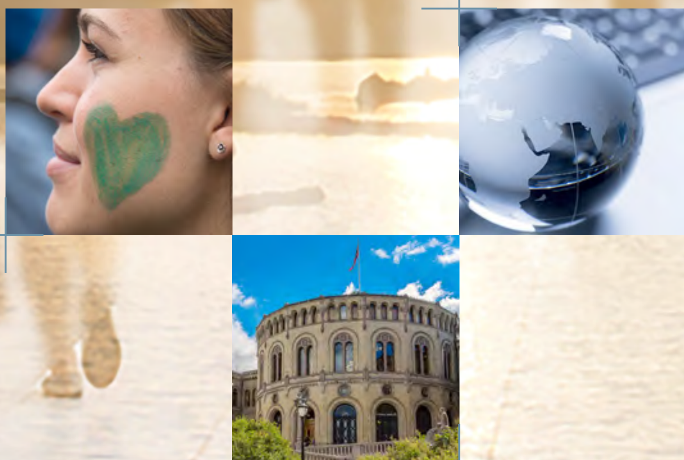
The Research Council of Norway

Evaluation of the Norwegian Social Science Research Institutes

Principal report

Evaluation
Division for Science



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Summary

The Research Council of Norway (RCN) appointed a panel of Nordic social scientists in 2016 to evaluate the institutes that make up the social science 'competition arena' within the Norwegian institute system. The main evaluation issues posed were

- The relevance of the institutes to public administration, business and society
- The quality and capabilities of the institutes
- The institutes' ability to recruit and their contribution to research training
- The institutes' structure and role in the R&D system
- The institutes' international cooperation
- The framework conditions under which the institutes operate

The evidence available to the panel comprised self-evaluations prepared by the institutes, interviews with institute managers, official policy documents, RCN annual reports for the institutes and data from NIFU's institutes database, the results of a survey of users and partners of the institutes including an analysis of the institutes' statements about their societal impacts and an analysis of the institutes' publication performance, based primarily on their contributions to the scientific literature (as defined in the CRIStin system and the rules used by RCN in providing the performance-based component of the institutes' core funding).

Like RCN, the panel has treated the institutes in three groups: those institutes working with an international or foreign policy mission ('internationally orientated'); those working in welfare and society issues, primarily at the national level ('welfare and society institutes'); and those with a primarily regional focus ('regionally anchored'). This categorisation is used as a working tool but there are some borderline cases where an institute could have been classified in two ways. There is also considerable variation on a range of dimensions among the behaviour and performance of institutes within each category as well as within the arena as a whole, much of it resulting from differences in mission.

Relevance to public administration, business and society

A key message from this evaluation is that the social science institutes are a national asset. As a group, they are diverse and have a range of different missions and ways of working, ranging from peace and international development through many aspects of social and other policies to democracy and regional development. The performance of individual institutes varies but collectively they have significant impact on policy at the regional, national and international levels, contributing to social and economic development. These in turn drive differences in characteristics such as the proportion of their effort individual institutes devote to scientific research and their choice of publication channels, to be able to address the needs of various users. National institute policy needs to value the contribution and role of the institute sector as a whole as well as the specificities of individual institutes, which result from the institutes being tuned to their individual purposes, and to be cautious in the use of 'one size fits all' indicators of performance.

Quality and capability of the institutes

This evaluation did not have the resources to allow the panel directly to inspect the quality of institute outputs. Our findings therefore depend on secondary indications about quality. While systems are in place that monitor the volume of output in scientific publications, there is no established or standardised way to measure or assure the quality of commissioned work or of publications in other channels. It is important that the institutes build up systematic and transparent quality assurance procedures for these operations.

The social science institutes account for some 15% of turnover in the institute sector and some 30% of the sector's publication points, so it is more orientated to scientific publication than institutes in the other arenas. Within the arena, the internationally orientated institutes produce the most scientific publications per full time equivalent researcher, the welfare and society institutes somewhat fewer and the regionally anchored institutes the fewest. Variation within the groups mean that the most productive of the regionally anchored

institutes publish more scientific output than several of the welfare and society institutes. The most productive of the institutes publish at rates comparable with the better Norwegian universities. At the other end of the scale, however, a number of institutes – especially among the regionally anchored ones – produce a level of output that is unacceptably low.

The balance between scientific publication and other channels varies among the institutes. The strongest in scientific output tend also to use other communication channels well. According to the data available to the panel, users' perceptions of quality and capacity overall are good.

Recruitment and contribution to research training

There is intense competition among candidates for jobs at the strongest institutes. However, many of the institutes, outside Oslo, struggle to recruit and in the long term to retain senior personnel. Nonetheless, the cyclical flow of junior researchers from the universities and colleges to the institutes and senior personnel in the other direction sustains and develops regional knowledge systems.

The social science institutes make a substantial contribution to PhD education, given that they are small compared with the higher education institutions and that their primary purpose is not education. The respective roles of the institutes and universities in PhD training and researcher career development are relatively clear. While some institutes find it difficult to afford the resources needed for training PhDs, the benefits to the institutes of doing so are considerable and it is therefore important that the institutes continue to play such a role

The institutes' structure and role in the national R&D system

The social science institutes are an important asset in the development of policy, regional and national knowledge systems and to a lesser degree business. Division of labour within the arena is largely consistent with a pattern of different institutes meeting the needs of different groups. However, the regionally anchored institutes are at something of a crossroads. Most of them are small and are caught between a need to maintain critical mass in their areas of thematic specialisation on the one hand and a breadth of themes in order to meet regional needs on the other. The current process of regional and local government reform creates opportunities for mergers to create larger and potentially more robust regionally anchored institutes. Mergers need, however, to have a basis in strategy and demand strong leadership – mergers for their own sake offer few benefits.

Many of the institutes experience a squeeze between on the one hand the growing expectations of government that the universities should undertake commissioned research in areas that the institutes historically have viewed as their own and on the other hand commercial consultants, whose capacity to address commissioned research has been increasing. The result is a pressure for the institutes to demonstrate their superiority in terms both of ability to address user needs and to do so on the basis of research that is scientifically strong. Conditions for the provision of core funding should continue to support these needs.

International cooperation

The social science institutes tend to be well networked internationally, maintaining professional and co-publication patterns consistent with membership of wider research communities. Formal cooperation in funded projects, however, is less common and its nature appears to be driven primarily by the missions of the individual institutes. This is problematic in the context of the Norwegian policy aim of maximising returns from the Framework Programme. The institutes should be encouraged to increase their exposure to international projects in a way that is consistent with their missions. The large institutes can afford the costs of engaging with the Framework Programme and should be encouraged to do so. While the fact that some of them do succeed in the Framework Programme is gratifying and this should not be discouraged, regionally anchored institutes' international activities may in other cases be better positioned in inter-regional cooperation, addressing relatively narrow focus areas in which they are individually strong.

Framework conditions

RCN's conditions for providing core funding appear largely to be appropriate. These conditions encourage the institutes to undertake a mixture of scientifically- and use-orientated activity at least at an acceptable level of scientific quality, requiring a minimum size likely to underpin critical mass and demanding participation in PhD training. The small amount of core funding sometimes is a hindrance to the development of strategy and capabilities, though there is also scope to use grant and commissioned income for these purposes. The main issue in the funding conditions is how tightly RCN should seek to enforce them. At present, a few institutes continue to receive core funding while producing unacceptably low quantities of scientific publications. Furthermore, the definition of 'commissioned' work is problematic for some institutes that effectively obtain commissions directly from ministries or via targeted programmes channelled through RCN.

Some 'owners' of institutes are unclear in the way they steer them. Strong institute strategies can mitigate these problems, and are in any case desirable. While institutes' strategies generally include ambitions to adapt to change and improve performance, a number are unspecific regarding how these goals will be reached. It is important to specify the changes that will be made, if such ambitions are to be realised. Here, as well as in practices such as communications, user interaction and quality control, there may be scope for the institutes to take collective action to spread good practice.

The growing importance of access to libraries and databases is problematic for the institutes, which are small organisations with little money to pay for such overheads. They need a solution that does not impede their ability to access research literature.

Recommendations

To the government

- The social science institutes play important roles in the Norwegian knowledge system and have a positive influence on the development of policy and society. The government should continue to invest in this arena
- Government institute policy is in effect the sum of the policies of the ministries that make use of the institutes. While RCN has responsibility for monitoring the sector and managing its core funding, there is no overall policy for the development of the institute sector. The government should prepare an NOU that analyses the present and future role of the institute sector and the arenas of which it is comprised, with a discussion of to which degree a national policy for the sector would be useful and is needed. This is especially important given the considerable changes that are taking place in the public administration of key sectors, in the structure of regions/counties and in the higher education system
- The sector principle is a key element of Norwegian research policy doctrine. The government should ensure that sector ministries maintain sustainable research strategies that include consideration of the development and maintenance of research capacity in the institutes, as well as in other parts of the knowledge system

To RCN

- Maintain the current set of framework conditions for core funding, but be prepared to advise the Ministry of Education and Research to enforce the conditions more rigorously
- Encourage further interaction between the institutes and the higher education sector, both in terms of shared positions and in terms of joint projects
- Take a differentiated approach to the demand that institutes not only participate in international research communities but also engage in international projects, ensuring that the type of engagement required is consistent with individual institutes' missions and capabilities
- Consider a process for more frequent follow up of the institutes quality assurance mechanisms, especially in relation to publications outside the conventional scientific channels

- Engage in a closer dialogue with the institutes and their 'owners' in order to encourage better strategy and governance
- The regionally anchored institutes appear as a distinct group within the arena, potentially requiring funding related to regional needs in addition to the normal requirements of funding through competition. In some cases, their capabilities need strengthening as do aspects of their performance. Consider what policy should be developed to support and strengthen their role

To the institutes

- The variability of practice in the areas of internal quality control, communication with stakeholders and strategy development means that some individual institutes need to address these questions. There may also be scope for collective action, sharing of experiences and learning across institutes via the development of a network for benchmarking and practice improvement
- PhD training and international engagement are important aspects of the institute role and should be prioritised

Sammendrag

I 2016 nedsatte Norges forskningsråd et panel med nordiske samfunnsvitere for å evaluere instituttene innenfor den samfunnsvitenskapelige "konkurransearenaen" i det norske instituttsystemet. Hovedtemaene for evalueringen var:

- Instituttenes relevans og nytte for offentlig forvaltning, næringsliv og samfunn
- Instituttenes kvalitet og kompetanse
- Instituttenes muligheter for rekruttering og forskerutdanning
- Instituttenes struktur og rolle i FoU-systemet
- Instituttenes internasjonale samarbeid
- Instituttenes rammebetingelser

Kunnskapsgrunnlaget panelet hadde tilgang til omfattet egenevalueringer fra instituttene, intervjuer med instituttledere, offisielle policydokumenter, Forskningsrådets årsrapporter for instituttene, data fra NIFUs instituttdatabase, resultatene fra en spørreundersøkelse sendt ut til brukere og partnere av instituttene, inkludert en analyse av instituttenes utsagn om egen samfunnsmessig innflytelse, samt en analyse av instituttenes publisering.

Panelet har delt instituttene inn i tre grupper: Institutter som jobber med et internasjonalt eller utenlandsk policyoppdrag ("internasjonalt orienterte"), institutter som jobber med velferds- og samfunnsrelaterte temaer, primært på nasjonalt nivå ("velferds- og samfunnsinstitutter"), og institutter som i hovedsak har et regionalt søkelys ("regionalt forankrede").

Kategoriseringen er brukt som et arbeidsverktøy, og det finnes tilfeller hvor institutter kunne vært plassert i to kategorier. Det er også betydelig variasjon når det gjelder instituttenes ytelse og resultater innenfor hver kategori så vel som innenfor arenaen som helhet, hvilket for en stor del kan forklares utfra ulikheter i instituttenes formål.

Instituttenes relevans og nytte for offentlig forvaltning, næringsliv og samfunn

Et hovedbudskap i evalueringen er at de samfunnsvitenskapelige instituttene er en nasjonal ressurs. Som gruppe er de ulike og de har en rekke ulike oppdrag og arbeidsmetoder som spenner fra fred og internasjonal utvikling til ulike aspekter ved politikkutforming til demokrati og regional utvikling. Enkeltinstituttenes prestasjoner varierer, men samlet sett har de en tydelig påvirkning på politikkutforming både regionalt, nasjonalt og internasjonalt, og de bidrar til samfunnsmessig og økonomisk utvikling. Det er naturlig at instituttene er ulike når det gjelder for eksempel forskningsinnsats og hvilke publiseringskanaler de velger for å nå sine brukere. Den nasjonale instituttpolitikken bør anerkjenne verdien av bidraget og rollen til instituttsektoren som helhet, så vel som særtrekkene som følger av de spesifikke formålene til det enkelte institutt, og være forsiktig med å måle instituttenes prestasjoner ut fra "one size fits all"-indikatorer.

Instituttenes kvalitet og kompetanse

Panelet har ikke hatt ressurser til å undersøke kvaliteten på instituttenes produksjon direkte. Våre funn baserer seg derfor på indirekte indikatorer på kvalitet. Det finnes systemer som registrerer mengden av vitenskapelig publisering, men det finnes ingen standardisert måte å måle eller sikre kvaliteten på oppdragsbasert arbeid eller publisering i andre kanaler. Det er viktig at instituttene bygger opp systematiske og transparente kvalitetssikringsprosedyrer for denne typen arbeid.

De samfunnsvitenskapelige instituttene står for rundt 15 prosent av omsetningen i instituttsektoren og rundt 30 prosent av sektorens publiseringspoeng. De er med andre ord mer orientert mot vitenskapelig publisering enn institutter på de andre arenaene. Innenfor arenaen produserer de internasjonalt orienterte instituttene flest vitenskapelige publikasjoner per forskerårsverk, velferds- og samfunnsinstituttene har noe lavere produksjon, og de regionalt forankrede instituttene produserer minst. Variasjoner innenfor gruppene innebærer at de mest produktive av de regionalt forankrede instituttene har mer vitenskapelig publisering enn flere av velferds- og samfunnsinstituttene. De mest produktive instituttene publiserer på nivå med de beste norske universitetene, samtidig er det også institutter – spesielt blant de regionalt forankrede – som befinner seg i den andre enden av skalaen og ligger på et uakseptabelt lavt publiseringsnivå.

Balansen mellom vitenskapelig publisering og formidling langs andre kanaler varierer blant instituttene. De sterkeste med tanke på vitenskapelig produksjon har også en tendens til å gjøre god bruk av andre kommunikasjonskanaler. Ifølge materialet panelet har hatt tilgang til, er brukernes oppfatninger av kvalitet og kapasitet generelt gode.

Instituttenes muligheter for rekruttering og forskerutdanning

Det er intens konkurranse blant kandidater til stillinger ved de sterkeste instituttene. Imidlertid er det mange av instituttene utenfor Oslo som sliter med å rekruttere, og i et langsiktig perspektiv med å beholde, seniorpersonell. Ikke desto mindre blir regionale kunnskapssystemer opprettholdt og utviklet gjennom den sykliske flyten av juniorforskere fra universitetene og høyskolene til instituttene og seniorpersonell den andre veien.

De samfunnsvitenskapelige instituttene bidrar betydelig til ph.d.-utdanningen tatt i betraktning at de er små i forhold til de høyere utdanningsinstitusjonene og at de ikke har utdanning som hovedformål. Instituttenes og universitetenes ulike roller innenfor ph.d.-utdanning og utvikling av forskerkarrierer er relativt tydelig. Noen institutter synes det er vanskelig å finne de nødvendige midlene til ph.d.-utdanning, men fordelene ved likevel å gjøre det er betydelige, og det er derfor viktig at instituttene fortsetter å spille en slik rolle.

Instituttenes struktur og rolle i FoU-systemet

De samfunnsvitenskapelige instituttene er en viktig ressurs for politikkutforming, for regionale og nasjonale kunnskapssystemer, og, i mindre grad, for næringslivet. Arbeidsfordelingen innenfor området følger i stor grad et mønster hvor ulike institutter møter behovene til ulike grupper. De regionalt forankrede instituttene befinner seg imidlertid i et slags skjæringspunkt. De fleste av dem er små og opplever krysspress mellom å opprettholde forskningen innenfor de spesialiserte fagområdene sine og det å møte de regionale behovene. Prosessen med regionale og lokale sammenslåinger vil gi større og mer robuste regionalt forankrede institutter. Sammenslåinger krever imidlertid et godt strategisk grunnlagsarbeid og et sterkt lederskap – sammenslåinger for sammenslåingens skyld gir få fordeler.

Mange av instituttene opplever også å stå i spenn mellom de økende forventningene fra myndighetene om at universitetene burde gjøre oppdragsbasert forskning innenfor områder instituttene historisk sett har oppfattet som sine egne, og kommersielle aktører som stadig tar på seg mer oppdragsbasert forskning. Resultatet er at instituttene er presset til å synliggjøre sine fordeler både når det gjelder evnen til å svare på brukernes behov og gjøre dette på bakgrunn av forskning som står sterkt rent vitenskapelig. Betingelsene for tildeling av basisfinansiering bør fortsette å støtte disse behovene.

Instituttenes internasjonale samarbeid

De samfunnsvitenskapelige instituttene har stort sett gode internasjonale nettverk og sampubliserer ofte, noe som er i tråd med deltakelsen i større forskersamfunn. Formelt samarbeid innen finansierte prosjekter er imidlertid mindre vanlig og ser ut til å være styrt hovedsakelig av de enkelte instituttenes oppdrag. Dette er problematisk med tanke på det nasjonale målet om å få mer ut av returen fra EUs rammeprogram for forskning. Instituttene burde oppmuntres til mer samarbeid i internasjonale prosjekter på en måte som er i overensstemmelse med deres formål. De store instituttene har økonomi til å engasjere seg i rammeprogrammet og burde oppmuntres til å gjøre det. Det finnes enkelte regionalt forankrede institutter som lykkes godt i rammeprogrammet, og dette er positivt og burde oppmuntres. Men denne gruppens internasjonale aktiviteter kan i andre tilfeller passe bedre inn i interregionalt samarbeid innenfor relativt smale områder hvor de er individuelt sterke.

Instituttenes rammebetingelser

Forskningsrådets krav til tildeling av basisfinansiering ser stort sett ut til å være hensiktsmessige. Kravene oppmuntrer til en blanding av vitenskapelig og brukerorientert forskning på et akseptabelt nivå av vitenskapelig kvalitet. Videre kreves det en minimumsstørrelse som trolig underbygger kritisk masse og deltakelse i ph.d.-utdanning. Lav basisfinansiering er noen ganger til hinder for utviklingen av strategi og ferdigheter, selv om det også er rom for å bruke bidrag og oppdragsbaserte inntekter til dette. Hovedspørsmålet når det gjelder finansieringsbetingelsene er hvor strengt Forskningsrådet burde håndheve dem. Enkelte institutter mottar basisfinansiering selv om de har et uakseptabelt lavt antall vitenskapelige publikasjoner. Videre er definisjonen av "oppdragsbasert" forskning problematisk for enkelte institutter som i praksis får oppdrag direkte fra departementer eller via Forskningsrådets handlingsrettede programmer.

Noen instituttеiere styrer instituttene på en utydelig måte. Solide instituttstrategier kan redusere problemer knyttet til dette, og er ønskelige. Instituttenes strategier inkluderer generelt mål om å tilpasse seg forandringer og forbedre prestasjoner, men enkelte er ikke tydelige nok på hvordan disse målene skal nås. Det er viktig å spesifisere hvilke endringer som skal gjøres hvis slike mål skal kunne oppnås. Samarbeid mellom instituttene kan bidra til å spre god praksis både i dette henseendet og på andre områder som kommunikasjon, samhandling med brukere og kvalitetskontroll.

Nødvendigheten av å ha tilgang til biblioteker og databaser er problematisk for instituttene, ettersom de er små organisasjoner med begrensede ressurser til å dekke slike utgifter. De har behov for løsninger som ikke hemmer tilgangen til forskningslitteratur.

Anbefalinger

Til regjeringen

- De samfunnsvitenskapelige instituttene spiller viktige roller i det norske kunnskapssystemet og har en positiv innflytelse på utviklingen av politikk og samfunn. Regjeringen bør fortsette å investere i denne arenaen.
- Regjeringens instituttpolitikk er i praksis summen av politikken til departementene som benytter seg av instituttene. Forskningsrådet har ansvaret for å føre kontroll med instituttsektoren og administrere basisfinansieringen, men det finnes ingen overordnet policy for utvikling av sektoren. Regjeringen burde utarbeide en NOU som analyserer den nåværende og den fremtidige rollen til instituttsektoren og dens enkelte arenaer, med en diskusjon om i hvilken grad en nasjonal policy for sektoren ville vært nyttig og nødvendig. Dette er spesielt viktig gitt de store endringene som finner sted innenfor offentlig administrasjon av viktige sektorer, innenfor strukturen av regioner/fylker og innenfor systemet for høyere utdanning.
- Sektorprinsippet er et kjerneelement i norsk forskningspolitikk. Regjeringen burde sikre at sektordepartementene opprettholder bærekraftige forskningsstrategier som omfatter hensyn til utviklingen og opprettholdelsen av forskningskapasiteten ved instituttene så vel som i andre deler av kunnskapssystemet.

Til Forskningsrådet

- Bevar de nåværende rammebetingelsene for basisfinansiering, men vær forberedt på å anbefale Kunnskapsdepartementet å være strengere i håndhevelsen av betingelsene.

- Oppmuntre til mer samarbeid mellom instituttene og universitets- og høyskolesektoren, både med tanke på delte stillinger og felles prosjekter.

- Ha en differensiert tilnærming til kravet om at institutter bør delta i internasjonale forskersamfunn og engasjere seg i internasjonale prosjekter, for å sikre at typen engasjement som kreves er i samsvar med enkeltinstituttenes formål og kapasitet.

- Vurdér en prosess for hyppigere oppfølging av instituttenes mekanismer for kvalitetssikring, spesielt med tanke på publisering utenfor de vanlige vitenskapelige kanalene.

- Gå i tettere dialog med instituttene og deres "eiere" for å oppmuntre til bedre strategi og styring.

- De regionalt forankrede instituttene fremstår som en atskilt gruppe innenfor arenaen, hvilket potensielt kan fordre finansiering knyttet til regionale behov i tillegg til de vanlige kravene til finansiering gjennom konkurranse. I noen tilfeller er det behov for å styrke kapasitet og prestasjoner. Vurder hvilken policy som bør utvikles for å støtte og styrke deres rolle.

Til instituttene

- Den varierende praksisen for intern kvalitetskontroll, kommunikasjon med brukere og strategiutvikling tilsier at enkelte institutter har behov for å ta tak i disse spørsmålene. Det kan dessuten være rom for mer samarbeid, deling av erfaringer og læring på tvers av instituttene gjennom utvikling av et nettverk for sammenligning og praksisforbedring.

- Ph.d.-utdanning og internasjonalt engasjement er viktige aspekter ved instituttrollen og bør prioriteres.

1 Contents

2 Introduction and method

This evaluation covers the social science institutes recognised by the Research Council of Norway (RCN). Together they form one of the four 'competition arenas' into which the Norwegian research institutes have been divided for the past decade, with the intention of recognising the differences in role and economic model among the social scientific, technical-industrial, primary industry and environmental institutes.

This chapter explains the mandate and scope of the evaluation, the composition of the evaluation panel, its methods of working and the background materials made available to the panel by the Research Council of Norway (RCN).

2.1 The mandate and scope of the evaluation

In summary, the mandate for the evaluation is as follows.

The evaluation of the social science institutes shall primarily serve research policy and research strategy goals and analyse the role of the institutes in the research system. The evaluation should therefore have a holistic, structural perspective but is welcome to discuss the institutes individually or in groups and provide recommendations and judgements on areas seen to be relevant. The panel's responsibilities relate particularly to the following issues.

- The relevance of the institutes to public administration, business and society
- The quality and capabilities of the institutes
- The institutes' ability to recruit and their contribution to research training
- The institutes' structure and role in the R&D system
- The institutes' international cooperation
- The framework conditions under which the institutes operate

The evaluation panel may address other issues than those listed in the mandate, which may arise from the evaluation process.

The full text of the mandate (in Norwegian) is shown at the appendix.

The institutes in scope to this evaluation are shown in Table 1, together with some basic information about them and the way we refer to them in this report. They are the social science institutes that qualify for core funding from RCN. (Other social science institutes which are ineligible for such funding are not evaluated here.) The Table additionally shows the abbreviated names we have used for the institutes in Figures and Tables below, the year in which the institutes were originally founded and the number of full-time equivalent employees (FTEs) they had in 2014, which is our reference year for quantitative comparisons. In many cases, institutes have changed their legal form since being established. The final column shows their current legal form. There are nine limited companies (counting the two Uni Research institutes separately, one government agency (statlig forvaltningsorgan med særskilte fullmakter) and thirteen foundations.

Uni Research Health only qualified for core funding from 2015, and is therefore absent from many of the statistics in the following chapters.

Table 1 The institutes in scope to this evaluation

Institutes – Norwegian names and how we refer to them in English		Short Name (used in figures and tables)	Date first established	FTE Research-ers, 2014	Current legal form	Owners (Ltd Cos only)
Internationally orientated institutes						
Chr. Michelsens Institutt	CMI	CMI	1930	45	Foundation	
Fridtjof Nansens Institutt	FNI	FNI	1958	24	Foundation	
Norsk utenrikspolitisk institutt	NUPI	NUPI	1959	45	Govt agency	
Institutt for fredsforskning	PRIO	PRIO	1959	54	Foundation	
Welfare and society institutes						
Forskningsstiftelsen Fafo	Fafo	Fafo	1982	67	Foundation	
Stiftelsen Frischsenteret for samfunnsøkonomisk forskning	Frisch Centre	Frisch	1999	21	Foundation	
International Research Institute of Stavanger AS, Samfunnsforskning	IRIS Social Science	IRIS Samf	1973	31	Ltd Company	UiS 50% Stiftelsen Rogalandsforsking 50%
Institutt for samfunnsforskning	ISF	ISF	1950	38	Foundation	
Nordisk institutt for studier av innovasjon, forskning og utdanning	NIFU	NIFU	1950	55	Foundation	
NTNU Samfunnsforskning	NTNU Social Research	NTNU Samf	1984	48	Ltd Company	NTNU 100%
Stiftelsen SINTEF teknologi og samfunn	SINTEF Technology and Society	SINTEF T&S	1959*	52	Foundation	
Samfunns- og næringslivsforskning AS	SNF	SNF	1991	33	Ltd Company	NHH 85% Stftelsen SFF 15%
Uni Research Helse	Uni Research Health	Uni Samf	1986	45	Ltd Company	UiB 85% Stiftelsen Universitetsforskning Bergen 15%
Uni Research Rokkansenteret	Uni Research Rokkan Centre	Uni Samf	1986	35	Ltd Company	UiB 85% Stiftelsen Universitetsforskning Bergen 15%
Regionally anchored institutes						
Agderforskning AS	Agderforskning	Agder	1985	21	Ltd Company	UiA 50.1% Stiftelsen Agderforskning 49.9%
Møreforsking AS	Møreforsking	Møre	1979	38	Ltd Company	Møre og Romsdal County (35%), H I Molde, Volda, NTNU 18% each Stiftelsen Møreforsking 10%
Nordlandsforskning AS	Nordland Research institute	NF	1979	32	Ltd Company	UiNordland 51% Stiftelsen Nordlandsforskning 49%
Norut Northern	Norut Northern	Norut	1984	21	Ltd Company	Majority held by UiTromsø

Institutes – Norwegian names and how we refer to them in English		Short Name (used in figures and tables)	Date first established	FTE Research-ers, 2014	Current legal form	Owners (Ltd Cos only)
Research Institute AS	Research Institute					Other shareholders: SIVA, local counties and power companies
Telemarksforsking	Telemark Research Institute	Telem	1984	24	Foundation	
Trøndelag Forskning og Utvikling AS	Trøndelag R&D Institute	TFoU	1983	18	Ltd Company	HiNord-Trøndelag 48.1% Others: Stiftelsen Nord-Trøndelagsforskning, SINTEF, municipalities, power companies and the employees
Vestlandsforsking	Western Norway Research Institute	VF	1985	20	Foundation	
Østfoldforskning	Østfoldforskning	Østfold	1985	15	Ltd Company	Various counties and municipalities, Østfold Energi and COWI
Østlandsforskning	Eastern Norway Research Institute	ØF	1984	19	Ltd Company	Stiftelsen Østlandsforskning (38,1 %), Hedmark fylkeskommune (19,05 %), Oppland fylkeskommune (19,05 %), Sparebanken Hedmark (19,05 %) og HiL (4,75 %)

* SINTEF was set up as a technological institute in 1950. IFIM was created in 1959, and is the oldest of the social science activities that contributed to the creation of SINTEF T&S
Sources: NIFU Institutes Database and institute web sites

RCN has a policy of treating all institutes equally, within each of the four 'competition arenas' for institutes. In this report, we have divided the social science institutes into three groups: internationally orientated institutes; welfare and society institutes; and regionally anchored institutes. This gives us a useful working tool for discussing and analysing them but it is important to stress that the classification does not amount to a judgement. Further, there are certain boundary cases, where it would be possible to put an institute in more than one category. For example, IRIS started life as Rogalandsforskning, focusing on social sciences and initially had a distinct regional and industrial mission though the research covered general issues as well as regional development. The institute has since increasingly addressed the national level. The institutes we classify as 'regionally anchored' were set up rather later as part of a nation-wide policy to develop and sustain research and innovation capacity as well as further and higher education capacity across the regions. Most of them tend to retain a strong regional focus.

2.2 The evaluation panel and the methods used

The evaluation has been undertaken by a Nordic panel, appointed by RCN.

- **Kerstin Sahlin** (chair of the panel), Professor, Department of Business Studies, Uppsala University, Sweden
- **Reidar Almås**, Professor, Norsk senter for bygdeforskning (Centre for rural research), Norway
- **Vibeke Normann Andersen**, Dr., Head of the department for steering, organisation and management, KORA (The Danish Institute for Local and Regional Government Research), Denmark
- **Åse Gornitzka**, Professor, Department of Political Science, University of Oslo, Norway
- **Peter Gundelach**, Professor emeritus, Department of Sociology, University of Copenhagen, Denmark
- **Niels Mejlgaard**, Dr., Centre director, Danish Centre for Studies in Research and Research Policy, Department of Political Science, Aarhus University, Denmark
- **Tone Marie Nybø Solheim**, rådmann (chief officer), Grimstad municipality, Norway (member of the panel until 30 September, 2016)
- **Ninna Nyberg Sørensen**, Dr., Senior researcher, DIIS (Danish Institute for International Studies), Denmark
- **Yngvar Åsholt**, Director of Research and Analysis, NAV (Norwegian Labour and Welfare Administration), Norway

The panel's secretary was professor Erik Arnold, Technopolis, who was supported by members of Technopolis' Stockholm office.

The panel was supported by a reference group comprising

- **Signy Vabo**, Professor, Department of Political Science, University of Oslo, Norway
- **Tone Westlie**, Deputy Director General, Ministry of Labour and Social Affairs, Norway
- **Gørill Kristiansen**, Senior adviser, Ministry of Education and Research, Norway
- **Agnes Landstad**, Managing Director, FFA (Association of Norwegian Research Institutes), Norway
- **Eivind Hovden**, Director, RCN (until 31 December, 2016), Norway
- **Lena Cappelen Endresen**, Special adviser, RCN, (replacing Eivind Hovden), Norway
- **Christen Krogh**, (chair of the reference group), Director, RCN, Norway

The panel's mandate was prepared by RCN. Ahead of its first meeting, RCN asked the institutes to write self-evaluations, based on a set of headings provided by the Council. These included statements about the societal impact of the institutes. The self-evaluations were made available to the panel. RCN also commissioned three background studies in preparation for the panel's work, which are available alongside this evaluation report on RCN's web site.

- A report bringing together information about the institutes from different sources (faktarapporten), produced by RCN internally (Norges forskningsråd, 2016)
- A survey of the institutes' users and partners and an analysis of the impact statements prepared by the institutes, produced by Technopolis (Fridholm, Åström, Ärenman, & Johansson de Château, 2017)
- A bibliometric analysis, based on the institutes' publications and the 'publication points' allocated to them in the performance-based part of the core funding system, produced by the Danish Centre for Studies in Research and Research Policy at the University of Aarhus (Schneider, 2017)

Annual reports for the social science institute sector and various earlier evaluations of some of the institutes were also available and are referred to in the next chapter.

The panel met six times in plenary session. It agreed a process for interviewing representatives of the institutes to be evaluated. It received and considered the background reports commissioned on its behalf by RCN. Groups of panel members read the self-evaluations of individual institutes and met with them for two hours each to discuss their views of the issues addressed by the evaluation. They then drafted the institute-level evaluations presented in this report and in plenary session discussed the issues emerging from the interactions with the institutes, the analyses done before arriving at the conclusions and recommendations described in Chapters 3 and 5.

3 The social science institute sector[1]

3.1 Background

The Norwegian research institute sector was established after World War II, in the same period as the first research councils. (An exception is Chr. Michelsen;'s Institute (CMI), which was established in 1930.) The comparatively large Norwegian institute sector reflects a strong belief in social and economic development based on science and technology among the first post-war generation of Norwegian politicians. In 1950 the first social science institute, Institutt for samfunnsforskning (ISF) came into being. The Norwegian institute sector was an integrated element of the social reforms that created the welfare state on what has become a Nordic model. After two decades of steady growth in the institute sector, mainly in Oslo, Trondheim and Bergen, a second wave of institutes was established in the 1980s, simultaneously with the establishment of regional colleges. Based on an increased public and private demand for research based knowledge and competence in the regions, regional knowledge systems were developed around the colleges, as well as around the new universities in Trondheim and Tromsø. More recently, the regional colleges of Stavanger, Kristiansand and Bodø have been upgraded to universities.

The social sciences have a special place in Norwegian research policy and funding, hence the size of the social science effort is large, given the size of the country. The former Norwegian science research council (Norges allmennvitenskapelig forskningsråd NAVF), originally set up in 1949, maintained a social science division until it was merged with other funders to form RCN in 1993. In parallel, however, a second council for applied social science – Norges råd for anvendt samfunnsvitenskapelig forskning (NORAS) – was set up in 1986. It was a continuation of Rådet for forskning for samfunnsplanlegging (RFSP), which originally functioned as a sub-council of NAVF. NORAS, too, was merged into RCN in 1993. RSFP's mission in social planning forms part of a distinctive Norwegian approach that is also reflected in the prominence and internationalism of the internationally orientated institutes and that was to some extent personified in figures like Johan Galtung, the founder of PRIO. Fridtjof Nansen is another prominent example of Norwegian internationalism. Other key figures include Stein Rokkan (whose name was celebrated in the Rokkan Centre, prior to its integration into Uni Research) and who together with Henry Valen of ISF established the field of election research in Norway, and Ragnar Frisch, who established the 'Oslo school' in modern economics.

Key international and welfare and society institutes were set up in the 1950s and to a lesser extent the 1960s. This was done in parallel with the development of the higher education sector. Before the War, Norway had the University of Oslo and national colleges in technology and agriculture. After the War, the University of Bergen was set up and the system of large universities was extended to include Tromsø in 1968. The national technical college in Trondheim was merged with other organisation and given university status in 1996, since when the status of the agricultural college was similarly raised.

The regionally anchored institutes were set up as part of a policy to develop the knowledge infrastructure of the regions, primarily in the 1980s. It was followed by a wave of upgrading regional colleges, some of which eventually became universities. The regionally anchored institutes are a key component in this regional policy.

The context of the social science institutes is affected by government pressures for merger and rationalisation in both the institute and the higher education sectors. Since the higher education sector is governed by the Ministry of Education and Research (KD), that ministry is able to require universities and colleges to merge. In contrast, the institutes have many 'owners'[2], so the government cannot impose its will on the sector in the same way and must instead rely on encouragement and incentives. There have nonetheless been mergers not only among institutes but also between universities and colleges on the one hand and institutes on the other.

[1] Data in this chapter do not include Uni Research Health prior to 2015

[2] Institutes that are limited companies literally have owners. Strictly, those that are foundations do not. NUPI is an agency of a ministry. In this report, 'owners' should be read to mean the shareholders of the companies, the boards of the foundations and the ministry in charge of NUPI (the Ministry of Education and Research KD)

Telemarksforskning Notodden was closed in 2013, and its four employees merged into Telemark University College. Norut Alta and Tromsø merged in 2015 to form todays' Norut Northern Research Institute. Four institutes – Arbeidsforskningsinstituttet (AFI) and Norsk institutt for forskning om oppvekst, velferd og aldring (NOVA), Norsk institutt for by- og regionforskning (NIBR) and Statens institutt for forbruksforskning (SIFO) – have merged into Oslo and Akershus University College of Applied Sciences in the period 2014-16. Discussions are taking place about further mergers, in both the institute and the higher education sector. Some of these would involve working across considerable distances. These discussions are driven partly by political pressure to rationalise the structure of the institute sector, partly by internal factors such as a desire to maintain critical mass and reap economies of scale and scope. A further development of particular relevance to the regionally anchored institutes is the likelihood of mergers among Counties (fylker), which could result in new merged regions containing more than one such institute.

RCN established institute 'competition arenas' in 2008, so this was the first point at which core funding was allocated in a similar way within each major category of institutes. However, the classification of the institutes into four groups is a longer-standing one even if some institutes have entered or left RCN's list of institutes that should receive core funding.

The social science institutes were last evaluated as a group in 2004 (Brofoss & Sivertsen, 2004). That evaluation covered the regional institutes, the 'national' ones (in the terms of this study that is more or less the international institutes and the welfare and society institutes taken together as a single group) and also a number of university institutes that are excluded from the current evaluation. Some of the institutes concerned have since been merged into universities or university colleges. All the institutes were highly rated by their users, they communicated the results of their research well and these results were used in society. Measured using bibliometric indicators, the quality of the scientific outputs from the regional and university institutes was rising but while that of the national institutes was good it was not increasing. The university institutes tended to publish in mainstream disciplinary journals with high journal impact factors, while the regional ones produced more applied work. The evaluation observed that the national institutes had much better qualified staff than the regional ones. They were better placed than the regional institutes to obtain large projects in national markets. The unit costs of researchers were similar across all non-university institutes but about 10% higher in the university institutes. The national institutes received 25% of their turnover in core funding overall while the regional institutes got only 14%. The university institutes received 64% (Norges forskningsråd, 2016a). The figures for 2014 suggest that the (non-university) social science institutes currently get about 13% of their turnover in core funding. The reduction in the share of core funding in the social science institutes is partly explained by a rapid increase in their overall income in 2007-2009, occasioned by ministries' increased spending on contract research.

Six regionally anchored institutes were evaluated in 1998 (Norges forskningsråd, 1998) and twelve in 2012 (Norges forskningsråd, 2012). The former led to an increase in these institutes' then very low core funding from KD. Both evaluations pointed out that many of these organisations play important roles in their respective regional knowledge systems and were set up with missions wider than social science. They were increasingly part-owned by the regions. The low proportion of staff with PhDs coupled with their low level of core funding made it difficult for them to cooperate with universities or produce scientific publications. They tended to be orientated towards the same specialised areas as local colleges and industrial clusters in their regions and were increasingly exposed to competition for work in their regional markets, as well as in national ones. They had little foreign income and struggled to get much RCN research money – project funding from RCN was more likely to come from innovation than from research projects. Their marketing was often seen by the evaluators as weak, as – in the case of some smaller institutes – was their leadership. Many of those outside the larger cities had difficulty recruiting and retaining PhD-level staff. The 2012 evaluation panel also recommended that the regional institutes' core funding be increased to a level comparable with the other institutes in the social science arena and that they should compete on equal terms with the others for both RCN core and project funding. At the same time, RCN should not forget the need to run programmes aimed at issues relevant to the regional level.

The 2012 evaluation concluded that some of the institutes were too small to be robust and sustainable, having fewer than 15 employees, and the panel recommended that a minimum size somewhat greater than 15 should be a condition for obtaining core funding. Certain of the institutes' levels of scientific publication were very poor. These institutes should be given five years to grow their staff and increase their scientific production to acceptable levels. Those failing to meet these requirements should lose their core funding. The performance-based component of core funding was, in the view of the panel, too small to enable timely adjustments in the amount of core funding institutes received and should be increased to 50% – a recommendation to which RCN did not respond. The panel proposed that Østfoldforskning be transferred to the technical-industrial institute arena and that Møreforsking's Ålesund campus move to the primary industry arena. Neither recommendation was implemented. In view of the need to build critical mass, funding should be provided for institutes wishing to explore opportunities for merger. A new category of institute PhD stipends should be introduced to support the institutes' role in PhD education and avoid the difficulty of funding PhD students from project funding.

In the period since 2012, the smallest regionally anchored institutes have succeeded in growing – some organically and some by merger. Scientific publication output has generally risen or in a few cases stagnated, though the worst performers have improved appreciably.

The welfare and social policy institutes[3] were reviewed in 2006 (Norges forskningsråd, 2006b). The evaluation pointed out that the level of core funding received by the institutes varied a great deal but that there was no obvious contemporary reason why one institute should receive more and another less. In some cases, this meant that institutes were over-dependent on competitive funding for developing their research capacity. Unlike the regional institutes (which in many cases had overlapping interests), the national ones had clear and distinct national thematic profiles and strategies. However, their Norwegian focus limited their participation in international markets and funding schemes. Some of them had privileged access to certain national markets. Overall, while there were some knowledge gaps, these institutes were making substantial policy contributions. The panel recommended that the proportion of income RCN provides as core funding should be more equal across the institutes considered and that economic incentives should be put in place to encourage cooperation among the institutes. A forum should be established, in which it would be possible for the institutes and their users to discuss and plan future programmes of work. There should also be long-term, over-arching funding programmes that encourage capacity development and cooperation. While the new core funding system introduced in 2009 had the potential over time to relate the levels of core funding of the institutes to their quality and performance, no attempt had been made to set up a wider discussion between the institutes and their users about future needs or to set up a longer-term funding programme.

The institutes working on international affairs and foreign relations[4] were also evaluated in that same year (Norges forskingsråd, 2006a). The panel found that they were often strong in their individual fields and deeply engaged in international activities but that they were not sufficiently future orientated and that they were not developing new capacities fast enough. They should be cooperating more to achieve these things and to exploit the fact that their thematic specialisations are distinct from each other, providing a good basis for working together. The institutes were visible in social debate but the panel felt that they did not devote enough effort to linking their work to policy formulation. The panel was concerned that the increasing share of contract research in their turnovers could undermine the quality and independence of the institutes' work and suggested that they should be able to undertake longer-term programmes of strategic and partly cooperative research with less uncertainty about funding. Where 'national tasks' were allocated to the institutes, they should be separately funded and not be paid for via core funding.

Some of the social science institutes were included in a field evaluation of economics (Norges forskningsråd, 2007), which focused on scientific quality. SNF was rated as being 'very good', ISF as 'fair' and the Frisch Centre as 'very good'. The field in Norway overall was judged as good but not world leading. There was a considerable

[3] Fafo, the Frisch Centre (now part of Uni Research), ISF, the Rokkan Centre (now part of Uni Research), SINTEF T&S, SNF – and also SIRUS and AFI, which are not in scope to the present evaluation

[4] CMI, Fafo, FNI, PRIO, NUPI

degree of variation in its quality and it suffered from fragmentation. Work done in small groups and in applied areas was generally seen as poor.

RCN ran a field evaluation of law in 2009 (Norges forskningsråd, 2009). The four lawyers at FNI were included, and the quality of their work was adjudged to be high, in the context of an excellent and well respected institution.

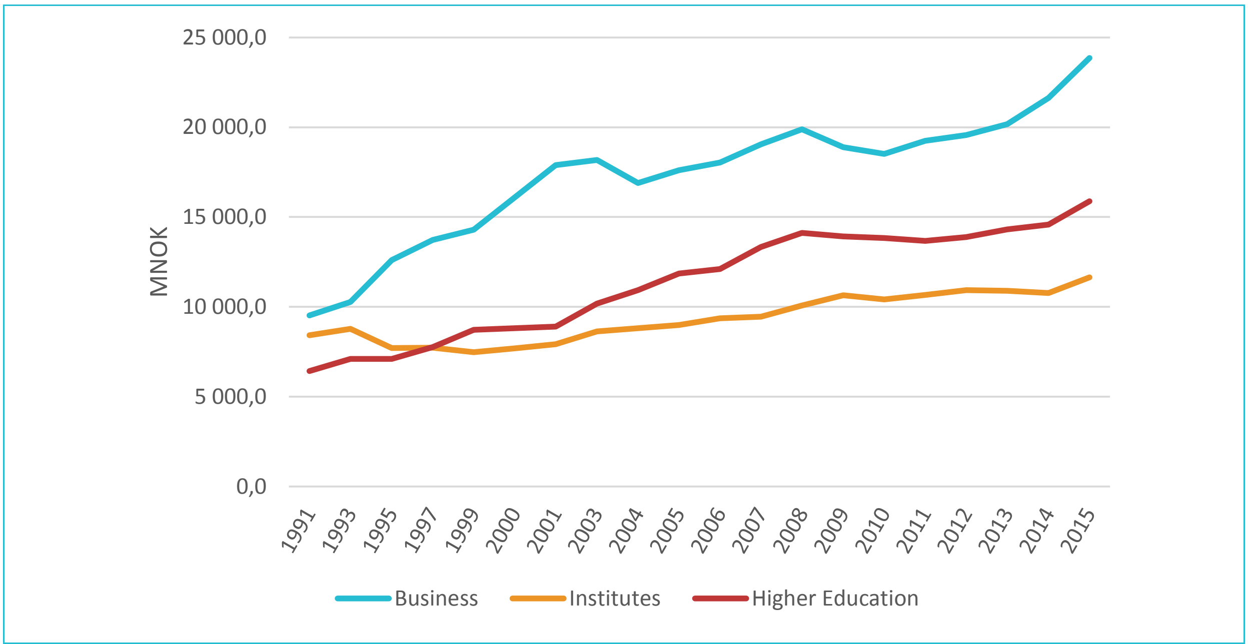
RCN ran a field evaluation of anthropology in 2010 (Norges forskningsråd, 2010b). The only one of the social science institutes in scope to this evaluation to be included was CMI, which was described as an inclusive milieu in applied anthropology where researchers had a great deal of autonomy. While acknowledging that CMI's purposes were very applied, the panel nonetheless recommended that its anthropologists should improve the quality of its research by addressing the mainstream of anthropology.

A field evaluation of the social sciences is scheduled to start in 2017. Since 2000, RCN has commissioned two evaluations of disciplines within the social sciences: political science in 2002 (Norges forskingsråd, 2002) and sociology in 2010 (Norges forskingsråd, 2010a). They include some assessments of research at institutes in scope to the present evaluation but will effectively be superseded by this evaluation. However, two common issues are evident across the earlier evaluations. First, the panels see most of the work at the institutes as making high quality contributions. The institutes are mostly highly problem-orientated and pragmatic in their choice of methods and the panels would prefer to see a more theory-based approach in order to improve the overall quality of the research. Second, the fragmentation of the overall research effort means that the environments within which PhD students are trained may be smaller than is desirable at some institutes.

3.2 The institute sector in Norway

Norway's large institute sector reflects a practical orientation in state R&D funding that has long historical roots. As Figure 1 shows, real expenditure in the institute sector as a whole has been growing more slowly than that in business or the higher education sector. Nonetheless, in 2014 the institutes still accounted for 23% of Norway's total expenditure on R&D and 43% of the state's R&D expenditure.

Figure 1 R&D expenditure by sector1991-2015 (in constant 2010 prices)



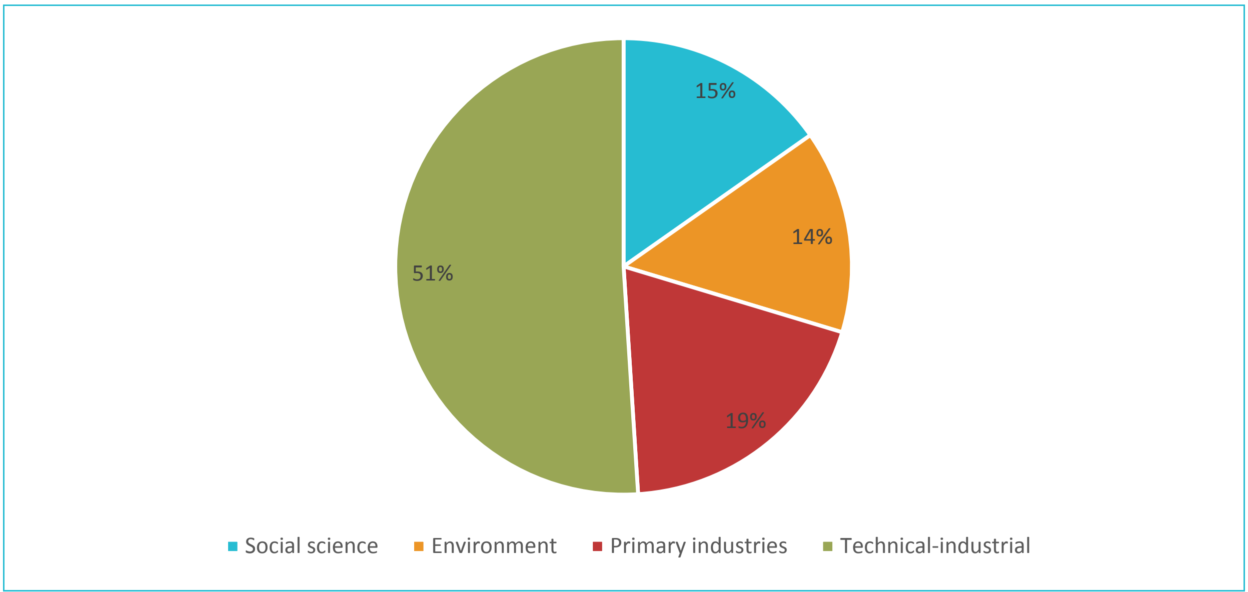
Source: NIFU and SSB

Since its creation, RCN has had a responsibility for evaluating the Norwegian institutes but its institute policy powers did not go much beyond this. Since it had no influence on the ministry budgets that provided their core funding and in some cases funding for providing specific research and related services to government, RCN and its evaluations in practice had little influence over the sector (Arnold, Kuhlmann, & van der Meulen, 2001) (Arnold & Mahieu, 2012) until after 2009, when RCN's responsibility has been extended to cover the management and allocation of core funding to qualifying institutes on behalf of the ministries. About 40% of the activity in the overall institute sector is in institutes that do not qualify for core funding. (The criteria for core funding are discussed in Section 3.4, below.) Managing core funding has enabled RCN to have a more direct influence over the qualifying institutes' performance but it does not have the authority to make wider decisions about the sector and its role or the relative allocation of resources between the institutes and other research-performing organisations. Unlike the universities, which have been subject to a quality reform and which occupy centre stage in research policy discussions, the institutes are little mentioned in policy discourse. Because institutes are funded by a wide range of ministries, there is no aggregate institute budget and little policy for the sector beyond assigning RCN to manage the core funding. Hence, no policy decision has been made about the overall division of resources between the institute and university sectors.

In Norway, in 2015, the core-funded institutes overall received 11.4% of their income as core funding. The social science institutes received 12.5% of their turnover in core funding (compared with 13.4% for the environment institutes, 15% for the primary industries institutes and 7.1% for the technical-industrial institutes (Norges forskningsråd, 2016a). RCN has said in its strategy for the institutes (Norges forskningsråd, 2014a) that it sees the level of core funding as being too low to enable it to compensate for the fact that most of the institutes' contract users are not interested in contributing to the institutes' research and capacity-building activities and that these are therefore too small. It also argued that with such a low level of core funding, the institutes are vulnerable to short-term swings in their order intake and that institute directors have few strategic resources that they can use to modify research agendas or enter new areas.

The technical-industrial institutes account for just over half the activity in the core funded institute sector. The social science institutes account for 15% (Figure 2). In terms of publications recorded in the national research information system CRIStin (Current Research Information System in Norway), the institute sector as a whole accounts for 15% of the national output. Within the institute sector, the social science institutes produce about 30% of the 'publication points' recorded for the institute sector in the national performance-based funding system. Given their 15% share of turnover, this indicates that the social science institutes are publication-intensive in comparison with the other arenas (Norges forskningsråd, 2016b).

Figure 2 Breakdown of the turnover of the core-funded institute sector by competition arena, 2015

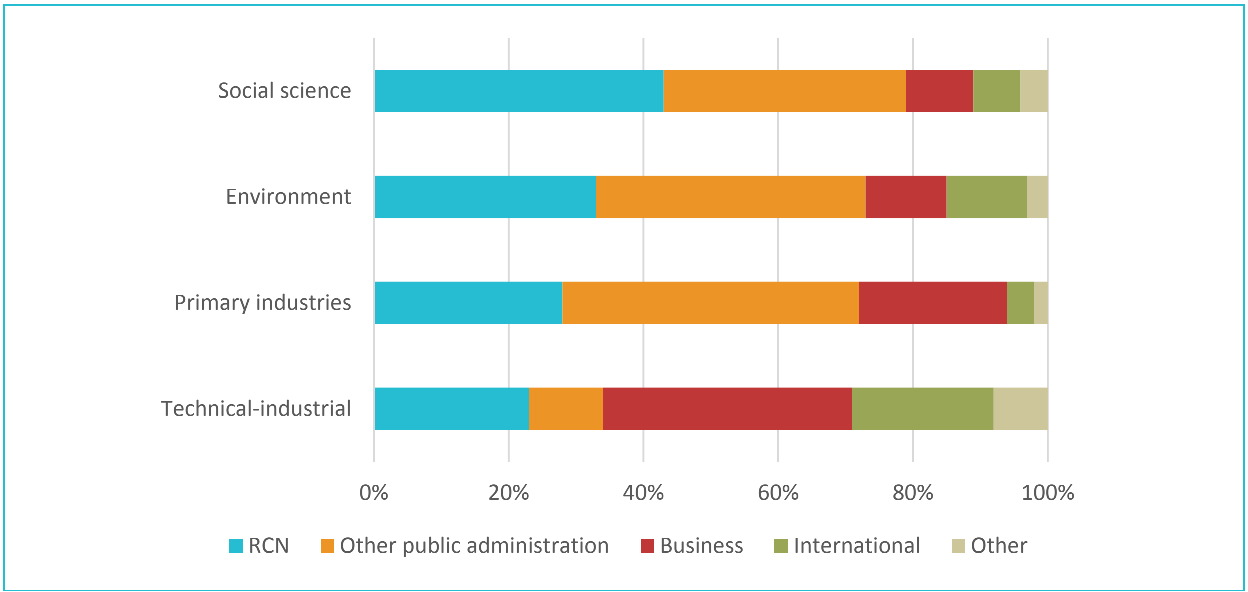


Source: (Norges forskningsråd, 2016a)

As Figure 3 shows, there are major differences in sources of income among the arenas. The technical-industrial institutes have a low share of RCN funding in their income and get most of their money from industry and international activities. Each of the other three arenas derives a large part of its turnover from the public administration sector, reflecting the fact that they have often been sector institutes primarily serving a single ministry in the past and that they continue to do a lot of work for such organisations, though now under contract rather than because they are owned by a ministry.

The social science arena obtains a larger proportion of income from RCN than the others, via a mix of core funding and competitively-won grants, so the social science institutes are overall more research intensive, though there is considerable variety in the mix of different types of work among them. They are different, too, in that their users are to a great extent in the public sector, particularly in policymaking positions.

Figure 3 Income sources of the institute arenas, 2015



Source: (Norges forskningsråd, 2016a)

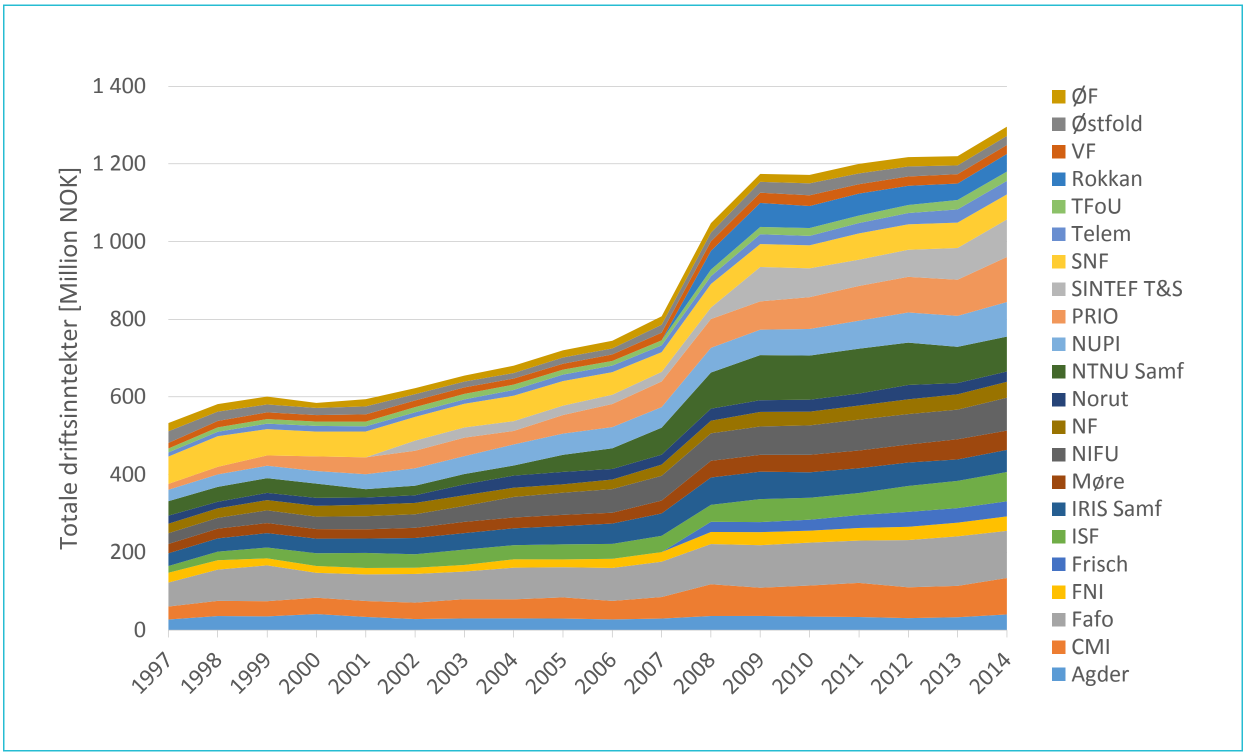
3.3 The Social Science Institutes

According to RCN's 2015 annual report on the core funded institute sector, these institutes in Norway have the following tasks.

- Offer applied research to business, the public sector and society more generally
- Contribute to the internationalisation of Norwegian research
- Provide knowledge to new and existing businesses
- Provide knowledge for public administration and developing policy
- Develop knowledge for renewal and innovation in the public sector
- Develop knowledge to address societal challenges
- Contribute teaching and supervision in higher education and in PhD training (Norges forskningsråd, 2016a)

The overall income of the individual social science institutes has developed as shown in Figure 4. The marked upswing in income from 2008 is caused partly by new institutes being added to the arena and partly by two years of exceptional growth in demand from the ministries. The Frisch and Uni Research Rokkan centres were brought into the category of social science institutes in 2008 while SINTEF Helse was incorporated in SINTEF Technology and Society and a substantial new competence centre was started in NTNU Social Research.

Figure 4 Total turnover of the social science institutes, 1997-2014 (current prices)



Source: NIFU Statistics Database.

For the purpose of this evaluation, we agreed with RCN a classification of the social science institutes into three categories according to their focus (Table 1 shows the members of each category).

- Internationally orientated institutes. These have roots in a strong Norwegian tradition of internationalism
- Welfare and society institutes, which mostly operate at the national level but in some cases also have a regional focus
- Regionally anchored institutes, set up specifically to work in their particular regions, though a minority have since increased their interaction with national level users

This provides a useful working tool, but we will also show that there is considerable variation within each category.

The internationally orientated institutes tend to be the oldest, with an average age of 64. CMI was set up in 1930 (at a time when Norway itself was a very poor country) as a contribution to international development. FNI was set up in 1958 by a Foundation that owned the scientist-explorer Fridtjof Nansen's property after his death, in order to carry on his work in a range of fields. NUPI was created the following year by Act of Parliament and is the only one of the social science institutes still owned by a ministry (the Ministry of Foreign Affairs). It was modelled on Chatham House in London and its mission was to "increase understanding among nations and spread information about international conditions". PRIO was established in the same year on the initiative of Mari Holmboe Ruge, Ingrid Eide and Johan Galtung, a prominent Norwegian sociologist who is often regarded as the 'father of peace studies', a field in which PRIO remains internationally leading.

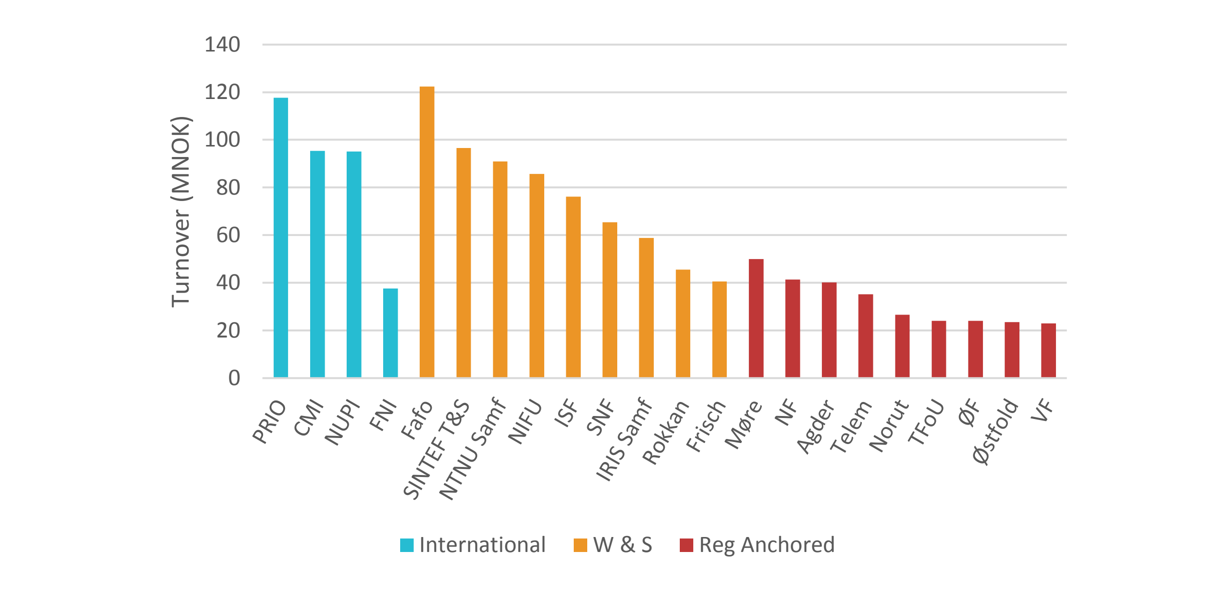
The welfare and society institutes are more disparate. Several are tightly linked to specific universities. They were set up between 1950 and 1981, and have an average age of 41 years. Fafo was established by the LO (the Norwegian confederation of trades unions) in 1982 and was formally spun out as a research foundation in 1993 to research matters of labour and welfare, nationally and internationally. The Frisch centre is a spin-off from the University of Oslo. IRIS was originally called Rogaland Research and diversified from the social sciences and regional development into helping develop the oil and gas cluster in Stavanger. ISF is among the oldest of the social science institutes and has been researching work and welfare issues since 1950. NIFU was originally the research department of the former research council NAVF but after a time was spun out as an external research institute owned by the Council. In 1996, three years after NAVF was merged into the current Research Council of Norway, the links were severed and NIFU became independent of the research council. NTNU Social Research began life in 1983 as the SESAM Centre for Social Research of the University of Trondheim, which was spun out of the University in 1987 under the name ALLFORSK and continued to operate following the University's merger with the national university of technology NTH to form Norges teknisk-naturvitenskapelige universitet (NTNU). It was reorganised by NTNU as a limited company in 2004. SINTEF Technology and Society results from a centralisation of social science research within what is otherwise a technical-industrial institute in 1996. It absorbed Instituttet for Industriell Miljøforskning (IFIM – set up in 1959) in 2006. SNF, on the other hand, is an amalgamation of two institutes originating at the national business school (NHH) and the industry ministry's institute of industrial economics Industriøkonomisk Institutt. Uni Research Society and Culture originates with efforts at the University of Bergen to externalise contract research. In 2003 it became part of the university's UNIFOB venture, which was renamed Uni Research in 2009. The part of Uni Research – Uni Research Society and Culture – considered in this evaluation is a combination of the Rokkan and Health divisions. The two divisions asked to be treated separately in this evaluation, since the merger was very recent.

A key part of Norway's regional development policy in the 1970s was to expand the regional colleges in order to underpin regional development. Thereafter, the regionally anchored institutes were set up in a short period between 1979 and 1985, originally under the regional development ministry, and were later under the tutelage of the industry ministry. Their average age is 33 years. Their ministry links have since been broken and the institutes are now foundations or limited companies. They are all associated with regional colleges or universities – some more closely than others – and were established to strengthen regional research and innovation capabilities. Their presence provided an important recruitment base for the expansion of the regional colleges and universities in recent years – strengthening the higher education system, though sometimes at a cost to the institutes, which have lost senior personnel. Most of them do more than social science, often also working in Information Technology and other technologies relevant for business development. In the 1990s and the 2000s, RCN has run a series of regional innovation programmes, including Bedriftsutvikling 2000 (BU2000, 1994-2000), Verdiskaping 2010 (VS2010, 2001-2007) and more recently Virkemidler for regional FoU og innovasjon (VRI, 2007-2017). These have all been substantially funded by the Ministry of Local Government and Administration and partly allocated funding to specific regions, rather than based wholly on quality, with the aiming of building up regional research capacity. From 2017 there may no longer be such programmes allocating resources on a regional basis – all of RCN's funding is based on competition.

As these descriptions indicate, while members of the three institute groupings share some characteristics, there is considerable diversity not only among but also within the three institute groups. The internationally orientated institutes are each quite unique in their mission. The regionally anchored institutes are more homogenous in their aims, though as our later analysis will show, their ability to reach sustainable scale varies. The welfare and society institutes are altogether more diverse, with quite a broad range of missions including very focused economics research, broadly based social policy, welfare, labour market research and research and higher education policy.

Figure 5 shows the size of the social science institutes, measured in terms of their turnover in 2014. The internationally orientated institutes turned over on average MNOK86 in 2014 compared with MNOK76 for the welfare and society ones and MNOK32 for the regionally anchored institutes. The first group averaged a turnover of MNOK88 in 2014, as opposed to an average of MNOK 37 for the rest.

Figure 5 Total turnover by institute and institute group, 2014



Source: NIFU Statistics Database

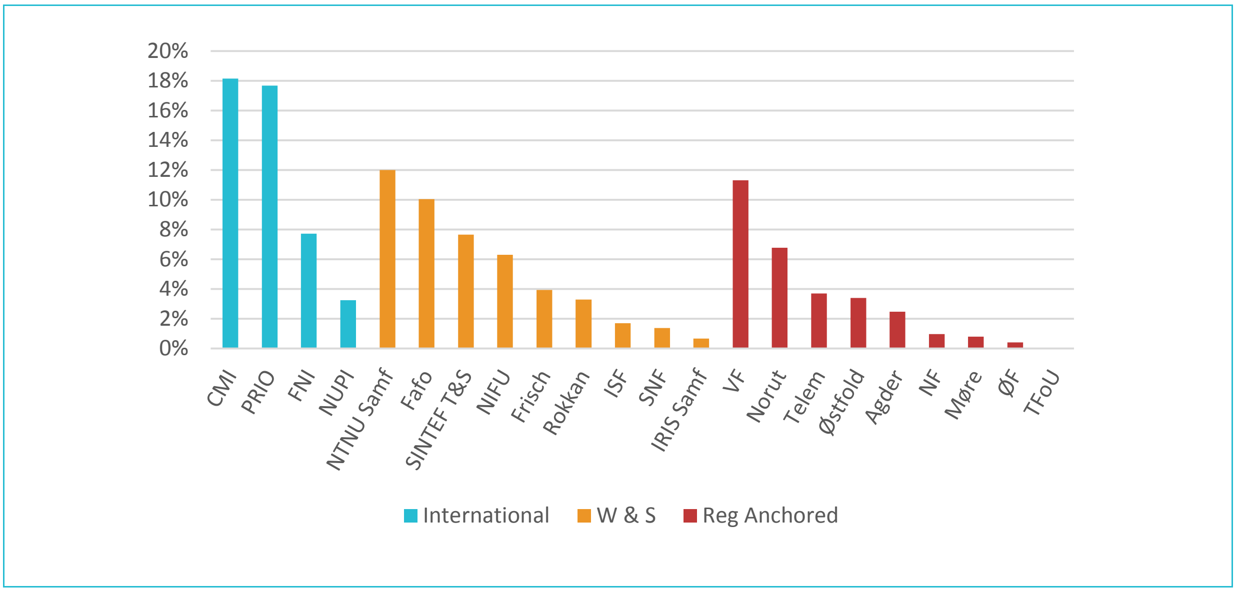
The financial performance of the institutes is mixed. Six of the twenty-two institutes made a loss in 2014, against an expectation that they should roughly break even (Figure 6).

Figure 6 Social Science Institutes' Total Income and Financial Result as a Percentage of Turnover, 2014

Source: NIFU statistics database

The institutes' degree of internationalisation also varies a great deal, as Figure 7 illustrates. CMI and PRIO focus on international issues, so their comparatively high proportion of international income is to be expected.

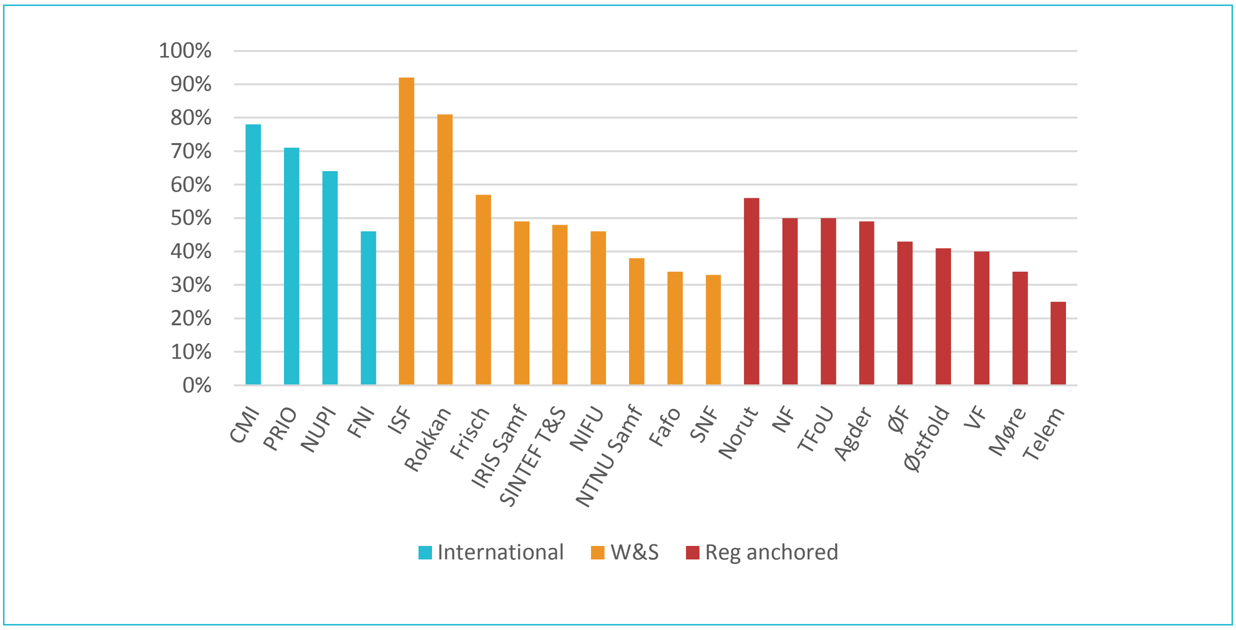
Figure 7 Social science institutes' share of international income in turnover, 2014



Source: NIFU Statistics Database

The internationally orientated institutes have the most highly qualified researchers (65% of researchers in the 'average' such institute have a PhD) followed by the welfare and society institutes (53%) and the regionally anchored institutes (43%). Figure 8 shows the level for each individual institute and indicates that there are two outliers (ISF and Uni Research Society and Culture) among the welfare and society institutes, without which the qualification level of these institutes would be comparable to that of the regionally anchored ones.

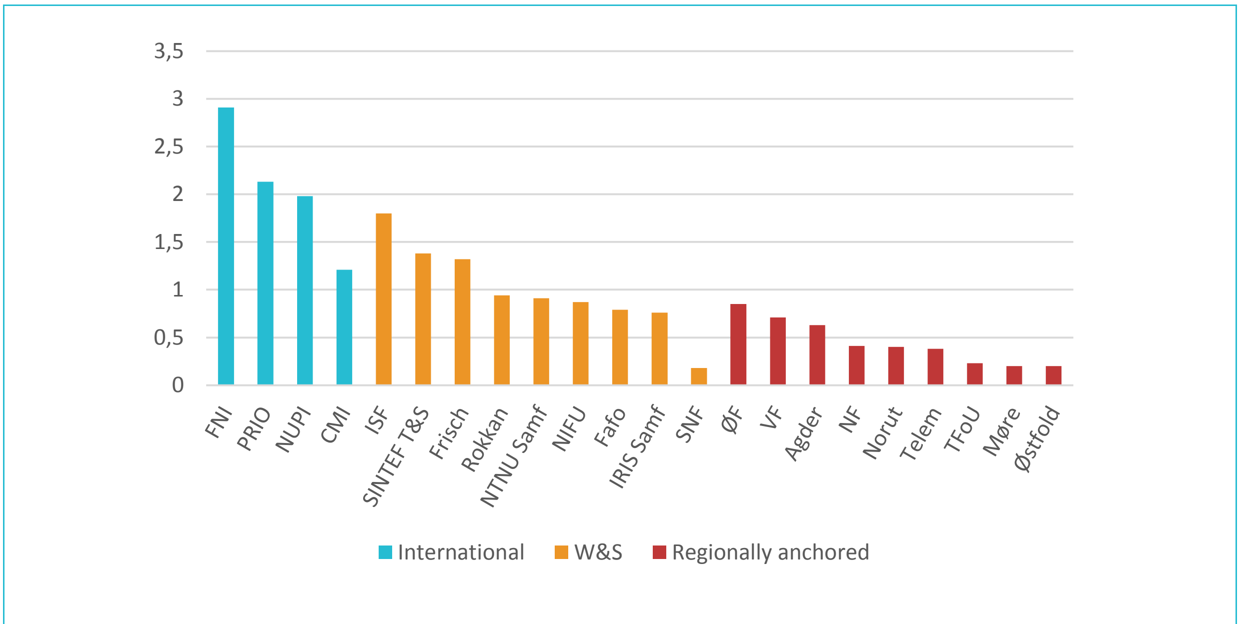
Figure 8 Number of PhD holders as a percentage of FTE researchers, 2014



Source: NIFU Statistics Database

The institutes' performance in terms of publication points in the national performance-based research funding system is the simplest, uniform indicator of publication performance available. It should of course be noted that publication performance is by no means the only dimension on which the institutes are expected to serve society. There is no evidence of a relationship between institute sale and its productivity in terms of NPI points per FTE researcher. However Figure 9 shows that in scientific terms there is a clear ranking between the international institutes at the top, the welfare and society ones in the middle and the regionally anchored ones at the bottom.

Figure 9 Publication points per FTE researcher, 2014



Source: NIFU Statistics Database. Note that especially among the smaller institutes the volume of scientific production can vary a great deal from year to year

3.4 Core funding by RCN

One of RCN's tasks is to manage the institute sector. The government said in its research white paper (Forskningsmeldingen) 2013 (Kunnskapsdepartementet, 2012-3) that it did not want to change Norwegian policy about institutes, whose role should continue as before. So there is no plan to integrate them wholesale into the higher education sector or to alter their societal role of focusing on the use of knowledge in support of social and economic development. The white paper said the institutes should further increase their international activities and play a stronger role in PhD education. The funding system should foster these roles primarily through competition and incentives. Irrespective of their organisational form, institutes should compete on a level playing field for contract research for state authorities. The government viewed grant funding from RCN and participation in international research projects as ways to build capacity and develop new knowledge (over and above what is possible with core funding).

RCN has responsibility for the health of the research system across the whole country, including in the regions (Norges forskningsråd, 2014b). According to RCN's strategy for the institutes (Norges forskningsråd, 2014a), its role and strategic responsibility for the institutes across the four competition arenas comprises

- Evaluation of the institutes and of the fields and disciplines to which they belong
- Managing the core funding system, including the performance-based element
- Providing grant funding on competitive terms
- Monitoring the performance of the institutes through annual reporting and analysis
- Conducting an annual dialogue with each institute director about performance

RCN's strategy said that it aimed to improve its monitoring data, improve the dialogue between the institutes and the various ministries (in their role as users of the institutes), further develop the dialogue between RCN and individual institutes, making it more systematic, increase the number of people from institutes who get positions in RCN's various boards and committees (since the institutes were significantly under-represented) and clarify its role in appointing people to the boards of the institutes. In the latter case, RCN has decided to phase out its role in appointing the boards by 2018.

RCN manages the allocation of core funding to the institutes. To quality for it, an institute must (Kunnskapsdepartementet, 2013)

- Undertake research of interest to Norwegian business, government or society
- Maintain disciplinary and scientific capabilities, demonstrated through scientific publication
- Conduct research activities of a sufficient scale to permit the development of significant research capacity within the organisation
- Have a variety of sources of research income and compete in national and international competition for research funding

The institutes must also

- Have a distinct role in the national division of labour among institutes
- Avoid giving rights to anyone over the results of research funded out of core funding
- Not transfer any profit to its owners or others
- Maintain the principle of academic freedom, within the constraints imposed by doing commissioned research

RCN has operationalised the requirements by setting certain minima.

- RCN requires institutes to produce at least one third of the average level of publication points per FTE researcher for the relevant arena. In 2014, three institutes (two regionally anchored and one welfare and society institute) failed to reach this threshold
- RCN set the minimum required scale as 20 FTE researchers. In 2014, three (regionally anchored) institutes failed to meet this criterion
- For institutes to have a variety of income sources by specifying that (based on 3-year moving averages) commissioned work should provide at least 25% of turnover. In 2014, four institutes (three internationally orientated and one welfare and society institute) failed to satisfy the first condition. However, policy-orientated institutes are also allowed to count income from RCN action-orientated (handlingsrettede) programmes and all four institutes had enough such income to compensate
- Grants from RCN or the Framework Programme should provide at least 10% of turnover. All institutes satisfied this condition[5]

The social science institutes receive a small proportion of their income in the form of core funding (basisbevilgning). In 2014, they received 13% of their turnover in core funding. On average, the internationally-orientated institutes received 16% of their income in the form of core funding in 2014, the welfare and society institutes 11% and the regionally anchored institutes 14%.

The level of core funding that the individual institutes receive is shown in Figure 10. It is largely a function of their individual history, though since 2008 up to 10% of it has been allocated from a common pot on the basis of the following performance indicators. Percentages in brackets are the weights associated with each indicator:

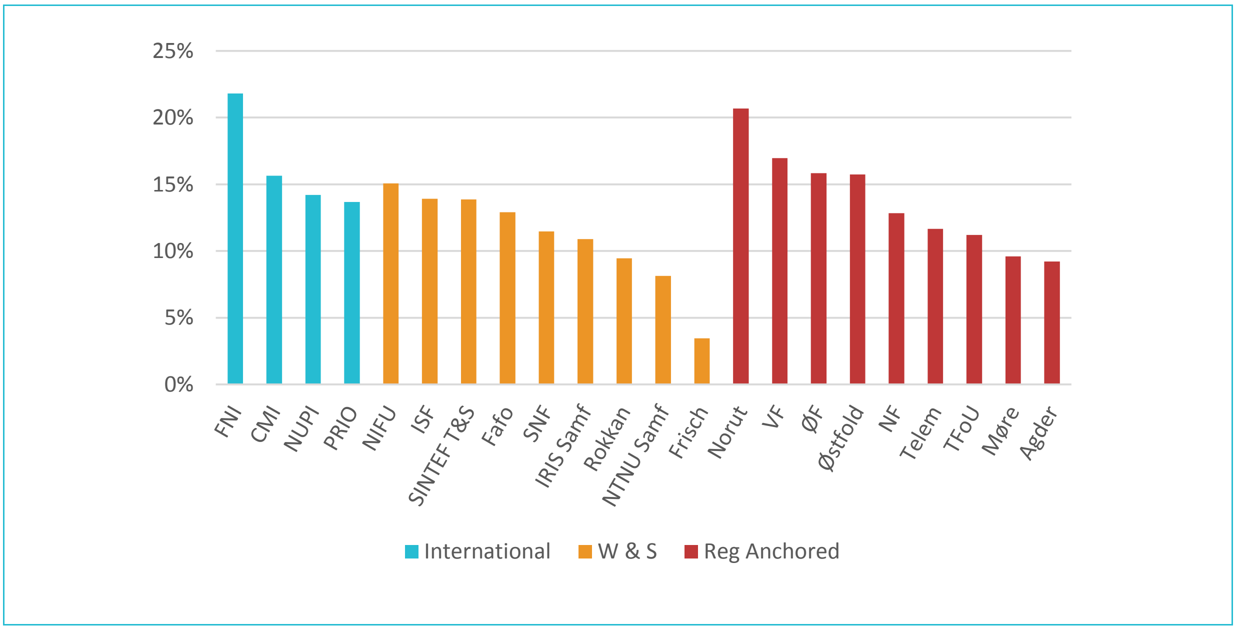
- Commission-based income from national sources (45%)
- Scientific publication, expressed as the number and level of scientific publications registered in the CRIStin database (30%)
- International income (20%)
- Number of PhDs gained by staff or students who are funded more than 50% by the institute (5%)

[5] In 2015, the same three institutes fell below the publication threshold and were joined by a fourth regionally anchored institute. The same three institutes as in 2014 failed to meet the FTE criterion. Four institutes fell below the threshold for commissioned income, but this was compensated by income from action-orientated programmes at RCN

In its institute strategy, RCN declared its intention to raise the proportion of core funding that is governed by performance to 10% across the entire institute sector and to encourage ministries to allocate less of their spending directly to the institutes and more to competitive programmes in RCN. The proportion of core funding that is performance based has since risen to 10% in the social scientific and technical-industrial arenas but stands at 5% for the environmental arena and 2.5% for the primary industry arena. There has been little success to date in increasing the share of ministries' research funding that is channelled through competitive mechanisms at RCN. RCN also hoped to initiate arrangements that would support institutes aiming to rationalise and merge and stressed the importance of continuing and increasing the already considerable degree of cooperation between the institute and higher education sectors.

These days, among the Norwegian social science institutes only NTNU Social Research, NUPI and Uni Research receive income directly from ministries to enable them to provide sector institute services directly to the ministry. On the other hand, they win 21% of their income in competition for such services (forvaltningsoppdrag).

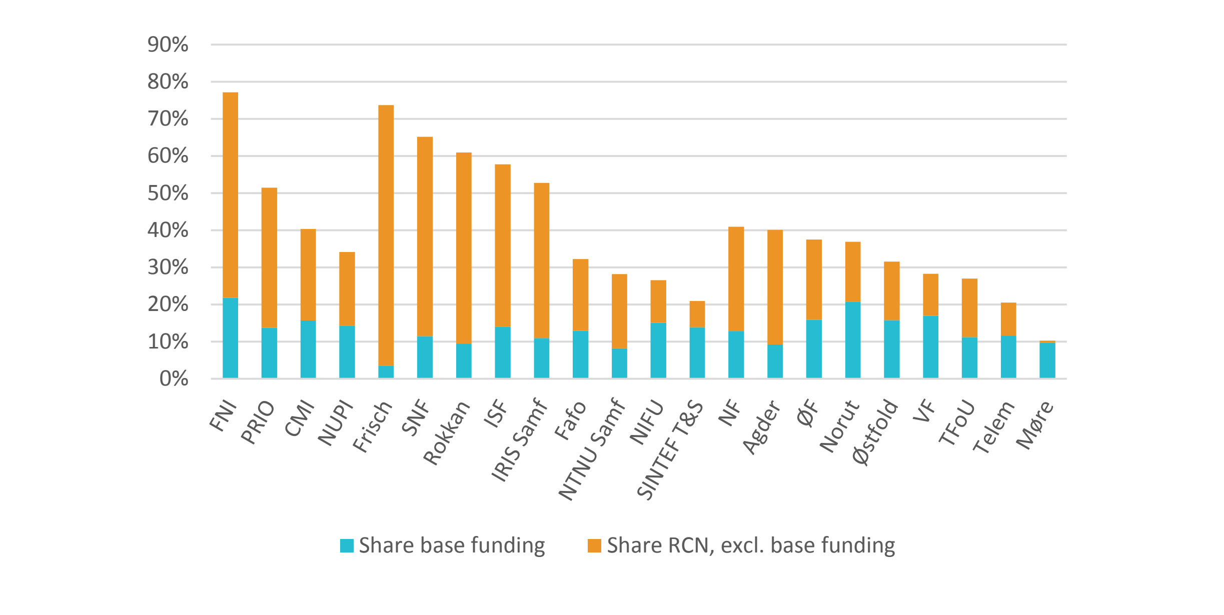
Figure 10 Social science institutes, share of core funding in turnover, 2014



Source: NIFU statistics database

There is considerable variety in the extent to which the institutes rely on grants and other kinds of funding, not only among the 22 institutes as a group but also within the three groups we use. This indicates variation both in research strategy and in the importance of commissioned research to them. Comparing Figure 11 below and Table 3, which shows publication points per researchers, it is clear that there is not a necessary relationship between high grant funding and high production of publication points.

Figure 11 RCN funding as share of institutes' turnover (core and other), 2014



Source: NIFU statistics database

The institutes contribute to the production of about 35 PhDs per year, of whom approaching 25 are people who get more than 50% of their doctoral salary from the institute. The internationally orientated institutes and ISF are the most productive in this respect.

Table 2 Production of PhDs by the Institutes, 2013-14

Institute	Total 2013	Of which 50%+ at the institute	Total 2014	Of which 50%+ at the institute
Internationally orientated institutes				
CMI	4	3	2	2
FNI	4	3	0	0
PRIO	2	2	8	3
NUPI	3	1	4	4
Welfare and society institutes				
Fafo	4	3	0	0
Frisch	2	2	2	2
IRIS Samf	0	0	2	1
ISF	2	2	4	4
NIFU	2	0	1	1
NTNU Samf	2	2	3	3
SINTEF T&S	0	0	0	0
SNF	0	0	0	0
Uni Research Health	7	7	3	2
Uni Research Rokkan	2	2	2	2
Regionally anchored institutes				
Agder	1	0	0	0
Møre	1	0	0	0
NF	2	2	1	1
Norut	0	0	2	2
Telem	1	1	1	0
TFoU	0	0	0	0
VF	1	1	0	0
Østfold	1	1	0	0
ØF	0	0	2	1

Source: NIFU statistics database

3.5 Evaluative background materials

Ahead of assembling the evaluation panel, RCN commissioned two background studies from external sources. One was a survey of the institutes' users and an analysis of the statements the institutes made about their societal impact (Fridholm, Åström, Ärenman, & Johansson de Château, 2017). The other was an analysis of the institutes' publication behaviour and performance (Schneider, 2017). Both studies are published in full by RCN. Here we summarise some of the key findings from each.

3.5.1 User survey and impact cases

3.5.1.1 User survey

In order to compile a list of users to be surveyed, the institutes were asked to provide lists of at least a hundred users each. These contained a mixture of 'users' (in the sense of organisations which had commissioned a study or another service and who therefore effectively decided the subject of the work) and 'partners' (in the sense of other organisations working cooperatively with the institute in a publicly funded project) (Fridholm, Åström, Ärenman, & Johansson de Château, 2017).

Some 2,475 invitations to the survey were sent out and 620 responses received (25%). The response rates at the individual institute level vary between 9% and 59% hence the data may only be used for comment in relation to the individual institutes and not at an aggregate level. Since the relevant category was not always obvious from the respondent's address, the survey asked respondents to classify themselves as either users or partners. Spot checks on a handful of the mailing lists from the institutes suggest that the response rate was much lower among users than partners. Among the responses received it was clear that users of the institutes agree that accessing expertise is the most important motive for collaboration. This concerns subject-specific as well as methodological expertise, and in the case of regionally anchored institutes, region-specific knowledge. Furthermore, responses indicated that users are satisfied with the scientific and methodological competence of the institutes, with the highest ratings going to the internationally orientated institutes while the regionally anchored institutes lag behind.

The survey of users also included 78 interviews. Several interviewees express concern about the small size of some institutes and their capacity to maintain competence in their fields. Some users suggest networks, alliances and mergers to build critical mass and maintain scientific expertise and would like small institutes to give up areas in which they are less competitive, to expand in areas where they are stronger. At the same time, regionally anchored institutes, which are the most vulnerable in this respect, are valued for their understanding of their region. Some users value the institutes' networks outside the users' own geographical area. Regionally anchored institutes are expected to link the region with R&D groups in other Norwegian regions and abroad. Quite a few institutes have strengthened this role (and their R&D expertise) by establishing closer relations with HEIs. Users assess the institutes as being more competitive in terms of scientific expertise, quality and relevance, than on their project management skills and value for money.

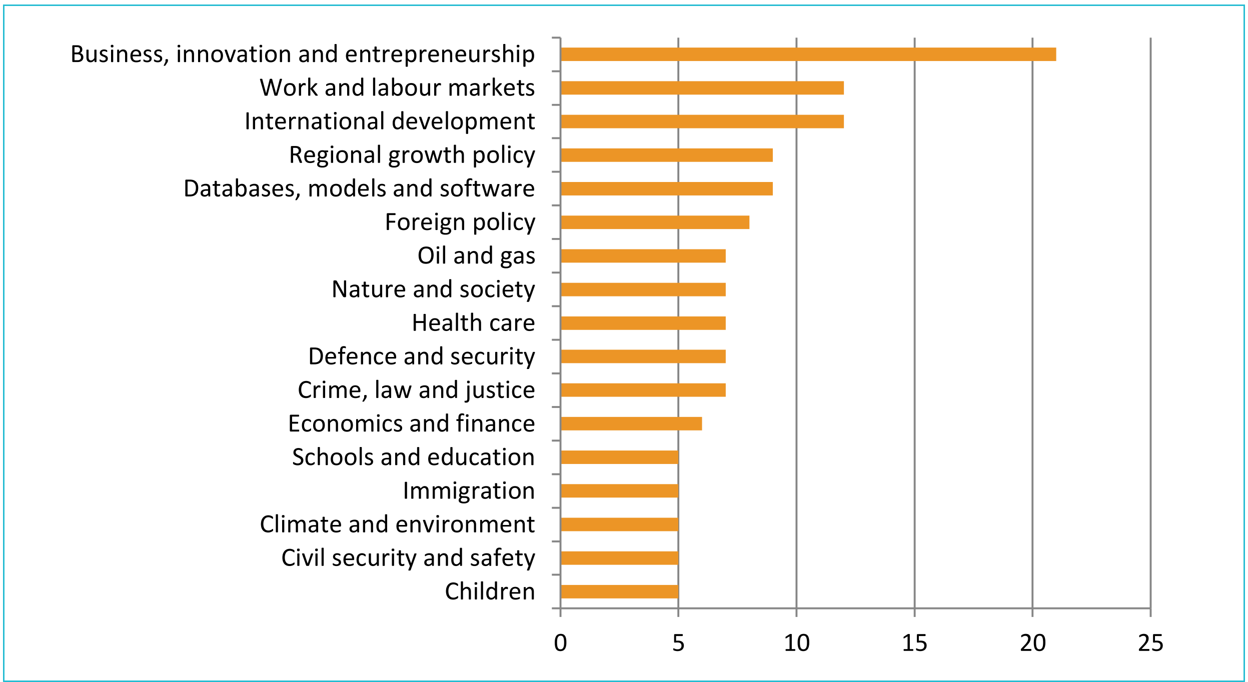
3.5.1.2 Impact cases

For the purpose of this evaluation, RCN invited the institutes to submit case studies of societal impact they had achieved. They could submit a maximum of one case per ten FTE researchers, a ceiling which most institutes made sure to use. Only cases based on R&D that to a significant extent had been carried out by the institute during the last 10–15 years were allowed, although references to longer R&D traditions at the institute could be made. RCN only asked for descriptions of societal impact, defined as any impact except impact on other R&D or on the institute itself. RCN also gave a range of examples of what societal impact could be, for instance changes in activities, perspectives, economy, competence, policy etc. among individuals, groups, organisations, the public sphere or in other parts of society.

This technique was inspired by the UK Research Excellence Framework – which introduced the use of impact cases during the 2014 national research assessment.

For this evaluation, the institutes provided 71 impact cases, which were analysed as part of the user survey and impact assessment study for this evaluation (Fridholm, Åström, Ärenman, & Johansson de Château, 2017). Each case was classified into up to three subject areas. Figure 12 shows the number of cases for each of the more frequently occurring subjects. The largest number of cases related to business, innovation and entrepreneurship. These all come from the regionally anchored and welfare and society institutes. The next three topics map simply onto the areas of interest to the three institute groupings of this evaluation. The panel was surprised by the large number of business-related cases among the subjects and has debated whether this reflects the actual impact or perhaps that the institutes felt they were under some implicit policy related pressure to show business or economic benefits from the impact cases.

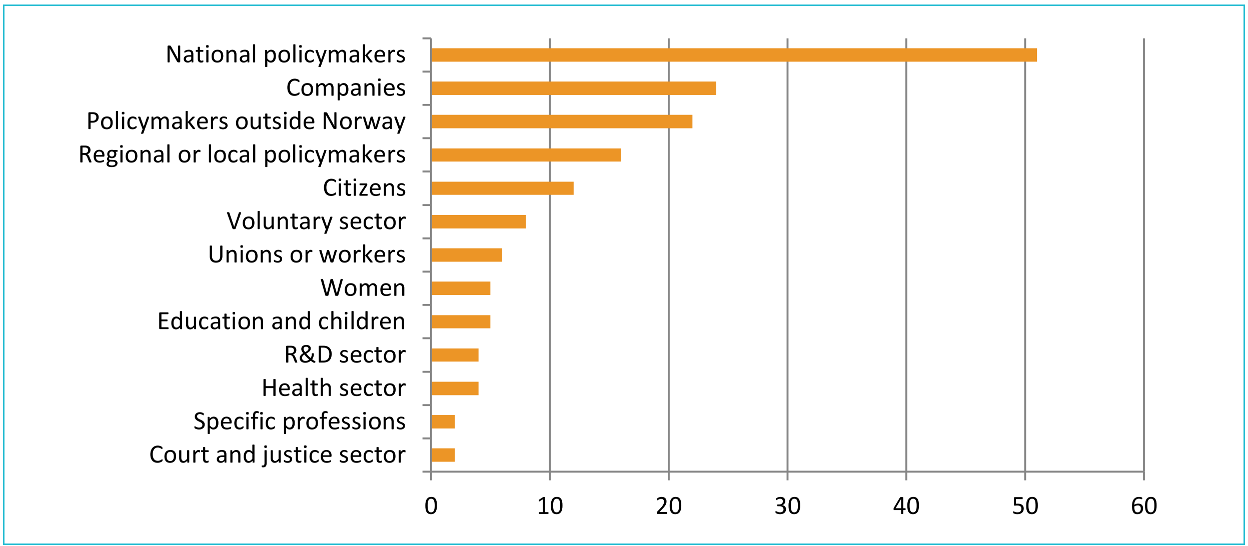
Figure 12 Subjects addressed in impact cases



Note: Topics attracting fewer than 5 cases are not shown (14 topics and 29 cases not shown)

Analysis of the 71 cases identified 161 beneficiaries, most of whom are policymakers (Figure 13). Each case could be classified into up to three topics beneficiary types. A third of beneficiaries are national Norwegian policymakers and a tenth are regional and local policymakers in Norway, whereas every seventh is a foreign policymaker. While the social science institutes mainly cater to the public sector, it is noteworthy that companies are beneficiaries in 15 percent of the cases. They are to be found in a range of sectors, from oil and gas to tourism. In four cases out of five, the impact is realised in Norway and in one of these cases at the regional level. One case out of five is foreign or international in character.

Figure 13 Beneficiaries of impact identified in the impact cases



Impact on business, innovation and entrepreneurship

Agderforskning, IRIS, Western Norway Research Institute, SINTEF Technology and Society, Eastern Norway Research Institute and Norut Northern Research Institute all described impact in the business community. Agderforskning has through many years of research, strategic advice and process coordination contributed to new and improved instruments for regional innovation policy. IRIS influences monetary policy by running an annual survey of 400 companies. Western Norway Research Institute has supported cluster development and IT usage through a long-running series of initiatives in Sogn & Fjordane. Eastern Norway Research Institute's studies of rural areas has influenced national policies on mountainous and peripheral areas, especially in relation to tourism. The Norut Northern Research Institute has demonstrated ways to increase the effects of services for oil and gas fields on regional development by changing contracting practices.

Impact case: Gode Sirklar AS (SINTEF Technology and Society)

Gode Sirklar AS is a company set up by the Fjell, Sund and Øygarden municipalities to boost local industry. SINTEF Technology and Society has on behalf of the municipalities been running Gode Sirklar since its inception in 2005, with the role of providing relevant knowledge and R&D and to make use of SINTEF's extensive network in the establishment and implementation of projects. It has provided a director who has worked full-time for the company. All other work has been carried out by staff working on shorter terms as project leaders for specific assignments. An evaluation of Gode Sirklar in 2010 calls it 'a formidable success', a statement that echoes through the interview with a key municipality representative. Impact includes:

- The establishment of what today is GCE Subsea, a centre of expertise in underwater technology for the oil and gas sector, supported through the Norwegian Innovation Clusters programme
- Large projects in developing education at all levels, from kindergarten to tertiary education. The main focus has been on 'practice-based learning' through collaboration between schools and local industry
- Attracting substantial external funding to run projects. In the period 2005–2010, Gode Sirklar attracted around MNOK100 in external project funding
- As a partner with a good reputation and network, SINTEF has opened many doors for the municipalities, enabling them to work with partners to which they otherwise would not have had access
- A significant boost for municipal leadership and competence. As a spin-off to Gode Sirklar, Fjell municipality has signed an agreement with SINTEF that includes the municipal leadership going to Trondheim once every one or two years to meet the SINTEF group, which according to an interviewee has led to a 'tremendous change' in how the municipality works

Impact in specific industrial sectors

Other institutes claim impact on specific branches of industry. IRIS has contributed to offshore health and safety legislation and therefore to the health and safety of the workforce in the North Sea. SINTEF Technology and Society and NTNU Social Research have made other contributions to offshore health and safety. Møreforsk has helped access fish varieties not previously caught for food while SNF has calculated needed structural fees for the fishing fleet to decrease over-capacity and increase profitability. Telemark Research Institute has influenced cultural policy via surveys of artists' living conditions. Nordland Research Institute has helped companies innovate in the tourism sector.

Impact case: Security after gas blowout at Snorre A (NTNU Social Research)

The gas blowout on Snorre A in 2004 was one of the most serious incidents in Norway's history as a petroleum producer. The investigation by the Petroleum Safety Authority Norway concluded that the accident resulted from general failures in Statoil's planning, procedures and assessments. Statoil commissioned NTNU Social Research to analyse how improvements could be made. The data collection was conducted jointly by NTNU Social Research and Statoil. Approximately 150 interviews were carried out, as well as document studies and a survey. The analysis revealed a number of organisational and managerial weaknesses in the Snorre organisation.

According to NTNU Social Research, the impact was profound. A number of suggested improvements were implemented, and Statoil invested several hundred million kroner in new initiatives, for instance regarding planning, risk assessments and management involvement in connection with drilling and well operations; integration of the Snorre organisation into Statoil; expertise on well control and barrier understanding; cooperation and communication between the onshore and offshore organisations at Snorre A; technical upgrading at the Snorre A plants; leadership training and improvement of health and safety tools. Insights from the analysis were also used in the merger between Statoil and Hydro's petroleum divisions.

Impact case: Regional tourism sector (Nordland Research Institute)

During the last decade, Nordland Research Institute has together with other R&D performers participated in a range of R&D activities within tourism. A core aim in these has been to promote innovation in the tourism sector. Three programmes have been particularly important, and Nordland Research Institute has played a central role in all of them: ARENA Innovative Opplevelser (AIO), VRI Reiseliv and Opplevelser i Nord (OiN). All three initiatives have the strategy of close collaboration between companies and R&D institutions, and complement each other by focusing on different parts of the 'R&D value chain'. The R&D activities have focused on innovative and competitive tourism companies, experience-based tourism that creates economic value, and development of destination resources. An important part of the activities has been to be highly present 'in the field', meeting representatives for companies and the public sector.

According to Nordland Research Institute, the companies have understood and acknowledged the complexity in producing experiences, for instance the psychological aspect and the importance of designing the experience. The final evaluation of AIO's first period showed very good results in terms of for example improved innovative capabilities, a very high satisfaction among participants, a highly successful project management, which led the evaluator to conclude that it was a 'very successful project'.[16] The document reviews and interviews for this impact assessment point in the same direction regarding the institute's role in the regional tourism ecosystem as a whole. The R&D activities in the tourism sector led to the establishment in 2011 of Novadis (Norwegian research centre for experience-based tourism) at Nordland Research Institute.

Impact on the Norwegian health and welfare system

Norwegian health and welfare systems have in various ways been influenced by the institutes. SINTEF Technology and Society has improved the efficiency of health services by producing models for allocating resources between different regions and units while Uni Research Health has helped regional health authorities improve the efficiency and effectiveness of hospital accident and emergency services. Fafo, the Frisch Centre and ISF all report impact on the Norwegian pension system. Fafo claims significant impact on the integration scheme for newly arrived refugees (*Introduksjonsordningen*) while PRIO claims impact on attitudes, policies and legislation in Norway concerning migrant remittances. According to Fafo, the institute has also produced key documentation to policy discussions that have resulted in changed regulations in the area of working life, such as regulations on shift work, rota, working hours etc., as well as collective agreements, labour immigration and more. NTNU Social Research has since the mid-1990s conducted longitudinal R&D on (families with) functionally impaired children. The institute claims that results from the project stimulated the government to work out a strategy for families with functionally impaired children, which was implemented in 2005.

Impact on democracy, education and the fiscal system

In the area of democracy, education and the fiscal system, NIFU claims impact on policy initiatives to reduce high school dropout rates and on the national performance-based research funding systems, which it has designed. ISF has conducted R&D on the voluntary non-profit sector, which according to the institute has contributed to public regulation of the sector, for instance regarding value-added tax, a public register (*Frivillighetsregisteret*) that serves to make contacts between the voluntary sector and the public sector more efficient, as well as background documentation to government investigations and budgets. Together with Tax Norway, SNF has devised ways to reduce tax evasion on foreign-held wealth.

Impact case: Norwegian system for publication indicators (NIFU)

Around year 2000, R&D funding ministries in Norway wanted to introduce performance-based funding to public research organisations. NIFU developed i) a national database with complete coverage of peer reviewed research literature with bibliographic references standardised and structured to enable verification and analyses, and ii) a publication indicator that gives the publications different weight to enable balance between different subject fields and stimulates publishing in prestigious channels. The system (*Tellekantsystemet*) was implemented in Norway in 2005, and later also in around five other countries. In Norway it is used in distributing institutional funding to HEIs, research institutes and regional health trusts. The indicator has received very extensive attention in the Norwegian R&D system, where it is also used at the institutional levels. An evaluation in 2014 showed that the indicator may have contributed to increased Norwegian publication, without compromising the quality of the publications. The indicator has also received much attention in the international bibliometrics research community.

Impact case: Studies on elections (ISF)

ISF has done research on elections in Norway since 1957. Today, the institute carries out research related to all elections in Norway. Studies include voting procedures, evaluations of general elections, trials with 16-year-olds voting in local elections, and e-voting, and studies on elections for the Sami parliament, church elections, and more. One researcher at ISF was also member of the election law reform commission (*valglovutvalget*) that proposed changes to electoral legislation. ISF has also provided experts on elections to NRK.

Impact has mainly concerned an improved knowledge base in an area that indeed is at the core of a well-functioning democracy. Although the studies have made most impact in the public sector, for instance in the Norwegian Parliament and in the Ministry of Local Government and Modernisation, it is also likely that the often extensive media coverage of the results has contributed to citizen's knowledge about the elections. For example, ISF's evaluation of the trial of 16-year-olds voting has, according to ISF, affected the public and political debate regarding voting age in Norway, and the evaluation of the e-voting trial is likely to have had an impact on the Parliament's decision to abandon future trials of e-voting.

Impact on environmental issues

Environmental policies have also been affected by the institutes. Western Norway Research Institute claims to be the first organisation in Norway to calculate a municipality's climate footprint (Oslo in 2002), and has developed a web-based guideline for climate adaptation that affects municipalities' policies. Through R&D on climate and conflict, PRIO has also made impact on environmental issues, having influenced the United Nations' Intergovernmental Panel on Climate Change's (IPCC) and other actors' treatment of the issue via analysis of security consequences and providing evidence-based assessments and advice.

Impact outside Norway

Outside Norway, CMI has influenced the use of anti-corruption measures via the U4 Anti-Corruption Resource Centre. PRIO presented a case on how the institute's long-standing R&D on the effects of conflict on issues such as economic growth, women's and children's health, democratisation and human rights served as a backbone in changing the World Bank's policies after 2011, and that it has also influenced national policies in several countries. NUPI claims to have been a key provider of knowledge on Russian foreign policy and petroleum issues to Norwegian policymakers and industry, and has had impact by reducing risks and improving security. CMI reports impact on Norwegian foreign and development policies for Afghanistan. The institute's research showed that foreign, especially military, presence was likely not to improve the situation in Afghanistan and contributed to a gradual shift of the international policy to hand over more responsibility to Afghan representatives.

Impact on gender equality

For more than 50 years, ISF has conducted R&D on gender equality. Its research on gender equality in the labour market was much cited in the most recent White Paper on gender equality. According to PRIO, the institute has had impact on gender equality issues, hosting the leading R&D group in Norway on gender, peace and conflict issues, achieving impact by providing background documentation, acting as a dialogue partner for policymakers and by teaching and training policymakers, including 130 high-level UN officials.

Impact case: Female entrepreneurship in Ethiopia (CMI)

In 2009–2010 CMI conducted research on micro-enterprises in Nepal, aiming to understand the potential for and barriers to growth. Barriers found included discrimination and problems in obtaining credit. They also concluded that some entrepreneurs had personal capabilities that made them more likely than others to succeed. In other research, CMI together with the Norwegian School of Economics found that the success of government programmes to support entrepreneurship in Norway partly depended on targeting 'the entrepreneurial individuals'. One of the two CMI researchers later went on leave to work for the World Bank, where he presented a design for an entrepreneurship programme in Ethiopia that targeted growth-oriented females, as these were found to be discriminated against. In 2015 the World Bank invested $50m in such a programme, which in October 2015 had reached 11,000 women. These women on average increased their access to credit by ten times, and in one year their profits increased by 36 percent and the employment rate by 18 percent, while the repayment rate of the credits was 99 percent. The programme has received much attention and CMI expects the format to be used also in other contexts.

3.5.2 Publication behaviour and performance

The background study on bibliometric performance (Schneider, 2017) provides a picture of considerable heterogeneity across the Norwegian social science institutes[6]. The publication behaviour of the individual institutes differs significantly and changes over time, but there are interesting patterns and some elements of converging practices, particularly when the three groups of institutes are compared.

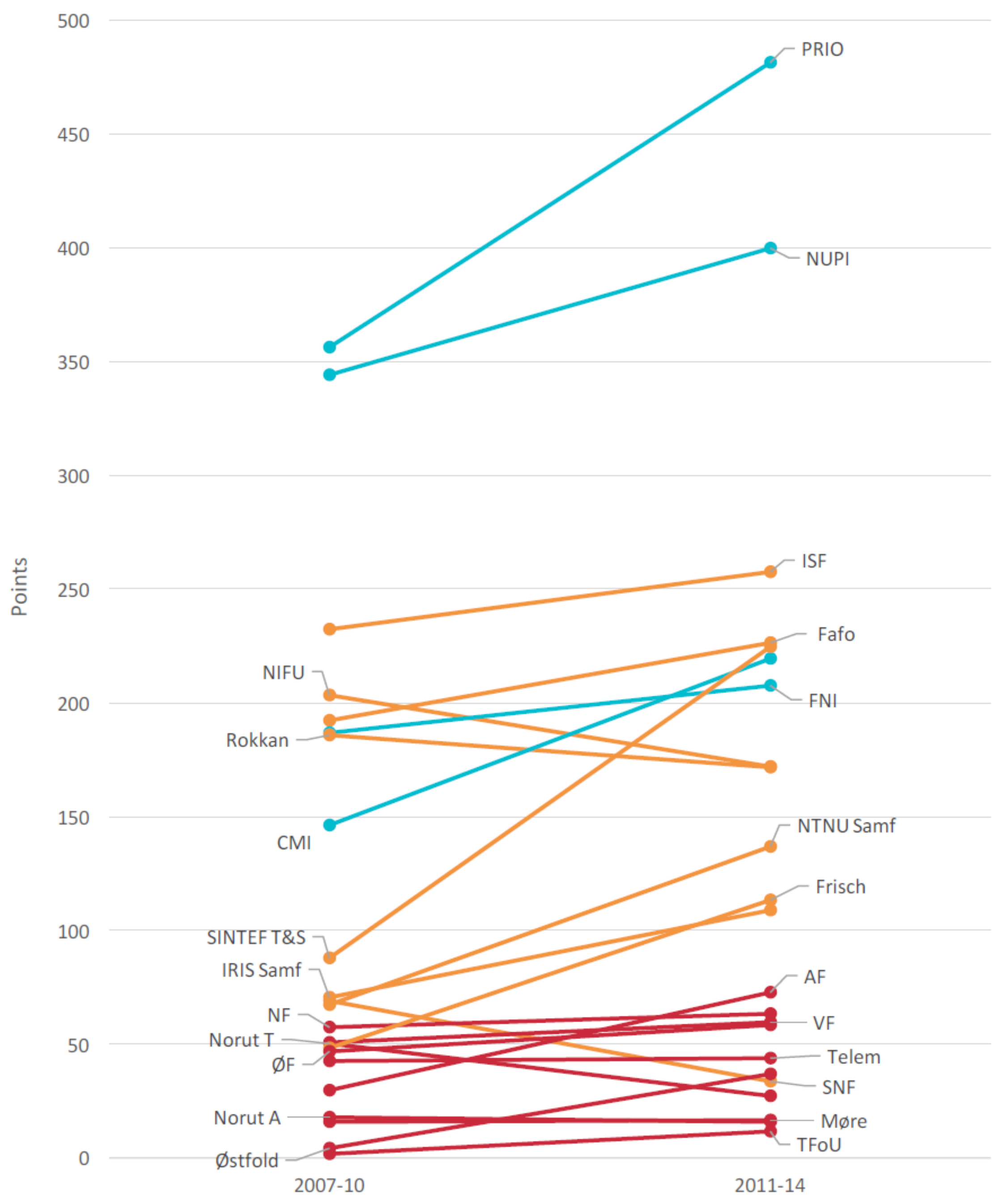
[6] Notice that retrospective bibliometric analyses include 23 institutes whereas the main evaluation concerns 22 institutes. In the background study on bibliometric performance, the Norut Northern Research Institute Tromsø (Norut T) and the Norut Northern Research Institute Alta (Norut A) were studied separately. These institutes were, however, merged in 2015.

Like most research institutions, the social science institutes use a broad variety of methods for communicating their research to peers, users, and broader audiences. Publications are traditional means for conveying results, but publication types and channels are diverse. In the context of the social science institutes, which engage significantly with users and perform commissioned studies, publications such as policy notes, project reports, and similar types of user-oriented output may be considered appropriate, even core. This type of literature is, however, not captured in the main publication databases, which are traditionally used for bibliometric analyses. While the background study employs several databases, the bulk of analyses and results are based on publications captured by the Norwegian Publication Indicator (NPI). It is important to note that the publications captured by NPI are 'traditional' scholarly publications (peer reviewed journal articles, books, and book chapters), which are classified into two levels and generate NPI points, which are in turn used for performance-based allocation of core funding. The performance of the social science institutes in terms of NPI points achieved is thus a very useful indicator of the presence of the institute in the universe of scholarly publications, but it does not capture the intensity of the institutes' presence in the wider literature.

It is noteworthy, but not surprising considering the funding incentives and the overall pressure for academic publishing, that all the Norwegian social science institutes exhibit a fairly strong orientation towards scholarly (NPI) publications. But it should also be noted that there are distinct differences when it comes to non-NPI publication behaviour. Some institutes, specifically Østfoldforskning, Trøndelag R&D Institute, and Møreforsking are particularly focused on publication types that are not included in the NPI. Using principal components analysis based on CRIStin data, the background report finds 10 institutes with considerable activities, in relative terms, in publications outside the scientific literature. These 10 institutes belong to the 'welfare and society' or 'regionally anchored' groups, while all the 'internationally orientated' institutes focus their activities around scholarly publications. It is not straight-forward to determine the extent to which such differences in overall publication profiles among the social science institutes represent differences in deliberate publication priorities, mirroring different conceptions or understandings of research and dissemination objectives. It is, however, important to keep the variation in broader publication profiles in mind when interpreting the results presented below.

Figure 14 below provides an illustration of the cumulated NPI points generated by the scholarly publications produced by the institutes, and the development over time. The institutes are color-coded according to their classification as either 'internationally orientated' (blue), 'welfare and society' (grey), or 'regionally anchored' (red).

Figure 14 Illustration of the development in cumulated publication points between two periods 2007-10 and 2011-14. Institutes are color-coded to show their analytical group classification. For readability labels are divided between the left and right-hand side.



Source: http://www.foustatistikkbanken.no/

On average, the scholarly production of the 'internationally orientated' institutes generates the highest number of NPI points and all institutes in this group have increased the number of points they receive from the first period covered (2007-10) to the second (2011-14). Likewise, several institutes from the 'welfare and society' group also experience a growth in the number of points received in the last period compared to the first, but on average, the institutes in this group generate fewer NPI points than the internationally orientated institutes. Most institutes belonging to the ‘regionally anchored’ group see little development, either positive nor negative, in the number of NPI points they receive.

It should be noted that these results should not be interpreted in terms of ‘productivity’ for two reasons: first, the size of the institutes (in number of FTE researchers) is not considered, and second, as mentioned previously, NPI scores are blind to the institutes’ production of publications in channels outside the mainstream scientific literature. Figure 14 therefore, is primarily helpful in visualizing the overall presence of the respective institutes in the universe of scholarly publications and the development of their position in this universe over time.

In order to get a better impression of the average production of NPI points per researcher, Table 3 below presents annual numbers of publication points per FTE researchers for the individual institutes from 2007 through to 2014. This measure is somewhat rough, especially because academic publishing can be significantly ‘delayed’ so that the volume of publications in a given year may in fact reflect research activity levels in preceding years. Therefore, a simple average for all years is also calculated and provided in the last column. At the bottom of the table, the aggregate average NPI points per FTE for the three institute groups are presented, and for comparison, aggregate average values for the other research institute arenas are provided.

Table 3 Annual average publication points per FTE. Aggregate average values for the three analytical groups included. For comparison, aggregate average values for other research institute sectors are also included.

Institutes	2007	2008	2009	2010	2011	2012	2013	2014	Avg. for all years
Internationally orientated									
CMI	0.73	0.47	1.45	0.98	1.46	0.94	1.29	1.22	1.07
FNI	1.50	1.96	1.30	2.81	0.97	1.63	2.99	2.91	2.01
NUPI	1.69	1.68	2.40	2.71	2.52	2.68	2.05	1.98	2.21
PRIO	1.07	2.25	2.05	1.63	2.55	2.43	2.29	2.13	2.05
Welfare and society									
Fafo	0.45	0.83	0.72	0.53	0.60	0.95	0.66	0.79	0.69
Frisch	n/a	1.10	0.73	0.66	0.87	1.70	1.63	1.31	1.14
IRIS Samf	0.26	0.50	0.54	0.49	0.57	0.65	0.64	0.76	0.55
ISF	2.34	1.03	1.55	1.47	1.63	1.38	1.82	1.81	1.63
NIFU	0.80	0.72	0.74	1.15	0.88	0.55	0.75	0.87	0.81
NTNU Samf	0.16	0.13	0.24	0.21	0.22	0.44	0.49	0.91	0.35
SINTEF T&S	0.54	0.75	0.70	0.50	0.86	1.61	1.10	1.38	0.93
SNF	1.13	0.16	0.24	0.47	0.21	0.21	0.29	0.18	0.36
UNI Rokkan	n/a	1.23	1.78	0.76	1.13	0.68	1.72	0.94	1.18
Regionally anchored									
AF	0.16	0.09	0.55	0.45	0.51	0.98	1.20	0.63	0.57
Møre	0.11	0.02	0.17	0.18	0.05	0.11	0.09	0.20	0.12
NF	0.32	0.37	0.41	0.78	0.46	0.39	0.79	0.41	0.49
Norut A	0.28	0.81	0.05	0.51	0.52	0.12	0.36	0.50	0.39
Norut T	0.27	0.25	1.55	1.41	0.71	0.59	0.74	0.10	0.70
ØF	0.56	0.26	0.97	0.44	0.50	1.24	0.45	0.85	0.66
Østfold	0.04	0.00	0.05	0.12	0.76	0.62	0.40	0.20	0.27
Telem	0.89	0.48	0.35	0.47	0.79	0.44	0.36	0.38	0.52
TFoU	0.00	0.00	0.05	0.07	0.07	0.32	0.00	0.23	0.09
VF	0.77	0.25	0.65	0.72	0.45	0.88	0.82	0.71	0.66
Total	0.77	0.72	0.87	0.83	0.88	0.98	1.03	1.07	0.89
Internationally orientated	1.21	1.56	1.87	1.93	2.01	1.95	2.04	1.96	1.82
Welfare and society	0.71	0.54	0.57	0.56	0.58	0.76	0.76	0.96	0.68
Regionally anchored	0.33	0.22	0.47	0.48	0.44	0.55	0.51	0.42	0.43
Environment institutes	0.48	0.53	0.61	0.62	0.62	0.73	0.68	0.64	0.61
Primary industries institutes	0.67	0.43	0.48	0.48	0.54	0.58	0.54	0.52	0.53
Technical-industrial institutes	0.26	0.32	0.33	0.34	0.43	0.46	0.44	0.47	0.38

Source: http://www.foustatistikkbanken.no/

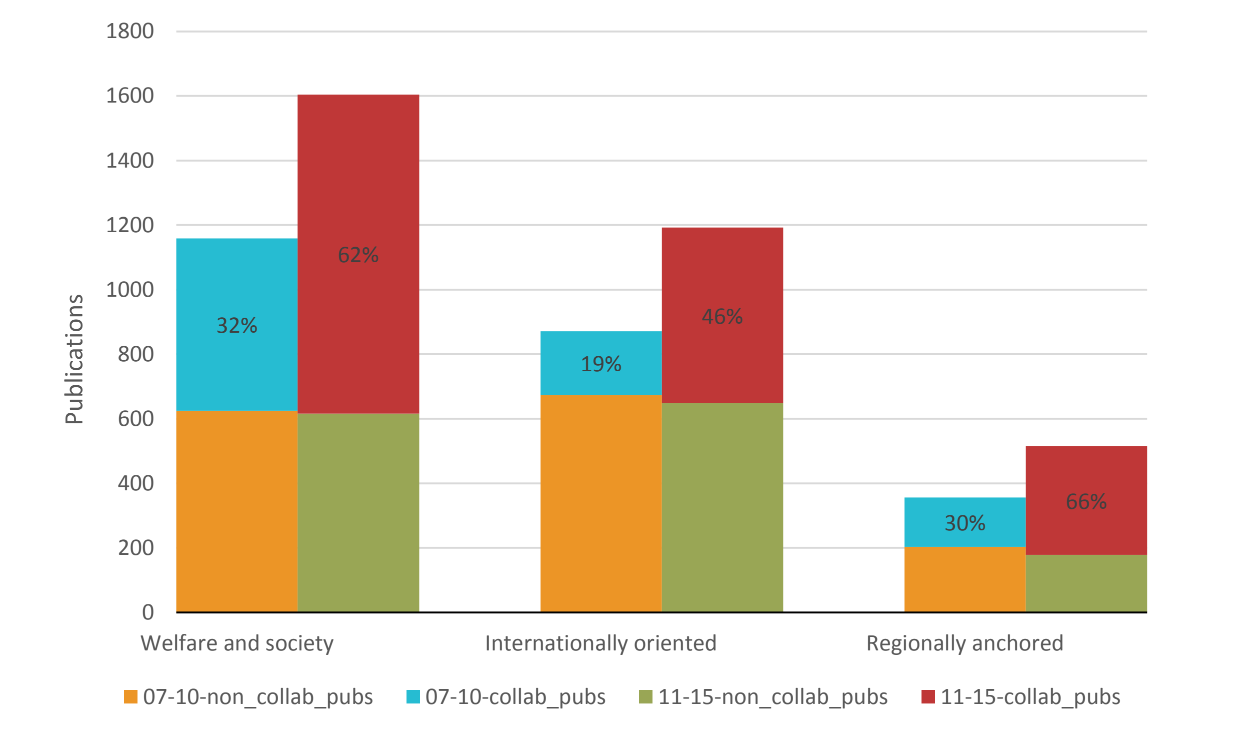
As would be expected, there are considerable fluctuations over time for the individual institutes, as well as significant differences among institutes. However, there are also patterns, especially when examining institutes across the three groups. The institutes in the 'internationally orientated' group clearly have the highest performance concerning acquired NPI points per FTE. FNI, PRIO and NUPI all have averages for the whole period above 2 NPI points per FTE researcher. No other institute has equally high ratios. The annual ratios for CMI are generally lower than for FNI, PRIO and NUPI, but the average for CMI for the whole period is still above 1 NPI point per FTE. Beyond the 'internationally orientated' institutes, only three other institutes (Frisch, ISF, and Uni Research Health) have ratios above 1 on average over the period.

Another interesting finding emerges if the social science institutes as a sector is compared with the three other institute sectors. On average, the social science institutes tend to have slightly more focus on traditional scholarly publishing activities especially compared with the 'technical-industrial' and 'primary industries' institutes. However, the 'internationally orientated' institutes somewhat distort the general picture, in the sense that they contribute significantly to the overall high average ratio for the social science institutes. The average NPI point per FTE for the 'regionally anchored' and 'welfare and society' institutes are more similar to the other institute sectors.

These publication analyses, and supplementary results presented in the background bibliometric report, reveal significant heterogeneity across the spectrum of individual social science institutes, but also some patterns, particularly when the three groups of institutes are compared. Importantly, the group of 'internationally orientated' institutes is particularly active in the arena for scholarly publications and within this arena, the productivity of researchers at the 'internationally orientated' institutes (in terms of achieving NPI points) is high, both in comparison with the other groups of social science institutes and in comparison with the other institute arenas. The background bibliometric report shows that 'internationally orientated' institutes are comparatively more present not only in the NPI arena in general, but also in the top tier of publications covered by the NPI (which is referred to as Level 2, and which generates more points) of publications covered by the NPI, which is part of the explanation for their success in acquiring NPI points.

Turning to the issue of collaboration patterns in relation to publications, Figure 15 below provides a useful illustration of developments in collaboration intensity over time. For each of the three groups of institutes, the development (from the period 2007-10 to the period 2011-15) in publication output, divided into non-collaborative and collaborative publications, is portrayed. Collaborative publications are those which are produced in collaboration with at least one external institution, and the relative proportion of collaborative publications has been noted in percentages on the vertical bars.

Figure 15 Number of collaborative and non-collaborative publications for the three aggregate analytical groups in 2007-10 and 2011-15. Proportion of collaborative publications of the total cumulated output is shown as a percentage; the groups are ordered according to cumulated output.

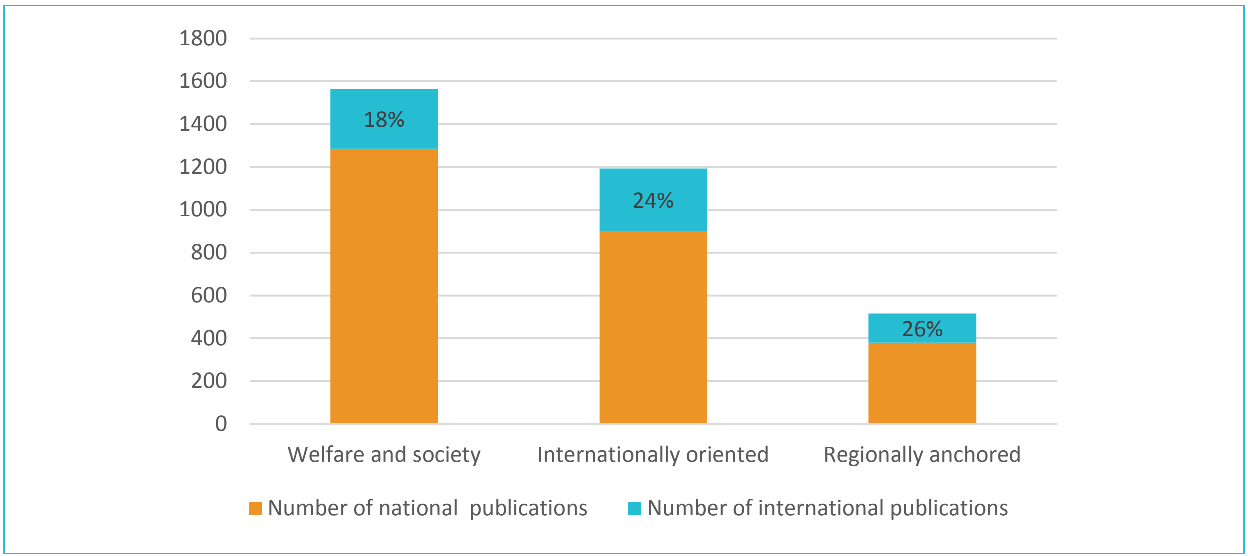


Source: Individual publication data from NIFU and CRIStin

The figure demonstrates that the social science institutes are part of a much broader development towards increased collaboration, which has been identified across countries and scientific disciplines for several decades. Comparing the first and second period, the group of welfare and society institutes has increased its share of collaborative publications from 32% to 62%. The group of regionally anchored institutes has followed a very similar pattern to the group of 'internationally orientated' institutes, which have more than doubled their share of collaborative publications.

Figure 16 shows the proportion of international collaboration for the three groups, as indicated by publications. Again, there are similarities among the groups, but it is notable that the group of 'regionally anchored' institutes has the highest proportion of international co-publications, i.e. publications with at least one co-author from a non-Norwegian organisation.

Figure 16 Proportion of national vs internationally collaborative publications for the three groups in the period 2011-14.



Source: Individual publication data from CRIStin

In sum, the bibliometric analyses provide a picture of some shared features across the Norwegian social science institutes, particularly in terms of significantly growing collaborative efforts and similarity concerning relative levels of international co-publications. The group of 'internationally orientated' institutes is considerably more present and productive in the area of scholarly publications, whereas some of the 'regionally anchored' and 'welfare and society' institutes tend to be more focused on publishing in other channels, which are not captured or rewarded in the NPI. It should be noted that these findings do not allow for assessment of the quality of publication output, but point to important differences in priorities and patterns of publication behaviour.

4 The panel’s evaluation

The panel’s mandate set out six broad evaluation issues.

- The relevance of the institutes to public administration, business and society
- The quality and capabilities of the institutes
- The institutes’ ability to recruit and their contribution to research training
- The institutes’ structure and role in the R&D system
- The institutes’ international cooperation
- The framework conditions under which the institutes operate

This Chapter deals with them one by one and raises related issues before drawing conclusions. Recommendations are to be found in the next Chapter.

4.1 The institutes’ relevance to public administration, business and society

The social science institutes’ role in the research and innovation system is first and foremost to provide policy-relevant knowledge to the public and private sector in order to support social and economic development. This role extends beyond research and studies to encompass acting as *fora* in which issues relevant to various aspects of policy and evidence needs can be discussed and setting research and policy agendas – sometimes getting ahead of the public and political discussion to shape it into new directions. Since their social role is to support improved practice, users who can connect research to practice are of central concern to the institutes. Many of these users will be those who commission studies by the institutes, but these and other users are also influenced by the wider research agendas pursued by the institutes. This priority for societal relevance appears consistent across the sector, despite variations in the balance among income from commissioned work, grants, core funding and other sources.

Relevance in this connection is not the same as impact. Relevant research is research that is intended to, or can be identified as having, the potential to address problems experienced by users (and society more generally). Research impact is the effect of research on society’s or specific users’ problems – irrespective of whether it was intended to do so. Impact involves ‘revealed relevance’: that is, impact demonstrates that research was relevant, irrespective of the intentions of the researcher performer, funders or users. Thus, impact demonstrates relevance; relevance does not necessarily lead to impact.

The impact cases as well as evidence from the institutes’ self-evaluations reported in the user survey (Fridholm, Åström, Ärenman, & Johansson de Château, 2017) confirm the relevance and often the strong user orientation of the institutes’ work. There are naturally variations in the perceived user relevance of individual institutes within each of the three groups we have used in this report, as well as across the wider social science institute system. In broad terms, however, the internationally orientated institutes’ competence is particularly highly rated by users, both in Norway and abroad. Many of the welfare and society institutes – especially those with a unique profile – are also well respected within their networks nationally and internationally. Even if we, as described above, cannot draw solid comparisons and conclusions from the user survey due to the low response rate the answers received indicate that users are also positive about the regionally anchored institutes, though a little less so than is the case with the two other institute groups. Users see weaknesses in them that are driven by their small scale and sometimes by the wide range of capabilities they try to maintain while remaining at small scale. But they also recognise that these institutes’ embeddedness in their region brings a unique competence and capacity for relevance to the regional economy and society.

4.1.1 Contribution and communication of research-based evidence to policymakers

It is clear from the broader material presented to the panel that the social science institutes provide a substantial flow of research-based knowledge to public policy and to a lesser degree to the private sector. We have not had an opportunity to review outputs from the individual institutes in detail. (This will happen in a separate evaluation of the social sciences in Norway.) However, as far as we can judge from the available material, great parts of the research and analysis done by the institutes are of good quality. There are examples of the knowledge produced having had substantial impact on policy in Norway and in a smaller number of cases abroad.

The differences in focus among the institutes necessarily means that they have different users. Among the internationally orientated institutes, PRIO, NUPI and CMI have a clear orientation towards the Norwegian Ministry of Foreign Affairs as well as to policymakers in different fields abroad. FNI users are found in the broader environmental field. The welfare and society institutes are naturally orientated towards the needs of national policymakers, as are some of the regionally anchored institutes that have taken up national research questions. The balance between national and regional focus varies among the regionally anchored institutes but all have regional constituencies.

Their regional focus means that most of the regionally anchored institutes are better connected and more relevant to the regional than the national level, though there are some regional institutes that are highly relevant to both and a small number of regional and ex-regional institutes such as Østfoldforskning and IRIS Social Science which focus to a considerable extent on national policy issues. Others such as Western Norway Research Institute maintain a very local focus, and are valued by their users for it. A handful of the internationally orientated and the welfare and society institutes do work of regional significance on top of fulfilling their national and international missions. However, for most institutes in these categories the Norwegian regions are not a focus.

The degree to which the institutes have users in the business sector varies a great deal. More than a third of the institutes clearly have high relevance to business and maintain networks with the business sector. Western Norway Research, for example, is closely coupled to the regional business environment. Many of the other institutes have no ambition to serve the business sector. This is unproblematic and is consistent with their missions.

The institutes vary in their use of communication channels. Some, such as FNI, NUPI and PRIO, make considerable use of the scientific literature while others such as SNF have few reported publication points (Table 3). In general, the local focus of the regionally anchored institutes means they focus much more on reports and other literature that is not captured in CRIStin, to meet the needs of their users. PRIO, NUPI and others successfully integrate diffusing research results into non-academic publications, such as policy briefs and popular research communication channels such as newspaper columns. Where this integration is possible, it appears to add considerably to the reputation and influence of the research institute concerned.

Some of the welfare and society institutes and internationally orientated institutes are concerned about the consistency of demand from ministries, in the context of the search for cost reduction currently in progress in Norwegian government. In particular, there is anxiety that requirements can shift as policies change and that the need for short-term budgetary savings in ministries can interrupt both the dialogue between them and key institutes and the consistency of demand upon which the institutes have to rely in order to maintain capacity. These uncertainties seem especially large in relation to the institutes that work with the Ministry of Foreign Affairs (UD) but also in relation, for example, to the extent to which KD's demand for studies in education and research policy will remain at its present level. The increasing formality of public procurement processes get in the way of the kind of long-term conversations between ministries and institutes that the institutes see as being needed to develop a useful research agenda over the longer term. It is hard for the institutes to be proactive in influencing their users' research agendas when public procurement rules make communication very formal.

Given these limitations, the institutes were generally good at networking with, and understanding the needs of, their users. CMI and Western Norway Research Institute are good examples, which carefully manage user relations and succeed in involving users in dialogue and events. Some others could usefully learn from this experience how better to understand and respond to the needs of their users. CMI and PRIO also have particularly strong dissemination functions, which may have lessons for other institutes.

4.1.2 Contribution to the development of the Norwegian public sector, society and the economy

The impact cases provided by the institutes vary in character and in the degree of evidence and detail they provide. They are helpful in so far as they provide some good examples of impact, which support the overall message from other evidence about the relevance of the institutes as a group to society or to specific users. However, they do not provide a basis for benchmarking the extent of impact or relevance – not only because of the variability their quality but especially because the different types of impact cannot be compared using a common unit of measurement.

The ability of the institutes to document their impact varies. The institutes were asked to produce up to one impact case per ten FTE employees. Clearly there are some outstanding examples of policy impact. Our impression was that the internationally orientated institutes have had an outstanding effect on policy in Norway and elsewhere. Examples include PRIO's influence with the IPCC, CMI's role in combatting corruption in developing countries and in encouraging the development of micro-credits for women entrepreneurs in Ethiopia. Most of the other institutes had had a very considerable impact. SINTEF Technology and Society and Western Norway Research Institute have had substantial effects upon regional entrepreneurship and business development, as have many of the regionally anchored institutes. ISF has influenced Norwegian election and gender equality reforms. In some other cases it was not clear how important the societal impact was – or, indeed, whether the issue was weaker impact on the one hand or weaker documentation of impact on the other. A clear implication is that the use of impact statements in this evaluation has not produced enough information to provide a satisfactory evaluation tool. Nor is the concept of 'impact' itself yet sufficiently defined to be a robust evaluation criterion. However, the impact cases approach has potential in impact assessment and deserves to be developed further and adjusted to the social sciences.

A benefit of the impact statements is that they provide materials that can be used in communicating with the public as well as policymakers. Leading institutes are already benefiting from the work they invested in writing the cases by using them on their web sites and in their publicity.

4.1.3 Conclusions

Based on the impact cases, self-evaluations and to some extent also responses in the survey of users and partners, we clearly find that the social science institutes make important contributions to social and economic development and to governance in Norway and elsewhere by providing knowledge and communicating it to those who can put it into practice. The variety of institutes and missions means that they often address different users and different aspects of society. The user side is far from being homogenous and correspondingly the social science institute arena is by no means homogenous either. The institutes, especially the internationally orientated and welfare and society institutes, are well respected for their competence. Some of the regionally anchored ones are slightly less so, and users point in certain cases to their lack of critical mass, driven not only by their small scale but also by the need to maintain a wide range of capabilities, risking that individual research groups become sub-critical.

Some of the institutes are very actively engaged with stakeholders to influence policy. CMI and PRIO are particularly good examples. In several other cases, however, the institutes should devote more time and resources to understanding and being proactive with their users – both to define problems to be solved and to communicate their results better. This would not only improve their ability to generate and smooth the flow of work but also help the institutes understand and influence demand, both in terms of its volume and by setting agendas and exposing issues that commissioners of research may not yet have considered. In a number of cases such as ISF, PRIO and NTNU Social Research, able Norwegian research institutes have 'created their own markets'.

4.2 The quality and capabilities of the institutes

Our mandate requires us to look separately at the relevance of the institutes' work to their users and its quality, as expressed in scientific and other forms of communication, PhD production, communication and competitive success (see Appendix A).

It is axiomatic that research should be of good scientific quality, by which we mean that it should have originality, scientific significance and rigour while conforming to the norms of one or more scientific disciplines. The balance among these criteria must vary with the type of project being conducted. Work aiming at theoretical or empirical development must satisfy all three criteria. However, the institutes also do research that uses established scientific principles to solve problems in practice. In these cases, the robustness criterion is the most relevant, although originality and scientific significance are always welcome characteristics.

There is no necessary contradiction between quality in the scientific sense and relevance. High-quality science often turns out to be societally relevant or is intended to be so from the start. In many fields, we see researchers who both move forward the frontiers of knowledge and apply their research to society. Equally, not all high-quality scientific research is obviously relevant to society at the time when it is done, so it may not have any obvious users.

Quality must be understood as being distinct from the channels through which research results are communicated. While the scientific literature is quality-assured through peer review, there is no block to results published via other channels being of as high or higher quality. The lack of an external quality assurance process in some parts of the literature means that the institutes themselves have a particularly import quality assurance role in these channels.

4.2.1 The quality of the institutes' production

It was striking that the best institutes in terms both of apparent quality and relevance such as PRIO, CMI, NUPI, FNI, SINTEF Technology and Society and Uni Research Rokkan had a clear understanding of the synergies between their grant-based research on the one hand and their commissioned research and studies on the other. Their success depended on combining a mixture of intra-scientific- and user-driven impulses, including the need to take up new research questions. Fields of study vary in the degree to which they are theory-based and the ways in which they are socially driven. To a large extent, therefore, the institutes should be free to find the mix that best suits them and that best enables them to produce work that meets their users' needs while still producing new knowledge. In general, we would expect the balance to be strongly tilted towards user-driven work, while not excluding the possibility that this may be funded via grants as well as commissions. In a few cases such as FNI, Frisch and SNF, the balance of funding was very strongly in favour of grant-based work, with commissioned work comprising a rather small minority of the effort. Maintaining a good mix of funding is a way to support the need for interaction between intra-scientific and user impulses.

However, some of the institutes also did work that does not sit easily in either the intra-scientific or user-driven category, namely methods development and the assembly and analysis of databases and panel data that enable and provide research resources to many subsequent projects. In the culture encouraged by the NPI system that tends to value and measure short-term research results, these crucial activities can easily be overlooked.

For some of the institutes, there is a problem in the way their performances are measured. It is assumed that the institutes themselves generate the knowledge they use in work for users through their internal research. That is why the criteria for core funding are similar to those used for research in the higher education sector in requiring significant amounts of publication in scientific journals and other scholarly channels. But this is not always a reliable assumption. The institutes should provide scientifically grounded and relevant research to their users. The extent to which they can and need to generate this through original research varies from institute to institute, so the incentive system essentially rewards those which build capacity through research that can be published in the peer reviewed scientific literature rather than those which build it in other ways. Given the focus of their work, the regionally anchored institutes are the less likely to build capacity through research. This appears to be one of the reasons why some institutes' work is becoming increasingly academic over time. Many of the institutes were slowly increasing their production of NPI points, indicating that they were making greater use of scientific communication channels than before (Figure 14).

Interdisciplinary cooperation arrangements are organized in many different ways depending on the task at hand. In some institutes these have been built into the way the institute is organised. In others where highly specialised knowledge is required, interdisciplinary relations are built with other research settings in Norway and elsewhere. Moreover, not all tasks and research issues require interdisciplinary work – there is still a need for specialised social science research and policy development. For this reason RCN should not always require interdisciplinarity but instead require it only where it is relevant to the research or policy task at hand.

The evidence we have on which to judge quality is limited by the fact that we were not able to review individual outputs of the research but had to rely on secondary evidence. Following bibliometric measures the internationally orientated institutes produced scientific research of highest quality. Most of the welfare and society institutes such as SINTEF Technology and Society, ISF, Uni Research Rokkan Centre, Fafo, the Frisch Centre and NTNU Social Research worked at high levels of academic quality, too. In other cases the quality was a little lower but still very good. About half the regionally anchored institutes also reached this level but some did not seem strong enough to make much of an impression on science outside their region and in a small minority of cases (Østfoldforskning, Møreforsking and Trøndelag R&D Institute) the scientific quality was disappointing.

The quality of the commissioned research and studies was even harder to judge because, unlike with scientific research, there are no usable proxies for quality. Our judgement must therefore be rather tentative. Our impression was that the internationally orientated institutes again did very well, with almost all their work being of a high standard and some of it being outstanding. SINTEF Teknologi og Samfunn, the Uni Research Rokkan centre and Østfoldforskning were working at a similarly high level. Most of the rest appeared to be producing contract research and studies that were competitive, though in the case of the regionally anchored institutes, Eastern Norway Research Institute, the Norut Northern Research Institute and Trøndelag R&D Institute seemed to at least partly fall below this level of quality.

The extent and scope of internal quality assurance as described by the institutes themselves in self assessments and during interviews with panel members varied among the institutes. While some institutes such as PRIO, NUPI, FNI, CMI and SINTEF Technology and Society have made great efforts to introduce systematic systems of quality control, other leading institutes had less formal but nonetheless wide-ranging processes to ensure that no outputs leave the institute without proper quality assurance. Others still were less stringent and were recognising the need for better quality assurance. Broadly, institutes need to have quality standards that are equally high for all types of publications.

4.2.2 Conclusions

The publication patterns of the institutes differ substantially in the degree to which they focus on scientific publication (which is counted in the NPI system) versus other literature. While the most successful institutes try to balance these publication channels, the preponderance of one or the other is not itself a manifestation of quality. Available indicators suggest there is considerable diversity in the institutes' use of scientific communication channels but provide little more systematic information on how active the institutes are in the literature not covered by the CRIStin system. To make a proper assessment of quality on either dimension we would have had to review substantial samples of the institutes' output, and that is beyond the means of this evaluation.

Based on the evidence from the bibliometric analysis, the sector overall makes an important contribution to the advancement of knowledge in the scientific sense. Not only the NPI points achieved but also the amount of grant funding that is competitively won suggests that there is good quality work going on. We know little about the quality of the remaining production beyond the generally positive views that users and partners offer in the user survey, where for some institutes the response rate is too low to give a valid picture of user views.

Interviews in connection with the user survey indicate that in the small number of cases where users were anxious about quality, this was connected to small institute size and project management capacity.

Quality assurance practices in the 'arena' vary from excellent to lax. This is one of the areas of management where the institutes might usefully develop ways to share and imitate good practice. SINTEF Technology and Society, PRIO and CMI are among the institutes that could be considered as exemplars here. This seems particularly important in user-orientated reports and papers where internal quality-assurance procedures are not always as demanding as the ones used for the scientific literature.

4.3 Recruitment and contribution to research training

4.3.1 Recruitment and capacity development

The ability of the institutes to recruit and retain good personnel varies across the sector. Broadly, larger institutes in Oslo are better placed to do this than smaller ones in the regional cities or the regions themselves. Senior positions are harder to fill than junior ones, especially outside Oslo. A contributing factor is the 'two-job problem'. Many established researchers have partners who work in similarly knowledge-intensive areas. In small geographic labour markets, it can be hard to find two suitable jobs at the same time and this restricts mobility. This was said to be as much a problem in Bergen as it is in the smaller communities where the regionally anchored institutes are based. The smaller institutes have a particular need for experienced people. Unlike in the large ones, there is little scope to start as a junior generalist and then become more specialised over time.

Many of the institutes evaluated are concerned about 'leakage' of senior personnel, primarily to the higher education sector. Universities, regional colleges and research institutes often belong to regional knowledge systems with a high degree of exchange of academics and sharing of competence resources. While the flow of senior institute people into the regional academic labour force can be instrumental in building regional capacity in higher education, it does provide the institutes with a problem they need to manage, whether by introducing mechanisms to make the institutes attractive for people of high academic competence or by strengthening their ability to replace senior personnel when they leave.

The higher education institutions are major competitors to the institutes in recruiting research-capable people. In general, the institutes operate with some comparative disadvantages. University faculty positions tend to be more prestigious than posts in many of the institutes, particularly at the professorial level. The pressure on senior staff and research group leaders in the institutes is especially high, due to the constant pressure of attracting external funding. Several of the institutes pointed to this as a reason why senior staff are attracted to move to the university sector. The level of competition most institutes experience is unlikely to decline, so they would do well to cultivate the competitive advantages that a career in the research institute sector can offer: research where research as a collective effort is valued and expected and a dynamic research environment where user-oriented research goes hand in hand with academic research. One of the opportunities to mitigate the leakage problem is to increase the extent to which universities and institutes make joint appointments.

More generally, the social science institutes as a group do not appear to operate with a well-developed model of researcher mobility. In practice, many people take junior jobs in the institutes as a precursor to a career in public administration, business or the higher education sector. This is primarily true for the regional institutes. There is a need for a stronger, more principled recruitment policy in the sector.

In practice, some of the institutes outside Oslo have played quite significant roles in building capacity at the newer universities. Even though they experience the loss of more senior people involved as a problem, it is nonetheless an important contribution to the regional, local and national knowledge system. Larger and more centrally located institutes are not so vulnerable to the effects of losing senior personnel. More broadly, the institutes have an important role to play in training, nurturing and developing social science researchers with a user-orientation and cross-disciplinary approach.

4.3.2 PhD training

RCN requires that core-funded institutes engage in PhD training. This is a good principle, in general. It contributes to national PhD production, especially in applied areas, and to the ability of people with PhDs to work with practice in government and industry. It also helps strengthen the cooperation between institutes and universities that is increasingly necessary, in order to let the institutes do grant-funded and commissioned research that is beyond the growing capabilities of their users and the consulting profession.

In the aggregate, the institutes produce about 35 PhDs per year, about 25 of whom are more than 50% paid for through institute funds. This is a significant achievement, especially given the low level of core funding given to the institutes. PhD students tend naturally to be more common in institutes that have a high share of grant funding. Six of the institutes did not graduate any PhDs in 2013 or 2014. Nonetheless, most of the institutes do invest in PhD training, even where, as in the case of some of the smaller regionally anchored institutes, this places a substantial financial burden on them. However, PhD students with stipends of course impose little economic burden on the institutes.

The institutes have a number of links with universities. Especially in the larger institutes, some of the staff hold Professor 2 positions. Almost without exception, the institutes host PhDs in training. These PhD students put high demands on the institutes when it comes to management and supervision on the institutes (and the universities) but they also provide a source of junior research labour that can be very valuable. In some cases, institutes are also funding PhD positions through project-based funding and this inevitably increases the amount of effort that needs to be devoted to supervising and maintaining the funding for the PhD students in question.

The smaller institutes experienced the most difficulty in contributing to PhD education, simply because the PhD students inevitably comprised a significant proportion of the staff. While some of the institutes said they had to weigh the costs and benefits of training PhDs and be careful about the number they could accommodate at any time, all agreed that this is an important part of their function and that it is a worthwhile contribution both to their own activities and to society more generally. The way the social science institutes deal with their contribution to PhD education as well as arrangements for adjunct positions in the higher education institutions cannot follow a single model. These institutes live in very diverse relationships with higher education institutions, which are in several cases in flux and in this respect the issue of institutes' contribution to PhD education has to be an integral part of how these arrangements are sorted out.

As in a number of other areas, recruitment, retention and PhD training raise questions of scale. Small institutes have more difficulty than large ones and it is clear that RCN's requirement that a core-funded institute should have at least 20 FTE staff is a sensible one. Government structural reform policy, which encourages small organisations in the research and higher education sector to seek mergers, could contribute to alleviating this problem of scale. However, it is not clear that bringing together organisations that are widely separated in distance would make much of a difference to the recruitment and retention issues.

4.3.3 Conclusions

Many of the institutes, especially outside Oslo, struggle to recruit and in the long term to retain the senior personnel upon which they are dependent for winning and leading work. At the same time, the cyclical flow of junior researchers from the universities and colleges to the institutes and senior personnel in the other direction sustains and develops regional knowledge systems. At the national level, it would be useful to consider the extent to which long-term retention of personnel is desirable and to devise means to strengthen institutes' ability to retain enough experience to remain 'knowledge bearers' of practice-orientated understanding over longer periods. Clearer career development policies would help, though the regional dimension will remain an important constraint on recruitment.

The social science institutes made a substantial contribution to PhD education, given their role and size. Having PhDs enrolled in PhD programmes in higher education institutions is a major asset to the institutes with university staff supervision and course work, both directly through supervision and courses but also for building up long term networks and collaborative relationships. The respective roles of the institutes and universities in PhD training and researcher career development are relatively clear but at present for some institutes this arrangements is understood as they are treated as a reservoir of labour from which the universities recruit. It might be useful to investigate the benefits and opportunities of establishing more of a two-way personnel flow at the senior level.

4.4 The institutes' international cooperation

International cooperation in research is sought for a range of reasons. In the social sciences, comparative studies forms an essential and necessary part of knowledge development. International collaboration provide important structures for such comparative work. International cooperation is often a reflection of the existence of international communities of researchers jointly pursuing particular questions within or across disciplines so that participation is a necessary condition for operating at the forefront. International cooperation may also serve as a benchmark: it is difficult to know whether you are up with the leaders if you compete only in a small national pond. Access to foreign research talent may also be a factor. New forms of knowledge dynamics within traditional and emerging new fields increasingly are taking place at the international level. It should always be considered, however, if, when and why international cooperation is a prerequisite for high quality performance.

4.4.1 Participation in international cooperation and programmes

Research institutions and governmental research funding bodies increasingly prioritise internationalisation and international recognition, for the legitimate reasons stated above.

Internationalisation is often understood as a marker of quality as is the success in attracting international funding. However, while such an interpretation generally is relevant to the social science institutes it may not always be readily accessible to the same extent to the smaller of the more regionally anchored institutes, even if they too clearly can gain from engaging in international cooperation – both as a means of driving quality and because of benefits of comparative research.

In fact, few of the social science institutes obtain significant amounts of income from abroad. Those that received more than MNOK10 in 2014 were PRIO, Fafo, NTNU Social Research and CMI. PRIO and CMI's international incomes derive not only from European but also significantly from other international sources.

The social science institutes received a little more than €12m from FP7. PRIO took €7m of this, Fafo and SIFO took €1.2m each and the rest was distributed in a fragmented way across the remaining institutes. PRIO held five of the nine coordinator positions achieved by this group of institutes in FP7. In Horizon 2020 (up to November 2015), the social science institutes received €4.7m, with €2m going to PRIO, €1.2m to NUPI, €0.8m to NTNU Social Research, €0.6m to Uni Research Society and Culture and €0.2m to Fafo (Norges forskningsråd, 2016b). There were only three Horizon 2020 coordinatorships for the social science institutes in that period.

There are undoubtedly many reasons for incentivising the social science institutes to engage more in international collaboration, international publications and international funding. This, however, should not be put in opposition to national collaboration, publication and funding. It seems important to acknowledge that knowledge production about Norwegian society should be relevant to both the national and regional public and private sectors and therefore often should be published in the Norwegian vernacular. If the social science community omits to deliver research based knowledge in Norwegian, which is highly relevant for regional and national knowledge systems, it could lose importance. For these reasons the institutes should be encouraged to work both locally and globally, and to find ways in which these lines of work can support each other.

4.4.2 Barriers to international cooperation

Norwegian researchers in general are in a good position to participate in international cooperation. Norway participates fully in the Framework Programmes despite not being a member of the EU, and since the government is anxious to 'bring home' more of the financial contribution to Norwegian researchers, RCN runs a generous system for supporting application and participation. With the user orientation and cross-/multidisciplinary approach, Norwegian institute sector should be poised to engage in all pillars of the Framework programme and in other EU-programmes. Moreover, the institutes themselves list several international collaborators and contacts that link their activities to relevant research groups which in turn could represent a bridgehead for access to international collaborative research and development projects.

Norway is advantaged in wider international cooperation both by its reputation and international exposure in certain fields and by the desire of RCN to involve foreign researchers in Norwegian research projects, making it easier to fund cooperation than in many countries. Given the social science institutes' different scales and focus areas, different levels of internationalisation in their funding is to be expected.

4.4.3 Conclusions and recommendations

Maintaining international contacts in the research sphere, networking and cooperating with others abroad is a necessary condition for belonging to a well-qualified research community and maintaining scientific competence. In the panel's view, the extent to which the social science institutes cooperate internationally is reasonable. It is positive to find that certain of the small, regionally anchored institutes manage to be involved to a limited extent in formal international cooperation not only through regional programmes such as Interreg but also in Horizon 2020. However, we emphasize that efforts to reach European funding should not be made at the expense of seeking national and global funding, cooperation and dissemination. The international and the welfare and society institutes partly deal with generic problems of global interest (even if in some cases they are analysed at the national level). They should therefore be exposed to other parts of the global research community. For the internationally orientated institutes, international cooperation and competition is of the essence: it would be disappointing if they were not internationally engaged and it is clear from the funding data that they indeed are so engaged.

Individual institutes should always be ready to work on an international basis where that adds value to their research strategies, not least because it is an important source of learning as well as self-benchmarking. But they should not be under pressure to cooperate internationally simply for the sake of doing so. Given the position and role of the institute sector as user-oriented and applied and the high importance attached to internationalisation in Norwegian research policy – it seems reasonable to have special incentives to encourage this part of the Norwegian research system to participate, in collaboration with national or international partners, in the competition for international funding. This is costly and requires considerable investment of time and resources for the institutes. However the rewards for the institutes can be reaped in terms of access to knowledge and intensification of contact and collaboration with research establishments with similar orientation. Consequently, the institutes should themselves determine if it is within their capacity and according to their interests to respond to such incentives. That some might choose not to pursue international funding should not prevent the RCN from rewarding those who successfully do so, not as a requirement but as an encouragement.

In sum, the panel recommends a differentiated approach to international funding expectations on the different institutes. Taking part in the competition for international funding should be expected from larger institutes; smaller and regionally anchored institutes should be encouraged to single out core competences suitable for international collaboration and, when possible, have access to specific incentives to do so.

4.5 The framework conditions under which the institutes operate

By 'framework conditions' we mean the combination of core funding criteria, wider funding opportunities, ownership, governance and wider research and innovation policy that form important parts of the context for the institutes' work. These need to be supportive if the institutes are to perform well. Equally, the institutes themselves need to understand and exploit the opportunities provided by those conditions and to work actively to try to influence them in cases where they are not adequate to their needs.

4.5.1 Challenges and opportunities created by the institutes' framework conditions

As mentioned above, the core characteristic of the institutes compared to other public research organisation is that the institutes are dependent on getting sufficient income from users while having academic ambitions. They have under varying circumstances to compete with higher education institutions, private consultants and internal analysis units in government ministries and agencies in an increasingly competitive context.

Most of the older institutes are foundations while the newer ones and those more recently reorganised tend to be limited companies. It is difficult to see that the distinction has any effect on performance. More important is that not all of the 'owners' are especially demanding or clear in their expectations – and that is a problem that affects the limited companies more than the foundations (which have no formal owners, only founders). It is not obvious to us that there is a one-size-fits-all solution to this difficulty.

Institutes' dependence on users also means that users and 'owners' (who normally also are users) have important degrees of influence over performance. Not all users are good at understanding and specifying their needs, though in the aggregate the institutes suggest that users' ability to do so is improving. This is in part because policymakers, especially at the national level, increasingly have a greater amount of in-house analytical capacity. This improvement can sometimes be double-edged, in the sense that the growth in ministry staff devoted to analysis risks eliminating some of the user-orientated work of the institutes.

4.5.2 Room for strategic development and manoeuvre

The low proportion of core funding in total turnover puts a challenge on the institutes to find space for strategy formulation and implementation. Understanding changing user needs and the opportunities to adjust to them must be a matter of business as usual in organisations that rely heavily on income from users to fulfil their missions. But investment resources are needed to generate or acquire the new knowledge needed to meet these needs. Given the need also to support aspects of PhD training, contribute internal resources to participation in national and international programmes, the headroom for strategic investment is limited.

That said, the quality of institutes' strategy was notably variable. Some of the larger institutes had a good understanding of changing user needs and how to address them. They were able to relate this aspect to their research strategy and obtain synergies between these strategic components. In organisations like CMI and PRIO, close connection with global issues and research agendas made it easier to understand how strategy should shift over time.

There were other institutes whose strategy consisted of doing little more than 'business as usual'. These included some of the financially weakest institutes, and this serves as a useful reminder of the role of leadership in an institute's development. These institutes were not able to say how they expected to work their way towards a more sustainable economic model. Another institute was in some financial difficulty and recognised fully the challenges involved in moving towards a sustainable financial position, yet nonetheless had a clear set of ambitions and a plan about how to recover.

4.5.3 The institutes' use of core funding

In order to help to meet the institutes' academic goals, RCN supports the infrastructure of the institutes. This funding is not an entitlement but must be negotiated with RCN, based on the following criteria.

- Undertake research of interest to Norwegian business, government or society
- Maintain disciplinary and scientific capabilities, demonstrated through scientific publication
- Conduct research activities of a sufficient scale to permit the development of significant research capacity within the organisation
- Have a variety of sources of research income and compete in national and international competition for research funding

The institutes currently funded largely fulfil these criteria, albeit with different emphases. The self-evaluations and interviews with the institutes showed that in general the institutes find these criteria to be appropriate.

In order to qualify for core funding from RCN, institutes have to obtain at least 20% of their income from commissions, as opposed to research grants. The underlying principle is that the institutes should have a diversity of income sources. However, while the formal distinction in terms of contract types is clear, in practice the contents of the two can be very similar, especially in relation to more applied types of work. Most have a considerably higher proportion than this but there are borderline cases. It is not the intention that institutes should become or evolve into organisations that do 'blue skies' research for a living. They also have to maintain scientific capabilities and demonstrate that they are doing so through scientific publication and do enough research to generate significant research capacity. But they also have to have a variety of income sources – grants as well as commissioned work – and compete for funding nationally and internationally.

The performance-based funding system rewards institutes based on four things. It rewards the proportion of income derived from user-directed work, scientific publication, and participation in PhD training. These rules are understandable and reflect the purposes of the Norwegian institute sector and we have discussed each of these aspects of the institutions above. At the same time the operationalization of these criteria may appear as rather blunt, for example the operationalization of user- directed work into the amount of commissioned research or the operationalization of scientific publication into number of publication points. The bluntness of the funding instrument is, however, tempered by the fact that the performance-based component of core funding is small. A disadvantage of the small influence that performance has on core funding is that it takes a long time for the cumulative effects of performance changes materially to change institutes' economics.

The importance attributed to Framework Programme income across the entire competition arena is reasonable. This is clearly a good indicator for the internationally orientated institutes and the welfare and society ones. These by and large have foreign counterparts and need to be competitive and integrated into the world research community in order to do good research. International participation also helps them build a wider experience base and bigger scale – in effect offering a bigger and better institute sector to Norwegian society. We believe that international activity is also good for the regionally anchored institutes. They deal with rather generic problems in a Norwegian regional context. It is encouraging to note that some of these institutes have been successful in international arenas, for example in Nordic and EU regionally focused arenas such as the European Commission's Interreg programme which brings regionally focused research organisations together – in this case in regions that straddle national borders. Some of them have also been able to participate in the Framework Programme.

In our view, the current incentive system is one reason for the 'academification' that the institute sector is experiencing. Within reason this is not a bad thing: massification of higher education and the choice to produce many more PhDs than can be absorbed by the universities mean that the research capabilities present across the whole of society are much greater now than in the past. It is difficult to view this as anything but positive from a societal perspective. The institutes have to respond by moving 'up-market' so that they maintain their edge over what can be done inside public administration and the private sector. But this still needs to be done in the context of addressing user needs. It probably also means that the 'space' within which the institutes can operate is shrinking relative to that occupied by the universities. That is certainly what the funding statistics suggest (Figure 1). But that reduction in relative size is happening by default, not as a matter of policy.

Performance-based funding systems affect performance through their effects on prestige and on research careers. The evaluation of the Norwegian higher education system showed that despite the small amount of money it actually affected, it had a clear effect on encouraging research production (though not on quality) (Bloch & Schneider, 2016).

The autonomy of the institutes generates a problem that is increasingly important in the context of the 'academification' we discussed earlier. It is very difficult for the institutes to afford academic infra-structure such as good library facilities and access to databases. In the long term it is conceivable that this will be rectified by the open access movement. In the meantime, a system of mostly small institutes struggles to pay the costs of proper journal access.

4.5.4 Conclusions

In regard to the problem of weak ownership and governance experienced by some of the institutes, probably the most useful intervention that could be made is for RCN to approach the relevant 'owners' directly, perhaps with an offer of temporary support through an observer position on the governing board. RCN clearly cannot both fund the institutes and have decision power within their governance.

Weak ownership seems (unsurprisingly) to be connected with weak strategy. Again, RCN cannot itself strengthen institutes' strategies.

Given the small influence that performance has on core funding, it probably does not make sense to propose that different groups of institutes within the competition arena should be subject to a different set of rules or measures. A better idea would be to compensate for weaknesses where needed, in terms of a dialogue around those operationalizations or in terms of complementing with specifically targeted additional funding schemes. When it comes to the regional institutes werecognise that the tensions between a competitive research funding policy and the need for regional capacity are best addressed by specific regional funding, as has been provided in the past under programmes such as BU2000, VS2010 and VRI. The regional institutes need the stick of competition as much as all the others but they also need the carrot of support for their specific regional role, recognising that it leads to fragmentation, questionable critical mass and in some cases economic losses. There is virtue in returning to the arrangement where the Ministry for Education and Research pays them to be good and the Ministry for Regional Development pays them to be regional.

The increasing 'academification' of the work of the institutes together with the growth of the phenomenon of 'big data' makes the institutes increasingly dependent upon library and database access in order to do their work. At this point access to such resources is becoming critical , small entities such as these institutes struggle increasingly to get access to international and national journals and databases. RCN should be aware if this access problem and should assist the institutes in finding solutions.

While the performance-based funding system appears to have had a positive effect on increasing the quantity and quality of research done by the institutes, the smallness of the funding reallocation resulting from the system means that it reacts slowly to changes in relative performance. It should be noted, however, that the effects of a performance-based funding system arise not only because of the economic incentives involved but perhaps especially because it provides a new source of reputation and esteem – which are strong drivers of behaviour in the research community. This would need to be accompanied by measures to increase the proportion of their overall funding budgets that the sector ministries are prepared to spend through RCN, in order also to quality-assure that part of the funding. There is further a case to be made for a **prospective** component in the funding of the institutes, in addition to the retrospective perspective of the performance-based system. RCN should investigate the potential value of these changes in developing the institute system.

4.6 The institutes' structure and role in the R&D system

Our analyses of quality, relevance and impact indicated that Norway's strong social science institute sector is an important national asset. It continues to contribute significantly to sustainable societal development. The institutes play particularly important roles in economic and regional development, in international affairs and in sustaining important aspects of the social fabric, many of which are strongly connected to the distinct quality and character of Norwegian life. They also to varying degrees provide evidence for policymaking, monitor policy implementation and support regulation. Several receive significant amounts of non-competitive funding directly from individual sector ministries to pay for these latter functions.

While some of the social science institutes such as the Frisch Centre operate in a manner largely resembling a university research centre and others operate very close to users, much of the institutes' work is functionally distinct from the research done in the higher education sector. Some of the social science institutes nonetheless obtain 'bottom-up' funding from RCN in schemes such as FRIPRO, which are dominated by the university sector. This shows that the social science centres also contribute substantially to fundamental knowledge development in the social science field. A degree of overlap between higher education institutions and institutes in this sense is healthy, since it promotes competition.

Generally, the work of the institutes is more orientated to practice than the bulk of that done in the universities and it is done with the intention that its results will be applied in society over the comparatively short term. It is therefore rather directly connected to users and their needs and its direction is substantially guided by that relationship. It tends to be done by people with long experience of their field of research who understand how its results are to be implemented. As institutions, the institutes serve as 'knowledge bearers' about research related to practice, providing society with institutional memory as well as new knowledge. Especially among some of the internationally orientated and welfare and society institutes, this knowledge heritage is tuned to very specific ends and is unique. In the thematically less focused institutes, the knowledge bearer function is less obvious, and indeed knowledge is shared with other institutions. Nonetheless, the experience and user focus of the institute researchers is distinct from that which can be found in other research-performing organisations.

The work of the institutes is also distinct from that done by consultants. The core funding (subsidy) provided by the state allows the institutes to develop and acquire knowledge that should enable them to create knowledge public goods and do a better job of research than unsubsidised consultants can. In economic terms the core funding helps overcome the market failure that discourages the private sector from paying for research that is general or fundamental in character.

The institutes' interdependence with users and practice means that they must develop over time. With developments of society globally and locally, for example transformations of defining features of the Norwegian welfare state, social science institutes have to increase their capabilities – not only to stay ahead of their own users but also to stay ahead of the rising educational level and research capabilities of the private consulting sector. Not only the user side is in rapid development but so is the possibilities to obtain and analyse data. The institutes' users tend to be increasing their internal analytical capacity. On the one hand this is likely to make them better at specifying and using research. On the other, it means that some of the things formerly done by the institutes risk being internalised by their users, notably in the ministries. The resulting need for constant development and change places some of the institutes under stress so that they complain about increasing competition from universities, consultants and users. However, this is inherent in the development of the institute role over time. It is not a problem of unfair competition. The social science institutes have to continuously increase their capabilities.

The slow growth of the institute sector compared with the universities (see Figure 1) is of concern because it appears to be happening because of neglect rather than policy. The universities are 'steered' by a single ministry while the institutes are looked after by a wide range of ministries, whose research and innovation policies are not coordinated. The institutes' expected role therefore tends to remain unchanged and the aggregate size of the institute sector is the result of adding together many different budgets, rather than an overall decision.

A great deal of research policy is discussed and made with little consideration of the differences between the higher education sector and the institutes. The universities are increasingly encouraged to engage in 'third mission' activities. This pressure will be increased in 2017, when the government intends to incorporate the level of commissioned research income into the performance-based funding criteria for the higher education institutions, consequently this performance criteria will be used (but with different relative weightings) in both sectors.

Independence is important for the institutes as they are only useful if they do robust research unfettered by the need to please special interests. At the same time they must be connected to practice through their governance and incentive systems. This means that integrity needs to be a leading principle for governance, regulation and leadership in the institutes, and it is logical that institutes are measured and rewarded based on both quality and relevance.

We saw relatively little cooperation or competition between the social science institutes and institutes in other arenas. This does not mean a lack of interdisciplinary work in the institutes. Several of the internationally oriented institutes develop interdisciplinary work with specific research groups thematically and guided by knowledge needs. Some of the regionally anchored institutes have always done a combination of social science and technology to serve regional needs. This does put a strain on their ability to maintain critical mass across several different subjects but it is difficult to see how to resolve this without finding a way to increase their scale. Some of the larger institutes that are housed in polytechnic environments – such as SINTEF T&S, IRIS and Uni Research – have opportunities to do cross-disciplinary work in-house. Other institutes can develop interdisciplinary cooperations with other units be they placed in other institutions or in universities in Norway and elsewhere. Overall, the boundary of the social science competition arena makes sense.

4.6.1 Assessment of the present structure of Norwegian applied social science research

The roles of the individual internationally orientated and welfare and society institutes are rather distinct. Their self-assessments include their views on who their competitors are. These do not produce a picture of competing sub-groups within the social science arena, but each has developed a distinct role that is under continued development with changing needs, opportunities and conditions. However, if we turn to the regional institutes, from the perspective of economies of scope and scale, the internal structure of the social science arena may not be optimal in that it supports several regional organisations that barely reach critical mass. However, this is inevitable if one of the key objectives is to maintain a geographically dispersed knowledge infrastructure – at both institute and university/college level – to support the capacity of the regions. This has worked in the past, but is not necessarily the model for the road ahead – given in particular the changes in the structure of higher education system and the structural reforms in the regions.

As far as the division of labour among the social science institutes is concerned, the present structure is a result of a combination of national research policies, regional development policies, competition and – by no means least – the individual histories of the institutes, which have been created for a range of purposes. During the life span of the institutes they have co-evolved with their surroundings by modifying their strategies and responding to changing market and policy challenges. In general, the institutes have found research profiles and funding that suit their research purposes.

However, several of the smaller institutes have to chase any sort of income they can get and use more time and resources to develop bids and applications than they needed before. For institutes, this means high costs of constantly writing applications as well as personal frustration among the researchers because of low success rates. These success rates are typically much higher in commissioned research than in grant-funded research. The pressure from the market also makes it harder for the institutes to allocate resources to publishing in high-quality journals.

Certain of the social science institutes are hosted in organisations into which higher education institutions have effectively externalised contract and grant-based research. People within the universities with academic (ie teaching and research) contracts have very strong employment rights. It is much easier to terminate the employment of a researcher in a university-associated organisation like NTNU Social Research, Uni Research at UiB or SNF, which is attached to the national business school (NHH). Institutes argue that this arrangement has pernicious effects for them. They say it enables university academics strategically to position research projects inside or outside the university. Prestigious activities such as participation in Horizon 2020 FRIPRO projects and PhD supervision tend to be placed inside the university and publications often bear the name of the university rather than the institute, undermining the credibility and measured performance of the institute within its competition arena. The somewhat unclear boundaries and relations between the institutes and the higher education institutions do on the one hand create flexibility that may allow research groups to take on several complementary research tasks, on the other hand it may bring unnecessary uncertainty for institutes and higher education institutions when it comes to performance indicators.

The quality and realism of the social science institutes' strategies varied greatly. Some institutes were extremely clear about the challenges they faced and the way they needed to change to address these. Others were essentially muddling through based on business as usual. Unsurprisingly, the institutes rated most highly by the panel are generally those that have the clearest strategies. Some of the weaker regionally anchored institutes were frank about their need to chase money from whatever source is available to maintain the scale of their operations. This is obviously not a desirable basis for strategy formulation but does reflect the economic reality of these institutes, some of which are struggling to break even in economic terms.

There is a conflict here between research and regional policy. In the past, the regional institutes have benefited from funding programmes that partly used regional criteria to allocate funding, to build and maintain capacity. Under the current funding regime, the regionally anchored institutes compete on an equal footing for core funding with the others in the arena. The likelihood is that some of them will not survive in the longer term. This would mean that a policy choice is in effect made by default, rather than as a matter of decision. It implies a question to the Ministry of Local Government and Modernisation about whether it values the presence of the regionally anchored institutes enough to provide some funding to support their regional location. This would in any case have to work alongside RCN's current style of competitive funding, so that these institutes continue to be exposed to competitive pressure. RCN's main regional programme, VRI, is ending in 2017, but is due to be replaced by another measure. The regions themselves have regional research funds allocated to them by central government but these appear primarily to be used for company innovation projects and not to address the social science institute sector.

4.6.2 Effective use of resources

Despite the complaints of the institutes, it is difficult to view some degree of competition between the institutes on the one hand and the universities and consultants on the other as unhealthy, provided it takes place on a level playing field.

The institutes argue unanimously that too much time is used to develop bids and write applications, reducing efficiency. It is difficult for the panel to take a position on this, partly because the complaint is generic: it is almost universally made by project-based organisations. In government, it is possible to use framework contracts to reduce the total load of proposal writing where there is a large set of potential suppliers, although this involves the risk of excluding the best qualified from reacting to particular calls for proposals. In the extreme case where a framework contract uses a single supplier, the normal risks of monopoly apply and are exacerbated by the disruption caused if the supplier is then changed at the end of the contract period.

Success rates at RCN are low – often below 10% – in FRIPRO (which is dominated by the universities) and somewhat better in the thematic programmes, on which the institutes (with some exceptions among the international institutes as we have described above) tend to focus their attention. RCN is currently running a project called *Forskningsrådet 3.0*, aiming to simplify its programme structures and procedures so as to trigger increased competition in more open arenas and make the process of application more efficient. The results of this effort are yet to be seen.

A systematic categorisation of the different types of cooperation between the institutes and the higher education sector is not easily done at present. In Oslo we see both rather independent institutes such as NIFU, FAFO and FNI, independent institutes with special close relations with one university like ISF, as well as institutes which have merged with a college, Høgskolen i Oslo and Akershus (HiOA), like AFI, NOVA, NIBR and SIFO. To a certain degree all these three models of cooperation are to be seen in Bergen and Trondheim also. The present restructuring of the higher education and institute sectors makes it difficult and perhaps less meaningful to propose a categorisation that differs from the one that is presently used by RCN.

Recently there have been important structural changes among Norwegian research institutions, both within the higher education and the institute sector. Here, it is also too early to evaluate how the university and college reforms will affect cooperation, division of labour and efficiency in the combined social science sector. However, some larger entities are emerging that may increase efficiency. SINTEF Technology and Society is a well-established model. HiOA with its Centre for Welfare and Labour Research provides another potentially interesting model in the higher education sector, which may be worth exploring.

However, the regionally anchored institutes do face particular issues. As a group, a part of their mandate has been to contribute to the maintenance of broad knowledge systems spread along a very long and in many places sparsely populated country. Such a task inherently represents a challenge in terms of maintaining critical mass across multiple areas of thematic specialisation. This report shows that their user relevance, quality and ability to maintain a highly skilled staff often suffer in comparison with institutes in more central locations. Figure 6 shows that in our reference year, four of the five institutes in deficit were regionally anchored and our interviews with institute managers confirm that financial sustainability is a particular problem for some of these institutes. Currently, reorganisation of regional and local government is taking place that will result in consolidation. This and the current wave of reorganisation and merger taking place among the social science institutes suggests that this group of institutes is at something of a crossroads. There may be value in reviewing their role, structure and funding at this point.

One issue raised in our mandate is whether the scale and degree of specialisation in the social science research sector is sufficient to handle the challenges of our time. Are the (smaller) institutes big enough to serve their users, to be able to handle labour turnover and to be economically sustainable? To us it is not clear that the merger movement in the institute sector is sensible, either in geographic terms or in terms of it being likely to generate performance improvements. The challenges which have to be met by Norwegian research institutions because of their participation in larger projects, which is the case both at the national level and in Horizon 2020 may not be solved by creating large institutions alone. Outstanding research groups with a large international network may be innovative and competitive, regardless of their size and institutional affiliation. On the other hand, some of the smaller institutes are clearly sub-scale and this poses risks to their sustainability. Various forms of broader cooperation across the smaller institutes may be explored.

4.6.3 Conclusions

Maintaining a social science institute sector of high quality depends upon aspects of research, institute and regional policies. These should maintain the competence, capacity, and competiveness of the institute sector in all parts of the country.

RCN and the Ministry of Research and Education KD should work together to create a level playing field for competition and cooperation between the higher education and institute sectors. When it comes to counting shared research publications, PhD students and prestigious grants rules should be made clear in order to credit a fair share to each partner. From the institute side, strategic leadership should be exercised in order to reduce the number of longshot applications.

The definition of some institutes as social science institutes may be questioned, since they span both social sciences and engineering. However, there is no easy solution to this question as several of these institutes are quite good at combining social and natural sciences and user involvement.

Some institutes have been making losses in recent years. Their sustainability needs to be discussed, but it is not clear that merging them with universities or with institutes across a geographic distance will improve the situation.

The systematic leakage of senior key competence from parts of the Norwegian institute sector must be addressed, potentially requiring support measures from RCN.

There is too much emphasis on quantitative bibliometric criteria in the system to evaluate research institutions and there is a need to introduce several new qualitative criteria into the reviews of institutions' quality and productivity. Not least is this true for those parts of the institutes operations where standardized measures of quality assurance do not exist. A continuous review of the quality assurance mechanisms used by the institutes may be considered as a means of strengthening quality across the sector for these outputs.

A few institutes largely function as externalised contract research departments for universities. One reason for this may be that the administrative infrastructure is better and less bureaucratic at an independent institute than in a fragmented academic environment. The set up also has historical explanations. The relationship between institutes owned or largely owned by a university and the university in question was not always clear. For the sake of the integrity of the institutes, the division of labour with university ‘owners’ should involve a clearer strategy and division of labour – in addition to close cooperation.

In Norway there has recently been a requirement for restructuring within both the higher education and institute sector, but before current merger processes are completed and evaluated, it would be wrong for RCN to consider bringing more pressure to bear in order to merge institutions. Encouraging mergers in the institute sector could also jeopardize or destroy the specific identity and spirit which is found within the individual institutes. The universities and colleges which are in the midst of merger processes are not likely to be able to absorb research institutes looking for a safe haven. However, more generally, there is an issue of how the institutes relate to higher education institutions located nearby. Universities, colleges and research institutes around Norway should be encouraged to explore various models of cooperation, where independent institutes and/or limited companies could be enrolled together with higher education institutions.

5 Conclusions and recommendations

This chapter presents the panel's conclusions at the level of the social science institute arena as a whole. It goes on to make recommendations to the government, RCN and the institutes as a group. Institute-specific recommendations are provided in the individual institute assessment presented in Chapter 5.

5.1 Conclusions

A key message from this evaluation is that the social science institutes are a national asset. As a group, they are diverse, having a range of different missions and ways of working, ranging from peace and international development through many aspects of welfare, social and other policies to democracy and regional development. The performance of individual institutes varies but collectively they have significant impact on policy at the national, regional and international levels, contributing to social and economic development. These in turn drive differences in characteristics such as the proportion of their effort individual institutes devote to scientific research and their choice of publication channels, to be able to address the needs of various users.

It is clear that in order to fulfil their role as independent, up-to-date knowledge providers at high levels of quality, the institutes must use peer reviewed publication channels as well as others, in order to communicate their findings. The choice of publication channels outside the peer reviewed, scientific literature is not per se evidence that the work in question is of poor quality. The scientific literature in turn includes journals and other channels that are highly practice orientated as well as focusing on the themes that are of interest to the social science institutes. However, the use of peer reviewed communication channels distinguishes the institutes both from the internal analysis departments of government ministries and agencies on the one hand and from the work of the consulting sector on the other. Policy needs to value these specificities, which result from the institutes being tuned to their individual purposes, and to be cautious in the use of 'one size fits all' indicators of performance.

The impact cases, user survey and self-evaluation reports indicate that the institutes are highly relevant to their users, who are primarily public policymakers but also to some degree include business. These comprise many different kinds of users and the characteristics of the individual institutes are largely tuned to the needs of their respective users and the policy areas in which they operate. Many of the institutes communicate well with their constituency but in some cases, more skill and attention is needed in this function. The institutes are respected for their levels of competence. Their users and partners are generally well satisfied with their work. They have a significant influence for the good on social and other policies in Norway and abroad and contribute to social and economic development. The quality of scientific production in the best of the institutes is high enough to place them among the world leaders and many of the remainder work at levels of quality that are good or very good. Inevitably there are also some weaker institutes. It is important to recognise that traditional scientific quality in the institutes' research has an instrumental role in these institutes, whose over-riding function is social development through meeting the knowledge need of users in government, society and industry. At the same time it is important to note that diverse publication profiles reflect different missions, and needs of the users. Hence publication profiles do not necessarily reflect differences in quality.

The institutes make a small but important contribution to PhD training in terms of numbers. Universities and university colleges contribute through organised PhD-training and supervision to considerable competence development within the institute sector. The people trained in this way are likely to be more practice-orientated than other recent PhDs in similar subjects and are therefore probably more adapted to the worlds of policy, business and contract research than people trained only in universities. The institutes are also involved in a symbiosis with the higher education sector where people move from education into the institutes but may eventually return. This has been especially important in the recent development of the newer regional universities but has happened at some cost to the institutes. Thinking about mobility between the two sectors has not been articulated into policy.

The role of the institutes is distinct: it is to generate and help implement knowledge that improves users' practice. An important aspect is not just current research but the fact that the institutes' long-term thematic focus makes them 'knowledge bearers' of history and practice in certain sectors of society. The institute sector is also distinct from the consulting sector, because of the academic ambitions and skills of the institutes. Yet some potentially transformative changes are taking place. This concerns the colleges' increased attention to developing their research capacities; growing expectations that higher education sector should engage more actively in relevance and societal impact; and the rising levels of education and research skill evident in the consulting sector and among key user groups. This means that the institutes' role must evolve. They must increasingly focus on research-based activities related to practice where they have advantages over these two other categories of actors. Their closeness to practice is important even for the small minority of the institutes which operate mostly with grant income and therefore have limited direct exposure to 'users'. It is important that the institutes can develop the funding and operating models that best suit their purposes. Close relations with the universities offer a range of opportunities to support the resulting diversity among the institutes and RCN should support these relations via its funding instruments and polices. Adjunct positions are one way to encourage this but by far the most effective mechanism is cooperation in research projects.

Overall, the institute sector in Norway is growing slowly and more slowly than higher education research. This is a result of the cumulated decisions of the sector ministries that fund sectoral research. These decisions are not coordinated and this lack of coordination is also reflected in limited cooperation among the institutes – both within the social science arena and between members of that arena and other institutes. While RCN is mandated to manage aspects of the institute sector, there is no overall policy for the institute sector as a whole. In the particular case of the regionally anchored institutes in the social science arena, there is a governance deficit in that RCN manages them through national competition and without complementary resources coming from the Ministry of Local Government and Modernisation to address the requirement for them to be regionally present and focused, despite the limited extent of each individual regional market.

The degree of internationalisation of the social science institutes is variable, even though the barriers to internationalisation in the Norwegian research system are low. Less than a handful of the institutes obtain significant income from abroad or are deeply engaged in the European Framework Programme.

In some cases 'owners' are less than clear about what they want from the institutes. some of the institutes owned by universities such as SNF and Uni Research appear to be in rather unequal relationships, in which they see themselves as a junior partner that is disadvantaged – providing flexibility to the universities and a means for them to avoid employment obligations to researchers without involving the institute properly in wider research strategy or in undertaking high-status projects. Others, such as the Møreforsking or NTNU Social Research appear not to find the relationship with their university 'owners' to be problematic in these respects.

Not least, in view of the increasing pressures for change and the competitive need to operate at a high research level, the amount of core funding the institutes receive appears modest. Some of the weaker institutes suffered from leadership problems and difficulties in making strategy and weakness in acquiring sufficient income. In contrast, the strong institutes had clear strategies covering both their users' needs and the way that tackling these related to their wider research strategies. There are problems of critical mass and sustainably, principally among the regionally anchored institutes that cannot be solved through competition alone. A potential solution for them is to bring regional development funding to bear on this group of institutes in addition to RCN-style competitive funding. Some of the welfare and society and internationally orientated institutes are very dependent upon funding from a single ministry, which should take care not to impose short-term cuts in ways that will undermine the continuing provision of research capacity in their sectors.

The growing importance of access to libraries and databases is problematic for some of the institutes, which are small organisations with little money to pay for such overheads. They need a solution that does not impede their ability to do research.

Finally, two issues of method should be raised, in the spirit of learning from the experience of doing this evaluation. RCN kindly commissioned background studies and requested self-evaluations from the institutes before the panel convened. This meant that the panel itself was unable to have much influence over the choice of issue coverage and analyses available to it. It would have been better to convene the panel early, and consider these questions in conjunction with the mandate. The second issue concerns the use of impact statements in such evaluations. These provide useful material about some of the institutes' impact, and the most creative of the institutes are using these impact stories in their communications. However, the use of impact statements in research assessment is at an early stage and can be developed further. Closer specification of the statements could be helpful in any future use (noting the large amount of effort that was needed to introduce such statements into the UK performance-based research funding system that is considered the exemplar in this field).

The recommendations that follow from this analysis are indicated below, divided into recommendations for government, RCN and the institutes as a group. Recommendations for individual institutes are contained in the individual institute assessments in the next Chapter.

5.2 Recommendations to the government

As we indicated in section 5.1 (above), the social science institutes are not only valuable to Norwegian society but also diverse in their foci and ways of working. The diversity has arisen because individual institutes tune their missions to specific needs in society and should be cherished. **The government should continue to invest in the social science institutes.**

The research institute sector performs almost a quarter of Norway's R&D, so its work is important to national performance overall. However, government institute policy is in effect the sum of the policies of the ministries that make use of the institutes. While RCN has responsibility for monitoring the sector and managing its core funding, there is no overall policy for the development of the institute sector.

This takes us to the enduring tensions in the organization and funding of research in Norway that have surfaced also in this evaluation. These are rooted in the practice of the so-called sector principle in Norwegian R&D policy – i.e. each of the ministries in Norway has an overall responsibility for research in and for its specific sector. Accordingly every ministry is responsible for providing and maintaining the knowledge basis and use of research relevant to its sector. This entails a more narrowly delineated responsibility for the ministries and central government agencies' own need for research-based policy advice and informational foundation for policy development and implementation. It also refers to the broader knowledge basis of societal sectors. How this principle is practiced has implications for the funding of user-oriented research relevant to the need of societal sectors, and consequently also for the relationship between ministries and RCN. Obviously, shifts in how this is practiced have consequences for the social science institute sector. It concerns the dialogue between government agencies, ministries and research units and the way in which user needs and policy relevant, research based knowledge are communicated. It concerns how short term research needs versus long term needs are balanced in the research portfolios of each ministry and within research institutes. Moreover it concerns how the need for a specialised knowledge basis for policy is matched with the concern for coordinated research policy that transcends 'sectoral silos' in public governance and fragmentation of research policy[7]. How the sector principle is practiced can in turn also be, directly or indirectly, influenced by changes in the higher education sector. The same goes for the shifts in the extent to which government agencies engage in 'in-house' provision of policy advice and policy relevant knowledge basis or resort to the private – national or international – consultancy or think tank market. The latter is part of the overall changes and reforms in public administration and policy advisory arrangements.

The social science institute sector serves its mission – or rather missions – well. It can build on strong traditions in the Norwegian knowledge system. Several institutes have very successfully cultivated their traditions, adapted to changing circumstances and managed to balance user orientation with scholarly visibility and conduct quality research adjusted to increasingly knowledge intensive environments. This should be valued and cultivated. Other institutions have been less successful.

Taken together these developments signal that the institute sector is at a crossroads. This calls for a comprehensive assessment, based on a broad knowledge foundation, of the interaction between the different elements of the Norwegian knowledge system. This evaluation has detected signs that the very dynamics of the

[7] The fragmentation of Norwegian research policy has been a recurring theme most recently reiterated by the so-called Productivity Commission.

system might be changing. **The government should prepare an NOU that analyses the present and future role of the institute sector and the arenas of which it is comprised, with a discussion of to which degree a national policy for the sector is useful and needed.** This should, inter alia, consider the role and structure of the regionally anchored institutes and the relevance of regional development funding versus competitive grant funding in securing their sustainability. It should review the extent to which sector ministries commission work directly from the institutes, without exposing them to competition. It should consider the intended division of labour between the institutes and the universities, as well as identifying ways to support closer cooperation between the two sectors. It should investigate similarities and differences among the institutes, in order to consider whether the use of a single funding model is appropriate and review the appropriateness of the current criteria and formulae for awarding core funding to institutes. The signals from the social science institutes suggest that they can live with the current rules but that the incentives they offer for development could be improved.

In the short term, it is important that budget cuts within government should not undermine the maintenance of research capacity in key institutes. **During the process of budgeting, ministries should consider their responsibilities for building and maintaining research capacity relevant to their sector of society under the Norwegian sector principle and the role the social science institutes should play in this capacity.**

5.3 Recommendations to RCN

In order to play their important role in the Norwegian research and innovating system, the social science institutes need to build on a strong base of research, at least some of which should be done in-house, and which should be published through peer reviewed publication channels. The best of the institutes demonstrate the synergies between scientific and practice-orientated research, excelling at both. **RCN should continue to operate with the principle that the institutes should maintain a balance between scientifically- and practice-orientated research.**

A second implication is that the institute and higher education sectors comprise complementary parts of an overall state research-performing system. They are bound together via flows of people in both directions and via their use and development of knowledge. **RCN should take measures to encourage greater use of joint and adjunct positions than is the case today.**

The institutes also need access to academic journals, databases, infrastructures and other research resources that are difficult for small organisations like the social science institutes to fund. **RCN should support arrangements that will allow social science institutes this access on the same terms as the universities, preferably via the universities and institutes sharing access.**

The principles that underlie RCN's institute funding model are by and large good ones, namely: the importance of research capacity building, the need for interplay between high quality science- and practice-orientated research, the integration of PhD training into institutes' work and the idea that international exposure is good for research. However, there are some issues that need to be handled in transforming these principles into a practice appropriate to the social science institutes and it is not clear that such a single set of principles adequately treats the variety among the social science research institutes.

While RCN's criteria for granting core funding are clear, they are not always enforced. **RCN should issue formal warnings to institutes that fail to satisfy its core funding criteria and advise KD to eject them from the arrangement after a third consecutive year of failing to meet them.**

RCN should consider how to refine its definitions of competitively awarded grant-funded versus commissioned work, since the content of these often overlaps. While some ministries continue directly to commission research outside competitive channels other public and private actors channel their user oriented research funding via RCN.

A broader question is whether the social science institute arena should be funded in the same way as the other three. The social science institutes are on average small and are more focused on scientific research and RCN funding than those in the other arenas. Further, the distinction made in the natural sciences and engineering between basic and applied research is less clear cut in the social sciences. **RCN should consider whether funding principles relevant to natural sciences and engineering should also be applied to the social science institutes.**

Both RCN and individual institutes have observed that few people from the institute sector sit on RCN governing boards or scientific committees. While the principle is clear that members of those committees should sit in a personal capacity and not as representatives of their organisation or their sector, RCN has decided that the number of people on these committees who come from the institute sector should be increased, in order to broaden the perspectives available to them in taking decisions. **RCN should ensure that the intention to increase the presence of people from the institutes in its governing and scientific committees is followed through.**

The panel noted that the present evaluation will be followed by a field evaluation of social science. Owing to their cross—disciplinary presence, some of the social science institutes have also been involved in other recent evaluations. **RCN should take care to programme and coordinate its evaluations in such a way as to minimise the evaluation overhead borne by the social science institutes.**

The large-scale use of case studies as a technique for evaluating the societal impact of research is promising but is at an early stage. While the cases provided by some of the institutes addressed in this evaluation were informative and insightful, the degree of effort devoted to the cases and the priority different institutes attached to them varies considerably. Equally, methods for consistently assessing such cases are still immature. **RCN should continue to develop the idea of using cases on societal impact assessment and adjusting it to the realities of conducting and using social science research.**

5.4 Recommendations to the institutes

The importance of maintaining a strong research base to fulfilling the mission of the social science institutes means that maintaining and developing each institute's capabilities must be central to its work. The institutes need to be active both within their respective research communities and with their users. They should actively seek to deepen and maintain their links with the higher education sector and with other institutes. The strongest of the institutes evaluated show clearly that there is no contradiction between doing high-quality scientific research and high-quality user-oriented work. These strong institutes also provide good examples of communicating the results of research, both to potential users and to society more widely, both nationally and internationally.

All research benefits from strong internal quality control procedures. In practice, the effectiveness and coverage of these procedure are variable: in some cases they are strong but in others there is room for improvement. There are opportunities to use internal and external peer review in quality control and in many cases that control system can be informed by bibliometrics. Good leadership and sound strategy formulation are also keys to institutes' success. These also varied, from some examples of very good practice to other, weaker examples.

The institutes should consider developing an internal benchmarking and training network to spread the use of good practice. In this, they could seek support from Forskningsinstituttenes fellesarena (FFA), RCN or both.

The social science institutes vary in the extent to which they can commission enough projects to maintain their break-even target. In part, this variation is a function of the different markets in which they operate. However, good strategy and leadership are in almost all cases necessary in order to develop operations according to needs as well as to achieve financial targets. It is difficult for good leaders to be effective unless governance is also good. Some institute 'owners' need to be more explicit about their expectations of their institutes, their connection to the owners as users and – in the case of institutes owned or partly owned by universities – about the principles involved in the division of labour between the institute and the university. **'Owners' and members of the governance structures of the institutes should to a greater degree adopt clearer governance**

principles and where relevant establish the basis of the division of labour between the institute and its owner.

While it can be difficult, especially in smaller institutes that struggle to maintain the needed turnover, to maintain a role in PhD training, doing so provides important support for the institute's scientific research function as well as developing people well suited to becoming institute researchers. Where close relations are maintained with universities, the institutes can also usefully contribute to masters-level education. **Institutes should prioritise participation in post-graduate education and training as part of wider relationships with the higher education sector.**

International networks bring positive effects to their members in terms of access to the research frontier, skills, wider opportunities for division of labour and partnership than are available at the national level and exposure to international comparative research and to competition. **Where possible, the social science institutes should aim to maintain a productive level of international networking and participation in international research projects. The precise degree to which this participation should be sought varies with the character and mission of the individual institute, but some degree of international involvement is desirable for all institutes.**

6 Evaluations of individual institutes

6.1 Internationally orientated institutes

6.1.1 Chr. Michelsens Institutt (CMI)

Chr. Michelsen Institute (Chr. Michelsens Institutt)

Established	1930	**Research areas/departments**	Aid Anti-corruption Conflict and security Gender Governance Health Natural resources Poverty Rights, Tax and public finance
Organisational form	Foundation		
Owners	N/A		

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	80.7	93.8	93.0
Core funding	18.1%	15.9%	16.2%
Management	-	-	-
RCN contribution	33.6%	25.0%	32.9%
Other Norwegian contribution	18.8%	27.8%	17.6%
Norwegian commission income			
Public administration	8.8%	9.8%	8.9%
Business	1.4%	0.8%	-
Other	0.2%	2.1%	1.4%
International income			
EU funding	-	-	0.1%
Business	-	0.9%	-
Other	18.9%	17.5%	22.5%
Other income	0.2%	0.2%	0.4%
Operating result million NOK	1.4	2.8	-0.8
Equity million NOK	21.2	23.9	22.2

Personnel	**2013**	**2014**	**2015**
Total FTEs	62.0	59.0	60.2
Researcher FTEs	46.0	45.0	46.3
Of which women	17.0	19.0	19.6
Researchers per total FTE	74%	76%	77%
PhDs per researcher FTE	65%	78%	69%
Resignations per researcher FTE	7%	9%	9%
Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	1.29	1.21	0.86
Total number of publications 2013-2015**			146
Share level 2 publications**			53%
Total number of publications 2013-2015 per researcher FTE***			3.2
Number of PhD students	4	2	2
Number of awarded PhD degrees	4	2	2
Of which women	4	1	-
Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	34%	25%	27%
Share RCN + EU funding	55%	56%	54%
Publication points per researcher FTE*	1.22	1.15	1.12
Total FTEs	46	45	46

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

CMI is the oldest of the social science institutes, having been established in 1930, and has a mission to contribute to international development. It currently has some 60 employees.

Relevance of the institute to its intended users

CMI has a clear mission that has led it to generate and sustain strong links to its users and partners both in Norway and internationally. It has a keen understanding of both the scientific and the use issues and appears to be working with those research questions that are at the forefront of international development, as well as more classical themes. It enjoys a high degree of user satisfaction. The ability to maintain an understanding of user needs and to satisfy them is impressive and has been maintained despite variations in focus over time both at the Ministry of Foreign Affairs (UD) and the Norwegian embassies, with which CMI often works. Despite growing competence among its funders, the institute is a longer-term 'knowledge-bearer' for the Norwegian system in relation to development research.

The institute's capability and the quality of its research outputs
The institute clearly has strong, if perhaps a little fragmented, research capabilities, covering a broad spectrum of relevant research areas in its field. The focus on practice means that there is a limit to how high it can rank in bibliometric terms against others with a greater basic research focus, but this is a level of performance that we would expect of a other world-leading institute of CMI's type. CMI is a strong player in commissioned work and evaluations and appears to be very well respected more generally. It experiences a high level of loyalty among its funders. These things together with the high reported impact suggest a strong standard in the commissioned activities, though we have not been able to see any commissioned work directly.

The institute's ability to recruit, retain and develop the careers of researchers
CMI gets a strong inflow of young researchers from the Bergen milieu, which it needs to socialise into being able to do commissioned work as well as self-initiated research. It can also recruit young foreigners but it is harder to get more senior people from outside Bergen. There has been a trend towards hiring more people from abroad but these are primarily at post-doc level. Co-location with UiB and involvement with an SFF centre means that CMI can draw on a pool of people in some areas that goes beyond the institute itself.

CMI involves local students from the Masters level; it also extends PhD training by one year to four years, in order to expose potential recruits to the demands in the market for commissioned work in addition to the requirements of research.

Role of the institute in the Norwegian research structure
CMI is very clear about its positioning and the need to continue to improve on both quality and use dimensions – it occupies a distinct position in relation to both the universities and consultants. It has a clear role in the thematic division of labour among the institutes.

Spatial reach of the institute's collaborations
CMI has very strong global networks and cooperates with leading organisations in the North as well as with those in the South, especially in places where Norwegian policy has been to support capacity building.

Social and economic impact of the institute's activities
CMI provided impact cases that show strong impact both at the level of individual projects and in the form of institutionalised effects, for example through its anti-corruption centres. It has contributed to building significant research capacity in the South and been a major influence on policies in African countries, for example in the field of taxation. One reason for CMI's powerful impact is the care it takes to communicate its results in channels appropriate to policymakers in both North and South and to the general public.

Quality and realism of the institute's strategy
CMI is in the process of using a wide internal consultation to update its strategy. It is usefully specific about the actions it is taking in order to realise its goal of further increasing both the academic quality and the user orientation of its work. It is paying careful attention to its choice of themes – partly internally and partly in conjunction with the wider milieu in Bergen – so as to maintain critical mass and focus. CMI is clear about where it needs to improve and makes careful use of its core funding in support of capacity building and strategic development. Strengthening the broader milieu in Bergen is a key plank in the institute's strategy, which is to be realised in combination with UiB and NHH.

Appropriateness of the framework conditions to the institute's mission
The two biggest challenges the institute perceives in its framework conditions are: 1) Lack of continuity and reduced volume of research funding for development research through the RCN; and 2) Reduced volume of commissioned research from the Ministry of Foreign Affairs and Norad. These challenges are both linked to unclear policies on how to develop and utilise research-based knowledge and research in Norwegian development policy. The lack of dialogue with the Ministry of Foreign Affairs UD in recent years as a result of

increasingly formal procurement processes seems problematic, though CMI is working to restore this relationship. There is a need to tidy up the definitions of ‘commissioned’ work in RCN’s conditions for core funding, since important parts of ministry funding in practice belong to this category but are not classified as such by RCN.

Recommendations

CMI appears very well run and should serve as an exemplar to others in the areas of maintaining tight links with users, communications and an inclusive strategy formulation process. It should continue its efforts further to increase its communication with users and to increase its outputs in the scientific literature.

6.1.2 Fridtjof Nansens Institutt (FNI)

Fridtjof Nansen Institute (Fridtjof Nansens Institutt)			
Established	1948	**Research areas/departments**	Global environmental governance and law Climate change Law of the Sea and marine affairs Biodiversity and genetic resources Polar and Russian politics European energy and environment Chinese energy and environment
Organisational form	Foundation		
Owners	N/A		

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	35.2	37.3	39.9
Core funding	23.6%	22.1%	20.4%
Management	-	-	-
RCN contribution	59.9%	55.8%	65.0%
Other Norwegian contribution	6.8%	11.2%	7.8%
Norwegian commission income			
Public administration	0.2%	2.0%	0.9%
Business	1.3%	0.8%	1.6%
Other	0.7%	-	-
International income			
EU funding	-	-	-
Business	0.6%	-	-
Other	6.7%	7.8%	4.1%
Other income	0.2%	0.2%	0.2%
Operating result million NOK	-0.3	-0.1	0.4
Equity million NOK	9.5	9.9	10.6

Personnel	**2013**	**2014**	**2015**
Total FTEs	29.2	29.3	27.0
Researcher FTEs	23.9	24.0	21.8
Of which women	7.1	6.7	5.8
Researchers per total FTE	82%	82%	81%
PhDs per researcher FTE	50%	46%	55%
Resignations per researcher FTE	13%	8%	-
Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	2.99	2.91	2.86
Total number of publications 2013-2015**			177
Share level 2 publications**			53%
Total number of publications 2013-2015 per researcher FTE***			7.6
Number of PhD students	4	6	6
Number of awarded PhD degrees	4	-	-
Of which women	-	-	-
Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	7%	5%	6%
Share RCN + EU funding	70%	67%	68%
Publication points per researcher FTE*	1.83	2.50	2.92
Total FTEs	24	24	22

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

FNI (the Fridtjof Nansen Institute) was established in 1958 to conduct research in the fields where Fridtjof Nansen himself had worked and to maintain and use his estate at Polhøgda The institute is still based there and has a staff of about 35. Its main disciplinary focus is on political science and law, but it also works in other social sciences. Thematically, its research addresses international environmental, energy and resource management policy and law. FNI maintains small teams of Russia and China specialists.

Relevance of the institute to its intended users

FNI's work is highly relevant to the formulation of Norwegian policy through the provision of specialised knowledge. It is also important to those parts of business to which the Russian policy dimension is important.

FNI follows a niche strategy: it believes that its ability to be relevant to both Norwegian and international users depends upon maintaining an excellent knowledge base in its specialised areas and therefore aims to develop further within these. It regards academic publishing and policy oriented work as interdependent. FNI researchers additionally publish popular books in order to disseminate to a broader public. The institute has a newsletter and arranges regular open seminars – including the 'Polhøgda seminars' – with specially invited guests. FNI researchers also appear frequently in the media.

The institute's capability and quality

FNI researchers generate a significant number of publications in prestigious journals. The institute has internal routines that focus on the generation of academic quality, such as internal seminars and internal processes of peer reviewing research applications and publications. The high academic quality also builds on the institute's close links to University of Oslo as well as to a number of international research groups and personal links with researchers at the other Norwegian international institutes.

FNI has a clear social science profile. This expertise combined with cultural and language expertise concerning Russia and China is unique and much needed in the policy areas where the work is focused. FNI has a history of interdisciplinary work within the social sciences and this has been extended to collaboration with natural scientists. This was partly been triggered by opportunities in RCN's action-oriented programmes and has brought a new strength in the institute.

RCN is the main source of research funding. There is little EU funding or funding from specific commissioned assignments. The funding from the Norwegian research council ranges from clear academic independent research to more applied research of direct relevance in specific policy areas. However, FNI's ambition is to increase the share of commissioned funding, nationally and internationally.

The institute's ability to recruit, retain and develop the careers of researchers

FNI benefits from a good supply of qualified candidates for research position in all its specialized areas. This is true for newly examined PhDs as well as more senior researchers. FNI's strategy is to offer almost only permanent positions, providing attractive employment conditions. The legal form of the institute allows flexible and quick recruitment processes, where the institute can identify and handpick talented individuals.

The size of FNI's premises limits the number of people it can employ while at the same time maintaining space for a continuous flow of guest researchers. FNI maintains a culture of internal collaboration, interaction and cooperation among staff right across the organisation. This allows researchers to develop each individual theme based on specialized excellence while at the same time use synergies across groups and themes.

The role of the institute in the Norwegian research structure

There is a clear division of labour between FNI and the other international institutes. FNI researchers are highly specialized and occupy a very particular and internationally-orientated niche of considerable strategic importance for Norwegian society and business. The strategy includes an ambition further to bridge across fields and to neighbouring research and policy fields without compromising with the need for highly specialized targeted competence in the core areas of policy and research where FNI is well established.

Spatial reach of the institute's collaboration

While FNI's permanent staff consists almost entirely of Norwegians, their visitor programme and international contacts and collaborations make it a highly international research setting. FNI gets little EU funding and there is scope to undertake more study work for international organisations. FNI's strategy further to develop areas of excellent capability may benefit from a wider network and participation in large, international projects.

Social and economic impact of the institute's activities

FNI clearly has significant impact on Norwegian and to some extent also international policy. Its relevance for Norwegian policy is reflected in a framework agreement on polar policy set up in 2015 with the Ministry of Foreign Affairs. The two case studies – concerning Norwegian policy on Russia and access and rights to generic resources - included in the institute's self-assessment clearly demonstrate the character of its impact, where fundamental research is combined with well-developed cultural, political and language knowledge and a focus on specific policy issues. The impact is both general and specific, affecting society at large, foreign policy and Norwegian business. It does not lend itself to simple financial measures of economic and social impact.

Quality and realism of the institute's strategy

FNI has a well-developed strategy for developing its research and thematic capabilities. It is well run, has a strong governance model and financial performance and makes good use of core funding to maintain and develop its human and intellectual capabilities. Its strategy could further be developed in relation to international partnerships and a more systematic way to reflect upon and document impact.

Appropriateness of the framework conditions to the institute's mission

Core funding arrangements appear satisfactory for FNI. RCN's focus on including PhD stipends in grants is a benefit in so far as this generates research income but can on the other hand at times be in conflict with FNI's needs as inclusion of a PhD is not always essential for the research.

While the requirements of more interdisciplinary programmes – including social science as well as natural science – has encouraged FNI to develop useful relations with the natural sciences, there is nonetheless a need for more specialised social science research and policy development. FNI is concerned that RCN should not always require interdisciplinarity but instead require it only where it is relevant to the research or policy task at hand. Some funders are reluctant to classify work as commissioned because this makes it liable for value-added tax (VAT). FNI argues that this leads to misreporting and makes it harder to satisfy RCN's requirement for a minimum level of this kind of funding among institutes that are to receive core funding. RCN's core funding requirements must support an integrated approach to both grant-funded and user-driven R&D.

FNI suggests that there could be benefits from establishing a closer relationship with UiO in areas such as journal/library access and access to other national and international research groups, strengthening its hand in applications for EU-funding.

Recommendations

The institute's strategy to increase its relevance further by focusing on excellence in specialised areas is well founded. Continuous dialogue with the policy level would further increase the relevance of the institute's work.

Given that FNI's international funding is rather limited, its strategy would benefit from a wider network and participation in large, international projects.

FNI has identified a need to be more visible in the media and has hired a communications specialist. Broader communication through the media is one element in influencing policy but needs to become part of a more systematic effort to interact with citizens, policymakers and other societal actors including business.

6.1.3 Norsk utenrikspolitisk institutt (NUPI)

Norwegian Institute of International Affairs (NUPI) (Norsk Utenrikspolitisk Institutt)

Established	1959	Established by Norwegian Parliament	**Research areas/departments**	War and peace Economy and development Diplomacy and global governance
Organisational form	State body under Ministry of Education and Research			
Owners	N/A			

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	79.7	89.1	102.2
Core funding	20.9%	15.1%	16.0%
Management	5.4%	5.0%	5.4%
RCN contribution	17.2%	21.2%	23.4%
Other Norwegian contribution	31.4%	39.7%	39.8%
Norwegian commission income			
Public administration	16.4%	11.8%	12.2%
Business	5.5%	3.5%	1.3%
Other	-	-	-
International income			
EU funding	1.6%	1.5%	0.4%
Business	-	-	-
Other	1.3%	2.0%	1.4%
Other income	0.1%	0.1%	0.1%
Operating result million NOK	0.05	0.05	0.02
Equity million NOK	5.3	5.3	5.3

Personnel	**2013**	**2014**	**2015**
Total FTEs	65.0	63.0	66.0
Researcher FTEs	44.0	45.0	50.0
Of which women	15.0	16.0	20.0
Researchers per total FTE	68%	71%	76%
PhDs per researcher FTE	59%	64%	60%
Resignations per researcher FTE	5%	4%	12%

Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	2.04	1.98	2.77
Total number of publications 2013-2015**			284
Share level 2 publications**			39%
Total number of publications 2013-2015 per researcher FTE***			6.1
Number of PhD students	10	7	6
Number of awarded PhD degrees	3	4	2
Of which women	2	3	-

Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	54%	26%	14%
Share RCN + EU funding	45%	50%	63%
Publication points per researcher FTE*	2.41	2.23	2.28
Total FTEs	44	45	50

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

NUPI was set up in 1959 and is a state body under the Ministry of Education and Research, focusing on a broad spectre of International relations, such as security and peace, economic development, diplomacy and global governance and area studies. It currently has some 66 employees.

Relevance of the institute to its intended users

The work of the institute is highly relevant for Norwegian foreign, defence and security policies as well as foreign policy more generally. NUPI is relevant to the national public sector, but also to large companies and its work is in strong demand. NUPI also plays an important role in disseminating its research results to broader groups within society.

The institute’s capability and the quality of its research outputs

Its research output, impact and dissemination indicate that NUPI shows work is of high overall quality. It is one of the three institutes in the social science group that publishes most in the scientific literature and has a clear strategy for further increasing the number of level 2 publications it produces. It is very competitive and appears to be among the international leaders within its field and maintains what it sees as a balance between basic and user-oriented research. Its researchers are required to operate well in both modes, creating synergies between them. NUPI benefits from having a formalised quality assurance system and monitors user satisfaction.

NUPI puts a lot of emphasis on solid academic research, rather than only a practical and specifically user-orientated level, being less active in evaluations and other commissioned work than many of the other institutes.

The institute's ability to recruit, retain and develop the careers of researchers
NUPI experiences few problems in recruitment and has ambitious programmes for recruitment and career development of both Norwegian and international staff. Almost all of the senior researchers hold a Ph.D.-degree. 40% of the researchers are women. It recruits seniors and juniors taking part in NUPIs PhD training. It makes a significant contribution to PhD education not only in Norway but also at universities abroad. The institute experiences very little loss of personnel to other institutes in Norway but has lost staff to internationally recognised institutions in Europe and the USA, which is testimony to their high quality.

NUPI is careful to organise in research groups with enough critical mass to be sustainable and to tune its development of people to that end, while maintaining a breadth of skill that allows individuals to work across different research groups. This is a good approach.

Role of the institute in the Norwegian research structure
NUPI has a well-defined role in the Norwegian system and a recognised position abroad.

Spatial reach of the institute's collaborations
NUPI has highly respected international partners and collaborates with international as well as national partners in most projects. In the past, EU and other foreign funding has been very low, but NUPIs new strategy now strongly prioritises EU programme participation and NUPI now has two H2020 projects, one of which it coordinates.

Social and economic impact of the institute's activities
The impact of Norwegian international relations and foreign and defence policy research on policy has been – and is – strong and significant. It also has significant impact on the public debate and the institute plays a very active role in disseminating its work, often in innovative ways.

NUPI obtains almost 40% of its income from RCN through core funding and projects and about the same directly from ministries, mainly the Ministry of Foreign Affairs UD, leaving only limited room for commissioned work. NUPI aims to diversify its sources of income in order to reduce its dependence upon on single sources. The revenues from business are limited, but while NUPI does little work directly for business, its work remains important to the conduct of Norwegian business abroad.

Quality and realism of the institute's strategy
NUPI has a well-considered and ambitious strategy with innovative elements that include the use of round-table meetings and seminars with foreign researchers. The management is aware of which leadership strategies and approaches to apply in order to fulfil the strategy. Some of the innovative parts are Masterclasses inviting international top-researchers to 2-3 days working seminars with NUPI-researcher, NUPI skill school, publication seminar and writing courses, narrowing casting (special target arrangements and roundtable talks) and NUPI Policy Briefs as well as a NUPI You Tube channel.

Through the strategy NUPI aims at increasing (and maintaining) publication output while also ensuring quality in its internal processes, in part through external consultancy support. It makes carefully considered use of core funding for capacity building.

Appropriateness of the framework conditions to the institute's mission
NUPI has relatively high core funding from RCN (16% compared to a 12% average). Most of its ministry income is from UD, rather than NUPI's owner KD, which appears odd in the context of the Norwegian sector principle and makes the strategic dialogue between NUPI and the two ministries more difficult. The fact that UD funding is not counted as commissioned income in the RCN Basic funding revenue scheme is a distortion in relation to the core funding assessment criteria, as much of this work has more the character of commissioned than grant-

funded work. NUPI argues that RCN programmes sometimes do not keep up with changes in research needs in its fields and suggests that RCN should coordinate better with the research-performing organisations to maintain an up to date agenda. However, NUPI has had quite some successes in open RCN calls (FRIPRO, TOPPFORSK, and SFF). In addition, NUPI would like to get better financing for contributing to Ph.D.-education.

NUPI emphasizes that there are multiple evaluations going on that are relevant to its work and seeks better coordination of these by the authorities.

Recommendations
NUPI is a successful institute of high quality. It seems to be run very professionally by the management. It is innovative and ambitious and addresses its challenges in a systematic manner. Its users are relatively content. NUPI should continue to work with and develop its existing strategy.

6.1.4 Institutt for fredsforskning (PRIO)

Peace Research Institute Oslo (PRIO)			
Established	1966	Established by the Institute for Social Research in 1959	**Research areas/departments**
Organisational form	Foundation		Business and Peace Civilians in Conflict Conflict Patterns Gender Governance Humanitarianism Law and Ethics Media Migration Non-state Conflict Actors Peacebuilding Regions and Powers Religion Security Urbanization and Environment
Owners	N/A		

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	93.0	115.8	123.1
Core funding	16.4%	13.9%	13.6%
Management	-	-	-
RCN contribution	35.9%	38.6%	41.0%
Other Norwegian contribution	24.0%	26.9%	22.0%
Norwegian commission income			
Public administration	2.9%	1.5%	1.5%
Business	0.5%	0.1%	-
Other	1.0%	1.0%	0.8%
International income			
EU funding	8.0%	6.7%	4.9%
Business	6.8%	7.6%	6.4%
Other	4.5%	3.7%	9.9%
Other income	-	0.0%	-
Operating result million NOK	3.7	16.1	8.7
Equity million NOK	48.1	60.9	71.3

Personnel	**2013**	**2014**	**2015**
Total FTEs	68.0	71.7	71.7
Researcher FTEs	49.1	53.6	53.8
Of which women	24.6	29.4	30.0
Researchers per total FTE	72%	75%	75%
PhDs per researcher FTE	55%	71%	67%
Resignations per researcher FTE	2%	9%	7%
Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	2.29	2.13	2.55
Total number of publications 2013-2015**			303
Share level 2 publications**			43%
Total number of publications 2013-2015 per researcher FTE***			5.8
Number of PhD students	27	27	23
Number of awarded PhD degrees	2	8	3
Of which women	1	3	2
Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	37%	20%	14%
Share RCN + EU funding	59%	63%	70%
Publication points per researcher FTE*	2.41	2.28	2.33
Total FTEs	49	54	54

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

PRIO is an internationally well-established institute with a history dating back to 1959. Its mandate is to drive the knowledge agenda on peace and conflict by conducting research on the conditions for peaceful relations among states, groups and people. It currently has a staff of about 70 employees.

Relevance of the institute to its intended users

PRIO has a broad and global set of users, including the Ministries of Foreign Affairs and Defence at the national level, European and International organisations, NGOS and INGOs, and local partners in conflict hotspots. To enhance its relevance, PRIO strives to undertake commissioned research as 'cooperative partnerships' and engage in continuous dialogue to ensure the best possible inputs to user needs.

The institute's commitment to, and success in, pursuing excellence is not always recognized in Norway. However, the ability to establish a high level of synergy between basic and policy-relevant research is exactly what makes PRIO an institute with high relevance to its intended national and internal users. There might even be scope for enhancing relevance for the regional public and business sectors in areas such as migration, business & peace and the environment.

The institute's capability and quality
PRIO maintains a strong scientific publication output in addition to its considerable flow of studies and reports. It owns two international peer-reviewed journals and houses two others, some of which are world leading. It has a clear communications and outreach strategy, integrating a communications dimension into most of its work. Policy briefs, newsletters, blogs, conferences, seminars and workshops are other important outlets for PRIO generated knowledge. Together this diversified communication strategy ensures outreach to the international research community, stakeholders, and the general public.

Commissioned studies account for less than 25% of turnover, which is low compared with many other institutes, though much of its income from Norwegian ministries is effectively commissioned work (but not categorized as such).

The institute's ability to recruit, retain and develop the careers of researchers
Despite some challenges related to pressure to secure funds and cultivate job security, PRIO appears to be a very attractive working environment and to experience no meaningful recruitment or retention difficulties at any level. An agreement on closer collaboration with UiO – aimed to further strengthen Oslo's position as the hub for a globally leading milieu for research in peace and conflict - includes greater use of joint PhD positions as well as Professors 2. PRIO contributes substantially to PhD education through the joint Research School on Peace and Conflict – a collaboration with UiO and NTNU - based at PRIO. In order to foster encompassing experience based reflections within, PRIO has established two researcher networks, one on Field Work and one on Theory.

Career development is organised within and across the institute's various research groups that function as forums for discussing theory and methods as well as providing quality control on work-in-progress and funding applications. Core funding is partly used for training to maintain high standards among the staff, such as writing skills, proposal development as well as communication and outreach capabilities.

The role of the institute in the Norwegian research structure
PRIO has a clear and distinct role in the national division of labour and has developed a very strong brand internationally. It has developed strategic alliances with universities and other research/policy institutes in the areas of research, commissioned work and teaching, including PhD training and supervision.

Spatial reach of the institute's collaboration
PRIO maintains a strong network of international relationships, not only with renowned foreign research institutions but also with high-level international policy fora. A significant proportion of PRIO's international collaboration involves institutions in the global South.

Social and economic impact of the institute's activities
PRIO demonstrates how academic excellence can be necessary to have a meaningful impact on society. The institute produced an outstanding set of six impact cases, having integrated the production of the cases into an internal organisational development project in order to further strengthen its research communication. In the impact case 'Conflict is development in reverse', PRIO has analysed the effects of armed conflict on human and economic development and managed to influence the United Nations' and the World Bank's analyses and policies. PRIO researchers have further expanded this work to develop indicators for the UN's sustainable development goals. The second impact case shows how PRIO has managed to shape policy and public debate about conflict by using conflict data able to forecast under which conditions conflict is becoming more or less likely. PRIO data are extensively used in e.g. the yearly 'Human Security' and 'World Development' Reports. The third case provides evidence that PRIO, through establishing itself as the leading provider of empirical research on the environment and armed conflict, has become an important partner to global institutions like the UN. A

fourth case on 'Placing gender on the peace and security agenda' shows direct impact through the provision of drafts and background data for Norwegian government documents and policy officials, as well as extensive training of policy makers, practitioners and civil society groups. The additional impact cases on 'Migrants' transnational engagement' and 'Setting the agenda for societal security in Europe' give evidence of similar high impacts. Together, the cases clearly show how social and economic impact comes about and the extent to which impact often goes beyond what can be quantified. Occasional impact analysis appears now to form part of PRIO's long-term institutional management and development strategy.

Quality and realism of the institute's strategy

PRIO's strategy is well developed, with a clear sense of who the user groups are and what their needs might be. The strategy encompasses development of new research initiatives, ways further to exploit synergies across communication channels and audiences, ways to pursue the highest standards in academic publishing while at the same time inspiring public discourse, informing debate, and challenging established 'truths'. To maintain an attractive working environment and secure a robust financial base, expanded strategic collaboration with one or more Norwegian universities is also included in PRIOs 2014-17 strategy.

Maintaining the high quality of research support functions needed such as the library is expensive. For this reason, as well as to strengthen the role and visibility of the City of Oslo as a global hub for knowledge about peace, the strategy of creating a closer relationship with UiO is important. In general, flexible framework conditions are necessary in order to enable this kind of relationship.

Appropriateness of the framework conditions to the institute's mission

PRIOs core grant remained fairly stable from approximately 14% in 2015 of the institute's income to 15% in 2016. PRIO argues that it should ideally be one third of turnover. PRIO finds RCN's use of commissioned research as a proxy for user impact in its conditions for core funding inappropriate to its type of organization, which is distinct from the technical-industrial institutes. Formally, PRIO falls below the commissioned research threshold for receiving core funding. In practice, several commissioning entities outside the state channel funds through RCN, suggesting that this criterion could be interpreted flexibly.

PRIO points out that it is prevented from using the core grant to subsidise projects funded by 'for profit' actors, or for commissioned research, even though the framework conditions for these grants not always support PRIO's full-cost budget model. This impedes PRIO's goal of building up a level of accumulated capital and represents a comparative disadvantage when competing with University and College actors.

PRIO believes that current procurement practices in Norway are at risk of hampering meaningful dialogue between PRIO and its state customers. The quest for greater transparency in procurement is undermining established relationships of trust, preventing dialogue between users and suppliers. PRIO believes there are ways to ensure transparency without compromising constructive user-supplier relationships, and has been pushing for the use of resourced framework contracts in which there is a regular dialogue mechanism, as a way to overcome this kind of problem.

Recommendations

PRIO is in many respects an exemplar among the institutes, whose practices in quality assurance, human resources development, communications and analysis of impact could usefully be imitated in other institutes.

This type of strong performer always runs a risk of resting on its laurels. PRIO should continue actively to seek feedback and criticism from both researchers and commissioners of its work.

6.2 Welfare and society institutes

6.2.1 Forskningsstiftelsen Fafo (Fafo)

Fafo							
Established	1982	Founded by the Norwegian Confederation of Trade Unions (LO), converted to foundation 1993		**Research areas/departments**	Labour relations and labour market Rights and security Migration, integration and skills Welfare and living conditions		
Organisational form	Foundation						
Owners	N/A						

Economy	**2013**	**2014**	**2015**	**Personnel**	**2013**	**2014**	**2015**
Operating revenue million NOK	127.5	121.4	118.2	Total FTEs	93.0	78.8	73.7
Core funding	12.0%	13.0%	14.6%	Researcher FTEs	80.0	67.3	62.2
Management	-	-	-	Of which women	65.0	62.0	60.0
RCN contribution	15.8%	19.5%	17.2%	Researchers per total FTE	86%	85%	84%
Other Norwegian contribution	6.6%	6.2%	7.1%	PhDs per researcher FTE	41%	34%	39%
Norwegian commission income				Resignations per researcher FTE	8%	21%	5%
Public administration	25.2%	26.6%	28.7%	**Outcome**	**2013**	**2014**	**2015**
Business	18.8%	23.6%	25.0%	Publication points per researcher FTE*	0.66	0.79	0.89
Other	-	-	-	Total number of publications 2013-2015**			160
International income				Share level 2 publications**			28%
EU funding	0.2%	0.5%	1.9%	Total number of publications 2013-2015 per researcher FTE***			2.3
Business	0.0%	3.8%	0.4%	Number of PhD students	14	14	13
Other	9.5%	5.8%	3.2%	Number of awarded PhD degrees	4	-	2
Other income	11.9%	1.0%	1.8%	Of which women	2	-	2
Operating result million NOK	-1.3	-0.2	0.0	**Core funding criteria**	**2013**	**2014**	**2015**
Equity million NOK	58.3	58.3	58.7	Share commission funding	62%	57%	55%
				Share RCN + EU funding	29%	30%	31%
				Publication points per researcher FTE*	0.73	0.80	0.77
				Total FTEs	80	67	62

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

Fafo was founded by the Norwegian Confederation of Trade Unions LO with a very applied mission to deliver research based knowledge about labour relations, work life, and welfare policies to central decision makers. Fafo was in 1993 reorganised with an independent legal status as a research foundation, with a board consisting of representative from both labour, business and the state. From the beginning, Fafo has provided commissioned research to a variety of actors across a growing number of research areas. Its current employment is just under 75.

Relevance of the institute to its intended users

Fafo maintains a broad front of communication to stakeholders at the national level. Fafo has also been engaged in international research since 1990, and has a “global” approach to issues of welfare, migration, labour, development etc. It has managed to adapt its research portfolio to changing demands for research-based advice.

The relevance of Fafo to a broad array of users is well documented by the impact cases submitted with the institute’s self-assessment, and by the vast programme of popular dissemination and policy support activities carried out by the institute. Since its establishment, Fafo has significantly increased its research activities both when it comes to commissioned research and research funded by the research council. A comparatively high proportion of its turnover is gained from commissioned research.

The institute's capability and quality

Fafo produces a large volume of strong outputs directed to users of its results but is aware of the challenges it faces in raising the quality and volume of its scientific output. The average NPI points per FTE achieved by the institute is close to the average within the group of social and welfare oriented research institutes. There seems to be a potential for increasing significantly the volume and quality of academic outputs without compromising the proximity to practice and empirical orientation of the institute. The institute is working to achieve a higher level of scientific production and is using a mix of internal incentive schemes and core funding to accomplish this objective, which involves something of a culture change. Significantly, the activities of Fafo demonstrate that high quality in policy-relevant activities and high quality in scientific production are not conflicting aims, but can be considered mutually dependent and equally important concerns. Fafo introduced a stricter system of quality monitoring and control in 2015, which is useful in addressing this combined need.

The institute's ability to recruit, retain and develop the careers of researchers

Fafo appears to be an attractive place to work and in general has no major difficulties in attracting applicants to open positions. It does however have trouble in recruiting (especially PhDs) in certain research specialisations (especially candidates with a PhD in industrial relations). Fafo offers permanent positions only, which makes security high and labour turnover low. As an institute that conducts both applied and academic research Fafo pursues several goals. It needs a clear strategy to strengthen the formal skills and competences of the staff. While the overall performance of the institute is indicative of high skills among its staff in general, the institute should aim to strengthen the relative proportion of PhDs in the composition of the group.

Role of the institute in the Norwegian research structure

The institute has a unique role in the Norwegian research system with many responsibilities towards national authorities. Its long-standing role as well as its size means that it has both capabilities and networks that allow the institute to keep up to date with the issues it tackles. The institute has managed to shift its focus in order to address current labour market problems and tackle current issues related to marginalised groups (migrants and refugees).

Spatial reach of the institute's collaborations

Fafo maintains national and international contacts, linking to and working with respected institutions abroad as well as exerting influence on policy in a considerable number of countries. The institute has historically managed to create strong formalised links with organisations abroad and at a certain point had a number of international offices. Political developments outside the control of the institute have led to a reduction in these activities.

Social and economic impact of the institute's activities

The institute's impact appears to be considerable. The institute's policy importance could potentially be challenged by increased competition from both the university sector and consultancies if funding and procurement are done in more formal ways, leading to increased competition. Fafo should employ a more strategic and systematic approach to understanding its user's needs and expectations coupled with reflection upon the social and economic impact of its research and commissioned studies.

Quality and realism of the institute's strategy

Fafo's strategy shows an ability to understand changes in the broader research landscape and the convergence of activities among universities, institutes and consultants. The institute makes good use of its core funding to strengthen its profile and portfolio within well-defined strategic areas. It aims to increase its academic publications but also to develop new and innovative formats for dissemination activities and practice-oriented services. Like most institutes, it intends to strengthen its presence in the EU framework programmes. While these priorities are sensible, it is not entirely clear how they will affect Fafo's long-term ability to sustain its position within the arenas for research and commissioned studies.

Appropriateness of the framework conditions to the institute's mission

The institute is generally satisfied with the criteria for achieving core funding, which has grown moderately. Fafo has managed to become a member of RCN programme boards but believes that that the institute sector's lack of presence in the peer review panels disadvantages the sector compared with the universities. Fafo do also see challenges by current procedures for public procurement, which it believes can impede constructive interaction between the institute and its users, which in the long run may weaken the relevance of deliverables and research-based advice. Under procurement rules an open dialogue or relationship becomes difficult, because such a dialogue in practice means shaping the ToRs for eventual procurements bids.

Recommendations

The institute has a distinct role in the Norwegian research system and a good sense of the challenges induced by increased convergence between activities in the UH, consultancy, and institute sectors. Building on its privileged research position within certain policy fields and its ability to adapt to changing contexts, Fafo is well positioned to continue to produce knowledge with high relevance and impact. Its ability to sustain its position depends on continuously cultivating the quality of its research activities, in part through internal quality assurance, while remaining sensitive to user needs.

6.2.2 Stiftelsen Frischsenteret for samfunnsøkonomisk forskning (Frisch Centre)

Frisch Centre (Frischsenteret)

Established	1999	Founded by the University of Oslo	**Research areas/departments**	Labour market, welfare and education Energy and environment Public sector and health Others
Organisational form	Foundation			
Owners	N/A			

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	37.5	38.9	43.6
Core funding	4.4%	3.7%	4.8%
Management	-	-	-
RCN contribution	77.5 %	74.7 %	79.5 %
Other Norwegian contribution	3.0%	4.9%	2.4%
Norwegian commission income			
Public administration	9.9%	12.6 %	10.0 %
Business	-	-	0.3%
Other	-	-	-
International income			
EU funding	3.8%	3.3%	1.5%
Business	-	-	-
Other	1.4%	0.7%	1.5%
Other income	-	-	-
Operating result million NOK	1.0	-1.2	0.4
Equity million NOK	25.3	25.6	17.3

Personnel	**2013**	**2014**	**2015**
Total FTEs	22.4	23.0	24.4
Researcher FTEs	19.5	21.0	22.4
Of which women	6.7	6.9	6.8
Researchers per total FTE	87%	91%	92%
PhDs per researcher FTE	67%	57%	54%
Resignations per researcher FTE	10%	10%	4%

Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	1.63	1.32	1.27
Total number of publications 2013-2015**			70
Share level 2 publications**			40%
Total number of publications 2013-2015 per researcher FTE***			3.3
Number of PhD students	7	8	9
Number of awarded PhD degrees	2	2	1
Of which women	1	1	-

Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	12%	16%	14%
Share RCN + EU funding	84%	80%	80%
Publication points per researcher FTE*	1.41	1.55	1.41
Total FTEs	19	21	22

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

The Ragnar Frisch Centre for Economic Research (hereafter Frisch) is an independent research institution founded by UiO in 1999, currently employing about 25 people. Frisch has conducted economic research on labour market and education, environment and energy, public economics and productivity, and health economics. Method and register data development constitute an important research component. Many projects are cooperative, involving Frisch and researchers in other, primarily domestic, research institutions. Ties with the Department of Economics at UiO reflect the policy of the Frisch Centre of linking applied and basic research.

Relevance of the institute to its intended users

While much of the work appears to be of relevance to the national public sector, the institute does not systematise to a great degree its understanding of users and their needs. 75-80 % of the centre's funding comes from RCN with no clearly defined user. In many cases, users have a similar academic background (economics) to that of the institute researchers, in which case communication is easy. A symptom of this is that key users accept scientific publications as outputs from projects. The centre is acknowledged for its quality and academic competence, but its user involvement and practical implementation capabilities are at times challenged. Wider dissemination to policymakers and the public is pursued only to a limited extent. User care and communication are among the competences the Frisch Centre aims at improving.

The institute's capability and quality

Frisch focuses its communications activities on publication in international, peer reviewed journals. In the period 2007-2015, it has managed to improve the proportion of level 2 publications in its scientific output from 16% to 40 %, making it visible on the international research scene. To support this ambition, Frisch has adopted an internal incentive system more strongly oriented towards encouraging top-level publication than the national performance-based system. Nonetheless, while performance in terms of publication points is good, it is not outstanding in comparison with other health and welfare oriented institutes. The volume of commissioned reports is low, which underscores the fact that Frisch's practice-orientation is modest compared with other institutes considered here.

The institute's ability to recruit, retain and develop the careers of researchers

Frisch appears to have few difficulties in recruiting and retaining staff or in maintaining the range of skills it needs. There is a useful degree of flexibility among the staff, since it applies similar economic methods across different themes. The institute is satisfied with its internal incentive structure, which seems to serve it well in researcher development and retention. The contribution to PhD education is significant and useful. Given the institute's current age profile, Frisch is actively seeking to recruit younger researchers. Given the importance of grant income to Frisch, it focuses on recruiting people able to win grants, which at times leads to the rejection of highly qualified applicants with poorer prospects for winning external funding.

The role of the institute in the Norwegian research structure

The research contracts are mostly with NFR and government ministries, but also with international organisations. Frisch is one of several institutes that do economic research. It seems to reflect a structure found in the economic disciplines, with an independent institute more or less 'attached' to a university. Given the increasing requirement for the universities to engage in applied activities, it is less clear than in the past that this bifurcation makes sense. At the same time, to the extent that the institute succeeds in obtaining income, generating good research results and is appreciated by its users, there seems little reason to question its role in the research structure.

Spatial reach of the institute's collaboration

The focus of the institute's work is on Norwegian policy. During 2014-2015, Frisch has participated in three international projects, among which two are European under the 7th Framework Program. Individual researchers participate in international networks, strengthening Frisch's international publication profile. However, Frisch has several activities and incentives supporting researcher visits to foreign research institutions, participation in international conferences, exchange with foreign researchers in running research projects, seminar series, and participation on foreign PhD assessment committees. However, these appear to be relevant to individual researchers' agendas rather than being applied to the execution of an international cooperation strategy.

Social and economic impact of the institute's activities

Impact is implicit in the aims and work of the institute, but it is only partially documented in the materials the panel has available. Frisch has done research on how pension system design effects labour market participation among older people and contributed to developing a new Norwegian pension and ATP framework, affecting the 2002, 2008 and 2011 reforms. The institute is aware of the importance of dialogue in enabling impact; nonetheless, the main thrust of the way the institute is managed is towards scientific publication quality.

Individual researchers participate in the public debate in various media, and two researchers write regular national newspaper columns. The Institute web-page and Facebook profile are considered important dissemination channels, as are public seminars. The panel nevertheless agrees that the institute could make more of the connection between high research quality and policy impact.

Quality and realism of the institute's strategy

Frisch did a strategy review in 2013 and decided to use the institute's good reputation, high scientific level and policy relevant research results as stepping stones for 'cautious growth'. Independence is a core value at both institute and individual researcher level. The institute aims to remain independent of other organisations and to grow to a moderate extent within its existing set of activities. It identifies customer relations as a point for improvement. Thus, the strategy of the institute seems to a fair degree to be bottom-up, driven by the interests and funding opportunities of individual researchers. It is therefore highly person-dependent and presents a somewhat diffuse set of activities overall.

Appropriateness of the framework conditions to the institute's mission

At present, 80% of Frisch's funding is from RCN and involves fairly long-term commitments, enabling capacity development. However, despite the institute's focus on economics it feels that RCN implicitly requires it to work for the business community, which it sees as inappropriate in a social science research institute. Social science research produces 'public goods' that private actors seldom want to pay for. RCN's requirement that no surplus should be generated from its funding also represents a challenge: Although the centre operates as a non-profit and does not aim for a persistent surplus, individual projects may run at a loss due to low RCN rates for PhD students or unforeseen project-specific challenges. Finally, Frisch argues that RCN's minimum scale requirement of 20 people does not link to evidence about the production of quality.

Recommendations

Frisch is a very academic institute, focusing on its scientific output, apparently at some cost to some other forms of output and making its links to users weaker than desirable. Given the strong academic focus, the volume of scientific production is good but perhaps not as good as it could be. The institute has itself identified the need both to improve the quality and quantity of academic publication and to improve its user links and it should continue to pursue both these aims. While the strategy to expand cautiously within existing strengths is sensible, attention needs to be paid to avoiding fragmentation by building strong research groups.

6.2.3 International Research Institute of Stavanger AS, Samfunnsforskning (IRIS Social Science)

International Research Institute of Stavanger (IRIS) (IRIS Samfunnsforskning)							
Established	2006	Stiftelsen Rogalandsforskning established 1973		**Research areas/departments**	Working life Welfare, policy and politics Safety Innovation		
Organisational form	Limited company						
Owners	University of Stavanger (50%) Stiftelsen Rogalandsforskning (50%)						
Economy	**2013**	**2014**	**2015**	**Personnel**	**2013**	**2014**	**2015**
Operating revenue million NOK	55.2	56.9	54.6	Total FTEs	40.2	37.3	35.7
Core funding	11.4%	11.3%	11.9%	Researcher FTEs	33.5	30.9	30.5
Management	-	-	-	Of which women	17.6	16.5	15.8
RCN contribution	33.5%	43.2%	53.4%	Researchers per total FTE	83%	83%	85%
Other Norwegian contribution	13.5%	12.5%	8.8%	PhDs per researcher FTE	45%	49%	52%
Norwegian commission income				Resignations per researcher FTE	6%	16%	10%
Public administration	16.5%	17.5%	15.5%	**Outcome**	**2013**	**2014**	**2015**
Business	21.9%	11.4%	8.1%	Publication points per researcher FTE*	0.64	0.76	0.61
Other	0.2%	0.9%	-	Total number of publications 2013-2015**			1201
International income				Share level 2 publications**			25%
EU funding	-	-	0.3%	Total number of publications 2013-2015 per researcher FTE***			38.0
Business	0.0%	0.4%	0.1%	Number of PhD students	6	6	5
Other	0.2%	0.3%	1.3%	Number of awarded PhD degrees	-	2	4
Other income	2.7%	2.4%	0.6%	Of which women	-	2	4
Operating result million NOK	0.0	-0.5	-0.5	**Core funding criteria**	**2013**	**2014**	**2015**
Equity million NOK	120.9	134.3	152.9	Share commission funding	52%	39%	35%
				Share RCN + EU funding	52%	48%	51%
				Publication points per researcher FTE*	0.61	0.90	0.67
				Total FTEs	34	31	31

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

Equity is for IRIS as a whole

IRIS is the newer form for Rogalandforskning, which was set up in 1973. It currently employs about 35 people. IRIS Social Science works on societal challenges of national and international significance: working life; safety; welfare; politics; business and innovation. The main disciplines are sociology, political science and economics. Historically, it is a regionally anchored institute but it was established before the wave of regionally anchored institutes and much of its work now addresses national rather than regional issues.

Relevance of the institute to its intended users

IRIS Social Science is relevant to regional and national policymakers and business. While it has a strong core of users, the institute experiences significant and growing national competition. It is concerned that it is often hard to maintain a dialogue about research needs with key funders of commissioned work, particularly central government and others located in Oslo.

The institute's capability and the quality of its research outputs

The institute succeeds in scientific publishing at an acceptable level but recognises the need for improvement in order to remain consistent with its increasingly research-focused mission. Some areas risk being under-critical in size, hence the institute rightly seeks to grow a little. The degree of loyalty among many funders of commissioned research testifies to the perceived quality and relevance of this work.

The institute's ability to recruit, retain and develop the careers of researchers

IRIS Social Science can recruit skilled people at junior levels in many fields, it is hard to find senior personnel. IRIS tends to lose senior people to UiS and elsewhere and sees this loss of experienced researchers as a threat since it can be hard to recruit experienced researchers and expensive to train others. The increased level of competition the institute experiences in its markets may go some way to explain the loss of personnel to a potentially more secure workplace. IRIS makes a good contribution to PhD education given its size and reaps benefits in the form of easier and safer recruitment.

Role of the institute in the Norwegian research structure

The institute has a strong regional history and continues to be regionally anchored but works to a considerable degree in national markets handling mainly issues of national rather than regionally specific importance. The competition for funding of prioritized research themes has become stronger, both in the RCN and with regard to commissioned work at the regional and national level.

Spatial reach of the institute's collaborations

IRIS Social Science has limited international funding. However, regional partnerships have gradually been supplemented with national and international collaboration. The institute collaborates with international researchers and manages a variety of international comparative studies in areas such as work migration, innovation, international trade negotiations, sport policy, health policy, parliaments and interest groups.

Given the shift in IRIS' centre of gravity away from the regional level, there may be opportunities to put national issues more into an international context.

Social and economic impact of the institute's activities

The institute was able to document quite a number of solid examples of impact at both regional and national level, across business and policymaking. Its work, for example, with West-Norwegian development scenarios and business surveys in the West over a long period has influenced regional development policy. Health and safety studies in the oil and gas sector have influenced regulation and practice.

Quality and realism of the institute's strategy

The strategy is built on past practice and essentially proposes to do 'more of the same but better', without much clarity about where and how the needed growth and thematic diversification will be achieved. It does not address to a convincing degree the ways in which it can achieve its growth ambitions or what it can do to strengthen its market position. It aims to establish an international position but has yet to clarify how to do this. However, a letter of intent on a merger among Uni Research, Christian Michelsen Research Ltd, IRIS, Agderforskning and Teknova has been signed. Such a merger could facilitate implementation of the strategy.

Appropriateness of the framework conditions to the institute's mission

The institute is happy with the criteria RCN uses to allocate core funding but is more concerned about the intensification of competition in the public markets for commissioned research. The institute believes that the total amount of core funding is not enough to facilitate fair competition for RCN-projects with the universities. It is often difficult to get close enough to national policymakers properly to understand their needs and to co-develop strategies with them. IRIS feels it functions as a training school for UiS and is concerned about this. An RCN strategy and instrument that fosters longer-term user-relevant research would be welcome. IRIS Social Science observed that it had on occasion had to uphold the principle of independence in its judgements when doing commissioned work and research. IRIS Social Science also has queries as to why it within the framework of this evaluation has been grouped among the welfare and health institutes and not among the institutions with a regional focus. In its presentation to the panel it described itself as a "national social science institute that is regionally anchored".

Recommendations

IRIS Social Science has to balance the need to maintain critical mass within its individual research groups with the amount of grant and commissioned income it can obtain. A clearer view is needed on how to obtain the necessary growth, the comparative advantages IRIS can bring to bear on national and international funders. It may be necessary to refocus somewhat in order to complete its transition from the regional to the national and international level.

6.2.4 Institutt for samfunnsforskning (ISF)

Institute for Social Research (Institutt for samfunnsforskning)				
Established	1950	Founded by the University of Oslo	**Research areas/departments**	Working life Welfare Gender equality Migration – integration Civil society Elections and democracy New media
Organisational form	Foundation			
Owners	N/A			

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	70.1	75.4	81.1
Core funding	15.1%	14.0%	13.0%
Management	-	-	-
RCN contribution	49.7%	44.4%	50.4%
Other Norwegian contribution	5.3%	5.3%	4.6%
Norwegian commission income			
Public administration	22.3%	27.7%	23.7%
Business	1.3%	5.3%	1.7%
Other	3.4%	0.0%	2.7%
International income			
EU funding	0.2%	1.0%	3.0%
Business	-	-	-
Other	0.8%	0.7%	0.3%
Other income	1.9%	1.5%	0.7%
Operating result million NOK	3.5	7.5	1.0
Equity million NOK	20.6	30.8	40.7

Personnel	**2013**	**2014**	**2015**
Total FTEs	55.0	48.0	52.3
Researcher FTEs	44.0	38.0	43.0
Of which women	24.0	22.0	25.2
Researchers per total FTE	80%	79%	82%
PhDs per researcher FTE	80%	92%	79%
Resignations per researcher FTE	18%	13%	2%
Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	1.82	1.80	1.86
Total number of publications 2013-2015**			223
Share level 2 publications**			18%
Total number of publications 2013-2015 per researcher FTE***			5.4
Number of PhD students	6	3	3
Number of awarded PhD degrees	2	4	2
Of which women	1	4	2
Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	33%	31%	28%
Share RCN + EU funding	52%	50%	54%
Publication points per researcher FTE*	1.61	1.67	1.83
Total FTEs	44	38	43

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

Institutt for samfunnsforskning (ISF) is a national social research institute established in 1950 and located in Oslo. Current employment is some 50 people. It conducts research on: Employees' behaviour, firms' adaptive arrangements and the general workings of the labour market; gender equality, with topics such as family, working life and equality policies; migration, including the movement of people across borders, and their integration into host society; civil society research, citizens' participation and volunteering, the voluntary sector in transition, and new forms of collective action; the effects of welfare policies, popular attitudes to welfare policies and the political processes behind reforms in social security schemes; research on elections and democracy, including the actors and institutions of representative democracy; and digital media and their implications for policy, democracy and public debate.

Relevance of the institute to its intended users
ISF is highly relevant to the Norwegian public sector and is well regarded in the fields of work, welfare, immigration, civil society and election studies. Its staff is good at maintaining a dialogue with its stakeholders and the university sector. The "Gender Balance Scorecard" for business executives is used by the private business sector.

The institute's capability and the quality of its research outputs
ISF's scientific production is high and it has been among the top five institutes in the ranking of publication points per FTE researcher in the social science group during the last five years. ISF is good at combining basic

and applied research. However, it has a little too much focus on publication in Norwegian journals and ought to work more on publishing internationally.

ISF has three journals of its own, which is a valuable contribution to the Norwegian social science community.

- Tidsskrift for samfunnsforskning (impact factor 0.16)
- Søkelys på arbeidslivet (not rated)
- Comparative Social Research (impact factor 3.00)

ISF does not engage in consulting work, but a bit more than a quarter of income is nevertheless classified as commissioned work.

The institute's ability to recruit, retain and develop the careers of researchers
Institutt for samfunnsforskning is one of the most prestigious social science institutes to work for in Norway. All researchers have PhD degrees. There is and has always been exchange of personnel with UiO, mainly because ISF has been seen as a useful place to be to build a career in social science. The turnover is not problematic at present, but if the share of senior staff becomes too low, it may become a problem. Internal team-work practices, including junior staff training and integration with seniors, are well developed. The institute is developing a systematic strategy for career and capability development among its staff. It has a good work environment. ISF produces about two PhD degrees per year, mostly at UiO.

Role of the institute in the Norwegian research structure
The institute's position is unique. Historically, ISF formed the breeding ground of Norwegian social science research, established in 1950 and older than the social science institutes at the universities. ISF is still a key actor in the field, especially when it comes to applied social science. ISF mostly does applied research, combining relevance and research of high quality, which stands out as quite unique among the social science institutes. ISF also curates important data series in several fields.

Spatial reach of the institute's collaborations
ISF is a hub in several national networks and has good partners in the US (e.g. Berkeley), and in Europe. It is coordinating a PF7 research project. There is nonetheless room for improvement internationally, including in addressing Horizon 2020, so as to contribute more to international social science and to benchmark its work against international standards.

Social and economic impact of the institute's activities
The national impact of ISF has been considerable, and there has been some international impact as well. Outstanding examples are

1. Performing evaluations of the pension reform in Norway, including putting forward propositions that were included in the final parliamentary decisions.
2. Developing knowledge background for policies to increase the number of women in the board rooms.
3. Developing a gender balance scorecard for Norwegian businesses.
4. Initiating and taking part in campaign experiments to increase election participation among different social groups (e.g. youth, immigrants), nationally and locally.
5. Developing knowledge-based means to prevent forced marriages.

Quality and realism of the institute's strategy
ISF is solid and unique in the sense that the institute combines user value and research quality. However, ISF has lately lost some of its innovative strength within the social science field. The innovative capacity of ISF is challenged by the low level of core funding that gives little room for strategic development of new research areas. The institute understands the risk of competition from the HEI sector, but has so far not developed any strategy to deal with it. Its horizontal working practices are realistic.

Appropriateness of the framework conditions to the institute's mission
The institute feels that its framework conditions are quite good. It has been successful in securing funding and is in practice not punished by RCN for failing to address commissioned work. ISF believes that income from the

policy research programmes in RCN should be included as commissioned funding in the core funding formula. It also feels that some instruments (e.g. SFF, TOPFORSK) favour HEIs too much.

Recommendations

ISF is financially sound and among the top five publishers in the social science sector. With just above 40 research man-years it is well above the critical mass, but needs to be able to recruit and keep both junior and senior staff in the future, especially people with competence to work across its research topics. It should develop a strategy to work more at the international level.

With outstanding examples such as election research and research in the civic sector, ISF staff has documented ability to work with other national and international research institutes. However, as a leading Norwegian institute in social science, the senior staff at ISF ought to publish more in internationally well-recognised journals, not least to promote and win recognition for Norwegian social science abroad.

6.2.5 Nordisk institutt for studier av innovasjon, forskning og utdanning (NIFU)

Nordic Institute for Studies in Innovation, Research and Education (NIFU) (Nordisk institutt for studier av innovasjon, forskning og utdanning)

Established	1996	Founded by the Research Council of Norway
Organisational form	Foundation	
Owners	N/A	

Research areas/departments	Statistics and indicators Studies in primary and secondary education Studies in higher education Studies in research and innovation

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	76.3	84.8	83.0
Core funding	18.3%	15.3%	13.8%
Management	-	-	-
RCN contribution	9.3%	11.6%	18.8%
Other Norwegian contribution	0.8%	0.6%	0.8%
Norwegian commission income			
Public administration	44.9%	44.7%	35.3%
Business	4.2%	4.6%	4.0%
Other	-	-	-
International income			
EU funding	1.4%	1.4%	2.5%
Business	-	1.5%	1.6%
Other	3.6%	3.5%	3.1%
Other income	17.5%	16.9%	20.1%
Operating result million NOK	-4.2	3.6	1.9
Equity million NOK	32.8	37.1	39.2

Personnel	**2013**	**2014**	**2015**
Total FTEs	70.1	67.2	63.7
Researcher FTEs	57.5	54.8	52.1
Of which women	27.3	26.1	27.4
Researchers per total FTE	82%	82%	82%
PhDs per researcher FTE	47%	46%	42%
Resignations per researcher FTE	9%	13%	10%
Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	0.76	0.87	1.20
Total number of publications 2013-2015**			159
Share level 2 publications**			22%
Total number of publications 2013-2015 per researcher FTE***			2.9
Number of PhD students	7	6	8
Number of awarded PhD degrees	2	1	1
Of which women	1	1	1
Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	43%	64%	54%
Share RCN + EU funding	42%	16%	20%
Publication points per researcher FTE*	0.73	0.72	0.93
Total FTEs	58	55	52

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

NIFU was originally the analysis department of the former research council (NAVF) and was spun out as a separate institute in 1969, and finally made into an independent foundation after the mergers that created NFR in 1996. It employs about 60 people – less than in the recent past. Its work focuses on the research and education sector in Norway. It recently changed its name from 'Norwegian' to 'Nordic', indicating an ambition to work more at this international level. Its areas of research are primary and secondary education, higher education, research and innovation and statistics and indicators. It also contributes to education. NIFU is a foundation. It is an independent institute with an independently appointed board.

Relevance of the institute to its intended users

NIFU is highly relevant at the national public level, but also internationally, in particular among the Nordic countries. It has significant influence on national policy development in education, research and innovation. It has national responsibility for various kinds of R&D statistics.

The institute's capability and the quality of its research outputs

NIFU plays an important role in maintaining a data infrastructure within education and research policy. It publishes well but is not at the top among the welfare and society institutes. It has doubled its income from RCN the past four years. NIFU has turned increasingly academic (thus ignoring the 2001 evaluation recommendation), in response to the conditions for core funding and the need for long term funding and improved scientific quality. In its approach to quality in research, NIFU aims to balance sources of income, sector competence and scientific quality. The institute applies systematic procedures in the start-up of projects and the phase of reporting. However, it struggles to maintain good quality control in the middle phase during short term high-pressure projects, and believes its quality is too variable (in commissioned work).

The institute's ability to recruit, retain and develop the careers of researchers
NIFU does not have any substantial problems in recruiting staff. However, retaining seniors is somewhat challenging. NIFU loses seniors to HEIs, ministries and government agencies, such as RCN. The pressures staff members experience focus on the requirement for attracting funding and a hectic work situation. 42% of the research staff hold a PhD degree. 52% of the researchers are women. NIFU contributes to PhD education. It recruits PhD and postdocs. It has its own PhD candidates funded by the research council.

Role of the institute in the Norwegian research structure
NIFU's role is very well defined. It has a distinct profile. After including primary education and the-preschool sector during the last years, it encompasses the entire education chain. It conducts an important task in over time being responsible for production of Norway´s national R&D statistics (Higher education and Government sectors), including database administration and the R&D statistics bank. It receives 14% of its resources from basic funding, 15-20% for R&D statistics and related activities and 65-70% from competitive funding.

Spatial reach of the institute's collaborations
NIFU has an impressive international network, in most cases working with the best. It does so across all its research areas. NIFU collaborates with HEI, other institutes and consultancy firms at the national level. Somewhat surprisingly, NIFU has declining income from international sources. However, it has many international activities collaborating with research groups in other countries, sister organisations in other countries and organizations like the OECD.

Social and economic impact of the institute's activities
NIFU has a quite notable impact on national policy development in education, research and innovation. It contributes significantly to the national public debate. The institute publishes the magazine *Forskningspolitikk*, which was established by the institute's founder, the late Hans Skoie. *Forskningspolitikk* has a good reputation, is partly funded by RCN and is read throughout the Nordic countries.

NIFU has a documented impact on policy development, governance, funding and means, strategies and commercialisation. It has had substantial impact on developing the statistics for calculating publications points in the national performance-based research funding systems. Continuity in analyses and statistics is important and contributes to NIFU's impact.

Quality and realism of the institute's strategy
The institute uses its core funding appropriately and enjoys a financial situation which is solid and stable. While emphasising internationalisation and scientific quality as the most important strategic goals, it has a rather implicit strategy on some of the means to obtain these goals, such as in PhD education, FP/international funding, and being sustainable as an organisation. Further, NIFU wishes to strengthen its profile as the institute dealing with all aspects of education. A more transparent strategy would probably be beneficial.

So far, NIFU has not succeeded in its efforts to obtain funding from the FP. It is a solid institute, although not necessarily experimenting in more creative and innovative ways with regard to its projects and dissemination. It wishes to become even more international, strengthen scientific quality and production, develop the role of delivering knowledge to society and have an organic growth in number of staff. NIFU recently won an RCN centre grant (Senter for studier av forskningskvalitet og effekter, http://www.nifu.no/news/sentre-for-studier-av-forskningskvalitet-og-effekter/), which will help give it the means to strengthen its position.

Appropriateness of the framework conditions to the institute's mission
While RCN's criteria for core funding appear to work well for the institute, lack of governance guidance from 'owners' (KD and RCN, caused by the need to maintain the institute at arm's length, consistent with the

Langslet doctrine) is a disadvantage. NIFU feels that the fact that its board members are appointed as individuals (thus taking little responsibility for systemic aspects) is another problem.

The Ministry of Education and Research KD provides a large proportion of NIFU's income, both directly and indirectly. This presents a risk should there be a policy change. The institute emphasizes that funding instruments for seniors are in short supply. It also argues that there is a need for a clearer division of labour between the institute sector and the universities.

Recommendations

NIFU has a well-defined niche in the Norwegian research system and their research and statistical monitoring of research is highly relevant at the national and to some degree at the international level. NIFU has significant influence on national policy development in higher education and research. It should exploit its massive R&D statistics database better for instance by cooperating with other researchers in Norway and abroad and should aim to attract more international competitive funding to ensure it benchmarks itself against international quality standards.

6.2.6 NTNU Samfunnsforskning (NTNU Social Research)

NTNU Samfunnsforskning			
Established	2004	Stiftelsen Allforsk established 1987	
Organisational form	Limited company		
Owners	Norwegian University of Science and Technology		
Research areas/departments	Employment and working life Children and adolescence Human space flight Evaluation research Disability and society Health and welfare Innovation and organisational development Immigration and refugees Inclusion and marginalisation Mental health Safety and emergency preparedness Education Technology and bioproduction Technology and collaboration		

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	93.3	89.9	89.6
Core funding	6.5%	8.2%	9.4%
Management	24.2%	26.0%	26.7%
RCN contribution	21.0%	20.3%	17.9%
Other Norwegian contribution	3.2%	2.0%	7.3%
Norwegian commission income			
Public administration	21.3%	19.5%	18.2%
Business	9.4%	11.0%	10.3%
Other	-	-	-
International income			
EU funding	-	-	2.6%
Business	12.8%	11.4%	0.1%
Other	0.6%	0.7%	7.5%
Other income	0.9%	0.7%	0.1%
Operating result million NOK	0.3	7.1	1.1
Equity million NOK	41.0	46.9	53.8

Personnel	**2013**	**2014**	**2015**
Total FTEs	84.7	83.3	83.7
Researcher FTEs	70.7	47.7	47.1
Of which women	38.6	27.2	25.7
Researchers per total FTE	83%	57%	56%
PhDs per researcher FTE	23%	38%	42%
Resignations per researcher FTE	25%	31%	6%
Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	0.49	0.91	1.15
Total number of publications 2013-2015**			143
Share level 2 publications**			27%
Total number of publications 2013-2015 per researcher FTE***			2.6
Number of PhD students	10	7	13
Number of awarded PhD degrees	2	3	3
Of which women	2	2	2
Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	68%	63%	57%
Share RCN + EU funding	29%	28%	31%
Publication points per researcher FTE*	0.37	0.56	0.80
Total FTEs	71	48	47

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

Non-researchers are included in the 2013 figure for researcher FTE, which leads to an underestimation of publication points and PhDs per researcher FTE in 2013. There is no decline in researcher FTEs from 2013 to 2014

NTNU Social Research is a limited company owned by Norwegian University of Science and Technology (NTNU) in Trondheim. Current employment is over 80 people. NTNU Samfunnsforskning AS (NTNU Social Research AS) was established in 2004, but its predecessor Centre for Social Research (SESAM) was created in 1983 by then University of Trondheim, as an internal centre for contract research. SESAM was separated from the University of Trondheim in 1987 as the foundation ALLFORSK. When the University of Trondheim was merged with the Norwegian Technical University (NTH) in 1996 into the present Norwegian University of Science and Technology (NTNU), the two research foundations SINTEF and ALLFORSK continued to exist. ALLFORSK was reorganized by NTNU into the current wholly owned limited company NTNU Samfunnsforskning AS in 2004.

NTNU Social Research's research areas are 1) organisation, innovation and security, 2) Diversity and inclusion, 3) children's psychosocial development, 4) human space flights and 5) it maintains a competence centre working with practice in mental health.

Relevance of the institute to its intended users

NTNU Social Research is a robust institute with a notable user focus. It operates in the field of applied science in collaboration with NTNU, business and the public sector. NTNU Social Research obtains almost 30% of its income in the form of commissions. Its users seem very pleased with the work it does.

The institute primarily conducts research addressing the national public sector but also works on organisational, innovation and security – a line of research also addressing the business sector. It does little work focused on regional issues.

The institute's capability and the quality of its research outputs

The institute's size makes it capable of maintaining a solid research milieu, although not all its departments are as large as their competitors (which are at times entire institutes). The balance between basic research, applied research and commission-based research varies across the institute's research areas. The institute takes a cross-disciplinary approach to its work.

Bibliometric analysis shows that NTNU Social Research produces a good level of scientific output and compares well with many of the other institutes while, however, not being among the top producers in the welfare and society category. The international visibility and networking of the institute is unclear. NTNU Social Research could probably put more effort into improving those areas. NTNU Social Research points out that there has been a miscalculation in the publication points. Commissioned work is mainly done at national level. Overall, the institute could probably benefit from formalising its internal quality control procedures more.

The institute's ability to recruit, retain and develop the careers of researchers

The proximity to NTNU is an obvious advantage in recruiting junior researchers and PhD candidates, but it is also a risk in terms of losing senior personnel. The institute also loses personnel to SINTEF, which can offer a better pay. It contributes to the education of Ph.D.-candidates and has a fine cross-disciplinary distribution among its staff members. However, it could benefit from recruiting more at the senior level and obtaining a better balance between PhD candidates and senior staff. The personnel (employee survey) are very content with working at NTNU Social Research. This should clearly be regarded as an asset.

Role of the institute in the Norwegian research structure

The role and mission of NTNU Social Research seems a bit unclear and its research areas are somewhat diverse. It emphasizes that the convergence between the institute sector and the university sector is a challenge, making it more difficult to establish a distinct profile for the institute.

Spatial reach of the institute's collaborations

International networks are not present at the institutional level. Rather, they are linked to the individual researcher. Nationally, NTNU Social Research collaborates with other institutes and the UH-sector. Locally, NTNU Social Research collaborates with NTNU, SINTEF, and St. Olav. In particular, the institute has a tight connection to its owner, the university (NTNU). However, the type of collaboration varies across the departments within NTNU Social Research.

NTNU Social Research emphasises that some of its collaborators are also its competitors in commissioned as well as research tasks. However, this is seen as normal practice within the sector.

Social and economic impact of the institute's activities

The institute finds it hard to document its impact of its tasks performed within commissioned work – at least compared to documenting the impact of scientific publications. Some examples of impact were provided within the area of security, integration and childcare. NTNU Social Research primarily focuses on national needs and national impact. The institute may benefit from looking at other institutes that have managed to document impact.

Quality and realism of the institute's strategy

In 2015, NTNU Social Research got 27% of its income from the Norwegian Research Council (including the basic funding and EU-projects), 49% from the public sector, 13% from business and 10% from foreign commissioned assignments. The institute is economically stable. It uses core funding sensibly on scientific publication and internal projects aiming at strengthening the profile of the institute.

The institute has a rather broad profile, which can make its mission seem unclear and difficult to communicate. Strategically, the institute is at a crossroads. It wishes to strengthen its profile in its main research areas and is looking for consolidation rather than growth. This 'business as usual' approach seems to be orientated towards adapting to potential changes in ownership. Scientific development is considered to be an important part of its strategy but this takes place within the institute's existing areas of capability.

The institute is organized in very autonomous and decentralised departments, which individually decide what areas to prioritize. Department autonomy may have advantages but the absence of a clear overall strategy combined with a reactive approach to opportunities encourages fragmentation and in turn reduces the opportunity to create an institute-level strategy.

Appropriateness of the framework conditions to the institute's mission

The institute voices some discontent with the national funding system, but it has adjusted to the way it works. It argues that the core funding system should react faster to changes in indicator values by reallocating a greater proportion of the core funding between institutes. The institute's relationship to NTNU is insufficiently clear but this it is to be revisited during 2016. This relationship costs a lot of management time. The relation to NTNU probably must be settled before a long-term strategy can be developed.

NTNU Social Research requests a clearer work of division between the institute sector and UH-sector. According to NTNU Social Research 'cross-subsidies' or price dumping by the universities distorts completions, mainly in the commissioned research market.

The institute has limited capacity to apply for EU funding and finds relatively few opportunities at the European level since its areas of specialisation to not correspond to foci within Horizon 2020. NTNU Social Research also finds it harder to receive funds from RCN after the programs have become broader.

Recommendations

NTNU Social Research is a relevant institute addressing national public administration and businesses. It has a strong user focus. It is robust. However, it could have a more explicit strategy in order to adjust to external pressures and to create more coherence among its very autonomous and decentralized departments. This should take explicit account of its competitive position within Norway and selectively identify how the institute wants to refresh or renew its areas of specialisation.

New alliances could make NTNU Social Research stronger. Several of the institute's topic areas would seem to be international (at least European). The institute may consider whether this potential is properly exploited.

6.2.7 Stiftelsen SINTEF Teknologi og samfunn (SINTEF Technology and Society)

SINTEF Technology and Society (SINTEF Teknologi og samfunn)

Established	2009	SINTEF Group founded by the Norwegian Institute of Technology 1950
Organisational form	Foundation	
Owners	N/A	
Research areas/departments	Employment and industry Energy and climate Health and welfare Safe societies Smart transport	

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	81.7	96.6	97.8
Core funding	15.7%	13.9%	14.2%
Management	-	-	-
RCN contribution	10.8%	7.6%	11.8%
Other Norwegian contribution	-	-	-
Norwegian commission income			
Public administration	46.5%	37.5%	34.4%
Business	18.2%	22.6%	23.9%
Other	5.0%	10.8%	7.6%
International income			
EU funding	0.7%	3.1%	0.2%
Business	0.3%	2.8%	2.6%
Other	2.8%	1.8%	5.5%
Other income	-	-	-
Operating result million NOK	2.8	4.8	5.1
Equity million NOK	..	..	..

Personnel	**2013**	**2014**	**2015**
Total FTEs	42.8	62.8	66.4
Researcher FTEs	41.1	51.9	53.9
Of which women	17.8	25.7	28.1
Researchers per total FTE	96%	83%	81%
PhDs per researcher FTE	66%	48%	48%
Resignations per researcher FTE	24%	2%	13%
Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	1.10	0.88	1.11
Total number of publications 2013-2015**			2811
Share level 2 publications**			11%
Total number of publications 2013-2015 per researcher FTE***			57.4
Number of PhD students	8	6	11
Number of awarded PhD degrees	-	-	2
Of which women	-	-	1
Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	63%	69%	72%
Share RCN + EU funding	20%	16%	14%
Publication points per researcher FTE*	1.17	1.36	1.20
Total FTEs	41	52	54

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
.. Data not available.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

SINTEF Teknologi og samfunn (SINTEF Technology and Society) is part of the SINTEF group - Scandinavia's largest independent research institution. It employs some 66 people. The first precursor of SINTEF Technology and Society was Institutt for industriell miljøforskning (IFIM), which was founded in 1958 by Professor Einar Thorsrud from Norges Tekniske Høgskole (Norwegian Technical University-NTH), on a yearly base grant donation from the Chocolate Factory A/S Freia. The SINTEF IFIM research had great impact on reform and development in Norwegian working life, including provisions on employee representation on boards and corporate assemblies in Arbeidsmiljøloven («Companies Act»). From the 1980s interdisciplinary social research established a foothold in several departments at SINTEF, including in safety research, traffic research and health research. From 1996, the social science research in the SINTEF Group was organised as an own department in SINTEF Teknologiledelse (SINTEF Industrial Management), later SINTEF Technology and Society, into which also IFIM was merged into in 2006.

Relevance of the institute to its intended users

SINTEF Technology and Society is a competent and user-orientated institute, mainly with a national and international focus. Its user approach benefits from doing social science in a multi-disciplinary research environment. It exploits the technological parts of the SINTEF Group and adds value to their work using social science in the analysis, use, implementation and efficiency of innovation by working in technology development and assessment. SINTEF Technology and Society conducts research addressing employment and companies, energy and climate, health and welfare, smart transport and safe societies. Its approach is to do research together with the clients, not for the clients. Its projects are relevant at the national and regional policy levels as well as for business.

The institute's capability and the quality of its research outputs

Scientific production is an integrated part of the institute's modus operandi, and production is good and rising and is in the top three among the welfare and society institutes. It has a realistic and explicit strategy for increasing its number of level 2 publications. It exploits data from commissioned projects to makes scientific publications, an approach which users seem to appreciate. The institute has sufficient scale (66 full time employees in 2015) to maintain a capable cross-disciplinary research environment.

The institute is one of the strongest Norwegians players when it comes to receiving EU funding, suggesting that it is internationally competitive. (The institute's profile matches FP priorities well.) It has strict quality control procedures for FP proposals as well as for research projects in general. It combines practical outputs with scientific publishing. At the same time, in the commissioned assignments it takes on the institute has its own system to monitor the clients' satisfaction, which is connected to an internal system for taking corrective measures if the scores are low.

The institute's ability to recruit, retain and develop the careers of researchers

A little less than half of the institute's researchers hold a PhD degree, a proportion the institute wishes to increase. Junior researchers are easy to recruit, but SINTEF has some difficulties in recruiting qualified senior specialists. The institute also loses some seniors to NTNU. According to the institute, the previous practice of having shared positions with NTNU has ceased and this may pose a threat to the institute in the longer term. Nonetheless, SINTEF Technology and Society is generally seen as an attractive place to work.

Role of the institute in the Norwegian research structure

Many of the issues handled by SINTEF Technology and Society are not unique within the Norwegian institute system, so it engages in national competition. However, its comparative advantage is the ability to work at the interface between social and technical issues.

Spatial reach of the institute's collaborations

SINTEF is a major player nationally and internationally and has strong networks internationally. It serves as both coordinator and participant in FP projects. Nationally, it has close ties to NTNU and the University of Oslo. It collaborates with other research institutes such as NTNU Social Research, IRIS and FAFO. It also collaborates with consultancy companies. Its arena is primarily national and international. SINTEF Technology and Society has several formal collaboration agreements with European Universities. The institute wishes to increase its impact on at the regional level, e.g. health.

Social and economic impact of the institute's activities

The institute has been able to document quite significant impact, e.g. on national policies, health services and business development. It has worked with local government, business and industries all over Norway. SINTEF documents influence at legislation and at the development of a sustainable regional development of business.

Quality and realism of the institute's strategy

The formal strategy is that of the SINTEF Group, but the institute's de facto 'sub-strategy' seems very well considered. It balances projects that can strengthen its profile and the adaptation to 'the market' against the projects receiving funding. Its use of core funding seems appropriate. Being part of the SINTEF group makes it possible for the institute to co-fund projects to a larger extent than other institutes. It has a clear strategy for EU funding. It has a management that makes decisions on what to prioritise and provides the necessary resources for this prioritisation. It seems to be able to balance the need for robust financial performance and the need to be an adaptable, dynamic organization.

Appropriateness of the framework conditions to the institute's mission

Core funding is very important for the coherence and integrity of research institutes. SINTEF Technology and Society finds that RCN's criteria for core funding are appropriate but that the absolute level of funding is insufficient. Being part of the SINTEF Group is an asset but the terms of its collaboration with NTNU have deteriorated. It is still an open question what effect this will have on SINTEF Technology and Society. So far, the institute has managed to exploit its framework conditions most successfully. It questions the efficiency of the commissioned market, making it sometimes questionable whether it is worth investing resources put into making a bid.

Recommendations

This is a strong well-resourced institute that takes full advantage of its position within the SINTEF group. It shares its parent's tradition of working closely with clients. It is highly relevant in applying social science as a framework for adopting new technology. It has a clear and relevant strategy and seems good at adjusting to changing conditions. The main issue is to re-establish a closer and more effective relationship with NTNU.

6.2.8 Samfunns- og næringslivsforskning AS (SNF)

Centre for Applied Research at NHH (SNF) (Samfunns- og næringslivsforskning)

Established	2002	Stiftelsen SNF established 1991
Organisational form	Limited company	
Owners	Norwegian School of Economics (NHH) (85%) Stiftelsen SNF (15%)	
Research areas/departments	Labour Economics and Education Behavioral Economics Energy, Natural Resources and the Environment Future-Oriented Corporate Solutions Industrial Organization and Competition Policy Tax and Public Finance Service Innovation and Brand Management	

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	65.2	64.7	63.6
Core funding	11.4%	11.6%	11.8%
Management	-	-	-
RCN contribution	48.5%	54.3%	54.5%
Other Norwegian contribution	-	-	2.7%
Norwegian commission income			
Public administration	12.1%	12.1%	5.6%
Business	24.8%	19.6%	22.1%
Other	0.4%	0.1%	-
International income			
EU funding	-	-	-
Business	-	-	-
Other	0.5%	1.5%	1.3%
Other income	2.2%	0.9%	2.2%
Operating result million NOK	2.8	1.9	11.9
Equity million NOK	18.2	20.7	30.8

Personnel	**2013**	**2014**	**2015**
Total FTEs	43.5	38.5	40.9
Researcher FTEs	37.7	33.2	35.4
Of which women	9.4	9.4	11.6
Researchers per total FTE	87%	86%	87%
PhDs per researcher FTE	29%	33%	37%
Resignations per researcher FTE	5%	3%	3%
Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	0.29	0.18	0.35
Total number of publications 2013-2015**			38
Share level 2 publications**			13%
Total number of publications 2013-2015 per researcher FTE***			1.1
Number of PhD students	-	-	1
Number of awarded PhD degrees	-	-	-
Of which women	-	-	-
Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	37%	41%	37%
Share RCN + EU funding	52%	45%	50%
Publication points per researcher FTE*	0.23	0.23	0.27
Total FTEs	38	33	35

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

SNF is owned by NHH (85%) and much of NHH's externally funded activities are channelled through it. Many of NHH's scientific staff are therefore engaged as associated researchers at the institute. SNF was set up in 1991 via a merger among three institutes – Senter for anvendt forskning (Centre for Applied Research), Næringsøkonomisk institutt (Institute of Industrial Economics) og Center for International Business – and continues to focus on applied economic analysis, with a strong focus on quantitative methods. SNF had an economic crisis in 2005-08, and the institute was sharply downsized. Because of the crisis SNF for several years had relatively few of its own full time employed researchers but in the last three years the institute has worked actively to increase their number. Currently there are about 35 FTE researchers.

Relevance of the institute to its intended users

SNF is keen to pursue research that links the somewhat fundamentally orientated NHH environment with societal use of research. Its success in many cases indicates that it does connect with national public sector user needs. The institute was able to demonstrate a number of positive effects, notably in policymaking, which would eventually trickle down to produce wider societal benefits. It also succeeds in engaging with the business community. SNF has a fairly broad range of both public and private sector users in its project portfolio.

The institute's capability and the quality of its research outputs

The reduction in size of the institute following its crisis in 2005-8 has left it under-critical and in need of recruitment to rebuild capacity. This process is impeded by the difficulty of winning the work needed to pay for it. In this respect, core funding of some 10% is insufficient to build upon. The institute has fairly strong incentive system for its staff to publish in peer reviewed channels. Yet, the fact that NHH researchers use SNF as a partner or project manager when doing applied research or studies also appears to mean that the institute systematically fails to be given credit for all the work done. SNF indicated it was hard to get associated researchers to credit the contribution of SNF-projects when they publish. This is also reflected in the low level of 'level 2' publications credited to it in the in the performance-based funding system (Schneider, 2017). Consequently, the research content and output of SNF's projects is in this way underreported (Norges forskningsråd, 2016a, p. 44).

The institute's ability to recruit, retain and develop the careers of researchers

The lack of critical mass makes it hard to develop careers. The staff is small and to a fair degree specialised with a high share of PhD degrees. There is said to be a symbiosis with NHH that makes it possible to keep and develop people within the NHH/SNF ecosystem as a whole and that makes the pool of labour available more balanced. Historically, SNF has had PhD students working on SNF projects and being able to use desk space at SNF. These students have been enrolled in NHH and UiB PhD-programmes, and have to a large extent been employed by these institutions. There is a new plan to train PhDs at SNF, in part to socialise them into an applied environment. According to SNF's self-evaluation report, none of SNF's full time staff are currently involved in PhD-training at higher education institutions. SNF's associated staff, on the other hand, are to a large extent contributing as part of their academic position at NHH and other HEIs. With the new initiative as concerns PhD-students, SNF senior full-time research staff are expected to engage also more directly in PhD-training.

Role of the institute in the Norwegian research structure

The institute is one of a number of competing economic milieux in Norway. SNF feels it is broader than some of its competitors without it necessarily being clear that its role is distinct or that it rests on a strong set of comparative advantages. Finding a more distinct role will depend in part on solving the problem of being sub-critical.

SNF's relationship with NHH has some challenges. SNF and NHH are, one the one hand, transparent and interactive research environments. Co-location with NHH contributes to integrating the two institutions. Their respective strategies have been aligned since NHH took over as the major shareholder in 2012. SNF sees the potential of it contributing to the growth of NHH's research, both in terms of volume and relevance of research. As a project based network organisation SNF can draw on the competencies of NHH staff fairly flexibly. A considerable part of its staff is engaged on a part-time basis. With close proximity to NHH, SNF's full-time research staff can also easily develop their academic competence (see SNF's self-evaluation report). On the other hand, SNF is highly dependent on NHH – especially on NHH staff to funnel their externally funded project to SNF. NHH's practices concerning how academic publications are credited seems like an impediment to building SNF's academic reputation

Spatial reach of the institute's collaborations

SNF was able to report a number of project-based co-operations with universities and institutes abroad but its primary orientation is national. International funding has not been a focus in the past but this is now said to be an objective. SNF does seem to be well-connected with the relevant international research communities.

Social and economic impact of the institute's activities
SNF was able to show several cases where it has affected policy and policymaking, with by implication eventual downstream effects. The links to practice are credible with a portfolio of business projects.

Quality and realism of the institute's strategy
SNF has in the recent past managed to deal with a severe financial crisis but this situation has also left the institute below the desired size. Alignment of NHH's and SNF's strategies will be important for the institute's further development in this respect. Yet, SNF's strategy appears unspecific. For example, while management clearly recognises that reaching a level of twenty full-time researchers based at the institute is a minimum condition for critical mass, the strategy for achieving this was not clear to the panel.

Appropriateness of the framework conditions to the institute's mission
The core funding provided by RCN and the funds available at NHH give SNF a little slack that has helped it to develop. Funding from the different RCN programmes have been important for the long term development of competencies and capacity and gives the institute the opportunity to pursue a focussed research agenda. However, the institute seems to be 'squeezed' between the growing capabilities of the consulting profession on the one hand and NHH's internalisation of research on the other.

SNF appears to have little confidence in the fairness of the public contract research market (Doffin) because the winner in some procurements appears to have been determined in advance, costs and bureaucracy involved in applying for work are high and it is difficult to get insight into competitors' bids after the event. Application processes could be simplified, preferably by going to electronic submission (as is the case with RCN).

Recommendations
SNF is and has been a useful producer of research and studies that inform aspects of Norwegian policy. It has been struggling to recover from a financial crisis that is now several years in the past. Although it is currently engaged in pursuing European sources of research funding, SNF has not had significant international funding. SNF's output has not had a strong track record in terms of volume of academic research, international visibility and level two publications, at least not the output ascribed to SNF. The institute needs to expose itself to the international level and the present relationship with NHH needs to be clarified if SNF is to develop and grow.

6.2.9 Uni Research Rokkansenteret (Uni Research Rokkan Centre)

Uni Research Rokkansenteret							
Established	2003	Stiftelsen UNIFOB established 1986		**Research areas/departments**	Society and culture		
Organisational form	Limited company						
Owners	University of Bergen (85%) Stiftelsen Universitetsforskning Bergen (15%)						
Economy	**2013**	**2014**	**2015**	**Personnel**	**2013**	**2014**	**2015**
Operating revenue million NOK	42.5	45.6	..	Total FTEs	45.8	43.2	..
Core funding	9.0%	9.4%	..	Researcher FTEs	37.4	34.6	..
Management	4.4%	4.2%	..	Of which women	16.3	13.8	..
RCN contribution	46.6%	51.3%	..	Researchers per total FTE	82%	80%	..
Other Norwegian contribution	8.8%	8.3%	..	PhDs per researcher FTE	75%	81%	..
Norwegian commission income				Resignations per researcher FTE	16%	3%	..
Public administration	23.3%	15.7%	..	**Outcome**	**2013**	**2014**	**2015**
Business	1.2%	1.3%	..	Publication points per researcher FTE*	1.72	0.94	..
Other	1.9%	0.5%	..	Total number of publications 2013-2015**			168
International income				Share level 2 publications**			29%
EU funding	2.7%	3.0%	..	Total number of publications 2013-2015 per researcher FTE***			4.7
Business	-	-	..	Number of PhD students	4	3	..
Other	0.9%	0.5%	..	Number of awarded PhD degrees	2	2	..
Other income	1.1%	5.9%	..	Of which women	2	1	..
Operating result million NOK	-2.8	1.2	..	**Core funding criteria**	**2013**	**2014**	**2015**
Equity million NOK	..	..	..	Share commission funding	33%	..	..
				Share RCN + EU funding	61%	..	..
				Publication points per researcher FTE*	1.16	..	..
				Total FTEs	91	..	..

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
.. Data not available.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2014 have been applied to normalise data from bibliometric analysis.

The Uni Research Rokkan Centre is now part of a larger organization of some 440 people in Uni Research. At the time of writing it had not been possible to disentangle Rokkan data from the bigger organization for 2015, hence the table above ends with 2014. Employment is some 60 people, corresponding to 45 FTEs.

Rokkan was established as a merger between LOS (Norsk senter for ledelse, organisasjon og styring) and SEFOS (Senter for samfunnsforskning). SEFOS in particular had as its raison d'être to be an instrument for UiB's externally funded research. From 2008 the regulatory framework changed and with it the Centre became more of a research institute in its own right, and less of an 'appendage' to UiB. The profile of the Centre still reflects the dual connection to UiB with the links both to the Faculty of the Humanities and the Faculty of Social Sciences. In 2011 the Centre became part of the RCN's core funding system.

Currently research at Uni Research Rokkan Centre addresses

- Health, social and welfare sector
- Innovation in the public sector – public sector reforms
- Voluntary sector and civil society
- Education

Relevance of the institute to its intended users
UNI Research Rokkan Centre has a history of combining a relevance orientation with a strong academic profile. The main focus is on national issues. The Centre has built a particularly strong position in evaluations. Through its research, Uni Research Rokkan Centre has influenced key reforms in the public sector. The cases presented as part of the evaluation illustrated amply the strong and clear relevance of the Centre to users.

The institute's capability and the quality of its research outputs
The Centre's scientific production is strong. Almost all the researchers hold PhDs. They have a good publication culture and prioritise quality as well as relevance. They are very successful in obtaining RCN funding but have some way to go in winning international funding. The Centre appears to be attractive to cooperation partners. Uni Research Rokkan Centre's researchers also increasingly co-author journal articles and score high in terms of international visibility. There is more room for using the opportunities provided by core funding and research projects more strategically to keep up and further improve the scientific quality and output of the Centre. Especially, the cooperation with university sector and other 'like-minded' institutes appears sensible. The Centre has successfully done this already and should be encouraged to do more to balance competition with cooperation.

The institute's ability to recruit, retain and develop the careers of researchers
The Centre does well at recruiting early and mid-career researchers. Many researchers seek postdoc contracts at UiB before returning to their long contracts at Uni Research Rokkan Centre Researchers with professorial competence are harder to retain – they tend to drift towards the university sector, especially in the light of the current generational shift at UiB, which is recruiting replacements for retiring senior personnel. The Centre participates actively in PhD training and supervision but the amount of involvement is limited by the lack of explicit incentives.

Role of the institute in the Norwegian research structure
This appears to be a quite 'classical', broad-spectrum Norwegian social science institute that aims to remain in this category – effectively complementing the role of the more specialised institutes. There is a strong historical link between the Centre and UiB, which has considered whether to merge Uni Research into the university but decided instead to work in closer co-operation with it. The relationship with the university is a source of strength, creating a strong binary relationship in Bergen to complement those in Trondheim and Oslo. Over the years the cross-disciplinary profile of the Centre has been enhanced, although research in the area of history and cultural studies has a harder time finding funding.

Spatial reach of the institute's collaborations
This is a national institute in funding terms and in terms of its customers, albeit that it has ambitions to increase its international reach. Given the considerable quality and competence of the institute, greater internationalisation would be an asset. There is a great deal of international research co-operation that would provide a foundation for this.

Social and economic impact of the institute's activities
The Centre does projects intended to affect policy and has been able to provide powerful impact examples. There are several plausible cases of indirect impact for an institute like this, e.g. when research has impact on curriculum in the education of professionals; or through the contribution of Uni Research Rokkan Centre's researchers to the public sphere; and the contribution of research projects to the overall knowledge base from the series of analysis of public sector reform (e.g. NAV-reform, reforms in education sector, regional governance reforms). Direct and traceable impact are convincingly substantiated in cases such as research on participation rates in elections, female representation in local government, and gender balance in higher education.

Quality and realism of the institute's strategy
The Centre's strategy is based on the idea that it needs both to do good quality scientific research and to attach this to societal problems and challenges in order to attract and retain good researchers and funders. Belonging to Uni Research provides opportunities to extend the Centre's thematic and theoretical reach, often in interdisciplinary ways. Increasingly, 'big data' can become one of the Centre's competitive advantages. Overall

the strategy appears realistic, although the degree of thematic fragmentation is probably as high as the Centre can sustain at present. It rightly wants to grow.

The Centre appears to have a strong culture of collegiality, flexibility and user relevance. Co-operation with other organisations such as ISF (e.g. a research programme on civil society and volunteering) is a way to get further recognition for the Centre's quality and relevance.

Appropriateness of the framework conditions to the institute's mission
The Centre is very satisfied with the fact that it gets core funding but feels it is taking too long to increase this to a high enough level, within the present (re)allocation rules. On the demand side the projects are often too small, not cumulative, beset by complex procurement procedures, etc. There is less understanding among the users – especially the ministries - of the need for the Centres to act as 'knowledge reservoirs' than there should be. This understanding is disappearing as the interface with customers becomes more market-driven. Resolving the relationship with UiB would strengthen this strong Centre's ability to grow and develop.

Recommendations
This is a strong national institute working with a strong, fairly broad-spectrum Norwegian social science model. That fact makes it a little less distinct from others than might be the case, but the Centre is delivering high-quality, useful research. It needs to put more efforts into international exposure and markets, in order to broaden its visibility and reach and to benchmark itself against the best. More cooperative relationships with other institutes and universities would also be useful. Further clarifying the relationship between UiB and Uni Research would strengthen the Centre.

6.2.10 Uni Research Helse (Uni Research Health)

Uni Research Helse							
Established	2003	Stiftelsen UNIFOB established 1986		**Research areas/departments**	Health		
Organisational form	Limited company						
Owners	University of Bergen (85%) Stiftelsen Universitetsforskning Bergen (15%)						
Economy	**2013**	**2014**	**2015**	**Personnel**	**2013**	**2014**	**2015**
Operating revenue million NOK	85.8	93.1	105.6	Total FTEs	75.0	76.7	81.7
Core funding	0.0%	0.0%	4.5%	Researcher FTEs	39.5	44.9	52.0
Management	64.0%	62.3%	55.6%	Of which women	27.1	28.5	34.0
RCN contribution	5.9%	13.5%	12.3%	Researchers per total FTE	53%	59%	64%
Other Norwegian contribution	1.9%	1.9%	5.7%	PhDs per researcher FTE	58%	65%	62%
Norwegian commission income				Resignations per researcher FTE	..	2%	..
Public administration	20.6%	15.2%	18.0%	**Outcome**	**2013**	**2014**	**2015**
Business	0.0%	0.8%	0.3%	Publication points per researcher FTE*	0.79	1.14	1.5
Other	4.9%	3.8%	2.6%	Total number of publications 2013-2015**			255
International income				Share level 2 publications**			15%
EU funding	2.1%	2.1%	0.3%	Total number of publications 2013-2015 per researcher FTE***			..
Business	-	-	-	Number of PhD students	..	38	20
Other	0.3%	0.2%	0.8%	Number of awarded PhD degrees	7	3	13
Other income	0.0%	0.3%	0.1%	Of which women	4	2	10
Operating result million NOK	1.3	5.1	3.6	**Core funding criteria**	**2013**	**2014**	**2015**
Equity million NOK	..	..	..	Share commission funding	..	..	..
				Share RCN + EU funding	..	..	..
				Publication points per researcher FTE*	..	..	..
				Total FTEs	..	..	..

Source: Data in black from RCN's annual institute reports unless otherwise noted, data in red from Uni Research Helse.
.. Data not available.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from Uni Research Helse.
*** Average FTEs for 2013-2014 have been applied to normalise data from bibliometric analysis.

Uni Research has a complex history, but was essentially set up by UiB as a way to externalise contract research and contract researchers. It became a shareholder company in 2003. Uni Research Helse is the largest of Uni Research's departments. Per December 2015 it employed 132 people with a total FTEs of 82.

Currently the Institute is organised into the following research groups.

- Dental Biomaterials Adverse Reaction Unit
- Grieg Academy Music Therapy Research Centre
- National Centre for Emergency Primary Health Care
- Regional Centre for Child and Youth Mental Health and Child Welfare
- Research Unit for General Practice in Bergen
- Stress, Health and Rehabilitation
- Technology for Practice

Relevance of the institute to its intended users

The institute works on healthcare systems and practices with a mix of highly specialised applied research areas (e.g. Dental Biomaterials Adverse Reaction Unit and Grieg Academy Music Therapy Research Centre) and broader areas such as such as research on General Practice, Mental Health, Child Welfare and Work-related Disability. It defines itself as having a strong orientation to practice, while aiming to maintain scientific quality, on which it is also measured. It is a national competence centre in four areas of practice specified primarily by the Ministry of Health and Care Services. Being the host of these centres the orientation towards practice and relevance is engrained into the basic organisational structure of Uni Research Helse. It also has very active cooperation with the Municipality of Bergen and Hordaland County. Its work has clear impacts on practice and many of the staff are practitioners who work part-time at the Institute. While the Institute regards UiB as a very important partner, it distinguishes itself from the university via its strong focus on relevance and practice.

The institute's capability and the quality of its research outputs

The centre is nationally and regionally, not internationally, orientated. It has a significant scale overall, though it maintains a fairly long and diverse list of activities so not all of these are necessarily at critical mass. Part of the basic appropriation has been used to strengthen research groups where the institute seems to be below critical mass. The qualification level of the research staff is good with 18 PhDs and 10 Researcher 1's out of 31 permanently employed full time researcher (or, including temporary positions; 26 PhDs and 10 Researcher 1's out of a total of 55 full time researchers). The production of publication points is fairly strong compared with other welfare and society institutes, which is a convincing result for an applied research institute such as this. A significant part of the output is concerned with communications and professional development so it is impressive that there is still a good amount of scientific output. There is scope to improve the cooperation with UiB, which does not work as well as the corresponding university-institute relationships in Oslo and Trondheim. This would strengthen the research underpinning of the practical work.

The panel's impression is that the Institute's written work is more often solid than outstanding. The institute produces a large number of practice-orientated publications, including guidelines and handbooks. When it publishes in scientific journals, it tends to do so in good but (necessarily) practice-orientated ones that are not the most prestigious, essentially because of their subject matter. It would be interesting to see whether the Institute could aim higher in its future publication strategy.

Uni Research Health plays part in PhD education (and is also part of a national graduate school). This has the obvious advantage of easing recruitment and injecting new competencies into public health care systems when PhDs return to the world of practice.

The institute's ability to recruit, retain and develop the careers of researchers

The institute is an attractive employer both in terms of permanent careers and as a place through which to pass on the way to university employment. The institute competes with its main shareholder UiB for qualified research personnel, but claims to often to be on the winning side. It seems to be also to be competitive with respect to attracting professional staff from the world of practice.

There appears to be a good balance among different levels of personnel and there are no apparent skill shortages. However, the institute recognises a need to improve project management. It has used parts of the basic appropriation for 2015 to strengthen research coordination capacity, e.g. for advising research group leaders and project leaders in writing applications and project administration. In general, the institute sees a major challenge with respect to building up robust research groups stemming from the system of research funding where programme funding only covers recruitment positions and not senior researchers.

Role of the institute in the Norwegian research structure

Uni Research Health works in fields of interest not only nationally but internationally. In a broad sense it is not unique, though it does have some specialised areas such as music therapy where it seems to play a distinct role in the Norwegian division of labour. Its role in relation to UiB needs to be clarified in the light of the university's decision not to absorb Uni Research. Equally, the status of the national competence centres needs to be reviewed with the Ministry of Health and Care Services HOD, though for the time being its 'ownership' of the problems addressed by these centres is clear and strong. The institute's heavy dependence on such funding is both a strength and a source of potential vulnerability.

Spatial reach of the institute's collaborations

Spatial reach is the Achilles Heel of the institute, especially in relation to funding. It is barely exposed to international competition, even if there is an ambition to increase its international activities and there are a number of international co-publications. This is an issue both in terms of access to problems and in developing an understanding of the international research frontier. It also means that the institute is not competitively benchmarking itself against the international level. Its long list of friends in universities abroad, however, provides an excellent basis on which to build more international exposure.

Social and economic impact of the institute's activities

The institute provided impressive impact examples. The close relation to practice and fairly close relation to policymaking support the idea that social impact is strong. For example, the four competence centres appear to be valued by the Ministry of Health and Care Services, though the overall arrangements for maintaining such competence centres are under review.

Quality and realism of the institute's strategy

The institute's strategy seems evolutionary and reactively to follow – perhaps to too great an extent – swings in the market and customer demands. There were few clear priorities set and little sense that the institute is proactive in thinking about its future. The institute has a long list of co-operators and competitors, suggesting that its focus is a bit diffuse. Some specialisations (e.g. music therapy) are clearly sharper than others. Nor was it really evident what comparative advantages the institute could build upon or develop in order to make its position more unique and defensible as well as establishing some peaks of excellence that could lift it into the international arena. The institute needs to set a clearer direction so that is has a better sense of how to recruit and develop and in order to develop a stronger and more sustainable position.

Appropriateness of the framework conditions to the institute's mission

Health is a rather special field, in the sense that it is a massive area of state expenditure and that health policy changes have important implications for what research needs to be done. Research on primary medicine is poorly anchored in the health system, and the balance between practice and research is tilted more towards practice than in other areas, so it is a somewhat risky area in which to operate even if it is of great social significance. The institute is grateful for the fact that it has finally received some core funding, which inter alia has the effect of slightly increasing its independence from UiB. Otherwise, the continuing dependence on UiB needs to be resolved if the institute is to develop properly. Its current status as a 'pendant' impedes the development and deployment of strategy.

In common with some other institutes, Uni Research Helse pointed out that some RCN programmes will only fund PhDs and junior researchers. Unlike the universities, where senior researchers have tenured positions, the institutes do not have internal funds to pay salaries and are therefore disadvantaged in these cases.

Recommendations

Uni Research Health is a solid institute, tackling national health and welfare issues while being deeply embedded in the Western Norwegian university and healthcare systems. It is highly relevant to its users and appears to have a substantial impact on practice in the healthcare system and in policy. However, its role in the national division of labour is not adequately distinct and its somewhat ambiguous status in relation to UiB impedes the development and implementation of strategy. Becoming at least a little visible internationally should be a high priority, in order to raise the quality and visibility of the institute's work and to challenge its performance and expectations, which risk being somewhat provincial. Uni Research Health could also usefully review its use of different scientific publication channels with a view potentially to addressing higher-status journals.

6.3 Regionally anchored institutes

6.3.1 Agderforskning AS

Established	2004	Stiftelsen Agderforskning established 1985
Organisational form	Limited company	
Owners	University of Agder (50.1%) Stiftelsen Agderforskning (49.9%)	
Research areas/departments	Industrial development Regional development Innovation in the public sector Cultural and creative industries Equality and integration	

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	32.7	39.9	43.0
Core funding	10.9%	9.3%	9.0%
Management	-	-	-
RCN contribution	22.1%	31.1%	27.8%
Other Norwegian contribution	23.6%	27.0%	34.3%
Norwegian commission income			
Public administration	21.8%	9.3%	13.5%
Business	8.9%	11.4%	9.0%
Other	9.4%	9.4%	2.6%
International income			
EU funding	0.1%	1.9%	-
Business	-	-	-
Other	3.2%	0.5%	3.8%
Other income	-	-	-
Operating result million NOK	-0.1	0.3	0.0
Equity million NOK	4.2	4.7	4.9

Personnel	**2013**	**2014**	**2015**
Total FTEs	25.4	23.9	23.7
Researcher FTEs	22.0	20.5	20.1
Of which women	13.0	11.3	10.3
Researchers per total FTE	87%	86%	85%
PhDs per researcher FTE	55%	49%	55%
Resignations per researcher FTE	18%	29%	10%

Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	1.20	0.63	0.49
Total number of publications 2013-2015**			71
Share level 2 publications**			10%
Total number of publications 2013-2015 per researcher FTE***			3.4
Number of PhD students	6	8	7
Number of awarded PhD degrees	1	-	1
Of which women	1	-	1

Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	63%	50%	41%
Share RCN + EU funding	41%	36%	46%
Publication points per researcher FTE*	0.88	0.94	0.78
Total FTEs	22	21	20

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

Agderforskning is a regional research institute located in Kristiansand. Originally established in 1985, its current employment is almost 25. It conducts research on regional innovation in clusters, creative industries, innovation in the public sector, gender equality and inclusion, and industrial development and innovation management. Its research is especially related to regional innovation systems, culture and commerce with respect to experience-based tourism and health and welfare issues.

Relevance of the institute to its intended users

Agderforskning is highly relevant to policymakers and businesses in its region and to a lesser degree to national policymakers, e.g. in cluster and cultural economy research. It collaborates closely with regional industry and has completed 350 industry projects for the Agder region under the VRI umbrella. Agderforskning is nationally leading in cluster research, for which it has had a framework contract with Innovation Norway since 2009 (Norwegian Innovation Clusters).

The institute's capability and the quality of its research outputs

Agderforskning's publication output varies somewhat from year to year, but around a rising trend. There have been large variations between years, but the institute raises the average for the regionally-based institutes. Agderforskning publishes in English on theories developed based on applied R&D. It finds it problematic that some publications and scientific-writing skills 'disappear' to UiA due to researchers having positions at both the institute and UiA. As a network organisation with only about 10 full-time researchers and more than 30 part-time employees, it is challenging to retain a stable core base of competence.

Agderforskning is highly skilled in network facilitation with the business sector, the results of which are delivered in reports and in industrial practice.

The institute's ability to recruit, retain and develop the careers of researchers

The institute has failed to grow organically due to severe leakage to University of Agder (UiA), a newly established and growing university. This is recognised as a problem, and the only way to grow is seen to be a merger. The institute has successfully coped with this situation by forming a network organisation of more than 30 researchers, 71% of whom have a PhD. However, this means that only 10% of personnel are employed full time, so Agderforskning to a large extent is a network institute (20 man-years in research).

The contribution of Agderforskning to PhD education is relatively modest.

Role of the institute in the Norwegian research structure

Agderforskning has a clear role in terms of cluster and business-sector research. Action-oriented research is also in focus. Agderforskning has a national role to produce business cycle data from the companies in the region to the Bank of Norway in order to support its decisions on monetary policy. The institute considers the division of labour with UiA and consultancies as unclear. It has strengthened its ability to win research grants over the last ten years, and is relatively competitive in this area.

Spatial reach of the institute's collaborations

Agderforskning has a large, mainly Norwegian network. The research network is strong nationally and regionally, but only occasionally involves international partnerships. The institute is relatively competitive in getting research grants in collaboration with local and regional non-academic actors.

Social and economic impact of the institute's activities

The institute has had a strong local and regional impact on industry, e.g. on oil, metal, and the experience industries. It has spun off a technical institute, which started as an institute project.

Quality and realism of the institute's strategy

Agderforskning's turnover has decreased during the last ten years and the institute has been obliged to increase its share of income from the commissioned research market. It is in merger negotiations with other West Norwegian institutes. If this is realised, there will be an opportunity to generate a new strategy based on a wider set of capabilities and potentially a more stable economic base. In the current situation, it is difficult to assess the use of core funding given the impending organisational upheaval.

Appropriateness of the framework conditions to the institute's mission

The institute is frustrated by the owner UiA's lack of interest in furthering the institute's interests. There is no guidance from the owner and in general no guidance on the future of the institute sector from RCN. The institute's experience is that "the third way" between research and consultancy work is not sufficiently acknowledged by the RCN. The institute has benefited from funding via the regional research fund but the termination of the VRI programme and RCN programmes designed to let institutes play a significant role pose threats to Agderforskning.

The institute realises that its moderate size is insufficient in tackling ever-larger R&D project calls, both nationally and internationally (H2020).

Recommendations

Agderforskning should proceed with the merger talks. However, regardless of the future organisation, this institute should keep on asking its owners for more guidance and a clearer division of labour. Agderforskning should build on its strengths in cluster research and research on the experience economy in order to get national and international research grants and increase the number of international publications.

6.3.2 Møreforsking (Møreforsking)

Møreforsking				
Established	2008	Stiftelsen Møreforsking established 1980	**Research areas/departments**	Health and education Logistics Marine Industrial economics and policy Society Transport economics
Organisational form	Limited company			
Owners	Møre og Romsdal county (36%) NTNU, Molde and Volda university colleges (18% each) Stiftelsen Møreforsking (10%)			

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	51.8	49.8	59.4
Core funding	8.7%	9.6%	8.6%
Management	-	-	-
RCN contribution	12.3%	0.7%	14.7%
Other Norwegian contribution	3.6%	8.7%	18.8%
Norwegian commission income			
Public administration	28.9%	34.3%	28.8%
Business	38.7%	39.7%	22.3%
Other	2.8%	3.9%	0.3%
International income			
EU funding	-	-	-
Business	3.5%	0.9%	0.0%
Other	0.7%	-	-
Other income	0.8%	2.2%	6.6%
Operating result million NOK	-0.9	-0.9	2.7
Equity million NOK	13.7	13.3	19.3

Personnel	**2013**	**2014**	**2015**
Total FTEs	42.0	42.0	41.7
Researcher FTEs	38.3	38.1	38.6
Of which women	17.7	20.3	19.7
Researchers per total FTE	91%	91%	93%
PhDs per researcher FTE	50%	34%	31%
Resignations per researcher FTE	10%	24%	13%
Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	0.09	0.20	0.55
Total number of publications 2013-2015**			48
Share level 2 publications**			4%
Total number of publications 2013-2015 per researcher FTE***			1.3
Number of PhD students	1	1	4
Number of awarded PhD degrees	1	-	-
Of which women	1	-	-
Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	80%	76%	71%
Share RCN + EU funding	14%	14%	18%
Publication points per researcher FTE*	0.08	0.14	0.28
Total FTEs	38	38	39

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

With an annual turnover of nearly 60 mill NOK, Møreforsking is one of the largest regional institutes. Since the turn of the century, the institute has grown incrementally and currently employs about 40 researchers. Set up in 1980, it was a foundation until 2008, when it became a limited company. The foundation still owns 10 % of the shares, whilst Møre and Romsdal County has 36 %. The remaining shares are in the hands of NTNU 18 %, Volda University College 18 % and Molde University College 18 %. Møreforsking operates on three campuses with three geographical locations. The institute's organization is closely aligned to the structure of the university and university college sector in the region, matching their research specialisations (Forskningsrådet 2012: 52). With the recent mergers in the University/College sector and Høgskulen i Ålesund becoming part of NTNU from January 2016, NTNU has become a new, major shareholder.

The institute conducts research in the following main areas: Marine research (marine resources and fishing, processing, biotechnology and market in the marine sector) and Society (covering areas such as economics, social development, health, education/schools, transportation, sustainability, and tourism).

Relevance of the institute to its intended users
The institute is well networked within the region's clusters and responds to regional and global needs. It is also globally networked. The international connections spring from its collaboration with companies in the region that operate globally, typically in global industrial clusters (e.g. marine and maritime, petroleum, industry and tourism). The user orientation and applied research approach is clearly reflected in the institute's mission statement – where societal impact is at the core of the research. The institute is also perceived as an attractive partner for businesses to pair up with in applying for funding.

The institute's capability and the quality of its research outputs
With a total of 42 FTEs, Møreforsking's total capacity exceeds the average institute size in the social science sector. It is among the well-endowed regional research institutes as measured in the number of research person years (38 R&D FtE). However, with three (at least) locations and several research areas, the actual capability of the research groups appears to be more fragile than the overall size of the institute would suggest. The proportion of employees with a PhD has tended to be slightly below the average in the social science institute sector (Forskningsrådet 2016b: p. 21).

The institute substantially increased its scientific production in 2015 after a dismal performance in prior years. It seems likely that this is the result of the institute's strategy to increase scientific publishing and the institute expects to achieve a higher level in 2106 and 2017. The 2012 evaluation criticised the low level of scientific publication and may have helped focus minds in this respect. The share of publications at level 2 is low, which is another indication of the challenges the institute faces when it comes to producing high quality research outputs. Møreforsking is aware of the its Achilles heel with respect to scientific output and says it is working towards an "increased scientific approach" by seeking new types of funding base for its projects. The question remains whether the institute has found the appropriate strategy to effectively "live its ambitions" (see below).

The extent to which this is applied *social science* and the role of the social science in the institute's multidisciplinary profile and interaction with its users is not that clearly articulated. We also note that the institute's engagement with what they see as basic research is within the natural sciences, transportation and clusters – for example when it comes to projects researching changes in the fish distribution and species composition as a result of climate change (project funded by Ministry of Foreign Affairs). The institute reports substantial production of in non-peer reviewed channels.

The institute's ability to recruit, retain and develop the careers of researchers
The institute's new strategy involves hiring PhDs, in part to increase scientific production. Recruitment of qualified personnel is not a large problem – the institute recruits locally and is also able to attract personnel from outside the region. They do point to some difficulties with attracting the relevant competence profile at the PhD level in the region for conducting applied research. And as it says, "the more we increase the competence among our staff the more we tend to lose it". Some "losses" to the universities are noted. The institute strategically develops researchers and now has 5 employees with PhD scholarships.

Role of the institute in the Norwegian research structure
The institute is committed to and convincing in its regional role. It maintains a clearer division of labour vis-à-vis the regional colleges and NTNU than many other institutes, with a much stronger emphasis on applicability and use, bridging between users and the higher education institutions. Being owned by three HEIs facilitates co-existence with the regional knowledge institutions, but it also contributes to the fragmentation of the institute, with five owners, three sites and the several research areas it aims to cover. With the recent merger in the higher education sector, NTNU has entered as a major owner of Møreforsking and a new dynamic might come into play. This might have implications for its interaction with the university sector and also imply a more national role for the institute. How this will play out depends on both how NTNU as owner will relate to Møreforsking and also how NTNU campus Ålesund will develop.

Spatial reach of the institute's collaborations
The institute has mainly a regional reach, with some national collaboration. There is a little 'indirect' international presence via Møreforsking's regional business and industry collaborators. While the institute wants to obtain EU funding, this ambition has not yet been realised to any significant extent. The new structure

and relationship with NTNU may better position the institute to achieve this aim. So far, Møreforsking is far away from reaching its stated target of obtaining 10% of its annual turnover from international funding.

Social and economic impact of the institute's activities

The institute's multidisciplinary approach is a considerable asset for achieving social impact. Most of the impact the institute claims are from multidisciplinary projects; considerably fewer projects clearly rooted in the social sciences were shown to have societal impact. The institute has presented convincingly how its innovation project SMARTprod has resulted in efficiency gains in the shipbuilding industry. This project is also an example of how the Institute incorporates social science into its innovation projects, in this case an analysis of the challenges of multi-cultural work force in the ship-building industry. Another compelling example of economic impact is from research on deep sea resources in the North Atlantic sea. Møreforsking's sustained effort over more than a decade has contributed to the commercialisation of new species and to developing alternative production processes in the fishing industry. This research area combines international publishing, policy advice, interaction with industry as well as dissemination to the wider public.

Quality and realism of the institute's strategy

Møreforsking's ambition is to raise capacity substantially, continuing on the path of controlled growth it has followed in the 2000s. The institute sees itself as being strategically positioned in the middle of areas that are high on the political agenda. It has a well-developed and challenging strategy, but it is not clear that it is the right one to build a strong and sustainable institute in the social sciences. The institute makes well-considered use of its core funding, but the organisational and governance model with four boards does not necessarily support this strategy. On the other hand it has been a good move to recruit industry and HEI representatives to the boards. The institute needs alliances in order to strengthen its social science research groups.

Appropriateness of the framework conditions to the institute's mission

The criteria for basic funding from the research council are seen as appropriate and support the ambitions of the institute. Interviewees say the institute is well prepared for competition from HEIs since it collaborates extensively with its three HEI owners. The Research Council of Norway's funding instruments, too, seem highly relevant for an institute with Møreforsking's orientation – especially considering the challenges that confront the institute in developing and nurturing its scientific competences on a long term basis. Non-mainstream RCN instruments such as Centre- and Cluster-programmes and VRI have been important factors in enabling strong collaborative efforts.

Recommendations

Møreforsking is in a position to benefit substantially from its new ownership structure and has the opportunity to become more explicit about how to do so. The focus on increasing scientific output is sensible in the circumstances, but it needs to become clearer about the role of social science in achieving impact. It seems that the most effective role can be to bring a social science dimension to interdisciplinary projects. Further increases in staff qualifications and capabilities are needed and the organisation and role of the institute and its strategy in the new constellation of owners needs to be resolved in a way that both exploits the strengths of Møreforsk's partner institutions and reduces the disadvantages imposed by a multi-site structure.

6.3.3 Nordlandsforskning (Nordland Research Institute)

Nordland Research Institute (Nordlandsforskning)

Established	2010	Stiftelsen Nordlandsforskning established 1979	**Research areas/departments**	Entrepreneurship Welfare Environment
Organisational form	Limited company			
Owners	Nord University (51%) Stiftelsen Nordlandsforskning (49%)			

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	39.5	41.0	40.8
Core funding	9.5%	13.0%	11.4%
Management	-	-	-
RCN contribution	30.7%	28.2%	39.8%
Other Norwegian contribution	28.0%	36.6%	27.4%
Norwegian commission income			
Public administration	17.6%	16.9%	15.6%
Business	13.9%	2.8%	3.9%
Other	-	1.6%	-
International income			
EU funding	0.4%	0.7%	0.1%
Business	-	-	-
Other	0.4%	0.1%	1.0%
Other income	-0.5%	0.2%	0.8%
Operating result million NOK	1.3	1.3	2.1
Equity million NOK	9.1	10.4	12.8

Personnel	**2013**	**2014**	**2015**
Total FTEs	35.0	36.0	39.7
Researcher FTEs	31.0	32.0	35.7
Of which women	19.0	20.0	23.6
Researchers per total FTE	89%	89%	90%
PhDs per researcher FTE	48%	50%	56%
Resignations per researcher FTE	19%	16%	6%
Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	0.79	0.41	0.53
Total number of publications 2013-2015**			81
Share level 2 publications**			37%
Total number of publications 2013-2015 per researcher FTE***			2.5
Number of PhD students	6	2	6
Number of awarded PhD degrees	2	1	3
Of which women	2	1	2
Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	55%	37%	25%
Share RCN + EU funding	50%	51%	62%
Publication points per researcher FTE*	0.55	0.53	0.58
Total FTEs	31	32	36

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

The institute was originally started in 1979, at the beginning of the wave of regional institute expansion in Norway. It currently employs about 40 people and has three research teams.

- Welfare
- Environment
- Entrepreneurship, innovation and regional development

Relevance of the institute to its intended users

Nordland Research Institute sees itself as a regionally based national institute. It finds its research topics regionally, but argues that they are of national/international relevance, especially its research on childhood and educational participation, tourism, sustainable development and adaptation to climate and environmental change. Its users are therefore both at regional, national and international policy level and in regional and national business. The institute says it has focused on three topics so as to increase its competitiveness, in response to the 2012 evaluation, which criticised its fragmentation across five topics.

The institute's capability and the quality of its research outputs

Nordland Research Institute meets the Research Council of Norway´s requirements for receiving basic funding. It aims to use data from commissioned research projects as a foundation for scientific publications, but in its own view more needs to be done in this respect. In 2015 the institute´s research was made up of 14 percent basic science, 70 percent applied science and 16 percent development projects. The share of level 2 publications has increased from 14% (2007-09) to 37% (2013-15). The institute has as part of its strategy to increase its moderate scientific output.

The institute's ability to recruit, retain and develop the careers of researchers

Like many institutes located near universities, Nordland Research Institute gets both advantages and disadvantages when it comes to staffing. This became evident when Bodø College made the transition to being a university, since when there has been a small flow of people to the new university. At the end of 2015 the institute employed 41,4 researchers, split into solid research teams of 9-16,5 employees. It has a high share of PhDs on the staff (30), and internationally recruited professors.

Role of the institute in the Norwegian research structure

Nordland Research Institute is now established in a number of niches. The relation to Nord University might be slightly problematic due to the new requirements for HEIs to win commissioned income and competition for Framework Programme coordinatorships and will need to be managed. This is one of several similar institutes nationally, so there is scope for increased differentiation in order to establish and to be better able to defence sustainable niches.

Spatial reach of the institute's collaborations

There is some international collaboration, but almost entirely with Norwegian funding. The institute obtains very limited Framework Programme funding. While it is stepping up its efforts to increase this, the panel is not convinced that these efforts are sufficient.

Social and economic impact of the institute's activities

Nordland Research Institute offered several examples of impact, some of which appear to have had notable effects on welfare and tourism. The institute also has some research projects with national impact. At the national level, Nordland Research Institute has played an important part in developing new non-incarceration punishments for young offenders - "ungdomsstraff" or "ungdomsoppfølging" (sanctions or supervision). In a regional context, it conducts research on long term effects of environmental hazards on welfare, settlement and business development in the High North. The institute has also made important contributions to research on how to develop an innovative tourism industry capable of increasing growth and tourist flows to the region.

Quality and realism of the institute's strategy

The strategy of fewer and more focused research topics seems appropriate, and the implementation process seems genuine and will probably be effective in the long run. International orientation and increased scientific production are also part of the strategy but it is not clear how these will be achieved.

Appropriateness of the framework conditions to the institute's mission

The institute believes that both RCN's programmes and government policy favour HEIs over the institute sector and that RCN's institute PhD programme entirely favours TI institutes. The institute would like to see core funding reward regional presence and non-NPI production.

Recommendations

Nordland Research Institute makes important contributions to research, especially at a regional level but also in the area of environment. The institute should increase its interaction with its owners. It should continue its efforts to focus the institute's activities and personnel so as to establish the advantages needed to play a fuller role at the national level. More specific measures will be needed in order to realise the ambition of increased international participation and increased scientific production. This will involve particular attention to aligning the skills and availability of researchers and the pattern of demand.

6.3.4 Norut Northern Research Institute AS

Norut Northern Research Institute (Norut)

Established	1992	Research Foundation of the University of Tromsø established 1984	**Research areas/departments**	Regional development Implementation of innovation Nature and environment
Organisational form	Limited company			
Owners	University of Tromsø (majority owner), Siva, Nordland County Council, Troms County Council, Troms Kraft			

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	28.8	26.4	26.6
Core funding	18.8%	21.0%	20.9%
Management	-	-	-
RCN contribution	17.9%	16.2%	16.8%
Other Norwegian contribution	3.5%	24.3%	32.7%
Norwegian commission income			
Public administration	39.8%	24.4%	14.5%
Business	12.9%	5.8%	8.3%
Other	0.1%	0.4%	2.4%
International income			
EU funding	3.4%	6.2%	1.4%
Business	0.3%	-	-
Other	2.1%	0.4%	1.7%
Other income	1.1%	1.3%	1.2%
Operating result million NOK	-3.1	-3.0	-5.4
Equity million NOK	20.6	15.3	16.1

Personnel	**2013**	**2014**	**2015**
Total FTEs	28.3	25.0	22.3
Researcher FTEs	24.6	20.9	18.6
Of which women	13.7	11.5	9.3
Researchers per total FTE	87%	84%	83%
PhDs per researcher FTE	49%	58%	65%
Resignations per researcher FTE	16%	19%	27%
Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	0.57	0.28	0.61
Total number of publications 2013-2015**			46
Share level 2 publications**			9%
Total number of publications 2013-2015 per researcher FTE***			2.2
Number of PhD students	5	3	1
Number of awarded PhD degrees	-	2	2
Of which women	-	2	2
Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	58%	49%	37%
Share RCN + EU funding	26%	32%	40%
Publication points per researcher FTE*	0.53	0.42	0.49
Total FTEs	24	21	19

Source: Data from RCN's annual institute reports unless otherwise noted. Data for 2013 and 2014 are the combined data for Norut Tromsø and Norut Alta, which merged in 2015. Core funding criteria calculated by RCN based on past three years; for 2013, first three criteria calculated by taking the average data for Norut Tromsø and Norut Alta weighted by researcher FTEs.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

Norut Northern Research Institute is a multidisciplinary research and innovation company with about 120 employees. It was established in 1984. The social science research, which is dealt with here, is on regional development, implementation of innovation, and nature and environment. The main part of the social science research is about North Norway and the high north. Current employment is just over 20.

Relevance of the institute to its intended users

Over the last five years the institute has pursued a strengthening of its research production, as well as a closer cooperation with the technology part of Norut Northern Research Institute and with natural sciences research centres (e.g. FRAM - the High North Research Centre for Climate and the Environment). While the institute holds a visible and important role in the description and exploration of regional issues, it has produced few research projects of national importance. The institute considers it important to mobilise new (regional) actors to perform or buy R&D.

Norut Northern Research Institute has some business collaboration, partly through the technology parts of the institute. They are pursuing closer relations with their clients, and for gaining more clients from the business sector.

The institute's capability and the quality of its research outputs
Norut Northern Research Institute's social research group has 18 researchers, of which 13 hold a PhD. Ten to eleven of the employees hold a PhD. The institute sees a need to specialize in certain research topics, mainly implementation and innovation research. It has experienced lumpy and declining scientific production, owing to the small number of research staff and personnel turnover, but the production of publication points per FTE researcher has held up. The share of level 2 publications has decreased significantly from 25 percent in 2007-09 to 10 percent in 2013-15. There appears to be no evident plan to increase the scientific capacity and quality through scientific publication. The institute seems vulnerable and sub-scale.

The institute gets from about a third to over half its income from commissioned work. The panel finds it difficult to assess quality, but it appears to satisfy requirements.

The institute's ability to recruit, retain and develop the careers of researchers
Norut Northern Research Institute is located in Tromsø and Alta. Its proximity to the University of Tromsø (UiT) has played an important part in enabling the institute to recruit qualified personnel. However, recruiting and replacing specialized personnel seems to be challenging. The institute has a high ratio of PhDs compared with other regionally based institutes. Junior recruits often come from UiT, but the institute also loses senior personnel to UiT.

Some PhD candidates work part time at Norut Northern Research Institute, but although its staff have co-supervised PhD students in the past, currently there are no such arrangements in place.

Role of the institute in the Norwegian research structure
The institute has an obvious regional focus and a clear role in the regional context. Norut is often the natural choice and a preferred partner in projects focused on its region. The institute reports that it has focused its production in recent years but is still covering a rather broad spectrum of topics in order to secure the necessary income.

Spatial reach of the institute's collaborations
Norut Northern Research Institute has some research collaboration with other institutions, mainly other institutes specialising in the High North. This includes collaboration with actors in Russia, Finland, Sweden, Canada and others. However, the institute receives very little funding from abroad. The institute has also participated in several InterReg and ENPI CBC projects with partners from other countries.

Norut Northern Research Institute's social research group receives a rather limited amount of EU funding, but has started its first Horizon 2020-project. Two more applications have been submitted. (However, it is involved in many projects within technology, even with coordinator responsibilities, using the experience from these projects in its social research). Internationalization is important to Norut Northern Research Institute. The STIM-EU scheme has made it more appealing to apply for EU funding. About one quarter of its projects involve international participation. This includes projects funded by RCN.

Social and economic impact of the institute's activities
The impact of the institute's research is mainly on regional and High North issues, consistent with its mission. The formative evaluations of the two big industrial projects "Snøhvit" and "Goliat" have documented important societal effects. For instance, they have contributed to important knowledge on the design of contractual regimes, the regional distribution of supplies to development projects, and how youths in High Schools have adjusted to the changes in the business structure in Finnmark.

Quality and realism of the institute's strategy
The institute reported that its strategy was to focus further within existing areas of specialisation but also explained the need to be opportunistic in finding and exploiting opportunities. Norut Northern Research Institute is aiming for growth within research on implementation and innovation, wants closer relations with its

clients and is trying to win more clients from the business sector. According to Norut Northern Research Institute´s social research group, they have an advantage when it comes to implementation and innovation research due to its closeness to the technology research groups of the institute. However, Norut Northern Research Institute does not appear to have initiated adequate measures to reap the benefits. In its self-assessment, the institute states its intention to increase its staff of FTE researchers to 20 people, in line with the guidelines for basic funding. However, it lacks a solid plan for increasing its long-term capacity in accordance with the ambition to establish solid research teams of 10 researchers in each. The institute uses its core funding to support publication but does not have a more explicit strategy for increasing the scientific production of the institute.

The social research group sees its close relation to other parts of Norut Northern Research Institute as an advantage, both in terms of technical skills, Framework Programme experience and administration.

Appropriateness of the framework conditions to the institute's mission

According to the institute, there are some unfortunate conditions in the division of labor between the institute and the university and college sectors. In their opinion, the demands on the universities and colleges to get external funding leads them to hire personnel that makes them appear more like institutes. They also refer to the universities and colleges receiving more credit in the performance-based research funding system than the institutes for receiving EU funding. It considers competition from HEIs as unfair, mostly due to different systems for funding.

Recommendations

The institute plays an important role in providing regional capacity in social science research. In the view of its decline in employment and level 2 publications, there is a clear need to raise the level of both, not least because the overall size of the institute risks falling below a sustainable number of people. In principle, this should be done through increased specialisation. The institute also should develop a clearer strategy and priorities regionally and nationally. It is important to strengthen scientific production, measured by the number of scientific publications.

6.3.5 Telemarksforsking (Telemark Research Institute)

Telemark Research Institute (TRI) (Telemarksforsking)			
Established	1988	**Research areas/departments**	Health and Welfare Studies Local Public Finance and Organisation Cultural Policy Studies Regional Development
Organisational form	Foundation		
Owners	N/A		

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	34.0	34.6	38.6
Core funding	12.9%	11.7%	9.1%
Management	-	-	-
RCN contribution	7.5%	9.0%	5.4%
Other Norwegian contribution	9.2%	10.9%	10.6%
Norwegian commission income			
Public administration	60.8%	58.1%	65.6%
Business	6.7%	1.7%	2.2%
Other	1.0%	2.9%	3.3%
International income			
EU funding	0.1%	1.8%	1.7%
Business	-	0.2%	0.2%
Other	0.2%	1.7%	0.4%
Other income	1.6%	2.0%	1.5%
Operating result million NOK	0.9	0.7	0.4
Equity million NOK	11.2	12.1	12.6

Personnel	**2013**	**2014**	**2015**
Total FTEs	25.8	27.9	28.7
Researcher FTEs	22.0	23.9	24.6
Of which women	8.8	10.5	11.5
Researchers per total FTE	85%	86%	86%
PhDs per researcher FTE	18%	25%	24%
Resignations per researcher FTE	5%	4%	12%
Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	0.36	0.38	0.61
Total number of publications 2013-2015**			36
Share level 2 publications**			11%
Total number of publications 2013-2015 per researcher FTE***			1.5
Number of PhD students	7	5	5
Number of awarded PhD degrees	1	1	1
Of which women	1	1	-
Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	77%	69%	67%
Share RCN + EU funding	11%	17%	20%
Publication points per researcher FTE*	0.53	0.39	0.46
Total FTEs	22	24	25

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

Telemark Research Institute is a regional research institute located in Bø in Telemark. Set up in 1988, it currently employs almost 30 people and has the following research areas:

- Municipal Research
- Culture Research
- Health and Welfare Research
- Regional Development Research

It has national expertise in culture research, municipal and local government structure research, and regional development research.

Relevance of the institute to its intended users

Telemark Research Institute's research is of high relevance, possibly the most nationally relevant of the regionally-based institutes. It has managed to reach beyond its own region to serve public clients throughout Norway. The institute has specialised in three areas: Public local and regional management, cultural studies and regional development. Much of its research consists in combining many small relatively similar projects (e.g. the culture index) for municipalities all over Norway.

Telemark Research Institute is a competence hub in the region and has been very active with knowledge and knowledge brokering ("kompetansemegling") to private businesses. It has provided this service by visiting 355 businesses and through this activity having initiated 50 research projects with private businesses.

The institute's capability and the quality of its research outputs
Currently the institute's scientific impact is moderate, but it has ambitions to increase output and has begun to do so. Many of the data used in publications come from their commissioned research. It engages in ad hoc collaboration with Høgskolen i Sørøst-Norge (HSN) and the University of Oslo on PhD education and development of research projects. Telemark Research Institute is regionally and nationally prominent when it comes to commissioned work and is quite competitive in that respect.

The institute's ability to recruit, retain and develop the careers of researchers
Telemark Research Institute has low personnel turnover, with leavers mainly going to the University College of South-East Norway HSN or local government. The low turnover may in part be due to the lack of alternatives within the local area. It is challenging to recruit PhDs to the campus in Bø. However, the institute contributes to PhD education at different HEIs and finds it problematic that the institute sector lacks their own PhD stipends.

Role of the institute in the Norwegian research structure
Telemarksforsking is strongly user oriented and has a well-defined role with its own niche in cultural and regional studies, which are markets it has itself developed. The institute believes that it perhaps could become more specialised within their topical niches. Telemarksforsking has a nationally leading role in cultural policy studies and research, and is one of several leading actors in local/regional economic matters. Consultancies are the main competitors in the market for commissioned research – a segment in which HEIs are completely absent.

Spatial reach of the institute's collaborations
Telemarksforsking is primarily national in its reach but within the cultural research area it participates in strong international partnerships. Telemarksforsking is among the founders and main contributors of both the International and the Nordic Conference of Cultural Policy Research (ICCPR and NCCPR), both arranged bi-annually over a period of more than 15 years. The institute is also one of 9 sponsors for the peer-reviewed Nordic Journal of Cultural Policy. It now aims to become active in the Framework Programme.

Social and economic impact of the institute's activities
Telemark Research Institute has had significant impact on

- Norwegian municipal and regional amalgamation reform
- Municipality income distribution system (time series)
- Analyses of cultural policies and reform proposals in the cultural sector
- A cultural barometer, ranking the municipalities based on their annual performance in the cultural sector
- The strategic understanding of attractiveness factors behind growth and development in municipalities and regions in Norway, but also Sweden and Denmark

Quality and realism of the institute's strategy
Telemark Research Institute has stable finances and has operated with a surplus for the last 12 years. It gets 75% of its income from national sources and 10-15% from its own region. Any surplus is channelled back into developing researchers' skills and strengthening publishing.

The institute has a strategy to concentrate in its three strong research areas, but the strategy seems to be more implicit than explicit. Development of a more explicit strategy would probably be beneficial for the institute. The strong growth in commissioned work for the local government sector may not last very long, and Telemark Research Institute should develop a strategy to meet that situation. It uses its core funding well and is very successful in using its other resources effectively, such as its competence fund drawn from previous surpluses, especially thanks to the strong growth during the last five years (from MNOK25 to 38 in turnover).

Appropriateness of the framework conditions to the institute's mission

Telemark Research Institute states that too little funding is available for PhD students within the institute sector. In general, it finds RCN's core funding criteria appropriate.

Recommendations

Telemark Research Institute fulfils most of the political expectations of the regionally-anchored institutes to serve the local and regional public sector. It has also developed a couple of national niches were it is highly competitive. The institute has weaker links with the regional private sector. When it comes to scientific publications, Telemark Research Institute could perform better, given that they maintain large data series in cultural and municipal studies. It has not been active in the Framework Programme and while this would be a mark of quality and success, it is less important that it should do this than is the case for the internationally orientated and welfare and society institutes, given its regional mission. However, Telemarksforsking and the other regional institutes should have an obligation to transfer international social science knowledge into the regional and national competence system. The panel recognises that the institute has already sharpened its focus and has changed its structure to be more flexible and adaptive. Nonetheless, it needs further to sharpen its focus within local government studies.

6.3.6 Trøndelag Forskning og Utvikling (Trøndelag R&D Institute)

Trøndelag Forskning og Utvikling

Established	2005	Stiftelsen Nord-Trøndelagsforskning established 1983
Organisational form	Limited company	
Owners	Nord University (48.1%), Stiftelsen Nord-Trøndelagsforskning, SINTEF Holding, municipalities, companies, employees	
Research areas/departments	Welfare and service innovation Innovation systems Entrepreneurship	

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	24.3	23.9	19.2
Core funding	10.3%	11.3%	15.0%
Management	-	-	-
RCN contribution	14.0%	15.9%	8.5%
Other Norwegian contribution	10.7%	2.5%	11.0%
Norwegian commission income			
Public administration	41.6%	49.6%	42.8%
Business	17.3%	19.7%	18.5%
Other	-	-	-
International income			
EU funding	0.8%	-	3.4%
Business	-	-	-
Other	-	-	-
Other income	1.7%	1.1%	0.9%
Operating result million NOK	0.7	-0.3	-1.9
Equity million NOK	9.1	8.7	6.6

Personnel	**2013**	**2014**	**2015**
Total FTEs	19.8	18.9	18.5
Researcher FTEs	18.8	17.9	16.9
Of which women	5.6	5.8	5.9
Researchers per total FTE	95%	95%	91%
PhDs per researcher FTE	37%	50%	24%
Resignations per researcher FTE	11%	11%	12%
Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	0.00	0.23	0.09
Total number of publications 2013-2015**			8
Share level 2 publications**			0%
Total number of publications 2013-2015 per researcher FTE***			0.4
Number of PhD students	1	1	1
Number of awarded PhD degrees	-	-	-
Of which women	-	-	-
Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	79%	78%	74%
Share RCN + EU funding	10%	11%	14%
Publication points per researcher FTE*	0.15	0.20	0.10
Total FTEs	19	18	17

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

The Trøndelag R&D Institute operates in a region with little tradition of R&D. Based on a foundation that dates from 1983, it currently employs just under 20 and aims to add value to its own region as well as to transfer experiences to other regions. The institute´s main areas are: Applied analysis and reports, business development, health, welfare and society and childhood and society.

Relevance of the institute to its intended users Trøndelag R&D Institute aims to contribute to business development in individual companies, business networks and clusters, for instance within the agro-food and other important regional industries. The institute functions as an innovation intermediary, innovation broker or innovation champion. These are functions intended to remove gaps and remove barriers to interaction in regional innovation systems and networks. The majority of the income comes from public administration rather than business.

The institute argues that it should be categorized as a regionally based institute with a national ambition. It is – however – not possible for the panel to identify a topic where the institute has played a significant role on a national basis.

The institute's capability and the quality of its research outputs

The Institute appears to be more of a facilitator and driving force for regional development projects than a true scientific institution. It does almost no scientific publishing. The institute recognises that this is a problem and plans to change the situation.

The institute's ability to recruit, retain and develop the careers of researchers

The institute considers the current personnel structure to be appropriate (it has 50% PhDs), but believes that the share of PhDs is too low considering requirements for scientific production. PhDs are most difficult to recruit in (or to) Steinkjer.

Trøndelag R&D Institute currently has two PhD students on the staff.

Role of the institute in the Norwegian research structure

The institute has a regional focus that clearly distinguishes it from those institutes with a non-regional focus. It could probably strengthen its role within the Norwegian research structure by focusing on more specific research areas. Moreover, its national role is unclear, and it lacks obvious specialities. It is difficult to see the institute in a national role, given its present strategic approach.

Spatial reach of the institute's collaborations

Cooperation with other institutes is important to the institute, among other things to compensate for its small size. The cooperation is mainly regional, but its network does extend nationally to some extent, and in a few cases also internationally. Interreg is the preferred measure for international funding.

Social and economic impact of the institute's activities

Perhaps the greatest asset of the institute is its insight into and understanding of the region. This is a definite strength when it comes to calls for projects and for making the institute a sought after partner. Through its activities in VRI Trøndelag, the institute has inspired the agro-food environment of Mid-Norway systematically to strengthen research based on the needs of industry. The project has helped to enhance the agricultural innovation system in the region. Further, Trøndelag R&D Institute has contributed to strengthen the innovation system of the timber industry through a project portfolio ranging from the REGINN program of Research Council some 20 years ago to projects like "Creating value in the timber industry", the "tree promoter" network coordinated by Innovation Norway and several Interreg projects.

Quality and realism of the institute's strategy

The institute wants to pursue internal knowledge-building, changing some of its output towards scientific publications without weakening its potential value to society. Unfortunately, this appears to be more like wishful thinking than a realistic plan. At the same time, the broad commission portfolio will make it most difficult to realise the institute´s scientific ambition in the panel´s opinion. A real strategy is absent. The institute is facing considerable challenges in scientific and economic terms, but the potential solutions mentioned do not seem to address any of these challenges in a credible manner. The institute listed several different ways to go further, but none of them seemed very convincing. The panel would recommend the owners to take greater responsibility in order to help the institute develop a robust strategy for the coming years. However commendable, the panel does not find these long-term plans credible.

Appropriateness of the framework conditions to the institute's mission

The institute is satisfied with its framework conditions in general and RCN's core funding criteria in particular. The figures above indicate that the institute was in loss and that its number of researchers is below the level required for core funding.

Recommendations

The institute faces huge challenges while poor economics and structural changes to ownership, regional reform, changed structures in competitors and partners. Quick and clear measures from both owners and the institutes' management is needed

- To develop a clear strategy, including a realistic plan for a possible merger with other institutes
- To strengthen the scientific approach in the work conducted by the institute

6.3.7 Vestlandsforsking (Western Norway Research Institute)

Vestlandsforsking				
Established	1985	Founded by Sogn og Fjordane County Council	**Research areas/departments**	Research centre for tourism Environment Innovation Usability
Organisational form	Foundation			
Owners	N/A			

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	24.1	22.8	22.9
Core funding	15.6%	16.9%	17.1%
Management	-	-	-
RCN contribution	12.1%	11.3%	13.7%
Other Norwegian contribution	29.3%	28.5%	23.6%
Norwegian commission income			
Public administration	22.4%	19.0%	23.1%
Business	14.6%	11.0%	5.6%
Other	0.6%	1.8%	0.6%
International income			
EU funding	5.1%	11.3%	15.9%
Business	-	-	-
Other	-	-	-
Other income	0.2%	0.2%	0.3%
Operating result million NOK	0.1	0.4	0.6
Equity million NOK	9.6	10.1	11.8

Personnel	**2013**	**2014**	**2015**
Total FTEs	23.6	23.2	22.8
Researcher FTEs	20.6	20.2	20.1
Of which women	5.0	5.2	5.7
Researchers per total FTE	87%	87%	88%
PhDs per researcher FTE	49%	40%	45%
Resignations per researcher FTE	10%	20%	15%
Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	0.82	0.71	1.36
Total number of publications 2013-2015**			77
Share level 2 publications**			22%
Total number of publications 2013-2015 per researcher FTE***			3.8
Number of PhD students	5	5	2
Number of awarded PhD degrees	1	-	2
Of which women	-	-	-
Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	66%	36%	33%
Share RCN + EU funding	43%	48%	50%
Publication points per researcher FTE*	0.71	0.80	0.96
Total FTEs	21	20	20

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

Western Norway Research Institute was established in 1985 by Sogn & Fjordane County. Central government, industry, business and other stakeholders in the region contributed the start-up funding of the institute. Currently, the institute gets its income from a fairly diverse and well-balanced set of sources, including a high share of funding from the EU. Starting out with around seven researchers in the mid-1980s, the institute had 23 FTE researchers in 2016. Environment and information technology have from the start been two main research areas – more recently, tourism has been added as the third main area.

Relevance of the institute to its intended users

Western Norway Research Institute is a regionally anchored one with close ties to Høgskulen i Sogn & Fjordane and strong links to the regional economy. It is an institute of great regional importance, closely aware of and tied to the needs of its users. We note the high level of repeat purchasing, client satisfaction and relevance to user needs is also an indication of the quality and relevance of the institute. There is less focus on the national level although there are clearly areas of research that have a national relevance. It has a history of service to the business community and public sector in its region, helping to develop a knowledge-based infrastructure through working with clusters, networks and the regional college. Its apparent success in organising the travel and tourism sector is especially noteworthy – it has historically been extremely hard to generate cooperation within this area. Part of its public and private sector influence has been in the area of climate as well as IT and broader business support.

The institute's capability and the quality of its research outputs
Western Norway Research Institute's ability to win roles in regionally-orientated Framework Programme projects is testimony to its quality and relevance. Its performance in terms of publication points is at the upper end of the range in which the regionally anchored institutes find themselves. In the context of the type of work the institute does, this is a strong performance. Moreover, the high level of scientific publishing is impressive, as is VF's track towards more scientific output from its staff that has been evident recently: From averaging solidly at 0.56 publication points per year in the period 2007-2011 to 1,36 as the most recent publication peek.

The institute's ability to recruit, retain and develop the careers of researchers
Western Norway Research Institute notes an increase in good applications at the junior and middle levels but has found it more difficult to recruit at the senior level. Applicants tend to be Norwegian. VF makes a useful contribution to PhD training – in recent years having six PhD students, which is more than usual and perhaps more than the institute really can afford to take on. VF is creative in funding some of the PhDs out of contract research income rather than relying on RCN stipends. The qualification profile is rising as younger people come on board, in line with the expectations of RCN and the broader 'academification' of work in VF and similar institutes.

Role of the institute in the Norwegian research structure
Western Norway Research Institute is clearly positioned as a regionally orientated institute. It has a sharp focus in three thematic areas, two of which are to a degree visible at the Nordic level. Cooperation with the regional University College HiS&F is important to the institute, so that it forms a key component in the binary regional knowledge system. At the same time, the strong orientation of the college towards vocational education and training means that there are areas where the thematic orientation of the two organisations is different.

Spatial reach of the institute's collaborations
The primary focus of Western Norway Research Institute is regional, undertaking regional commissions and doing research on its region, though some of its work is also orientated to the national level. It functions at the European level (Interreg and parts of the Framework Programme) essentially on regionally-orientated projects.

Social and economic impact of the institute's activities
Western Norway Research Institute gave an account of its role in capacity building in the public sector, influence on the national and regional agenda in climate change and effects on regional businesses and clusters. It plays a mobilising and initiating role, especially with business.

Quality and realism of the institute's strategy
The institute has a very clear view of its strengths and weaknesses and its relation to regional needs. Its strategy is to support and develop robust public and private sectors in S&F and this is still consistent with its original mission. It is realistic and well founded. VF is very clear about the need for critical mass at the research group level. It aims to increase its size by adding further thematic specialisations.

Appropriateness of the framework conditions to the institute's mission
Western Norway Research Institute is largely content with its funding but is concerned about the pressures on the universities to invade its traditional 'space' and the degree of in-sourcing and fragmentation in some of the services sought by the ministries.

Recommendations
Western Norway Research Institute is an excellent example of a regionally anchored institute that plays an important part in the development of its region's economy and higher education system. Its performance is good in terms both of quality and relevance. It has a differentiated role in the Norwegian institute system. The main limit to growth is the size of the region. The likely mergers in local and regional government will, on the one hand, increase the extent of the market it could address but on the other also expose it to greater competition. Its track record and continued ability to attract funding from EU framework programmes contributes to the special profile of the institute. Somehow this organisation with a particular location and

specialisations has managed to find both regional niches and role in the European R&D space. It should continue on the basis of its existing strategy.

6.3.8 Østfoldforskning (Østfoldforskning)

Østfoldforskning							
Established	2007	Stiftelsen Østfoldforskning established 1988		**Research areas/departments**	Energy and waste resources Food and packaging Construction and real estate Furniture and textiles Network-based innovation Tools for environmental documentation		
Organisational form	Limited company						
Owners	Stiftelsen Østfoldforskning, Østfold County Council, Fredrikstad Municipality, Sarpsborg Municipality, Indre Østfold Regionråd, Østfold University College, Østfold Energy, COWI, employees						

Economy	2013	2014	2015	Personnel	2013	2014	2015
Operating revenue million NOK	22.6	23.5	29.3	Total FTEs	21.0	17.4	19.4
Core funding	15.2%	15.7%	13.1%	Researcher FTEs	18.7	14.8	16.4
Management	-	-	-	Of which women	10.7	9.8	10.8
RCN contribution	19.0%	15.7%	15.9%	Researchers per total FTE	89%	85%	85%
Other Norwegian contribution	-	-	3.0%	PhDs per researcher FTE	37%	41%	49%
Norwegian commission income				Resignations per researcher FTE	-	7%	6%
Public administration	11.8%	10.4%	11.1%	**Outcome**	**2013**	**2014**	**2015**
Business	54.0%	54.5%	52.7%	Publication points per researcher FTE*	0.40	0.20	0.46
Other	-	-	-	Total number of publications 2013-2015**			13
International income				Share level 2 publications**			54%
EU funding	-	1.5%	2.3%	Total number of publications 2013-2015 per researcher FTE***			0.8
Business	-	-	-	Number of PhD students	2	3	3
Other	-	2.2%	1.9%	Number of awarded PhD degrees	1	-	1
Other income	-	-	-	Of which women	1	-	1
Operating result million NOK	-0.3	0.1	0.4	**Core funding criteria**	**2013**	**2014**	**2015**
Equity million NOK	3.0	5.0	5.6	Share commission funding	71%	70%	65%
				Share RCN + EU funding	16%	16%	21%
				Publication points per researcher FTE*	0.60	0.43	0.36
				Total FTEs	19	15	16

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

Østfoldforskning is a regional research institute located in Fredrikstad, originating in 1988. It has a staff of around 20 and has concentrated its expertise in the following research areas within systems analysis:

- Life cycle assessment of value chains with a focus on environment, functionality and economy
- Sustainability analyses and documentation of product and services as a basis for strategy
- Product development, innovation and improvement of products and processes
- Business network development and innovation systems

The sustainability analysis is concentrated on the following areas: Energy and waste resources, food and packaging, construction and property, and textiles and furniture. In addition, network-based innovation processes, and tools for environmental analyses and documentation concern all areas.

Relevance of the institute to its intended users
Østfoldforskning's research is highly specialized and focused, and has documented high relevance for customers and collaboration partners nationally and internationally. Østfoldforskning has clients among national organisations, public and private organisations and institutions (for instance The Confederation of Norwegian Enterprise, the Norwegian Environment Agency, the Norwegian Food Safety Authority, the Ministry of Agriculture and Food, Østfold County) and regional, national and internationally industrial companies.

The institute's capability and the quality of its research outputs
Østfoldforskning has a variable scientific production that appears to be on the rise, at least in 2016. It is debatable whether the institute's scientific impact is within social sciences or in environmental sciences as most of the research is cross-disciplinary in its nature. The institute is very active on the commissioned research market. It gets around half its turnover from national and regional firms, especially in the field of LCA methods. Most of this funding is based in joint research applications to innovation programs in RCN or Regional Research Funds.

The institute's ability to recruit, retain and develop the careers of researchers
Østfoldforskning does not need to recruit often and does not see its low personnel turnover as a problem. Having an Oslo office (8 employees) makes recruiting and retaining personnel easier. Eight employees have PhDs and three employees are PhD students, which is quite good. Most of the PhD students are in collaboration with NTNU, NMBU and Aalborg University.

Role of the institute in the Norwegian research structure
The institute has a well-defined (and narrow) niche in the Norwegian system. LCA methods are not pure social science, but rather a hybrid science of environmental studies, engineering and social science.

Spatial reach of the institute's collaborations
Østfoldforskning is quite European in its reach, and has gained exposure at European level. Borregaard industries, with Østfoldforskning as a partner, won in 2015 a major H2020 project: Exilva microfibrillar cellulose, which is research to develop plastic from wood, resulting in a 25 million EUR (MNOK232) grant). Østfoldforskning has also been partner in the EU Fusions project on food waste prevention as well as being coordinator or partner of several Nordic projects related to waste handling and prevention. Østfoldforskning also collaborates with key research actors in Norway, like NMBU, SINTEF, and the leading academic milieu in LCA research at NTNU.

Social and economic impact of the institute's activities
The institute's implementation of LCA methods has had significant impact on public policy and industry and, hopefully, on sustainability in industries and the environment. One important impact case from Østfoldforskning's research is the development of a specific web based tools for the construction industry (e.g. concrete, light weight aggregate) in order to improve, document and declare the environmental impact according the standardised Environmental Product Declaration (EPD) methodology (ISO 14025, EN15804). This has been further developed for other industry sectors to develop more sustainable products. The institute has also developed methodologies for measuring and minimising food loss in collaboration with European actors, which has provided a lot of media interest and resulted in decreased food loss. Another impact case is the establishment of NCE Smart Energy Market, which is developed in cooperation with the information and communication technology cluster in the Halden area since 1994.

Quality and realism of the institute's strategy
Østfoldforskning has an explicit and realistic strategy to concentrate its efforts in the field of sustainable innovations and environmental communication and to be a national leading institute in Life Cycle Sustainability Analysis for a whole range of products, services and industries. The institute uses its core funding wisely to develop new areas, increase publication, PhD education and post-docs. Having an Oslo office at the research institute hub Oslo Science Park is a good move, both from a personnel recruitment point of view and in order to find project collaborators.

Appropriateness of the framework conditions to the institute's mission
The institute considers conditions adequate. Østfoldforskning has to a significant extent created its own framework conditions.

Recommendations
Østfoldforskning is to some extent a network organisation. This has both strengths and weaknesses. Østfoldforskning has a clearly defined Life Cycle Sustainability Analysis niche in the national R&D system. Like the other regional institutes, Østfoldforskning should have an obligation to transfer international social science knowledge to the regional competence system. The institute is encouraged to consider formally becoming an environmental institute, since its research is within the field of sustainable development of industries and services and the majority of its staff has little formal social science competence. However, in that group it would be the smallest institute, which may prompt merger talks with some of the institutes in Oslo Science Park.

6.3.9 Østlandsforskning (Eastern Norway Research Institute)

Eastern Norway Research Institute (ØF) (Østlandsforskning)			
Established	2011 Stiftelsen Østlandsforskning established 1984	**Research areas/departments**	Entrepreneurship in education Regional development Public sector service innovation
Organisational form	Limited company		
Owners	Stiftelsen Østlandsforskning (38.10%) Sparebanken Hedmark (19.05%) Oppland County Council (19.05%) Hedmark County Council (19.05%) Lillehammer University College (4.75%)		

Economy	**2013**	**2014**	**2015**
Operating revenue million NOK	23.9	23.8	22.7
Core funding	15.1%	15.9%	17.0%
Management	-	-	-
RCN contribution	27.9%	22.0%	0.2%
Other Norwegian contribution	6.3%	21.3%	13.5%
Norwegian commission income			
Public administration	36.9%	32.7%	52.9%
Business	9.0%	4.3%	11.7%
Other	2.9%	3.3%	-
International income			
EU funding	1.9%	0.3%	4.6%
Business	-	-	-
Other	-	0.2%	-
Other income	0.0%	-	-
Operating result million NOK	-2.0	-1.7	-1.5
Equity million NOK	8.5	7.3	6.0

Personnel	**2013**	**2014**	**2015**
Total FTEs	21.3	20.8	19.2
Researcher FTEs	19.1	18.6	17.0
Of which women	10.3	10.6	9.0
Researchers per total FTE	90%	89%	89%
PhDs per researcher FTE	31%	43%	53%
Resignations per researcher FTE	10%	22%	12%
Outcome	**2013**	**2014**	**2015**
Publication points per researcher FTE*	0.45	0.85	0.55
Total number of publications 2013-2015**			43
Share level 2 publications**			26%
Total number of publications 2013-2015 per researcher FTE***			2.4
Number of PhD students	3	-	1
Number of awarded PhD degrees	-	2	-
Of which women	-	2	-
Core funding criteria	**2013**	**2014**	**2015**
Share commission funding	58%	47%	52%
Share RCN + EU funding	34%	37%	32%
Publication points per researcher FTE*	0.72	0.85	0.62
Total FTEs	19	19	17

Source: Data from RCN's annual institute reports unless otherwise noted. Core funding criteria calculated by RCN based on past three years.
* Starting in 2015, RCN applies a different method to calculate publication points per researcher FTE, meaning that 2015 numbers are not comparable to prior years.
** Data from bibliometric analysis.
*** Average FTEs for 2013-2015 have been applied to normalise data from bibliometric analysis.

The institute was established as a foundation in 1984 but turned into Østlandsforskning AS in 2011. It has a total staff of around 20 people and works in the areas of entrepreneurship in basic education, regional development of mountain regions, public sector service innovation as well as in a number of other topics. The owners include Oppland FK, Hedmark FK, Sparebanken Hedmark, and Høgskolen Lillehammer in addition to the ØF Foundation.

Relevance of the institute to its intended users

The institute aims to be a central actor in the research and innovation system of Eastern Norway. It intends to foster core competences in selected research areas. In addition, it wishes to be able to respond to regional and national demands for research based knowledge also beyond these strategic areas. However, overall demand for the institute’s services is limited. There is insufficient engagement from the circle of owners, and it appears that Eastern Norway Research Institute is struggling with creating a demand for services within its strategic areas among regional and national user groups. While the institute has some success in being relevant to users in the public sector, it has little interaction with business. A continuous annual deficit over several years is indicative of the lack of user demand.

The institute's capability and quality
Eastern Norway Research Institute produces a combination of outputs captured in the NPI and outputs not weighted in the bibliometric indicator system. There are fluctuations in yearly NPI points achieved but no clear trend over time, although the share of Level 2 publications seems to be increasing over time. The average NPI points per FTE achieved by the institute is high in comparison with the rest of the cluster of regionally anchored institutes. Eastern Norway Research Institute strives to maintain high quality in its scientific production particularly within the areas of 'entrepreneurship in basic education', 'cultural industries', and 'regional development of mountain areas'. It is noticeable that high quality research at Eastern Norway Research Institute tends to depend on few, high-performing individuals, which makes the institute somewhat fragile. It recognizes this challenge, and seeks to mitigate it by trying to recruit new top researchers to the group, build critical mass, and develop collaborations around selected strategic research priorities. The basis for evaluating capabilities and quality in the institute's commissioned work is limited, given the information available.

The institute's ability to recruit, retain and develop the careers of researchers
Eastern Norway Research Institute struggles to maintain minimum size, failing the threshold of minimum 20 FTE as a criterion for obtaining basic funding. The institute recognizes this challenge and has resorted to a search committee to try to identify potential new researchers. There has been very little PhD production though there are ambitions to improve this. The institute has suffered from management difficulties for some years but has recently recruited a new director who is injecting a new level of strategic thinking.

Role of the institute in the Norwegian research structure
Eastern Norway Research Institute does not appear to have a distinct role in the Norwegian research structure beyond its regional location. It has no evident competitive position in the market for commissioned studies. The scientific specialisation overlaps at least partly with other actors but does not benefit from strategic partnerships. The role is thus unclear, but the institute is working to refine its role and responsibilities.

Spatial reach of the institute's collaborations
Eastern Norway Research Institute has a growing share of collaborative publications, which follows the pattern and level for the regionally anchored cluster in general. The institute has managed to secure a number of European projects, which contribute to internationalisation, and it has a strategy to increase this number. Nonetheless, overall there is a limited number of international relationships and the partners involved are not necessarily the strongest. Eastern Norway Research Institute aims to increase its international relationships.

Social and economic impact of the institute's activities
The institute's main users are in the public sector and in the region. It is not all that clear from the impact studies submitted by ØF that it has exercised much influence at this level. Eastern Norway Research Institute aims to be a key actor in the area of entrepreneurship education in schools. The institute is able to cite examples of its research and evaluations being used in OECD policy documents as well as in Namibia and Uganda and by JA Europe, a leading provider of educational materials on entrepreneurship.

Quality and realism of the institute's strategy
The institute has a clear understanding of the strategic challenges it faces. It does not see its current situation as sustainable: it is too small and vulnerable. It has a credible strategy for moving into a more sustainable position through partnership but is still some way from developing a specific plan with specific partners. It intends to maintain a regional presence within a bigger network of research and higher education capabilities, in part acting as an intermediary organisation between users and other knowledge providers and in part doing its own research. Thus, while the past strategy has clearly been inadequate, the institute has a strong sense of where it is going.

Appropriateness of the framework conditions to the institute's mission
The institute's perception is that incentives for building strategic research capabilities (recruitment) and establishing international relationships are too weak. Nonetheless, looking at the core funding provided, together with the access available to other national sources of research grant funding, the institute is in a comparable position to its peers.

Recommendations

The institute is working hard to escape from its recent poor financial performance and to move to a sustainable basis. It has the beginnings of a strategy that could make this possible. It needs to develop a more distinct research profile and to overcome its dependence on individual members of staff by fostering critical mass around selected, strategic research areas. It clearly needs to anchor itself locally, and to cultivate its owner and user relationships, including actors in the private sector. The desire to recruit strong researchers is admirable but will in part depend upon ØF's ability to create credible alliances with the UH sector. Such alliances will also be essential in terms of improving the quality of research and gaining access to research funding.

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Appendix A Mandate for the evaluation

Evalueringen av de samfunnsvitenskapelige instituttene skal i hovedsak tjene forskningspolitiske og forskningsstrategiske behov og analysere hvordan instituttene inngår i forskningssystemet. Evalueringen skal derfor ha et helhetlig, strukturelt perspektiv, men kan gjerne omtale instituttene enkeltvis eller som grupper, og gi anbefalinger og vurderinger på områder som anses som relevante i hvert enkelt tilfelle. Utvalgets oppgaver er særlig knyttet til følgende seks hovedområder (de gitte underpunktene er eksempler på aktuelle problemstillinger):

1. Instituttenes relevans og nytte for offentlig forvaltning, næringsliv og samfunn
   - Vurdere om de samfunnsvitenskapelige instituttene bidrar med relevant forskningsbasert kunnskap for departementer, etater, fylkeskommuner og kommuner, og om de formidler denne kunnskapen på en god måte.
   - Vurdere om de samfunnsvitenskapelige instituttene spiller en aktiv rolle i utviklingen og fornyelsen av offentlig sektor og norsk samfunns- og næringsliv.
   - Gi råd om endringer, strategiske grep og virksomhetsutvikling som kan styrke instituttforskningens relevans og nytte.

2. Instituttenes kvalitet og kompetanse
   - Vurdere kvaliteten på instituttenes forskning målt ved vitenskapelig produksjon og andre typer publisering, doktorgrader, uttelling i nasjonal og internasjonal konkurranse.
   - Gi råd om tiltak som kan bidra til økt kvalitet og kompetanse blant instituttene.

3. Instituttenes muligheter for rekruttering og forskerutdanning
   - Vurdere om instituttene evner å rekruttere nye forskere, beholde de gode forskerne og bygge opp kompetanse på nåværende og framtidige forskningsområder.
   - Vurdere instituttenes rolle i doktorgradsutdanningen, og hvordan instituttene kan bidra for å styrke denne.
   - Gi råd om tiltak som kan styrke instituttenes kompetanseoppbygging og bidra til bedre rekruttering.

4. Instituttenes struktur og rolle i FoU-systemet
   - Vurdere om strukturen på den samfunnsvitenskapelige instituttarenaen sikrer tilstrekkelig god utnyttelse av instituttenes ressurser og offentlige FoU-midler.
   - Vurdere samarbeid, arbeidsdeling og konkurranse
     - mellom de samfunnsvitenskapelige instituttene
     - mellom de samfunnsvitenskapelige instituttene og andre relevante institutter
     - mellom instituttene, fagmiljøet i UH-sektoren, konsulentselskapene og forvaltningens egne analyseenheter
   - Gi råd om strukturelle endringer[8], i eller mellom institusjoner, og andre tiltak som kan bidra til bedre samarbeid, arbeidsdeling og effektiv utnyttelse av de samfunnsvitenskapelige instituttenes samlede ressurser.

[8] Meld. St. 18, 2014-2015 Konsentrasjon for kvalitet. Strukturreform for universitets- og høyskolesektoren

5. Instituttenes internasjonalt samarbeid
   - Vurdere i hvilken grad de samfunnsvitenskapelige instituttene deltar og lykkes som internasjonale samarbeidspartnere, blant annet i EUs rammeprogrammer.
   - Vurdere hva som eventuelt hindrer de samfunnsvitenskapelige instituttenes internasjonale deltakelse.
   - Gi råd om tiltak som kan bidra til at de samfunnsvitenskapelige instituttene kan styrke sin internasjonale deltakelse.

6. Instituttenes rammebetingelser
   - Vurdere utfordringer og muligheter ved de samfunnsvitenskapelige instituttenes konkurransevilkår og markedspotensial.
   - Vurdere om instituttenes rammevilkår gir nødvendig handlingsrom for strategisk utvikling.
   - Vurdere om instituttenes bruk av bruk av basisbevilgningen og inntekter fra Forskningsrådets programmer og satsinger bidrar til å styrke de samfunnsvitenskapelige instituttenes strategiske og langsiktige kunnskapsoppbygging.
   - Vurdere de samfunnsvitenskapelige instituttenes strategiske arbeid for å møte framtidige kunnskapsbehov og markeder.
   - Gi råd om tiltak som kan bidra til at de samfunnsvitenskapelige instituttene styrker sine strategier for en bærekraftig virksomhet i fremtiden.

Evalueringsutvalget kan ta opp andre problemstillinger enn de som er nevnt i mandatet, dersom det avdekkes behov for det underveis i arbeidet.

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