000	11 200 000
Total co-f.	1 423 000	2 030 000	2 030 500	2 031 500	2 031 500	2 031 500	2 031 500	2 031 500	609 400	16 250 000
Project total	4 922 000	7 030 000	7 030 000	7 032 000	7 031 000	7 032 000	7 031 000	7 032 000	2 110 000	56 250 000

Research topics and the state of the art

The overall objective of the OSIRIS Centre is to study how and under what circumstances research produces effects in society at large – in a way that generates new insights and helps policymakers, users and research organisations to better contribute to generating impact. The centre will address four questions:

- **RQ1:** How can we identify research impacts, their magnitude and the processes that lead to them?
- **RQ2:** How can we characterise the absorptive capacity and processes of cogeneration, transfer, engagement, uptake and utilisation of knowledge through which investment in research lead to social and economic impacts over time?
- **RQ3:** How do impacts differ by field and sector of science and by area of application?
- **RQ4:** What is the role of policies and framework conditions for research impact and how can policy and framework conditions be designed to stimulate impact?

Publications and outreach activities

Full list of publications and outreach activities left out here but is available on demand.

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