

Evaluation of two programmes using Nordic Centres of Excellence

The Programme on Food, Nutrition and Health and the Programme on Welfare Research



norden

NordForsk



norden

NordForsk

NordForsk Policy Paper 4 –2014

Evaluation of two programmes using Nordic Centres of Excellence
The Programme on Food, Nutrition and Health
and the Programme on Welfare Research

NordForsk, 2014
Stensberggata 25
N-0170 Oslo
www.nordforsk.org
Org.nr. 971 274 255

Cover: Chair of NCoE HELGA Anne Tjønneland,
Chief physician of the Danish Cancer Society Research Centre
Photo: Terje Heiestad

Design: jnd.no
Printed by: 07 Group

ISSN 1504-8640



Evaluation of two programmes using Nordic Centres of Excellence

The Programme on Food, Nutrition and Health
and the Programme on Welfare Research

Table of Content

Preface	3
Executive summary	4
1. Background	10
1.1 This evaluation	10
1.2 NordForsk	13
1.3 The concept and history of research centres and Centres of Excellence	14
1.4 The Nordic Centres of Excellence	16
1.5 Financial analysis	21
1.6 Bibliometrics	23
2. Results and impact of the Programme on Welfare Research	28
2.1 Specific results and impact	28
2.2 Effects on cooperation	30
2.3 Mobility and research training	30
2.4 Long-term use of results and impact	31
2.5 Research and scientific quality	32
2.6 Goal fulfilment	33
2.7 Synergies	33
3. Results and impact of the Programme on Food, Nutrition and Health	36
3.1 Specific results and impact	36
3.2 Effects on cooperation	37
3.3 Mobility and research training among young researchers	38
3.4 Long-term use of results, and impact	38
3.5 Research and scientific quality	39
3.6 Goal fulfilment	40
3.7 Synergies	40
4. Programme strategy	42
4.1 What was achieved and learned through programme activities?	42
4.2 The role of NordForsk	44
4.3 Motives for participation	45
4.4 Unique features of the NCoE instrument	45
4.5 Response to Nordic research needs	47
4.6 Assumptions behind the NCoE concept	47
5. Efficiency	50
5.1 The Programme on Welfare Research	50
5.2 The Programme on Food, Nutrition and Health	51
6. Discussion	54
7. Conclusions and recommendations	58
Appendix	
Appendix A Interviewees and focus group participants	62
Appendix B Survey results	64
Appendix C Scientific assessment of the NCoE Programme on Food, Nutrition and Health and the Programme on Welfare Research	70

Preface

The present report contains final evaluations of NordForsk's two joint Nordic research programmes started in 2007, namely *Welfare Research* and *Food, Nutrition and Health*. Within these the Nordic Centres of Excellence funding instrument is used.

NordForsk is a platform for joint Nordic research and research infrastructure cooperation established by the Nordic Council of Ministers in 2005. NordForsk's mandate is to identify and respond to strategic priorities for Nordic research cooperation and thereby add value to research carried out in Denmark, Finland, Iceland, Norway and Sweden as well as in the autonomous areas, the Faroe Islands, Greenland and the Åland Islands. By using Nordic Centres of Excellence as the funding instrument, NordForsk aims to strengthen cooperation by cross-border cooperation between outstanding researchers, research groups and research institutions within areas of priority in the Nordic countries. The ambition is to accomplish research of the highest scientific quality, promote mobility and increase the impact of the new knowledge produced in the Nordic region and beyond.

The purpose of this evaluation has been to analyse the Nordic added value and the results achieved by the following five Centres of Excellence (NCoE) :

Welfare Research Programme

NCoE NordWel: The Nordic Welfare State - historical foundations and future challenges is studying the historical development of the Nordic welfare state in order to foster understanding of the Nordic societies and their future.

NCoE Reassess: Reassessing the Nordic Welfare Model consists of thematic groups studying the overarching question whether the Nordic welfare model has the ability to renew itself under changing external and internal conditions.

Food, Nutrition and Health Programme

NCoE HELGA: Nordic Health – Wholegrain Food examines the effects of a diet with a strong element of whole grain products on modern lifestyle diseases.

NCoE MitoHealth: Centre for Bioactive Food Components and Prevention of Lifestyle Diseases aims to investigate how food from marine raw material can attenuate diseases related to a modern life style.

NCoE SYSDIET: Systems biology in controlled dietary interventions and cohort aims to find out novel mechanisms by which Nordic foods and diets may be modified to promote health and prevent metabolic syndrome and related diseases.

The findings are of great relevance as NordForsk continuously is reviewing our funding instruments. The report shows that the NCoE instrument has led to benefits accomplished by funding cross-border cooperation that could not otherwise have been achieved.

The report offers NordForsk insights regarding further development of the concept of the Nordic Centre of Excellence. I wish to thank the authors Peter Stern, Anders Håkansson, Sebastian Stålfors, Miriam Terrell, Erik Arnold, Christien Enzing and Göran Melin from the Technopolis Group for this thorough evaluation report.

Oslo June 2014



Gunnel Gustafsson
Director of NordForsk

Executive summary

This evaluation concerns two research programmes using Nordic Centre of Excellence (NCoE) as financing instrument:

- Food, Nutrition and Health, three centres
- Welfare Research, two centres

The evaluation of the two programmes covers the period from their start to their final activities in 2013. The overall purpose of the evaluation of the two NCoE programmes has been to analyse the added value achieved based on the original objectives of the programmes. In addition, the analysis concerns how the NCoE programmes have developed in the course of their programme period.

A “Centre of Excellence” (CoE) falls into one of several categories belonging to the wider class called “research centre”, which has a number of key features. A research centre requires:

1. Governance and management processes and people to define a research strategy and manage its implementation
2. Funding for researchers (and appropriate research support staff) to deliver the research strategy
3. The facilities and equipment to support the research

It also requires sufficient time to become established, put the above features into place, and begin to deliver outputs. Therefore, the sustainability of research centres requires that these three features are in place.

The emergence of the Centres of Excellence is part of a broad, recent international development. Different policies for research excellence have been developed and implemented in many countries; among them is a wide array of what has been called “research excellence initiatives”. These can be described as a part of broader changes in the structures for funding public research and research institutions. They encompass a wide variety of initiatives and schemes, but schemes for forming and funding CoEs are often a key or main type.

This evaluation confirms the idea that schemes such as the Nordic Centres of Excellence Programmes are beneficial for already established groups of researchers who have pre-existing professional relationships and trust. Due to the special circumstances of the NCoEs, the researchers were still nationally based in terms of both content and funding.

Researchers in the NCoEs have performed very much in line with what has been expected from them. This kind of excellence centre focuses on rewarding and fostering exceptional quality in research and research-related activities in a way that differs from two other established models of funding: institutional (block) funding and project funding. The CoE model is different from block funding and similar to project funding in that it is competitive and goal-oriented, but it differs from project funding in that it entails more extensive, long-term funding. The model also incorporates a central institutional aspect as there is an overarching central objective of re-structuring the research landscape, which makes it even more different from other models.

The general purpose of a CoE is to establish international competitiveness in basic research, and hence:

- To conduct basic research in areas where there is under-investment in such research in the private sector due to externalities and spillover effects (i.e. as a public good), for the purpose of bolstering industrial competitiveness in the long-term
- To increase international competitiveness/build capacity in basic research through defragmentation of research activities and creation of critical mass

Centre of excellence activities are typically conducted at a higher education institution (HEI) or public research organisation. The centres are 100% publically funded, and their accomplishments are measured with an emphasis on traditional academic outputs, such as publications, conferences attended, academic prizes, awards and skilled researchers (PhDs/Master's). The relationship with industry is typically confined to about 5% of its activities, which could lead to measurement of data on commercial outputs such as long-term industrial relationships, patents, licences and spin-outs.

The NCoEs were intended to facilitate more efficient use of resources by gathering people, funding and infrastructure into collaborative entities, thus promoting better coordination of research efforts. Further, they were expected to stimulate international researcher mobility, true interdisciplinary research, and joint use and establishment of research infrastructure. By means of an international strategy and providing joint access to the best research environments in the Nordic region, the NCoEs were to enhance the attractiveness of the region and strengthen linkages to and impact on relevant European research initiatives. By coordinating graduate education they strove to build competence and long-lasting networks of, and promote the career opportunities of, younger researchers.

As indicated above, the NCoEs have been successful in achieving the objectives of the programmes. However, it has been a novel experience for all the actors involved – the participants in the NCoEs as well as NordForsk with its governing and advisory bodies. A conclusion of this evaluation is that there are good reasons to continue this type of funding as part of the larger mix of instruments, given that the programmes have been quite successful. The following recommendations for future programme design are therefore offered:

- Keep the five-year horizon for the NCoE centres, which is probably well balanced. The role of NordForsk in supporting networks is critical to the Nordic area. A scheme with this kind of perspective is needed in order to build or modify networks and attain meaningful research results. The normal two-year perspective is useful only for individual projects
- Sort out and clarify the respective roles of NordForsk and national funders, as well as the centre management, steering committee and scientific advisory board. As long as this remains unclear to centre participants, it will contribute to frustration and inefficiency in the centre's performance
- Be clear about whether the centres are expected by and large to focus at the level of networking. If this really is the case, the present instruments are fairly good. If the aim is to pursue research and research goals in their own right, the funding scheme must be designed accordingly
- Decide whether NordForsk should assume more responsibility for funding researchers' normal salaries. In that case, NordForsk would also need to be more flexible about how the grants can be used. A recurring idea has been that funds should not only have been for networking, and that the centres themselves should have been able to decide more on how to use them
- As a general rule, consider establishing a start-up period. Many programmes are set up too fast, there is too little time to write proposals, and administration must be done in a rush, creating difficulties with recruiting researchers and PhD students

- Explore the possibility for a Nordic action under “variable geometry”. For instance, invite some additional countries to join in (presumably on the same “pay your own way” funding model) so that the network can be expanded to fit the subject
- Explore the possibility of letting the Nordic activity form a “regional” node in a wider European or global cooperation
- Consider whether an extension mechanism or in-between planning grant could help to continue promising activities and make expanded plans, which could also include e.g. industry and former partners. Researchers often struggle with continuing their work when the funding period is over. Such instruments could facilitate the extended use of networks, the knowledge built up and/or datasets beyond the programme. NordForsk could make agreements with individual national funding bodies to establish such a support mechanism and funds that provide follow-up funding for successful NCoEs
- Clarify and develop the relationship between NordForsk and the Nordic policy level. This connection seems somewhat weak, which may be because NordForsk is governed primarily by different national research funding bodies, as there is no real Nordic policymaking process. It could be made clearer through which channels and at what level the basis for policy in each area should be communicated. The mid-term evaluation did address management and governance issues, but seems in practice to have had little effect on these particular aspects
- Decide whether academic-industry centres should be established, in which long-term, use-oriented research is conducted to accelerate the exploitation of research outputs in support of medium to long-term industrial and Nordic competitiveness. The NCoEs are academic centres, but the time may be ripe to take this path in any case if NCoE objectives already include formulations on contribution to innovative product development, and if ideas regarding additional actors in the centres already include industry
- Clarify and gain support for a well-thought out goal structure among current and relevant incoming stakeholders. Make the objectives truly joint in nature
- Identify and exploit comparative advantages, such as very good public registry data and a regulatory framework which allows them to be used for research
- In communication with national funding bodies, NordForsk should strive to harmonise the rules. Nordic collaboration is harder to achieve if the rules diverge or are applied differently in the various Nordic countries. Additional national funding should preferably be granted or denied on the same grounds

1. Background



Chair of NCoE MitoHealth,
Professor Rolf Kristian Berge,
University of Bergen.
Photo: Terje Heiestad



1. Background

1.1 This evaluation

This evaluation concerns the Nordic Centres of Excellence (NCoE) research programmes:

1. Food, Nutrition and Health 2007-2011, three centres
2. Welfare Research 2006-2011, two centres

The evaluation of the two programmes covers the period from their start to their final activities in 2013. The overall purpose of the evaluation of the two NCoE programmes is to analyse the added value achieved based on the original objectives of the programmes as stated below. In addition, the evaluation analyses how the NCoE programmes have developed in the course of their programme period. Assessments are empirically justified, e.g. among other things in the experiences of relevant actors and stakeholders.

The evaluation considers how the objectives of the NCoE programmes have been met. The objectives of the NCoE programmes are:

- To promote research of excellent scientific quality
- To increase the visibility and attractiveness of Nordic research in a European and global context
- To ensure efficient and flexible use of Nordic resources
- To support creative, efficient research and research training environments
- To create critical Nordic mass
- To increase the intra-Nordic mobility of younger researchers in particular
- To stimulate cooperation between disciplines
- To facilitate appropriate division of work and specialisation between the Nordic countries
- To integrate the NCoEs into the national research systems

Recommendations for improvements based on the analysis are given to NordForsk in Chapter 7 of this report.

The work on this evaluation has been carried out by Erik Arnold, Christien Enzing, Anders Håkansson, Göran Melin, Sebastian Stålfors, Miriam Terrell and Peter Stern, who served as project leader.

1.1.1 Evaluation questions

In this assignment the evaluation questions listed below were examined. The evaluation questions were derived from the programme objectives and were common for both programmes:

1. What parts of the research conducted at the NCoE are of excellent scientific quality?
3. In what ways have the visibility and attractiveness of Nordic research in a European and global context increased?
4. How has the efficient and flexible use of Nordic resources been ensured?
5. In what ways has the NCoE supported creative, efficient research and research training environments?
6. Has the NCoE created critical Nordic mass? How?
7. How has intra-Nordic mobility of younger researchers in particular developed?
8. How has cooperation between disciplines been stimulated?

9. In what ways has the NCoE been able to facilitate appropriate division of work and specialisation between the Nordic countries?
10. To what extent have the NCoEs been integrated into the national research systems?

The aim of the evaluation was to present recommendations for improvements to NordForsk based on the analysis.

1.1.2 Methods and implementation of the evaluation

Since the evaluation questions are different in character, both quantitative and qualitative, a variety of methods for data acquisition and analysis were used.

Document studies of analyses of the subject areas Research on Food, Nutrition and Health and Welfare Research, respectively, programme descriptions, calls for proposals, project and programme reports, etc. lay the foundation for the understanding of the NCoE context and of the programmes as such. What specific challenges were the programmes designed to meet, and how? How were the programmes implemented, and to what extent have they succeeded so far according to project and programme reports, etc?

Financial analyses of where Nordic funding has ended up (after transfers, if any, i.e. where the costs have been incurred) and of the character of national co-funding yield the total investment in the programmes – the total amount of research activities – as well as the extent of the input additionality, which can be seen as one part of the Nordic added value. These analyses also help to show who the important actors in respective areas have been, as well as the breadth of the participation. The financial analysis also indicates which actors were essential to include in the subsequent interview campaign and/or in focus groups (see below).

Exploratory interviews served to rapidly increase the evaluation team's insights into the context of the two NCoE programmes. To complement the subsequent semi-structured in-depth interviews, the exploratory interviews were comprised of discussions around a limited number of topics rather than formal interviews. These interviews were held with a few NordForsk programme officers and some particularly insightful individuals from other stakeholder organisations. The interviewees were selected following consultations with NordForsk.

The qualitative character of most evaluation questions called for a number of **semi-structured in-depth interviews** with project managers and representatives from participating institutions as well as both associated and collaborating partners. The deep understanding of issues such as the effective use of the Nordic resources, support of efficient environments, creation of Nordic critical mass, cooperation between disciplines, division of work and specialisation between the Nordic countries, and integration into the national research systems calls for this type of operationalisation. Selection of interviews was based on financial analyses, NordForsk recommendations ("who are the people we need to talk to?"), and on snowballing (recommendations from previous interviewees). A total of 36 interviews were conducted.

Focus group exercises with programme participants complemented the in-depth interviews, although they served approximately the same purpose in terms of type of empirical data gathered. The main difference was in the interactive atmosphere that results from bringing a number of individuals with similar, but not identical, experiences into the same room. This setting provided additional nuances to empirical data. "Design" of focus groups (in terms of participants) was done in consultation with NordForsk. Two focus groups, bringing together 18 stakeholders in total, were arranged and led by the evaluation team.

The empirical evidence gained through interviews and focus groups was judged as not quite sufficient to adequately answer all evaluation questions. While in-depth interviews and focus groups provided a thorough understanding of issues, a **web survey** sent to all programme participants provided a more comprehensive view of their experiences. Questions asked in a web survey need to be phrased differently from questions asked in an in-depth interview or a focus group, but web surveys and in-depth interviews/focus groups provided complementary empirical data that together paint a comprehensive picture of respondents' views on programme participation and what it ultimately leads to. A web survey is particularly suitable for the evaluation question concerning mobility among young researchers.

The survey, consisting of eight questions, was sent to a total of 367 participants in the two Nordic Centres of Excellence Programmes. Contact details were provided by each centre administration, found on the centre web sites or in other centre-specific documents. The first mailing of the survey was sent to 329 individuals in *NordWel*, *Reassess* and *HELGA* on 9 December 2013, followed by a reminder on 18 December. A total of 93 individuals responded to the survey in the first mailing. Due to difficulties in obtaining a complete contact information base, the first mailing was delayed. When further information was made available, a second mailing was sent to another 40 individuals in *SYSDIET* and *MitoHealth* on 24 January 2014, followed by a reminder on 5 February. Nine people responded to the survey in the second mailing, giving a total response rate of 28%.

The three centres under the Programme on Food, Nutrition and Health were represented by only 11 of the 93 survey respondents (12%), while 82 of the respondents had participated in one of the two centres under the Programme on Welfare Research (88%).

The relatively low response rate may have several causes. Since most of the contact information was gathered in other ways than from the centre administration, we cannot know for sure that the email addresses were current and/or correct. The centre participants may also have changed their location and/or employer.

Figure 1 shows that the percentage of survey respondents is in good proportion to the survey recipients in each centre, although the low response rate for the Programme on Food, Nutrition and Health makes it difficult generalise the survey results to the entire programme.

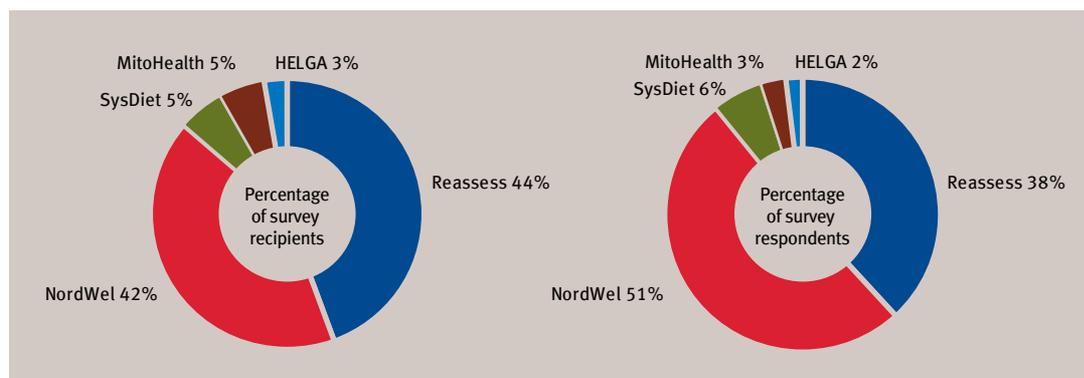


Figure 1. Percentage of survey recipients (left) and survey respondents (right) per centre.

To be able to answer the evaluation questions on scientific quality on the one hand, and visibility and attractiveness of Nordic research in a European and global context on the other, a combination of **peer review** and a study using bibliometric techniques were used. Two scientific experts for each NCoE programme were selected, in consultation with both NordForsk and the NCoEs, to perform a peer review using a template developed and used several times for these purposes by Technopolis.

In the **bibliometric analysis**, scientific publications and citations were studied to create a representation of visibility and position in the international research system of the research produced by the NCoEs. Mapping of the different NCoE relations to their international research fields, and where they are situated in an intellectual tradition, was carried out by the bibliometric techniques known as bibliographic coupling and key word analysis.

Bibliometric research methods have been used since 1985 to answer research questions in the disciplines of library and information science, science policy, sociology of science, history of science and ideas, cognitive and social mapping of research fields, etc. Bibliometric data provide important information to the various actors in the scientific community, but they must be used with reason and great care when determining which conclusions may be drawn from them. With regard to scientific excellence, there is a factual relationship between high marks in bibliometric analyses and future success in research in only about half the cases.¹

One problem with some bibliometric inquiries is that they indirectly equate scientific quality with the phenomenon of someone being cited. However, such quantitative measures say nothing about why someone chooses to cite a scientific article. There could be a number of different other motives that have nothing to do with the content of the research. For instance, it could be to express reverence for a certain researcher, to appear as well-read or to draw attention to a friend.

Bibliometric techniques are appropriate as a way to obtain comprehensive feedback on one's position in the international scientific competition, to arrive at a picture of how visibility and influence within a particular field takes shape, and to study patterns of cooperation, a national system relative to the international field or to identify the research tradition one's own research fits within. Different techniques are useful for answering different questions.

The requested recommendations for improvements of the NCoE programmes required highly qualified analyses that include elements of ex-ante nature. To be able to provide such high-level analysis, the evaluation team included senior consultants with in-depth expertise from the Netherlands and the UK, as well as very good knowledge of international developments. The team also had substantial experience with providing policy advice in Sweden, Norway, the Netherlands, Belgium, the UK, Lithuania, Finland and at the EU level.

1.2 NordForsk

NordForsk is an organisation for joint Nordic research and research policy development that aims to facilitate cooperation in all fields of research and research-driven innovation when this will add value to activities being conducted in the five Nordic countries, Denmark, Finland, Iceland, Norway and Sweden, including the autonomous areas of the Faroe Islands, Greenland and the Åland Islands.

NordForsk carries out assignments for the Nordic Council of Ministers, and provides input based on analysis of the Nordic research and research policy landscape. It is governed by a board composed of its main stakeholders: the national research funding agencies in the Nordic countries, higher education institutions and industry.

One of the important communication objectives is to make NordForsk and the Nordic research collaboration visible and known to Nordic and international research policymakers, politicians, researchers, research institutions, financing bodies and, in some cases, the general public.

NordForsk funding for cooperation is provided within all fields of research. Normally projects involve cooperation between at least three Nordic countries or autonomous areas. Grants are awarded on the basis of open calls for proposals and peer review procedures. NordForsk receives basic funding (approximately NOK 117 million for 2012) as well as funding for specific assignments from the Nordic Council of Ministers. In addition, there is funding from agencies in the Nordic countries and other sources.

¹ Persson, O. (2006), Bibliometri – kvalitetsmått som bör användas med måtta, interview in: Forska En tidning från Vetenskapsrådet om forskningsfinansiering, forskningspolitiska frågor och forskningsinformation, nr 3.

1.3 The concept and history of research centres and Centres of Excellence

A “Centre of Excellence” (CoE) falls into one of several categories belonging to the wider class called “research centre”, which has a number of key features.² A research centre requires:

1. Governance and management processes and people to define a research strategy and manage its implementation
2. Funding for researchers (and appropriate research support staff) to deliver the research strategy
3. The facilities and equipment to support the research

It also requires sufficient time to become established, i.e. to put the features above into place, and begin to deliver outputs. Therefore, the sustainability of research centres requires that these three features are in place.

This does not necessarily mean that all features are funded from the same source but that core funding must underpin, at a minimum, feature 1 above – a centre cannot exist without the people to provide strategic and operational cohesion at its very core. Of course centres require researchers, but as most are hosted by higher education institutions, there is a pool of researchers for them to call upon. A centre will likely require funds to increase and improve its research skill base but, even then, without strategic and operational cohesion a research group consisting solely of researchers would not constitute a “centre”.

The extent of core funding required for the three features required depends on a number of factors:

- The novelty of the centre – an entirely new centre requires more support to build new structures, overcome inertia and cultural practices, bridge cultural and institutional boundaries, and develop new ways of working, while an already established centre, or one built on existing relationships, will require fewer organisational resources
- The size of the centre – a smaller centre will require less management and administrative effort than a larger centre in absolute terms, although proportionately the administrative complement may be higher for a smaller centre
- The extent of the requirement for non-competitive research funding to support delivery of the research strategy – this depends on the position on the research centre spectrum. Mission-focused centres are designed to supply research outputs to meet departmental needs and therefore only the department will pay for the research; academic-industry centres may require core research funds to attract both academic and industry participation, especially in new centres; academic Centres of Excellence may require core research funds to attract researchers into the centre in order to overcome the fragmentation of the community and create critical mass. However, the requirement for such funds may decrease with time as research relationships mature and collaboration becomes standard practice
- The scale of the research facilities - large scale research facilities require ongoing maintenance and periodic upgrading, both of which are costly and require access to capital budgets, while office-based research (e.g. some areas of software and digital media research) require less costly office space and IT equipment which are often recoverable from research project grants and/or institute overheads. The availability of host funding and public programmes for capital investments will reduce the requirement for core funding to meet this need

However, it is important to recognise that not all centres need to, or can, survive indefinitely in their centre format once core funding comes to an end. Some centre facilities and staff will be absorbed back into their hosts, taking with them the skills and experience acquired. Others will continue on a smaller scale based on competitive and/or private funding.

Research centres can be grouped into four main categories as described below in Table 1.³

² Source: Technopolis. See for example Erik Arnold, Paula Knee, Malin Carlberg, Flora Giarracca & Zsuzsa Javorka, (2012), Research Centres in Ireland: Funding Models, Oversight Mechanisms and Vision of a Future Research Centre Landscape, An independent report to Forfás by Technopolis Ltd.

³ *ibid.*

Table 1. Generalised research centre categories.

(Source: Technopolis. * public funding includes both competitive and non-competitive funding)

TYPE	Rationale/ objectives	Key type of research	Location/ actors	Level of public funding*	Balance of metrics
1: Academic Centres	To establish international competitiveness in basic research: To conduct basic research in areas where there is under-investment in such research in the private sector due to externalities and spillover effects (i.e. as a public good) for the purpose of bolstering industrial competitiveness in the long-term. To increase international competitiveness/build capacity in basic research through defragmentation of research activities and creation of critical mass.	Basic	HEIs Public research organisations	100% public	Academic: Commercial = 95:5 The emphasis is on traditional academic outputs: Publications/conferences attended Academic prizes/awards Skilled researchers (PhDs / Master's) Plus collect data on commercial outputs: Long-term industrial relationships Patents/licences Spin-outs
2: Academic-Industry Centres	To conduct long-term, use-oriented research in academic-industry collaborations to accelerate the exploitation of research outputs in support of medium to long-term industrial and national competitiveness.	Use-oriented	HEIs & public research organisations in partnership with and guided by industry	~ 60-70% public	Academic: Commercial = 50:50 A more equal balance between academic and commercial outputs: Publications/conferences Skilled researchers (PhDs / Master's) Industrial income Collaborative projects undertaken Evidence of technology transfers and follow-on industrial investments Non-academic publications Patents/licences/spin-outs
3: Research and Technology Organisations (RTOs)	To conduct applied R&D, technology and knowledge development to support the competitiveness of industry in the short and medium term.	Applied Precompetitive applied	Typically in stand-alone research and technology organisations	~ 30-50% public	Academic: Commercial = 20:80 The emphasis is on commercial outputs: Industrial income Collaborative projects undertaken Evidence of technology transfers and follow-on industrial investments Patents/ licences/spin-outs Plus collect data on traditional academic outputs: Publications /conferences
4: Mission/ sector-focused Centres	The production of public goods to meet knowledge needs of the state or wider society i.e. the delivery of policy-relevant information and services to government.	Mixed	Government laboratories/ institutes State agencies	~60-80% public	Academic: Public & Commercial = 60:40 A mixture of traditional academic outputs: Publications/ conferences Skilled researchers (PhDs/ Master's) And: Reports/contributions to policy Services/training delivered Non-core income received Regulations supported

This classification provides a practical tool for mapping and reviewing the portfolio of centres in terms of the scale of activity across the centre types. When appropriate, this can be supplemented with details of centre themes and sizes to form a complete picture of the portfolio.

The emergence of research centres, or more specifically “Centres of Excellence”, is part of a broad, recent international development. Different policies for research excellence have been developed and implemented in many countries; among them is a wide array of what has been called “research excellence initiatives”. These can be described as a part of broader changes in the structures for funding public research and research institutions. They encompass a wide variety of initiatives and schemes, but schemes for forming and funding CoEs are often a key or main type.⁴

As a novel and specific model for funding research, CoEs focus on rewarding and fostering exceptional quality in research and research-related activities in a way that differs from two other established models of funding: institutional (block) funding and project funding. The CoE model is different from block funding and similar to project funding in that it is competitive and goal-oriented, but it differs from project funding in that it entails more extensive, long-term funding. The model also incorporates a central institutional aspect as there is an overarching central objective of re-structuring the research landscape, which makes it even more different from other models.

Consequently, the centre scheme has a systemic aspect which is absent from project funding. Systemic changes are sought in terms of enhancing the international competitiveness of domestic research. These efforts commonly include an objective to ensure national scientific competitiveness through enhanced international excellence, visibility and attractiveness for the best national research institutions and/or research groups. Thus, they also often require upscaling of research efforts and extended networking between institutions, disciplines and actors.

All, or most, of the CoE schemes that have been formed in the Nordic countries share many of these characteristics. Furthermore, they are now a major part of these countries’ national research landscapes and research funding instruments. There are many similarities between CoE schemes across the Nordic countries, and at the same time, the role and design of these schemes are largely determined by their systemic context or, in other words, their position in the wider national assortment of funding instruments and policy incentives and the national research systems more generally.⁵

1.4 The Nordic Centres of Excellence

The Nordic Centre of Excellence scheme is described by NordForsk as its most important funding instrument to increase and facilitate cooperation between excellent researchers, researcher groups or institutions in the Nordic countries.⁶

The NCoEs were established to strengthen cooperation between outstanding researchers, research groups and research institutions within areas of priority for the Nordic countries. NCoEs are assumed to add value to research conducted in the countries and to increase the impact of Nordic research in Europe and worldwide.

An NCoE is to serve as an outstanding, creative and efficient multi-site or single-site environment with a joint research agenda, joint management, coordinated researcher training, communication activity, and research infrastructure collaboration. It should consist of the most excellent Nordic researchers within their field, but may also include participants from non-Nordic research environments that are needed to fulfil the goals of the NCoE.

4 See for example: Dominic Orr, Michael Jaeger & Johannes Wespel, (2011), *New forms of incentive funding for public research: A concept paper on research excellence initiatives*. Paris: OECD.

5 Dag Aksnes, Mats Benner, Siri Brorstad Borlaug, Hanne Foss Hansen, Egil Kallerud, Ernst Kristiansen, Liv Langfeldt, Antti Pelkonen & Gunnar Sivertsen, (2012), *Centres of Excellence in the Nordic countries. A comparative study of research excellence policy and excellence centre schemes in Denmark, Finland, Norway and Sweden*, NIFU, Working Paper 4/2012.

6 <http://www.nordforsk.org/en/funding/finansieringsformer/nordic-centre-of-excellence>, see also the document *Nordic Centre of Excellence – Upgraded Concept*, as from March 15, 2012, available from the NordForsk website.

An important aspect of the NCoE is to facilitate more efficient use of resources by gathering people, funding and infrastructure into collaborative entities, thus promoting better coordination of research efforts. It is also expected to stimulate international researcher mobility, true interdisciplinary research, and joint use and establishment of research infrastructure. By means of an international strategy and providing joint access to the best research environments in the Nordic region, the NCoEs should enhance the attractiveness of the region and strengthen linkages to and impact on relevant European research initiatives. By coordinating graduate education they strive to build competence and long-lasting networks of, and promote the career opportunities of, younger researchers.

It is also assumed that the NCoEs strengthen both the production and use of research-based knowledge. Through joint communication and dissemination as well as coordinated data management, the potential to use research results is improved both in the scientific communities and society as a whole. Collaboration with public service providers and industry is encouraged within the framework of an NCoE.

Status and funding as an NCoE was granted for five years. Funding was granted for Nordic research collaboration, which was to be specified in a proposal. The NordForsk funding depended on theme, size and budgeted activities, but it was assumed that no less than NOK 20 million was needed for the NCoE to function properly. Extra grants could also be made available for needs arising from new ideas and partnerships during the funding period. The five-year period was to be used to create favourable conditions for continued cooperation, also beyond the funding period.

In the NCoE scheme priority was given to research judged to have considerable potential to result in long-term, knowledge-based progress. An NCoE was usually built on cooperation between at least three countries within one topic or field.

Network-type CoEs (Nordic Networks of Excellence), which sought to achieve maximal cohesiveness of Nordic research groups, were preferred. Therefore, the centres were virtual centres or networks of existing research units representing at least three different Nordic countries. The network-type centres were supposed to promote Nordic science in an efficient way by increasing its visibility through strengthening intra-Nordic contacts and staff mobility between the very best Nordic research units. A virtual centre with research units situated in different Nordic countries should have well organised joint management and coordination. Each research unit in the network was expected to demonstrate very high or excellent scientific quality, and, the virtual centre as a whole was to be of excellent scientific quality. This network could also include shared key infrastructures.

For the operation of the NCoEs defined this way, co-Nordic support was only allocated to:

- Extra management and coordination costs (including those for network seminars, workshops etc.)
- Researcher and key staff training
- Full fellowships (including family) for visiting professors
- Full fellowships for post-docs (including family) from Nordic or other countries
- Full fellowships for PhD students from the Nordic countries co-funding the programme (but not the country of residence of the recruiting research team/unit)
- Those running costs that will provide added Nordic strength to the NCoE results
- Support for Nordic doctoral courses (including visiting Nordic professors) arranged by the NCoE and if possible coordinated with regular NordForsk courses

Note: The funding from the NCoE Programme could not be used to cover operating costs of the research team/unit.

The NCoE funding was to be used as “glue money”, which gave a strong incentive for cooperation and integration, but which did not create a dependence on Nordic funding (it should therefore not be seen as permanent). Thus, an NCoE would have basic funding from national sources (including national budgetary funding of the host institutes, other public funding, and optional private funding) and possibly also from international sources (e.g. the EU). The NCoE funding would come in addition to this and be used for the activities listed above which specifically aimed to create Nordic strength.

When funding came exclusively from Nordic sources, a steering committee with no more than six members, each with one equal vote, was appointed for the NCoE Programme. The steering committee members were representatives from each of the five Nordic countries (appointed by the national research councils as experts in the field) and one member from NordForsk. However, since only those countries participating in the funding of the programme can nominate members, the size of the steering committee depended on the number of participating countries.

The contact persons appointed by the national research councils at the planning stage of the programme had observer status. The steering committee could appoint additional observers and experts when needed. The steering committee was always to strive for consensus on decisions. Should the need arise, a vote would be held and the issue would be settled by a majority resolution (the vote of the chair was decisive in case of a deadlock situation). Should a member be absent, the observer from the same organisation would vote in his/her place.

The selection procedure was carried out in one stage and was based on an open call for comprehensive applications. Each applicant and senior researcher was allowed to be involved in one proposal only. An international expert panel, consisting of three to five non-Nordic members representing the research field of the NCoE Programme, was appointed by the steering committee to carry out the scientific evaluation of the applications. If deemed necessary by the expert panel, hearings or interviews with one or all of the applicants were conducted as part of the evaluation process. The expert panel submitted the evaluation report, including a scientific rating of the proposals, to the steering committee. Based on this, a ranking was made by the steering committee. The steering committee submitted its recommendation to the Board of NordForsk regarding which NCoE candidates should be funded. The formal decision was made by the NordForsk Board. NordForsk then made the formal announcement. The NordForsk-based NCoE programme secretariat was authorised to draw up the contracts with the NCoEs and their host organisations.

The NordForsk secretariat functioned as the programme secretariat. Some members of the expert panel served on a scientific advisory board (SAB) which assisted the steering committee. The aim was to support, strengthen and monitor the scientific work of the NCoEs. The SAB was to be proactive and propose relevant improvements in the activities of an NCoE (new approaches, new methods, etc.) to further strengthen its scientific excellence and international visibility.

The most important criteria for evaluation and selection of the NCoE were the excellent scientific quality of the research plan and the international status of the senior researchers in the respective field of research of the proposed NCoE, as well as the potential to further develop scientific excellence in the Nordic arena.

The proposals were evaluated based on:

- Research idea and plan
 - the quality of the research plan
 - scientific added value and originality, potential for major scientific breakthrough
 - added value through Nordic collaboration
 - feasibility
 - added value to Nordic society
- Scientific merits and output of the leader and senior researchers
 - quality and quantity of scientific output
 - international status and scientific leadership of researchers in their own field of research
- Research environment
 - critical mass appropriate to the field in question
 - cooperation between the researchers from the various Nordic countries in the proposed NCoE
 - premises, instrumentation, special equipment and other infrastructure
 - activity, nature and volume of international cooperation
 - mobility of the researchers

- Researcher training
 - demonstrated skills in researcher training
 - adequate ratio of students and supervisors
 - organised and committed cooperation in relation to researcher training
 - creative and innovative ideas
 - practical and adequate arrangements/plans
- Management and operation of NCoEs
 - a plan for the management of the Centre
 - a plan for how to create and maintain cohesion between research groups of the NCoE candidate
 - a plan for how synergetic benefits and added value through Nordic collaboration would be achieved and utilised
 - a plan for how to spread excellence, e.g., publications, knowledge transfer, to recipients outside the network, including a brief plan for dissemination to the public

All research teams or units from universities, university hospitals and other research institutes performing basic research in the field were entitled to apply for an NCoE under the programme. It was important that the host institutions and research funders in the host countries were committed to supporting the NCoE. The applicants were requested to provide official confirmation of the willingness of the host institution to support the establishment of a centre. Research groups from the three Baltic countries and/or Northwestern Russia were eligible to participate in an NCoE. However, the research environment of the lead applicant had to be located in one of the countries with a co-funding research council, which in this case were Finland, Iceland; Norway and Sweden. Furthermore, full fellowships for PhD students were only open for the countries with co-funding research councils. The exception to this rule was Danish project leaders accepted into the Programme on Food, Nutrition and Health.

1.4.1 Overview of the programme on Food, Nutrition and Health 2007-2011

The NCoE programme on Food, Nutrition and Health Research 2007-2011 was approved by the Board of NordForsk on 19 April 2006. On 6 June 2006, the Board agreed on the procedures for accepting applications for funding under the programme. It was decided that available funding under the programme would be approximately NOK 18 million per year for five years of full operation.

A priority for this programme was to improve public health. The programme aimed to strengthen the knowledge base for public dietary recommendations and contribute to innovative product development within the Nordic food industries. Understanding the connection between diet and health can facilitate the development of effective interventions and identify ways of changing people's lifestyles. This may have an important impact on nutrition and society, and help to prevent heart disease, type 2-diabetes and cancer. Research may be targeted to understand the health impacts of food and diet from a biological as well as behavioural perspective.

Food, Nutrition and Health is a research field in which the Nordic countries are known to be strong. Significant added value was therefore expected from close collaboration of strong complementary research groups. The programme was co-funded by NordForsk and the national research councils, and ran from 2007-2012. The total annual funding for a centre was up to NOK 6 million.

The funding organisations in the programme were the Academy of Finland, the Icelandic Centre for Research (Rannis), VINNOVA, the Research Council Formas, the Research Council of Norway, the Nordic Council of Ministers, the Danish Agency for Science, Technology and Innovation and the Danish Ministry of Food, Agriculture and Fisheries.

The NCoEs within the programme were:

- NCoE HELGA: Nordic Health – Wholegrain Food
 - Examined the effects of a diet with a strong element of whole grain products on modern lifestyle diseases such as cancer and diabetes 2
 - Participating institutions: The Danish Cancer Society, University of Copenhagen, Uppsala University, Umeå University, University of Tromsø, University of Eastern Finland, The Agricultural University of Iceland (AUI)
- NCoE MitoHealth: Centre for Bioactive Food Components and Prevention of Lifestyle Diseases
 - Investigated how food from marine raw material can attenuate diseases related to a modern lifestyle
 - Participating institutions: University of Bergen, Zora Biosciences Ltd, University of Southern Denmark, University of Oulu, Karolinska Institutet, National Institute of Nutrition and Seafood Research, NIFES
- NCoE SYSDIET: Systems biology in controlled dietary interventions and cohort studies
 - Aimed to find new mechanisms to modify Nordic foods and diets to promote health and prevent metabolic syndrome and related diseases
 - Participating institutions: University of Eastern Finland, University of Oulu, VTT Technical Research Centre of Finland, University of Copenhagen, Aarhus University Hospital, Aarhus University, Akershus University College, Norwegian Food Research Centre, Karolinska Institutet, Uppsala University, Lund University, University of Iceland

1.4.2 Overview of the Programme on Welfare Research 2006-2011

The NCoE Programme on Welfare Research 2006-2011 was approved by the Board of NordForsk on 19 April 2006. On 6 June 2006, the Board agreed on the procedures for accepting applications under the programme. It was decided that available funding under the programme would be approximately NOK 15 million per year for five years of full operation.

Combining competitiveness and growth with a high level of social services, the “Nordic model” attracts wide international attention. Nordic citizens are among those with the least risk of poverty and the highest life expectancy in Europe. However, the Nordic model is under pressure. Against the backdrop of globalisation, European integration, immigration, the ageing society and increased individualisation, many have predicted the death of the Nordic welfare state. There is thus a need for research to assess whether the Nordic welfare model can renew itself in the face of global competition.

The two Nordic Centres of Excellence on welfare research were aimed at increasing the quality, efficiency, competitiveness and visibility of Nordic welfare research through enhanced collaboration in the Nordic region. The programme was co-funded by NordForsk and several Nordic national science funding bodies, and ran from 2007-2012. The total annual funding for a centre was a maximum of NOK 8 million.

The programme was funded by the following organisations: the Academy of Finland, the Icelandic Centre for Research (Rannis), VINNOVA, FAS Swedish Council for Working Life and Social Research and the Research Council of Norway.

The NCoEs within the programme were:

- NCoE Reassess: Reassessing the Nordic Welfare Model
 - Does the Nordic welfare model have the ability to renew itself under changing external and internal conditions? This is the topic at hand for the Nordic Centre of Excellence (NCoE) Reassessing the Nordic Welfare Model

- Participating institutions: SFI - The Danish National Centre for Social Research, Copenhagen; Agder University; Norwegian Social Research (NOVA); Institute of Social Research and Department of Social Work, Stockholm University; Department of Social Work and Health Science, Norwegian University of Science and Technology (NTNU), Trondheim; Oslo University College; Centre of Comparative Welfare State Research; Aalborg University; Department of Social Policy and Social Work, Tampere University; Turku Centre for Welfare Research, Turku University; Research Centre for Social Studies (RCSS) at the Social Science Research Institute, the University of Iceland
- NCoE NordWel: The Nordic Welfare State - historical foundations and future challenges
 - Studies the Nordic welfare state - a hallmark for the Nordic countries that has attracted international attention for decades
 - Participating institutions: University of Helsinki, University of Iceland, Stein Rokkan Centre, Åbo Akademi University, NTNU, Stockholm University and University of Southern Denmark

1.5 Financial analysis

As background to the discussions in the upcoming parts of this report, it may be helpful to have a basic understanding of the funding in the two programmes. In this section we will briefly outline the level of funding and economic outcome.

Figure 2 shows the distribution of funding between NordForsk and the Nordic countries. NordForsk contributes about 40% of the total budget of the two programmes. The total spending was NOK 64 million for the Programme on Welfare Research and NOK 87 million for the Programme on Food, Nutrition and Health.

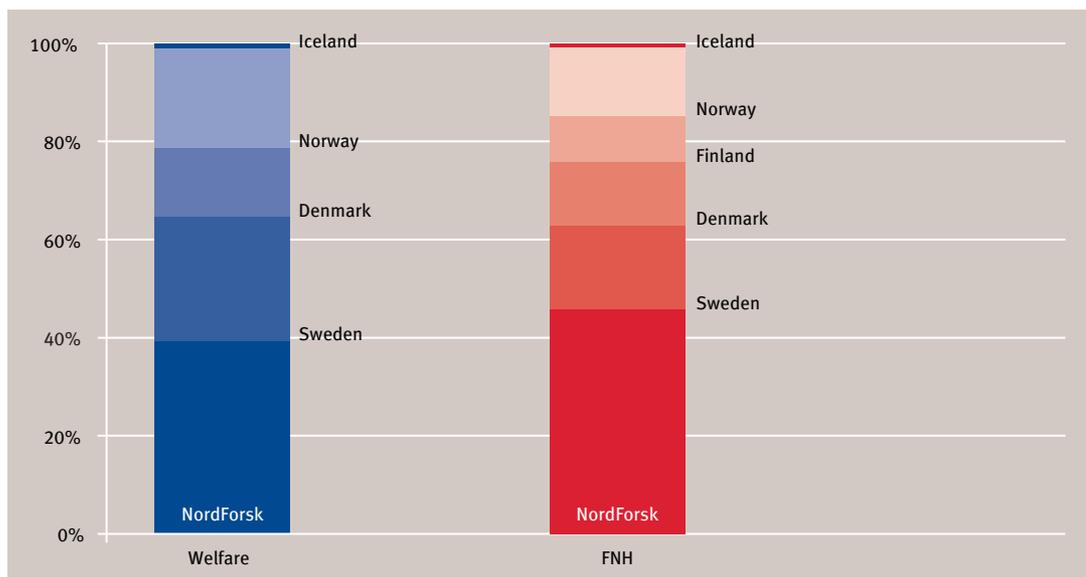


Figure 2. Breakdown of funding in the Programme on Welfare Research and the Programme on Food, Nutrition and Health⁷

⁷ In the Programme on Welfare Research, the national funding bodies included: the Icelandic Centre for Research, Research Council Norway, Academy of Finland, the Swedish Governmental Agency for Innovation Systems and FAS Swedish Council for Working Life and Social Research. In the Food, Nutrition and Health programme national funding bodies included: the Icelandic Centre for Research, the Research Council of Norway, the Academy of Finland, the Danish Council for Strategic Research, the Ministry of Food, Agriculture and Fisheries of Denmark, the Swedish Governmental Agency for Innovation Systems and the Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning.

Unfortunately we have not been able to obtain complete data on economic outcome per year for all the centres. Figure 3 instead shows annual planned expenditures for the two programmes combined during the period of 2007–2011. We know, however, that some centres extended their activities into 2012 and 2013 and thus retained some funding for that purpose.

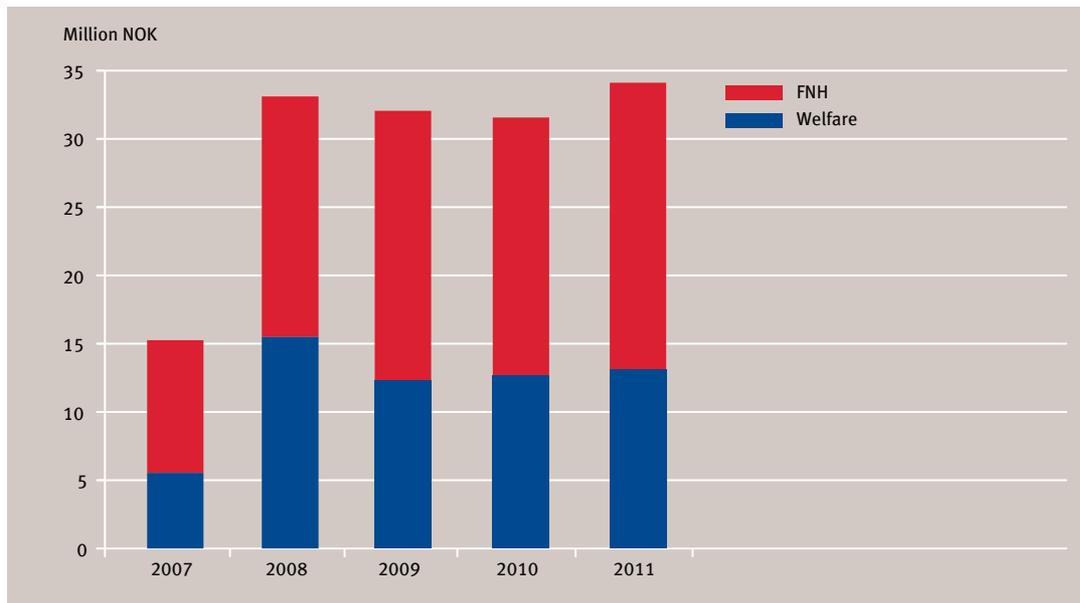


Figure 3. Breakdown of expected distribution of funding by year, based on budget

Figure 4 reveals that the total economic outcome of the centres closely resembles the total budget. The centres that elevate the outcome stack over the budget stack are NordWel and MitoHealth. NordWel had a budget of NOK 22 million but reports total expenditures of NOK 27 million, and MitoHealth reports costs of NOK 31.5 million which is NOK 2.5 million over its budget. SYSDIET, however, had a budget of NOK 29 million but reports expenditures of only NOK 26 million.

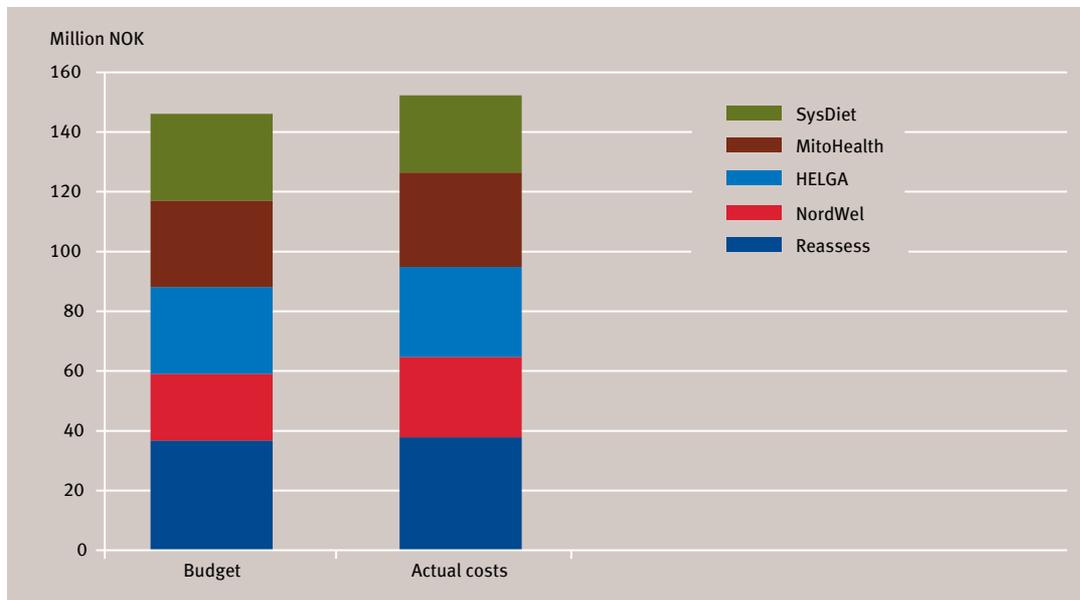


Figure 4. Breakdown of budget and outcome per centre compared

In Table 2 we compare the relationship between salaries, the cost of research training and other costs. The share of salary costs ranges from 70% to 38% of total expenditures of the centres. NordWel and MitoHealth report a relatively low share of salary costs in relation to the other centres. On the other hand, they have reported a significantly higher share of resources allocated to research training.

Table 2. Relation between salaries, research training activities and other costs in the centres, based on reported actual costs

	Reassess	NordWel	HELGA	MitoHealth	SYSDIET
Salaries	64%	43%	70%	38%	59%
Research training	11%	28%	1%	41%	12%
Other	25%	28%	29%	21%	29%

1.6 Bibliometrics

Bibliographic coupling is a bibliometric technique that can be used to describe how scientific publications relate to each other through shared references to earlier published scientific work. This is also assumed to be an indication of contextual similarity, which is the original idea behind the use of bibliographical databases for information retrieval purposes. Bibliographic coupling as a bibliometric technique is an example of one of several possible domain analyses that are used to describe research focus, the structure of disciplines and collaboration patterns in specific science areas and scientific research fields. A number of techniques to visualise bibliometric relations can be used to create graphical representations of positions of and relations between different actors. These ways to summarise very complex structures in the formal scientific communication can be used to create overview and guidance in an extensive amount of information.⁸

1.6.1 The NCoE on Welfare Research

The map of bibliographically coupled authors in Figure 5 below shows those publications in the bibliographic database Scopus that are most strongly related to the selection of 12 articles made to represent the scientific production of the Programme on Welfare Research. In the first step, a search of the database was performed, from which we were able to conclude that 10 of the 12 articles were represented in the database. In other words, these 10 articles had been published in one of the scientific journals covered by Scopus at the time of the search.

The next step involved retrieving all publications in the database that were bibliographically coupled or related to any of the 10 original articles by shared references. For practical reasons, the number of published articles was set at 20, which means that each of the 10 original articles generated a total of 200 additional articles to the bibliometric analysis. These additional 200 articles were retrieved because they share references with the original 10 articles; they are bibliographically coupled.

The map in Figure 5 shows the relationship between the strongest coupled authors to these articles, i.e. those with at least three shared references with any of the other published articles. The distance between the nodes on the map is inversely proportional to the similarity between the authors, measured as shared references between documents. For each one of the authors, consideration has been given to every other author in the analysis. The strongest links are illustrated by lines drawn between the authors represented in the map.

Thus, the map represents the published research from the entire world, which is visible in the Scopus database, connected with the research performed in the Nordic Centre of Excellence Programme on Welfare Research through shared references. This means that they make use of the same parts of an

⁸ See Noyons, E. (2001). Bibliometric mapping of science in a science policy context. *Scientometrics*, 50(1), 83-98.

intellectual knowledge base or a stock of scientific knowledge stored in the scientific literature as a whole. We assume that the greater the number of shared references, the more similar in content the research will be. When similar enough, the researchers become representatives of the same research field.⁹

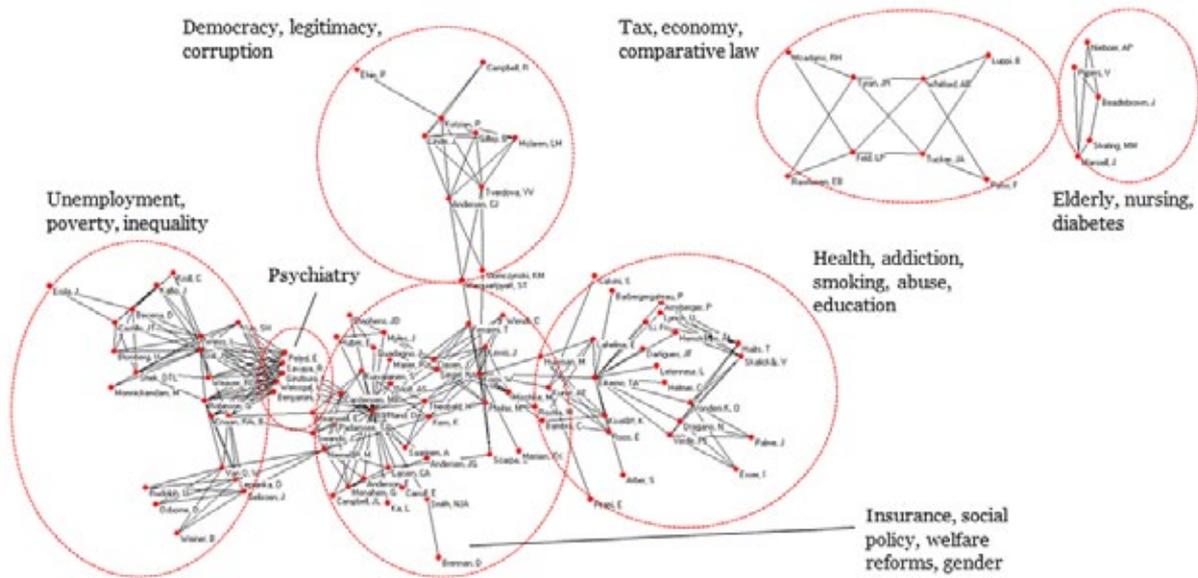


Figure 5. Bibliographically coupled authors based on meta-data from a sample of twelve articles from the NCoE Programme on Welfare Research.

From the map we can conclude that the whole group of bibliographically coupled authors can be divided into seven fairly delimited groups or clusters. These clusters have been identified by key word analysis, using the key word classification in the Scopus database. Starting in the far west of the map, we find a cluster with a primary research focus on issues connected with unemployment, poverty and inequality. Next, the smaller concentrated group is a psychiatry cluster. Another step eastwards gives a larger cluster of research on insurance, social policy, welfare reforms and gender. To the north of this latter group, we find a cluster characterised by research on democracy, legitimacy and corruption, and to the east of it there is a cluster of research in the areas of health, addiction, smoking, abuse and education.

Finally in the somewhat far northeast of the map, there are a couple of clusters a little isolated from the others. The westerly one of these is on tax, economy and comparative law, while the easterly is on elderly, nursing and diabetes. The interpretation of such a fairly remote position in a map of bibliographically coupled authors is that they have more in common with each other than they have with anyone else on the map. On the other hand, the small psychiatry cluster that seems to be squeezed in between two larger clusters in the western part of the map gets its position from the fact that most of these authors are actually connected with authors in both of the larger clusters.

The research in one of the clusters, centrally positioned and focused on insurance, social policy, welfare reforms and gender, seems to play either a central or a very general role, since as many as four of the other clusters are strongly connected with it through shared references to the intellectual knowledge base.

Researchers from the NordWel centre are confined to the larger web and are predominantly found in the easternmost and westernmost clusters. Some researchers are also represented in the most northern cluster of the main web. Researchers from Reassess are concentrated to the central cluster, but are also

⁹ See for example Stern, P. (1996), *Prisoners of the Crystal Palace - Mapping and Understanding the Social and Cognitive Organization of Scientific Research Fields*, Umeå, Boréa, or Stern, P. (1995), *Bibliometric Maps as Valid Representations of Scientific Practice. Controversies and Closure in the Social Sciences*. In M.E.D. Koenig & A. Bookstein, (eds), *Proceedings of the Fifth Biennial Conference of the International Society for Scientometrics and Informetrics*, Medford NJ: Learned Information, Inc.

linked to the clusters found in the northeastern part of the map. Researchers from the programme are thus quite spread out over the map, which indicates that they are still to a significant extent a part of distinct research traditions outside the Nordic context.

1.6.2 The NCoE on Food, Nutrition and Health

The map of bibliographically coupled authors in Figure 6 below shows those publications in the bibliographic database Scopus that are most strongly related to the selection of 12 articles made to represent the scientific production of the Programme on Food, Nutrition and Health. In the first step we concluded that 10 of the 12 articles were represented in the database. Also these 10 articles were published in one of the scientific journals covered by Scopus at the time of the search.

In the next step all publications in the database that are bibliographically coupled or related to any of the 10 original articles by shared references were retrieved. For practical reasons, the number of published articles was set at 20, which means that each of the 10 original articles has generated a total of 200 additional articles to the bibliometric analysis. These additional 200 articles were thus retrieved because they share references with the original 10 articles; they are bibliographically coupled.

The map in Figure 6 shows the relationship between the strongest coupled authors to these articles, those with at least 26 shared references with any of the other published articles. In this map as well, the distance between the nodes on the map is inversely proportional to the similarity between the authors, measured as shared references between documents. For each one of the authors, consideration was given to every other author in the analysis. The strongest links are illustrated by lines drawn between the authors represented in the map.

Again, the map represents the published research from the entire world, which is visible in the Scopus database, connected with the research performed in the Nordic Centre of Excellence Programme on Food, Nutrition and Health through shared references. They make use of the same parts of the intellectual knowledge base, or a stock of scientific knowledge stored in the scientific literature as a whole.

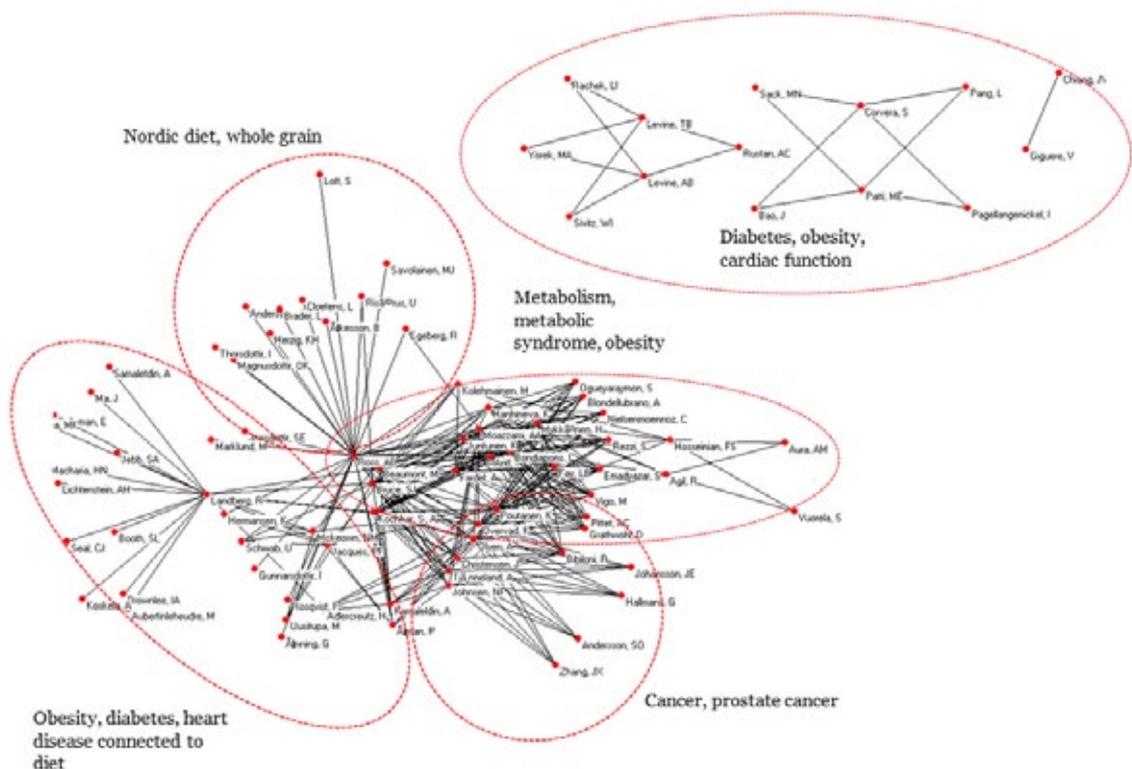


Figure 6. Bibliographically coupled authors based on meta-data from a sample of twelve articles from the NCoE Programme on Food, Nutrition and Health.

The map shows two main condensations, in the southwest and the northeast respectively. The southwest corner is a somewhat crowded place, with four different clusters highly connected with each other. The northernmost of the four clusters contains research on the Nordic diet and whole grains. Southwest of that there is a cluster of research on obesity, diabetes and heart disease connected to diet. Moving straight to the east, we run into research on cancer and prostate cancer, and north of that is a research cluster on metabolism, metabolic syndrome and obesity.

The lonely cluster in the northeast represents research on diabetes, obesity and cardiac function.

Interestingly enough, three different obesity clusters crystallise, each one associated with research in other areas; 1) diabetes and heart disease connected with diet, 2) metabolism and metabolic syndrome, and 3) diabetes and cardiac function. This is an indication of exactly how specialised science is. Even if two research fields have a lot in common, the fact that one of them deals with heart disease connected with diet and the other with cardiac function (in general) means that their researchers will refer to different parts of the intellectual knowledge base, and thus to different research traditions.

Although they cannot be spotted on this map due to a high threshold value (more than 25 occurring connections), researchers from the MitoHealth centre are significantly linked to the northeastern cluster of the map. This cluster is also distinctly discrete from the main web. The bibliometric analysis suggests that the other two centres, SYSDIET and HELGA, are more closely related as these researchers are more intertwined and represented or connected with all clusters of the main web. However, researchers from the SYSDIET centre are more often found in the two western clusters, while HELGA representatives are more heavily represented in the two eastern clusters. A handful of the senior researchers from HELGA constitute the core of the cluster on cancer research.

2. Results and impact of the Programme on Welfare Research



Chair of NCoE NordWel,
Professor Pauli Kettunen,
University of Helsinki,
and Chair of NCoE Reassess,
Professor Bjørn Hvinden,
the research institute NOVA
(Norwegian Social Research)
Photo: Terje Heiestad

2. Results and impact of the Programme on Welfare Research

We now turn to the results and impact of the Programme on Welfare Research, including NCoE Reassess and NCoE NordWel. In order to assess the NCoE activities, the following chapter will review a battery of items, including the following areas: the specific results and impacts, effects on cooperation, long-term use and impact, mobility and research training, research and scientific quality, goal fulfilment and, finally, synergies between the centres of interest. The basis for this elaboration is interviews with NCoE directors and strand leaders, a survey conducted among programme participants as well as the outcome from a focus group including representatives of both NCoEs.

2.1 Specific results and impact

In order to assess the *specific* results and impact of the programme, we need to analyse several dimensions, such as networks, multi-disciplinary cooperation, visibility and Nordic critical mass, scientific development and international cooperation.

Perhaps the most significant impact of the Programme on Welfare Research is that it has broadened the participants' networks. In the survey conducted among the programme participants, 72% of the respondents indicated that this has largely been the result. This might not come as a surprise given the nature of the programme and the activities that were carried out during programme implementation. The NCoEs by definition are networks of scholars from various Nordic research institutions who collaborate, but are not necessarily located together. One could argue that by participating in the centres, the participants' networks expand "by default". Yet, networking appears to have been extended beyond the centres as well. No less than 87% of the survey respondents indicate that their network within their whole area of research has increased to a large extent or to some extent. One of the interviewees puts it this way:

We approached the whole Nordic scientific welfare community when we organised conferences. We have been very open and acted inclusive, perhaps more than NordForsk thought and wanted.

As a result of an extended network, co-authorships between institutions are an important output from the Programme on Welfare Research. Nearly 60% of the survey respondents indicate that the programme provided opportunities for such activities, whereas only 10% indicate not at all or that the question was not applicable to their work. A common answer in the interviews is that new books and articles have been a direct result of the networks established and would not have come about without it.

Many of the interviewees agree that their activities within the programme can be described as multi-disciplinary. Only 13% of the survey respondents indicate that multi-disciplinary approaches or cooperation between disciplines are *not* at all or only to a small extent the result of the NCoE activities, whereas an overwhelming majority answers to some extent or to a large extent. Since the social policy research activities conducted in the NCoE are multi-disciplinary, this effect appears to be in line with the essence of the programme. Besides, most of the participants were used to working across disciplines prior of their involvement in the NCoE, combining disciplines such as sociology, economics, history and anthropology. According to the participants themselves, many of the publications produced within the programme are a testimony to the multi-disciplinary environment.

The Programme on Welfare Research has contributed to Nordic critical mass as well, but to a lesser extent than its contribution in other areas of concern here. Almost a quarter of the respondents cannot assess whether their activities have had such effect, whereas other respondents are quite sure that the programme has contributed to deepening it further. It is also unclear to what extent Nordic research has

become more visible and attractive in a European and global context. Yet, many of the interviewees refer to international conferences in which they have participated or been active in organising. Some researchers refer to a growing interest from the US and China in the Nordic welfare model. The NCoEs have helped to make the Nordic countries a research area in the eyes of the world, as one of the participants in it.

Some interviewees point to the fact that the programme has contributed to a higher international level of research and served as a catalyst for more international cooperation. Participants have profited in international competitions for funding, which is a sign of a strengthened Nordic competitiveness.

As was discussed above, the Programme on Welfare Research is assessed here in a number of different areas. Yet, when asked to specify the most important results, the interviewees often choose to highlight their publications within the centres. For senior researchers, scientific publications are often a key ingredient of their careers, representing perhaps the most solid proof of productivity. This is in spite of the fact that NordForsk funding did not go to research projects *per se*, but to facilitate cooperation between researchers within the same area. Nevertheless, in social sciences, the question of *scientific development* as a result of a particular activity inside a centre such as the NCoE or any other similar “laboratory” is a delicate topic to assess. In social science, the results and consequences of research are never short term, but long term. If you write a book, it takes perhaps three years before other scholars pick up the main conclusions and the work is cited.

Yet, many of the survey respondents agree fully (67%) or to some extent (20%) that the Programme on Welfare Research has contributed to scientific development. The high scores might be due to the rather broad definition of “scientific development”. One participant said: “Yes, if we call new ideas and approaches scientific development, absolutely.” Others point to concrete areas where advancements have been made, for example Nordic fatherhood and statistical analysis of poverty and well-being. When bringing together experienced, committed scholars, the distance does not appear to be a decisive factor, nor does it hamper scientific achievement. This fact is supported by the survey results; 81% of the respondents indicate that activities under the Programme on Welfare Research have promoted research of excellent scientific quality.

The last issue of specific results is whether or not the Programme on Welfare Research has led to any new research projects. Although many of the programme participants point to different projects coming out of the centres, some are careful not to label them as being a direct result of NordForsk funding, but rather due in part to other cooperative efforts outside the centres. Still, numerous interviewees state how they themselves or their colleagues have received funding for projects (i.e. for books and PhD projects) based on activities in their respective strands. Others say that being part of a broad network such as the NCoE looks great on their CVs when applying for funds outside NordForsk.

2.2 Effects on cooperation

Cooperation with the outside world is a crucial ingredient for any scientist. Therefore, one important area when evaluating the NCoEs is to examine the extent to which scholars have been able to meet and exchange ideas with colleagues outside the centres. Once again, many of the interviewees find it problematic to distinguish between what is to be defined as a direct effect of the NCoE and what was in fact in place before the centres were established. Perhaps this dilemma is especially relevant when asked about cooperation with relevant Nordic research environments outside the centre. On the other hand, two-thirds of the survey respondents indicate that new contacts have been established within their research area as a result of their involvement with NCoE. This tendency is not as strong when asked about whether or not their contacts have deepened due to NCoE.

As was mentioned above, new contacts have been made, especially in China, the United States and Europe. Most of the interviewees refer to new contacts being established at international conferences or by being approached by colleagues active in the same field and interested in Nordic welfare research.

Participation in international research programmes appears to be a distinctive outcome of the programme in regards to the EU Framework Programme (FP), but not in regards to the EUREKA programme. When asked if participation in the Programme on Welfare Research has made them more attractive as a partner in proposals to the FP or better prepared to initiate such proposals, 61% of the survey respondents fully agree or agree to some extent. However, the same positive response is not expressed in regards to the EUREKA programme; only one-fourth of the respondents fully agree or agree to some extent on the same question, whereas almost 60% indicate that this programme is not applicable in their case. The most common cause for hesitation in regards to international research programmes in general and EU-funded programmes in particular are the perceived difficulties associated with such platforms. Another reason for reluctance is a lack of a tradition of applying for funding outside the Nordic countries.

2.3 Mobility and research training

The Programme on Welfare Research has contributed effectively to intra-Nordic mobility, in particular of younger researchers. In the survey, no less than 70.1% of the respondents indicated that this has been the case “to a large extent”, an additional 15.4% answered “to some extent”.

The valuable opportunity given to young people to meet fellow scholars is highlighted by several interviewees. In both centres under the Programme on Welfare Research, different cooperation platforms for young researchers were arranged, such as PhD courses and summer schools with people from up to 15 countries. Several PhD students have graduated in partner countries or benefited from scientific visits during their training. Visits very often lead to an exchange of ideas among the involved organisations more quickly than would otherwise be the case. One senior researcher in NordWel sums up the main concepts of mobility this way, stressing both its virtues and challenges:

The more important mobility has been the opportunity to arrange summer schools, PhD courses, and gatherings of Nordic PhD students. We have created collaboration links and a cooperation platform for young researchers. If a person got a PhD position, he or she was required to spend a major part of their time in another Nordic country. It was essentially good, but for some, it meant significant problems for family reasons. Later, we could recruit talented young researchers that we discovered through the programme. And I think many young researchers received a Nordic identity, which is a positive outcome.

The focus on mobility of young researchers appears to be deeply rooted in the NCoEs' DNA and associated with NordForsk itself; “NordForsk has always focused on this subject,” one participant stressed. Many of the interviewees point to how valuable the mobility grants are for this segment of researchers. Yet, the mobility of young researchers does not seem to be limited to the Nordic countries. For instance, two PhD students associated with NCoE Reassess received scholarship for studies at Florence University.

The Programme on Welfare Research has stimulated international mobility on a more general level as well. A total of 64.7% of the survey respondents fully agree that NCoEs have stimulated international

mobility as such, not just for younger researchers. Yet one of the Reassess participants expressed disappointment that NordForsk funds did not allow her to “buy” researchers from other international institutions, thus denying them the opportunity to recruit personnel from abroad as part of the programme.

In general, the Programme on Welfare Research has been quite successful in opening up areas for collaboration and facilitating mobility between institutions, especially for PhD students. According to the programme participants, PhD students were given access to new contacts which is always important for young researchers in every academic area. Moreover, the programme helped to open up arenas for collaboration and promoted mobility between institutions. When asked to elaborate on the benefits of NCoEs, many of the interviewees referred to the opportunities that were given to PhD students.

2.4 Long-term use of results and impact

It is time to assess how the above-mentioned results have been utilised. Are there any long-term impacts of the programme? How permanent, comprehensive and significant are they? The general impression gained from interviews conducted with programme participants is that the results are well positioned to become of long-term use. For example, within the Reassess network, plans for creating a new Nordic network on welfare research with yearly conferences, starting in Stockholm 2015, are underway. Another Reassess constellation has transformed into Norma-care, a project which the participants call a continuation of Reassess and that has received two years of funding. If we look at NordWel, we find the same applies. The participants mention plans for new projects and sessions at an upcoming conference, and point to the connections established between PhD students, as well as between senior researchers, which have the potential to last a lifetime. These are just a few examples of how programme participants appear to stay in contact with each other in the future. Although operating in a more undesignated circumstance, these contacts might prove productive, as one of the participants put it:

There are always some permanent features in ad hoc groups. We can easily contact each other, even if we don't work together on a daily basis. As a result of the network, a new network of researchers will be established in Norway. There are other examples of programmes that are also on the way which in some way can be traced back to the centre.

Moreover, publications produced by the programme participants are in active use and will, together with forthcoming publications, have a long-term result and are likely to have an impact in the welfare research field in the future. The more cautious voices, and there are a few, point to the problems and uncertainties of predicting the future. How permanent these networks will be depends on whether or not funding keeps pouring in, they argue.

2.5 Research and scientific quality

To answer the evaluation questions about the scientific quality and visibility and attractiveness of Nordic research in a European and global context, two scientific experts for the NCoE Programme on Welfare Research were selected in a dialogue between NordForsk and the NCoEs. The experts were Professor Peter A. Hall, Harvard University, Cambridge, Massachusetts and Professor Cathie Jo Martin, Department of Political Science, Boston University, Boston, Massachusetts.

A summary of the ratings made by the experts is found in Table 3, where the questions covered are found together with the ratings (1-5) from each of the experts.

Table 3. Summary of expert ratings in the scientific assessment of the NCoE Programme on Welfare Research. The table shows the questions covered, and ratings (1-5) made by each of the experts. The complete scientific assessment can be found in Appendix C.

Questions	Ratings	
Experts own rating of his/her qualifications and competence to evaluate the centre at hand	4	5
To what extent are the published results of high scientific quality?		
Reassess	4	4
NordWel	4	5
Do published results develop new scientific methods to solve the problems addressed (including approaches, experiments, etc.)?		
Reassess	3	4
NordWel	3	4
To what extent have published results enhanced scientific knowledge?		
Reassess	5	4
NordWel	5	5
Have published results developed opportunities for further research in the area?		
Reassess	4	4
NordWel	4	5
Have published results been disseminated in high-level publications?		
Reassess	4	3
NordWel	4	4
Overall rating of activities in the centres and the programme as a whole	4	4

Note: Overall rating was done on the scale 5: excellent, world class, 4: internationally competitive, 3: “average”; acceptable at a national level, 2: underperforming, 1: bad. The experts own rating was done on the scale 1 (poor) – 5 (high), and the rest of the categories were rated on the scale 1 (not at all) – 5 (very much).

In the last row of the table we see that the overall rating of activities in the centres and the programme as a whole is quite high, both experts give grade 4, “internationally competitive”. One of the experts did not to give the highest rating because 5, the highest score, is reserved for work that is field defining, and a required reference for most subsequent work. Nevertheless, the sample articles are described as very fine pieces of scholarship, and the best of them are outstanding.

The other expert seems to agree with the latter opinion, since she states that based on quality, some of the articles deserved to appear in more prestigious journals. On the other hand, the articles should have addressed broader themes in the social science literature, and some of the articles could have cited a broader range of scholars outside of the Nordic countries.

Further, according to the experts, the published results are of high scientific quality, and the centre activities are given a high score, reflecting scholarship of the highest international standard. A great virtue of Reassess is its mandate to disseminate theoretical insights and empirical facts about the Nordic social model, whereas NordWel makes a significant contribution to debates that extend beyond the Nordic

borders. The articles selected make keen analytical arguments, which are consistent with broader trends within Nordic scholarship.

The relatively low rating (3) from one of the experts when considering whether published results develop new scientific methods to solve the problems addressed is explained by the fact that many of the research products are overview essays, drawing largely from the existing literature. Although regarded as very competently done, those do not develop new scientific methods.

One of the experts also has a somewhat lower rating (3) regarding whether the published results have been disseminated in high level publications. This is mainly explained by the fact that this expert feels that the quality of the published results was quite high, and wished that they had been showcased in “more prestigious venues”. The authors are encouraged to submit more frequently to peer-reviewed journals, rather than to publish in edited volumes.

All in all, the expert ratings in the scientific assessment of the NCoE Programme on Welfare Research are high. The average rating from one of the experts is 4, while it is 4.4 for the other.

2.6 Goal fulfilment

The objectives of Reassess and NordWel were both relevant and challenging, according to their participants. Both inside and outside Europe, the Nordic welfare model has been the focus of attention. Countries such as China and Japan are interested in how the model works, and many of the participants explained their eagerness to produce something useful on the perceived interest from the international research community.

Virtually all interviewees agree that the programme achieved the specific programme objectives. The centres have allowed for network expansion, and contributed to better efficiency, visibility and competitiveness of Nordic research. Furthermore, the programme has served as a catalyst for welfare research. Therefore, the NordForsk funding has, on the whole, been of vital importance, according to those it has benefited. Some of the interviewees point to specific results that have emerged from the research activities: “The results were disappointing,” one researcher said with a sigh, “as it has become worse in the last 10 years. One can say that after we joined the EU, we have become more similar to other countries, but we are still leading”.

Some are more hesitant to call the programme’s achievement a success. Although a lot of attention has been given to the research results *per se*, one should be careful in assessing the results beyond the “research bubble”. Achievements as measured in political impact depend on how relevant the research is for the day-to-day business of politics, according to one participant.

2.7 Synergies

Finally, we turn to the issue of synergies between the two NCoEs, Reassess and NordWel. Are there any results and impacts from the centres taken together? According to participants from both centres, the research activities carried out in the same programme complemented each other and helped to generate a new understanding of the state-of-the-art of welfare in the Nordic countries in a positive way. The combined results from these multi-dimensional efforts became more comprehensive than what would otherwise have been the case. For example, PhD students have attended joint summer schools, senior researchers have organised joint conferences and seminars, and some of the researchers went between the two centres on a regular basis. Some of the results became joint publications as well as joint applications for funding new projects.

However, one of the interviewees questioned whether NordForsk should fund two so similar networks in the future, even though it created an excellent opportunity to pool resources. Another participant in one of the centres said he/she had stronger ties to academic colleagues in other countries, such as China, the US and Europe, for an example, than to colleagues in the other centre.

3. Results and impact of the Programme on Food, Nutrition and Health

From the gene bank,
NCoE HELGA and
the Danish Cancer Society
Research Centre.
Photo: Terje Heiestad



94

Telbred

3. Results and impact of the Programme on Food, Nutrition and Health

This chapter summarises the views of participants in the Programme on Food, Nutrition and Health regarding achievements both in terms of the results and impact on individual research groups as well as for the wider collaborative networks. The views stem from interviews and focus groups conducted for this evaluation.

3.1 Specific results and impact

Most interviewees express satisfaction with their participation in a Nordic research collaboration and the outcome of the activities. Many research groups that have participated in the centres were already well established and recognised internationally prior to the NCoE collaboration, but have been able to further solidify their positions.

For SYSDIET, the main achievement is the intervention study set up by the consortium. One of the unique features of this study was that the centre brought research groups together from different disciplines (molecular genetics, metabolomics, and diet and nutrition scientists). The study also proved that it was possible for research groups in the Nordic countries to perform an intervention study on such a large scale. Interviewees from SYSDIET agree that this human diet intervention study could not have been set up without the NCoE scheme.

Several representatives of MitoHealth point out the mapping of Nordic facilities and capabilities as the main achievement of their centre. Participating research groups succeeded in working together on the same topic, from different angles. Some databases were developed which made sample analyses possible. A good overview was made of who is doing what in the Nordic countries that will facilitate future studies, according to the centre coordinator.

HELGA has contributed to establishing the core actors of the centre as leading research environments in an international context, according to several representatives. HELGA is now renowned and has produced results that have attained high impact among both researchers and the general public.

HELGA appears to represent the most ambitious example of multi-disciplinary research in the programme. According to several interviewees, the centre has managed to combine a wide range of disciplines into integrated studies. However, representatives from the other centres are reluctant to label their centres as multi-disciplinary as that would imply research that has combined natural sciences and humanities. But if a multidisciplinary approach is interpreted as cooperation between different methodological traditions, many interviewees say that the NCoE programme has stimulated this by bringing different fields together under the umbrella of Nordic food and health effects.

The wide scope of the Programme on Food, Nutrition and Health has enabled the centres to investigate research topics with a diverse set of methodologies and from many different perspectives. This is considered by many to have been very rewarding. Some express the value of having their research reviewed and discussed in a multi-disciplinary environment. Others argue that they have acquired knowledge of methods that, combined with their previous work, have made new and more comprehensive analyses possible.

A commonly mentioned benefit of the programme is how it has contributed to putting focus on Nordic food. The health effects of the Nordic diet have long interested Nordic researchers, but the real boost for Nordic food in an international context came under the Programme on Food, Nutrition and Health. Many interviewees stress that this is the result of a larger trend and something that would have happened even without the NordForsk initiative. But the same persons argue that the timing of the programme nonetheless is a “happy accident” and has helped to raise interest and increase the impact of the output from the programme.

Regardless of trends many interviewees believe that the programme has helped to establish Nordic critical mass, not only within the field of Nordic food and its health effects but also in terms of capacity to perform large-scale studies with a broad range of methodological approaches. The programme has also brought competencies together that would be impossible for one Nordic country to muster.

3.1.1 Networks

Although many of the senior researchers in the centres were not strangers to each other before joining the consortium, they emphasise networking as the most prominent benefit of the programme. In discussions about preparing an application to NordForsk, the leading individuals all used their already established networks to compose competitive teams. “I knew some people who were about to develop a consortium for the NordForsk call, and I was approached and invited”. This is a typical comment that illustrates how many participants describe how they got involved in the centres.

Several interviewees point out, however, that although they were familiar with most of the senior researchers within the centre prior to the NCoE collaboration, this opportunity enabled them to resume relationships from long ago and to find a new basis for collaboration. There are also some examples of senior researchers (not as established internationally) who vastly extended their networks as a result of their participation in the programme.

But perhaps even more valuable is the networking that has occurred between the future generation of researchers, post-docs and PhD candidates. Opportunities for networking are vital for young un-established researchers. This has been deemed as a very important result and has great potential to contribute to future research collaboration. It is also a very stimulating experience for the individual and can have a great impact on individual future careers.

3.2 Effects on cooperation

The NCoE funding has been important for enabling partners to collaborate to an extent that otherwise would not have occurred. Cooperation between partners that work in the same or in complementary fields has been established. The programme has raised awareness that what can be done on a European scale, with EC-funded FP projects, can also be done in the Nordic area: to define targets and to develop a coherent consortium.

As early as the 1980s there was substantial interest in Nordic cooperation, some interviewees recall, but somehow it did not materialise. Instead Nordic scientists worked a lot in FP-funded projects. Now that the NCoE programme has made it possible to collaborate solely with Nordic researchers, many interviewees believe that this will have an impact on future collaboration patterns. “The centre was a proof of concept,” one interviewee argues. Strong Nordic networks have evolved and will take on other European partners in order to build even more competitive consortiums in the future.

Many interviewees stress that the collaborations have been profound and that this is reflected in the many co-authored publications that have been produced. Researchers in the centres have been able to take time to discuss different issues jointly and analyse results in a more diverse way thanks to their different backgrounds and areas of expertise.

3.3 Mobility and research training among young researchers

Two explicit objectives of the NCoE programmes were to support efficient research training and increase intra-Nordic mobility of young researchers in particular. This has also been one of the major focus areas for all three centres under the Programme on Food, Nutrition and Health.

Post-docs and PhD candidates have been given the opportunity to take part in exchange programmes and make short visits to other research environments. Although this has been beneficial for the individual and given rise to knowledge transfer between research groups, several interviewees suggest that the impact of mobility activities is relatively confined. Mobility activities are also dependent on constant funding and are unlikely to continue after a specific intervention, such as the Programme on Food, Nutrition and Health, without continuation from any other funding source.

An observation made by several interviewees is that as stimulating as mobility may be for the individual, it is difficult to achieve in practice. For many PhD students or post-docs, being away from home, even for a month, is simply not an option. Some interviewees also suggested that they could not afford to lose one of their employees to a mobility programme.

All three centres in the programme have developed joint courses for doctoral candidates in which several partners have contributed to the content, which has made the courses diverse and up-to-date with the latest research. These courses are still used, and several interviewees argue that they are a key legacy from the centres and will influence research training far into the foreseeable future.

SYSDIET chose a different type of organisation from the other centres. Instead of work packages based on different research issues, SYSDIET was organised around areas of responsibility. One work package was the organisation of research training, and the group at Oslo and Akershus University College was responsible for this. During SYSDIET they arranged a course that was held annually and rotated between partners in the centre. The research training receives praise from all partners and will most likely be continued in the future thanks to a newly obtained Nordplus grant that will secure the continuation of open doctoral courses with a Nordic perspective.

3.4 Long-term use of results, and impact

Determining scientific results is often impeded by the long lead times in the academic community. Many interviewees stress that some of the most prominent results from their research are still in the process of being published. However, the scientific experts note in their reviews that some of the centres report an impressive number of publications.

Some interviewees believe that the best is still to come. “We are now starting to harvest the fruits,” says one researcher, referring to the planning of new studies and exchange programmes in the wake of the NCoE programme. Not all networks will be permanent, but some collaborators are currently preparing applications for national funding that in part are a direct continuation of the studies conducted under the NCoE programme.

Several constellations are currently discussing or preparing applications to the FP. In order to be competitive it is necessary to include other non-Nordic partners in a consortium. “A consortium with only Nordic partners is not viewed in a positive light by the evaluators,” one interviewee argues. But a group of Nordic actors that are in tune and used to collaborating is deemed by many to be a good basis on which to develop a competitive application.

However, some groups believe they have only a small chance in the first calls for the EC Horizon 2020 programme, as there is hardly any focus on nutrition. Perhaps the 2016 call will address the food-diet-nutrition issue, but at the moment, the best chance for EC funding is through the Joint Programme Initiative “A Healthy Diet for a Healthy Life” (JPI HDHL) or in more generic calls, for example on data integration.

As mentioned in the previous section, the impact on PhD training is widely regarded as one of the most enduring legacies of the programme. A handful of interviewees also believe that the programme in turn has the potential to influence post-graduate education, as many of the participants will likely be active lecturers at the universities for many years to come.

3.5 Research and scientific quality

Also in the case of the NCoE Programme on Food, Nutrition and Health, two scientific experts were engaged, in consultation with NordForsk and the NCoEs, to answer the evaluation questions on scientific quality and visibility and attractiveness of Nordic research in a European and global context. They were Professor Demosthenes B Panagiotakos, School of Health Science and Education, Department of Nutrition and Dietetics, Harokopio University, Athens, Greece and Professor Katherine L. Tucker, Department of Clinical Laboratory and Nutritional Sciences, University of Massachusetts, Lowell.

A summary of the ratings made by the experts is found in Table 4, where the questions covered are found together with the ratings (1-5) from each of the experts.

Table 4. Summary of expert ratings in the scientific assessment of the NCoE Programme on Food, Nutrition and Health. The table shows the questions covered, and ratings (1-5) given by each of the experts. The complete scientific assessment can be found in Appendix C.

Questions	Ratings	
Experts' own rating of his/her qualifications and competence to evaluate the centre at hand	4	5
To what extent are the published results of high scientific quality?		
• HELGA	4	5
• MitoHealth	2	4
• SYSDIET	3	3
Do published results develop new scientific methods to solve the problems addressed (including approaches, experiments, etc.)?		
• HELGA	4	5
• MitoHealth	4	2
• SYSDIET	3	3
To what extent have published results enhanced scientific knowledge?		
• HELGA	2	5
• MitoHealth	4	3
• SYSDIET	4	3
Have published results developed opportunities for further research in the area?		
• HELGA	3	5
• MitoHealth	3	4
• SYSDIET	3	3
Have published results been disseminated in high level publications?		
• HELGA	4	5
• MitoHealth	2	3
• SYSDIET	3	4
Overall rating of activities in the centres and the programme as a whole	4	5

Note: Overall rating was done on the scale 5: excellent, world class, 4: internationally competitive, 3: “average”; acceptable at a national level, 2: underperforming, 1: bad. The experts' own rating was done on the scale 1 (poor) – 5 (high), and the rest of the categories were rated on the scale 1 (not at all) – 5 (very much).

The overall rating of activities in the centres and the programme as a whole from both experts is high, 4 and 5 respectively, or, in other words, “internationally competitive” and “excellent, world class”. The programme is by one of the experts described as very well organised and conducted, with specific aims and important public health aspects. The other expert refers to a highly impressive set of work, and that the projects have made great scientific progress on both understanding and communicating the value of Nordic food.

The motivation behind the lower rating (2) from one of the experts concerning the extent to which the published results from MitoHealth are of high scientific quality is that the quality of the selected papers is considered moderate, and that the journals in which they are published are perceived to have a moderate reputation.

Regarding the question of whether the published results develop new scientific methods to solve the problems addressed, the other expert gives a similarly low rating (2) to MitoHealth. This is due to the assessment that the studies presented represent advances in basic mechanisms, but did not relate directly to stated aims of use of seafood components.

HELGA, on the other hand, gets the lower rating (2) from one expert on the extent to which the published results have enhanced scientific knowledge, with the motivation that the results have only moderately enhanced current scientific knowledge in the fields of whole grains and health. The same expert gives a 2 to MitoHealth for its dissemination of results in high-level publications. Few papers were published in international peer-reviewed journals.

All in all, the four times the expert rating is a 2, together with an additional 12 times 3, gives a somewhat lower average rating of 3.3 and 3.9 respectively. The difference between expert ratings is thus slightly greater in the Programme on Food, Nutrition and Health, which could indicate that the experts disagree more with each other. This conclusion is further supported by the fact that one expert's grade 2 is coupled in two cases with a grade 4 from the other expert, and in one case each it is coupled with a grade 5 or a grade 3. In any case, as mentioned above, both experts finally land on an overall rating of 4 and 5, which in both cases is quite high.

3.6 Goal fulfilment

There is general agreement among all interviewees that the programme has achieved the general objectives of the NCoE instrument. The envisaged networks and collaborations have been realised and have in turn resulted in a number of spin-off effects, as mentioned in previous sections. However, mobility of younger researchers has been difficult to achieve, and several interviewees also recognise that the centres could have done more in this regard. The experts are impressed overall by the scientific output and progress of the centres.

The specific objective of the Programme on Food, Nutrition and Health has been to “strengthen the knowledge base for public dietary recommendations and contribute to an innovative product development within the Nordic food industries”. Although most interviewees in general believe the programme has been fairly successful, they argue that it is not realistic to expect the programme to have fulfilled this objective during the programme period. Many research projects have had a basic focus and generated results that need be investigated further in order to be applicable to specific recommendations for human diet. The process of developing of public dietary recommendations is slow, and a long-term perspective is needed to determine the contribution of the Programme on Food, Nutrition and Health to future dietary recommendations.

Even though there are few indications of how the programme has influenced dietary recommendations, some interviewees argue that there is good precedence for making a future impact. The holistic scope of the centres provides greater understanding of the whole diet and provides results that are vital for assessing health effects. One interviewee states, “We have long known that Nordic food is healthy. Now we know why”.

The Nordic diet recommendations are re-evaluated every eight years by expert panels appointed by the Nordic Council of Ministers. Previous expert panels have included several researchers from the Programme on Food, Nutrition and Health.

3.7 Synergies

As already pointed out above, the programme consists of two centres that in part share a common intellectual basis, and one centre that has operated in a slightly different research field. The SYSDIET and HELGA centres have benefited from significant interaction. They have been able to organise joint activities, exchange PhD supervisors and publish co-authored articles. The Icelandic nodes of both centres collaborated extensively. They later became organised under the same unit at the University of Iceland.

The synergies between MitoHealth and the other centres appear to have been close to non-existent. The only synergies mentioned by the interviewees are the common programme activities initiated by NordForsk.

Many programme participants find it difficult to grasp the programme in its entirety and assess its results and impacts. Some are satisfied with the different scopes of the three centres and believe that they complemented each other well.

4. Programme strategy



Chair of NCoE SYSDIET,
Professor Matti Uusitupa,
University of Eastern Finland.
Photo: Anne Riiser

4. Programme strategy

Most of the content in the first two sections, as well as in the last section, in this chapter comes from the data obtained from the two focus group exercises held in Oslo on 28 Jan 2014, with participants from both the Programme on Welfare Research and the Programme on Food, Nutrition and Health. The other sections build mainly on data from other interviews conducted as part of this evaluation.

4.1 What was achieved and learned through programme activities?

Many scientific ambitions have been realised in the Programme on Welfare Research, e.g. to put welfare research into a historical context. Important general issues have been explored that cannot readily be addressed in a national context, such as:

- How to tackle demographic change within the welfare state
- Globalisation
- The peculiarities of the Nordic model and the contrast with national models in non-Nordic countries
- International competition and the effects of welfare

Results have been produced which are both of scientific value per se and are able to enrich policymaking.

The NCoEs have helped to develop both established and younger generations of researchers. The latter is important, and a special feature of the centres is that they have been able to keep the younger research generation connected to specific national and cultural circumstances. At the same time, with the increasing focus of international research funding on younger researchers, it is important to recognise that more established researchers also face a “capacity-building” challenge when launching new activities, such as international cooperation. The NCoE model addresses this issue.

The research activity and associated processes have been enriching. For example, the ability to hold summer schools with people from up to 15 countries and to involve leading scholars from all over the world has been very good. Numerous PhD students have graduated in partner countries or benefited from scientific visits during their training. The constant process of visiting means that ideas move among the organisations involved more quickly than would otherwise be the case, reducing the risk of what may be labelled intellectual Balkanisation and getting caught in national cul-de-sacs.

In the case of the Programme on Food, Nutrition and Health, apart from the scientific and other direct results, the main achievements described and discussed in the focus group context were:

- New partners that work in the same or complementary fields. As early as the 1980s there was an ambition to launch Nordic cooperation, but somehow it did not materialise. Instead Nordic scientists worked in EU-funded projects. The NordForsk programme made it possible to work together with other Nordic researchers, which functioned very well, partly because of their shared Nordic background.
- Learning through the network activities, which was a fruitful educational exercise. Some groups were located in very remote places, and the young researchers in particular were very happy with the programme, as it allowed them to travel to other places and get to know other research groups in the field.

In addition to the formation of networks, there were also more or less tangible outputs in terms of publications, education and training as well as establishment of a platform for future joint efforts. The

main outcome was establishment of a common research approach to future studies. The impact of the programme is expected to be considerable, in the form of use of results by industry, a better reputation of the scientists involved through publication and a new generation of scientists trained in the specific fields.

Within the programme, some of the main achievements were the intervention studies set up by the consortium. The activities brought research groups together from various disciplines. It was new for the Nordic countries to be able to conduct some of the studies on such a large scale. The programme made this possible, and the researchers became even more active than before. Another achievement of the programme was mapping of the facilities and capabilities. Research groups succeeded in working together on the same topic, from different angles. A good overview of who is doing what in the Nordic countries was compiled.

Many of the major results from the programme emerged from projects and arrangements that clearly could not have been set up without the NordForsk scheme. However, NordForsk could not provide the funding for the actual studies to be performed, which was then sought from other, mostly national sources.

The NCoEs build to varying degrees on pre-existing friendships, professional relationships and – above all – trust. This is a key success factor. While there are of course national differences that make the research interesting and worthwhile, there is also a common intellectual point of departure in each NCoE. These are not semi-random collections of people with funding as their only goal, but members of coherent research communities that sometimes date back to 1990 and before. At the same time, it is important to recognise that the researchers involved under these circumstances form networks rather than common communities – so they remain nationally based in terms of both content and funding.

In the Nordic networks, researchers have learned how to work with each other and discovered why working together at the Nordic level is worthwhile. This leads, among other things, to outcomes in the form of new nationally funded projects and bi- or tri-lateral collaboration between some of the partners. This will undoubtedly have an impact, as the PhD and post-docs have created more sustainable links with the research groups they visited.

The NordForsk effort is small in monetary terms because of an implicit competition between the Nordic and national levels. The NCoE participants have reaped many benefits from Nordic cooperation, and have said that it would be beneficial for the Nordic countries to spend more of their research budgets on joint activities.

Many of the researchers emphasised that NCoE money is for “add-on” networking activities and does not fund researchers’ normal salaries. They wanted to see NordForsk take on this job as well – which would imply becoming more flexible about what the grants can be used for. At present, there is more flexibility at the national level. The national funders also have much closer contact with the research community. Since the researchers do not depend in the same way on Nordic-level funding, they have less contact with NordForsk.

The implication of this discussion is that at least some of the researchers would like to see NordForsk administer its own programmes, not just add to national efforts. Underlying this discussion is an apparent lack of clarity about NordForsk’s and the NCoEs’ ultimate goals – not least whether they truly are expected by and large to focus at the level of networking. If this really is the case, then the present instruments are fairly good. If the aim is to pursue research and research goals in their own right, then NordForsk needs to look more like a national research council.

One frequent complaint has been that the NCoE programme was set up too fast, with too little time to write good proposals because there was pressure to start spending the money straight away. Administration had to be done in a rush, and there were cases in which the contract was signed well after work had started. Another consequence of the rush is that it could create problems in matching the need to spend money to the time it takes to recruit researchers and PhD students. There also appears to be a lack of clarity about the role of the scientific advisory boards, given the existence of steering committees in addition. NordForsk should reflect on this.

As in many cases, when the funding of a programme or a centre ends, the network still lives on, even if

the members have a hard time funding further joint activities. The most common consequence is that different parts of the research activities are carried on, but separately, on an individual or bilateral basis. Efforts to continue the operations, make use of the network, and develop knowledge and possible sets of data for further study and publication are sometimes successful, and sometimes not. NCoE researchers have asked for an extension mechanism to make it possible to continue promising activities.

However, since there is no such extension mechanism available, individual researchers need to look for funding elsewhere, mainly from national funding bodies. In some cases, plans are expanded to include other types of actors as well, e.g. industry, or to establish new centres with partly new participants, including former partners.

Nordic research groups have become more competitive through the NCoE programme. However, it is not considered possible to obtain European funding for a strictly Nordic consortium, which instead would have to design studies with research groups from other parts of Europe. One such example in the case of the Programme on Food, Nutrition and Health could be a comparative analysis of the Nordic diet and the Mediterranean diet. However, there must be a suitable area in the calls of e.g. the EC Horizon 2020 programme as well.

4.2 The role of NordForsk

Participants were disappointed that none of the NCoEs could become a part of the Framework Programme. However, such remarks could suggest opportunities for some Nordic action:

- To be done under “variable geometry” – for example, it could be interesting to invite some additional countries to join in (presumably on the same “pay your own way” funding model) so that the network could be expanded to fit the subject
- To be done in such a way that the Nordic activity forms a “regional” node in wider European or global cooperation

Both these avenues seem worth exploring.

Another common complaint from programme participants was about high labour turnover at NordForsk. By implication, this makes it hard for NordForsk to be a learning organisation and disempowers NordForsk relative to the national level by preventing it from building up high levels of competence and capacity.

The role of NordForsk in supporting networks is critical to the Nordic area. The choice of a five-year horizon for the NCoE centres is probably well balanced. A scheme with this kind of perspective is needed in order to build or modify networks and attain meaningful research results. The normal two-year perspective is useful only for individual projects.

The mid-term evaluation did address management and governance issues, but seems in practice to have had little effect on these particular aspects.

The governance structure of NordForsk entails that there is little policy connection between NordForsk and the Nordic level. Perhaps this has its origin in the fact that it is the different national research funders that govern NordForsk for the most part. Of course, there is also the question of the extent of the Nordic Council of Ministers’ capacity to absorb policy advice – and its ability to do anything about that advice if it were to obtain it.

One possible way to deal with the above-mentioned extension problem could be for NordForsk to reach an agreement with individual national funding bodies to establish a support mechanism and funds that provide follow-up funding for successful NCoEs. This could be done per country, or again by NordForsk. It could perhaps take the form of NordForsk support for post-docs to continue the NCoE activities, or by arranging with national funding bodies to do this. Another solution could be for these bodies to provide support for joint initiatives by funding the research activities of each of their own national research groups involved.

4.3 Motives for participation

Various participants have had different motives for taking part in each of the centres, although these motives certainly do not diverge radically from each other. It is possible to distinguish two different groups of motives, one associated with the content of the activities or projects carried out in the centre, and the other associated with the forms in which the work was conducted. Thus, a deep interest in the subject matter, the opportunity to conduct more research together with other people with the same inclination, and take part in generating more knowledge in the area can be seen as some of the most important driving forces here. A common research problem, which also gained strong support among participants, is also seen as necessary for making the whole enterprise meaningful.

Other, more specific motives for participating in the NCoE programmes include an interest in comparing the Nordic countries or developing stronger Nordic ties and using these as a platform for conducting research. Bringing people together to analyse the research problems in question may also be part of a more personal motive, sometimes coupled with an interest in finding out whether or not other researchers are moving in the same research direction.

Several participants thought it was self-evident to take the opportunity to perform interesting research on a larger scale and in collaboration with others. The idea of being able to combine different competencies is compelling. Only researchers from the Nordic countries participated, but quite a few groups were able to investigate what had not been investigated before, and each group contributed with its own expertise.

When looking at the more form-oriented motives, it is clear that a typical participant was a researcher who had been active in the respective field for several years and knew many of the colleagues personally. The NCoE programme provided an opportunity for closer collaboration between Nordic researchers, who apparently learned a lot about and from the other Nordic countries, which also created a good basis for working outside the Nordic countries. Forming an NCoE thus seemed a natural thing to do when the opportunity arose for researchers who already knew each other.

There is moreover fairly widespread agreement that international collaboration is very important, and that it is not possible to work alone as a researcher without contact with the outside world. Long-term funding for networking goes a long way in support of this. As one of the participants puts it:

We cannot do everything ourselves; we must exchange ideas with other scholars.

Some of the motives are also more individual or personal, referring to the perceived importance of the Nordic perspective, the potential to develop a specific service, positioning oneself in the competition or finding the approach non-standard or even a bit exotic. One researcher describes participation as a boost to the own operations:

It has been a positive challenge. It forced me to prepare and present papers, to get involved in discussions. It has given me a chance to collaborate with people who ask different questions.

The programme is missed by those who found it very valuable to offer PhD students good contacts through summer schools and conferences.

4.4 Unique features of the NCoE instrument

According to our interviewees, there are some relatively unique features that distinguish the NCoEs from other research collaborations they have been part of. From the point of view of the participating researchers from the humanities, taking part represented an unusual situation with big money (“we could do so much”) and a long-term perspective, not the typical three-four year project duration which is generally considered too short to accomplish anything in line with the NCoE objectives. The programme helped to create and sustain a large-scale network with multiple levels. The programme activities have also seen improvements over the years, e.g. the summer school which is described as incrementally better year by year.

Participating researchers say it was rather unique to invest on a Nordic basis the way that was done in the NCoE scheme. There are some similarities between the Nordic countries, which are a good starting point for comparative studies, but it is judged as equally important to be able to establish the operations as an important node in northern Europe. To some extent and in some areas, the Nordic dimension is perceived to have diminished compared with earlier times.

However, participants are careful to point out that the activities supported by NordForsk did not constitute a research project in a traditional sense, but funding to facilitate research and networking between people – to form a research network around a number of themes. It is best described as collaboration between researchers who already had their positions and salaries. They were able to bring their own, already existing projects and further develop them in concert. Thus, the basic funding was already in place. This is regarded as a very useful type of collaboration. The use of the NCoE funds is also described by some respondents as quite flexible, even if there has been an emphasis on mobility, travelling and networks. This is illustrated by the following statement by a participating researcher:

I think the mobility funds have been excellent. We received funds that we had used to send scholars abroad or welcome to our own department; a very good way to promote mobility and exchange of ideas.

Another rather unique feature is that industry did not have any major influence over the content of the activities and projects conducted. Industry is considered important in many instances, but this time research had the upper hand. Projects are described as typical knowledge building activity. There is also a sense that those who invested the most also gained the most from the projects. This mostly follows from the level of interest in working together, which also acts as a sorting mechanism. The less committed fell away after a while.

A point made by many participants is that the NCoE programme was well-funded compared with EU-funding instruments, which are characterised by more administration and less results, and that it provided funding for PhD students, not only for already well-established researchers. The scope of the centres was broad, facilitating cross-disciplinary collaborations. Participants have been able to use it in other international networks, thereby generating new research constellations, a large number of publications and several new national and international collaborations among partners. Overall, activities were good, but one thing that several participants returned to in our interviews is that funds should not have been allocated only for networking, and that the centres themselves should have been able to decide more on how to use the funding.

Regarding the issue of whether any significant actors were missing in the centre, there are two main types of responses among our respondents. The first could be phrased as “no one in particular was missing”. All relevant countries and perspectives were represented. This is also associated with the belief that a critical limit is reached at some point, and nothing further is gained by more participants or perspectives. Sometimes there may even be too many involved; bigger is not always better, which is the case in some EU projects. In terms of funding, there is a danger that money could be distributed too thinly among too many participants. Another risk of having too many participants is that collaboration could become less intimate and involve less open discussions. It is also harder to hold informal meetings and to address new ideas and results.

On the other hand, there is the conclusion among participants that some individual, organisation or stakeholder will always be missing, but this is perfectly acceptable and unavoidable. Something or someone will always be missing, but again, if the activities are growing too large, the commitment will be weaker. In more than one centre, another partner from a non-participating Nordic country could have balanced the collaboration or contributed missing data from that particular country, which would have made comparisons more comprehensive. This was not realised at the inception of the centre.

Finally, there is the view that more research on the latest developments in Europe could have been included. However, this could also be a task for the future, as could more studies on the differences between the Nordic countries rather than looking at them as a whole.

4.5 Response to Nordic research needs

The NCoE programmes are perceived by participants to have responded quite well to Nordic research needs. The kind of support in question is considered beneficial for achieving research of higher quality. Top-up funding makes it possible to improve on existing research. There is some agreement that it is not sufficient to apply a European perspective to Nordic affairs, and thus Nordic projects are important.

Specifically, the projects have provided new methodology and a new generation of researchers who can continue the research. They have illustrated and helped to meet the need to study how the Nordic model works and to look at Nordic conditions and circumstances in a different way.

In a more general sense, the NCoE mode is perceived as wide, allowing broad approaches to address specific research problems. The programmes appear to have been open to good ideas and suggestions, and allowed to develop over time. New initiatives have been welcomed along the way, with significant freedom to adjust and make changes within the programmes. This leads to the perception of fairly well-balanced programmes when it comes to meeting research needs.

However, there is some hesitancy, or what may be understood as reservations to paint such a clear-cut picture. One concern is the fact that research in the areas of the NCoE programmes extends across a wider spectrum than each of the centres. Therefore, there are research fields not represented among centre activities, and they will not be able to respond to all needs. Another limiting factor, or weakness, is that the funding only promotes those who already have resources, which makes it harder for those who are not yet established but who nevertheless represent research that could meet one need or another.

This evaluation has revealed very few conflicting views about what the programmes should focus on. There have been some relatively heated debates within programmes, but that is seen more as part of what goes on in research communities, and is not perceived as a major disagreement between e.g. the centre management and strand leaders. An open climate for discussion is described as not leading to any substantial disagreement that affected the research. In some instances, a programme should have targeted its activities somewhat more closely instead of focusing on too many themes or strands. Or, for some areas, no conflicting views are perceived within academia, but may perhaps exist among policy-makers. There is a certain ambivalence towards the fact that the programme focuses on mobility while there is also an expectation that research will be conducted to raise revenues.

4.6 Assumptions behind the NCoE concept

Aside from the fact that the NCoE programmes have produced results and networks that otherwise would not have emerged, there are a number of additional mechanisms associated with the concept of Nordic added value. Some of these are examined in this section.

The opportunity to compare Nordic with non-Nordic circumstances or models has been important – over-focus on the Nordic is the downside of Nordic cooperation. It is not possible to understand what is peculiarly Nordic without understanding what is non-Nordic. The work of the NCoEs has generated great interest internationally. At the Nordic level, policy interest has been hampered in a sense because there is neither a Nordic polity nor a real policymaking process. The policy audiences are at national level. However, the NCoE researchers have found themselves increasingly in a dialogue with policymakers in Nordic countries other than their own (and, indeed, in non-Nordic countries).

Nordic cooperation provides opportunities to conduct “natural experiments”. For example, it would have been interesting to compare the effects of the financial crisis in Iceland with other Nordic countries. There are many other opportunities as well. A more flexible funding mechanism might be needed to exploit such natural experiments, where external reality rather than a funding organisation sets the pace.

In a certain sense, international cooperation is even more important in the social sciences and humanities than in the natural sciences and engineering. In the former, “methodological nationalism” is always a risk – especially as the subject matters and the languages used may be national – so international cooperation provides an important countervailing force. This is less obviously needed in, say, chemistry. That said, it is important to ensure that “methodological Nordicism” does not replace methodological nationalism as a problem.

A problem shared by the Nordic countries is that they speak languages that are not widely spoken in a global context. Because many – especially younger – researchers rightly engage in global research communities (largely through the medium of English), there is a risk that linguistically and culturally unique research conducted in the Nordic countries will become “stranded”, with a declining audience. Achieving Nordic critical mass and efforts can help to reduce this risk, and involves the very specific research and researchers in international efforts that actually preserve their specific linguistic and cultural value.

The Nordic countries are unusual in that they have very good public registry data and a regulatory framework that allows them to be used for research. Nordic cooperation is uniquely positioned to take advantage of this.

5. Efficiency

A close-up portrait of Professor Pauli Kettunen, a middle-aged man with brown hair, a beard, and glasses. He is wearing a blue and white checkered shirt under a grey suit jacket. The background is a plain, light grey wall.

Chair of NCoE NordWel,
Professor Pauli Kettunen,
University of Helsinki.
Photo: Terje Heiestad

5. Efficiency

5.1 The Programme on Welfare Research

5.1.1 Coordination and management

The opinion on the coordination and management of the participants of the centres is positive. Most of the researchers in the programme express their satisfaction with how the day-to-day steering and coordination of both centres were carried out. All members were continuously updated on the progress of the different strands and future plans. Regular, well-prepared meetings on both strands and programme level were carried out, and the management was described in interviews with participants as very forthcoming in many ways. Alongside the well-organised activities carried out in both NCoEs, the researchers experienced a high level of freedom to pursue their aims.

The cooperation between the programme management and strand leaders appears to be a key to this success. The fact that many of the participants of both centres were hand-picked might explain the smooth programme implementation. Still, a lack of clarity exists about the role of the scientific advisory boards, given the existence of the steering committees.

Furthermore, the centres' research funds have been used efficiently throughout the programme duration. Many of the interviewees highlight the fact that funding was directed largely towards PhD students, which was regarded as good investment, whereas senior researchers produced books and articles.

5.1.2 Dissemination of results

The dissemination of the results appears to have worked well for both NCoEs within the Programme on Welfare Research. Although it is a long process in social sciences and the results are not immediately visible, most of participants appear to be satisfied with how this particular element of the programme has worked.

The results of the different strands of the NCoEs have been channelled mainly through publications in journals and books, at conferences, in public lectures and the media. However, as one of the participants points out, not everything that has been published as a result of the programme has been officially linked to it.

Target groups have mainly been fellow researchers and students, the public and national authorities. In some cases, a dialogue has been conducted with the political sphere and stakeholders working with welfare policy.

5.2 The Programme on Food, Nutrition and Health

5.2.1 Coordination and management

Participants in all three centres appear content with the overall management and governance of the centres. All centres have managed to create a well-defined division of labour that has favoured collaboration and functioned efficiently. Several interviewees note that the centres “live on” in different forms as evidence of fruitful cooperation.

Because the centres consist of partners that were well acquainted from the beginning, one could argue that it would come as no surprise that the centres function so well. However, many interviewees highlight that it is not just the same old gang; some of the new collaborators they encountered are now a recurring partner in other contexts.

Many interviewees contrast their experiences of the Programme on Food, Nutrition and Health with the problems encountered in participating in an EC-funded FP consortium. The strictly Nordic scope makes it reminiscent of a domestic research project with focused objectives, a fairly homogenous scientific culture, and a common language, but with the benefits of international research collaboration preserved. Furthermore, good infrastructure and technical facilities are both factors that make travelling and meeting between the Nordic countries effortless.

A crucial difficulty of the centres has been to handle the recommendations from the scientific advisory board (SAB), whose role and mandate had not been communicated to the centres, according to several interviewees. For the most part this was not an issue since the recommendations of the SAB had been deemed constructive and fair.

However, SYSDIET was criticised for not progressing quickly enough with its intervention study. The SYSDIET management felt overwhelmed by the SAB, and because it was not clear what the consequences would be on their project’s continuation if they did not listen to the SAB, they decided to start on some activities at an earlier stage. However, this had a negative impact on the results of the study. As activities were pushed to be completed more quickly, the results were less accurate. After a certain period, the consortium communicated with NordForsk about the SAB’s role, and NordForsk indicated that it understood the objections.

Some interviewees point out that they have not been able to get additional national funding for research activities during the Programme on Food, Nutrition and Health and that funding bodies in the various countries have placed different value on the applicant’s participation in the Programme. Some participants state that being part of the NCoE facilitated their applications for additional national funds. Other proposals appear to have been rejected by national funding bodies because the applicants already had been granted national funding (channelled through NordForsk). This was especially disappointing in the case of SYSDIET because it made it impossible for several partners to participate in the intervention study, which became the centre’s main activity.

5.2.2 Dissemination of results

In Chapter 3 we discuss the relatively high rate of publications that the programme has resulted in and that many of the most important results are yet to be published. Virtually all interviewees express satisfaction with the level of output and the impact it has made so far. The current booming interest for Nordic food has been a facilitating factor in that regard.

Some of the output from the programme has had an impact on the general public as well. Food, nutrition and health have been vigorously debated in the Nordic countries, and several researchers interviewed have taken active part in these discussions. Some of the more tabloid compatible research results have also been featured in newspapers with national coverage.

6. Discussion



Chair of NCoE Reassess,
Professor Bjørn Hvinden,
the research institute NOVA
(Norwegian Social Research)
Photo: Terje Heiestad



IWEC 2013

Bjørn Hviden

Norwegian Social Research NOVA

6. Discussion

From Chapters 2 and 3 of this evaluation report we learn that the activities of the two NCoE programmes have led to a relatively large number of specific benefits on different levels in the research system. One of the most important achievements described by programme participants is the broadening of networks, in which scientific work of excellent quality has been done. Researchers generally express satisfaction with the participation in Nordic research collaboration and the outcome of the activities that has been made possible this way. Research groups have been brought together from different disciplines, and they have shown that it is feasible to perform this kind of large-scale thematic studies from different angles and to combine a wide range of disciplines into integrated studies. It also seems clear that this would not have been possible without the NCoE scheme.

The networking that has occurred between future generation of researchers, post-docs and PhD candidates is considered especially valuable. Different opportunities for networking are vital for the younger, not-so-established researchers. Cooperation between partners that work in the same, or in complementary, fields has been established, which has great potential to contribute to future research collaboration. There seems to be no doubt that this will have a potential impact on future collaboration patterns, and that the NCoEs can be regarded a sort of “proof of concept”. Some strong Nordic networks have evolved, which will take on other European partners in order to build even more competitive consortiums for the future.

Both NCoE programmes thus seem to have contributed effectively to intra-Nordic mobility, in particular by younger researchers, owing to the different cooperation platforms for young researcher that were arranged, such as PhD courses and summer schools with people from up to 15 countries. There are also connections established between PhD students, as well as between senior researchers, which have the potential to last a lifetime. A considerable legacy, and widely regarded as one of the most enduring ones, is the impact on PhD training resulting from programme activities.

The programmes have produced new books and articles, which are understood as direct results of the networks established, multi-disciplinary approaches or cooperation between disciplines as well as co-authorships between institutions. They have further contributed to Nordic critical mass within their fields of study, as well as to the capacity to perform large-scale studies with a broad range of methodological approaches. Publications produced by programme participants are in active use and, together with forthcoming publications, are likely to have a long-term impact on the respective research field. According to some, the best is actually yet to come.

A significant mechanism seems to be that the centres have been able to investigate different research topics, with a diverse set of methodologies and from many different perspectives. They have acquired knowledge of methods that, combined with their previous work, have made new, more comprehensive analyses possible. The programmes brought together expertise that no single Nordic country could assemble on its own.

All of this has contributed to a focus on the NCoE subject areas. There is growing interest internationally, and many interviewees refer to international conferences they have participated in or have been active in organising, thus helping to make the Nordic countries a vital research area in the eyes of the world. The activities under the NCoE programmes have also bolstered scientific development, which leads to higher international levels of research and serves as a catalyst for more international cooperation. Nordic competitiveness has been strengthened, since NCoE participants have been increasingly successful in their international quests for funding, based on activities in the programmes. Participation in the NCoEs is also reported to having made partners more attractive in proposals to the FP, and better prepared to initiate such proposals themselves.

As already mentioned in this report, it is important to keep in mind that it is not entirely easy to distinguish what is to be specifically defined as a direct effect of the NCoE and what was in fact in place before or would be the impact of the different research groups' activities anyway. However, the development of networks, *modus operandi*, mobility, visibility of Nordic research and scientific quality stand out as credible and significant achievements. These things have happened, and the activities of the NCoEs have played a role in making them happen.

The objectives of the NCoE programmes have indeed been perceived as both relevant and challenging according to the participants. Both programmes have successfully delivered on the general objectives. Research of excellent scientific quality has been promoted, the visibility and attractiveness of Nordic research in a European and global context have increased, creative and efficient research and research training environments have been supported, some Nordic critical mass has been created, intra-Nordic mobility of younger researchers has definitely increased and cooperation between disciplines has been stimulated. In broad terms, there can be said to have been an appropriate division of work and specialisation between the Nordic countries, the NCoEs appear quite integrated into the national research systems since they are greatly dependent on also national funding, and the use of the Nordic resources appears efficient and increasingly flexible.

On the other hand, stated the way they are, the general objectives are actually very easily met. They are measurable in principle, but they contain nothing about the extent to which the different phenomena are expected to change. In other words, they do not describe the desired state to be achieved, which makes it virtually impossible to determine exactly when the objective has been met to any desired extent. In fact, logically, when the objectives are to "promote", "increase", "support", "create" and so on, they are achieved the very second anyone starts pursuing them. They are actually not formulated as goals or objectives, but as activities.

As indicated in previous paragraphs, the programmes have also delivered in line with the specific programme objectives. There are, nonetheless, a couple of possible considerations in relation to these as well. For instance, when looking at the objective of the Programme on Food, Nutrition and Health "to strengthen the knowledge base for public dietary recommendations and contribute to an innovative product development within the Nordic food industries", it may not be entirely realistic to expect this objective to be fulfilled during the programme period. Most research projects, in both programmes, have had a focus on basic research. To be able to apply the results from them in specific dietary recommendations or innovative product development, they clearly need to be investigated further, which takes both time and effort. The same could definitely be the case when basic research results are to be transformed into any kind of specific policy advice.

When considering issues associated with programme strategy, we conclude that it is a key success factor that the NCoEs build to varying degrees on pre-existing friendships and professional relationships and, mostly, trust. There are some national differences that make the research both interesting and worthwhile, but each NCoE also has a common intellectual point of departure. The participants are members of coherent research communities that go quite far back in time. Researchers involved under these circumstances form networks rather than common communities, and they remain nationally based in terms of both content and funding.

Since the NCoE participants have seen a lot of benefits coming from Nordic cooperation, they said that more of the Nordic countries' research budget could be used jointly. If this also implies that NordForsk would take more responsibility for funding researchers' normal salaries, it would also have to become more flexible about what the grants can be used for. At present, there is more flexibility at the national level. National funders have closer contact with the research community since the researchers are more dependent on them. That would probably also have to change if NordForsk were to take on a larger role. If NordForsk were to go as far as to administer its own research programmes, not just add to national efforts as some researchers seem to suggest, the goals of both NordForsk and the NCoEs would have to be developed or even revised.

As in several other cases, also on the national level, there is a notion among the researchers that the NCoE programmes were set up too fast. This does not leave enough time to write good proposals, and, furthermore, creates problems for research providers both in terms of recruitment and capacity to deliver expected results.

The NCoEs are perhaps best described as a collaboration between researchers who already had their positions and salaries, and unlike many of the collaborative efforts our respondents have experience from, industry has not had any major influence over the content of the activities and projects conducted. The NCoEs are thus academic centres, according to the terminology used above in section 1.3 on the concept of Centres of Excellence. If, on the other hand, the NCoE objectives already involve innovative product development, and ideas relating to additional actors in the centres include industry, it may be sensible to take the plunge and formally establish academic-industry centres, in which long-term use-oriented research is conducted in academic-industry collaborations to accelerate the exploitation of research outputs in support of medium to long-term industrial and Nordic competitiveness.

The general view is that the NCoEs have responded quite well to Nordic research needs. Top-up funding improves already existing research, and projects have provided new methodology and a new generation of researchers who can continue the research. The programmes are described as wide, and allow broad approaches to address specific research problems. They have been open to good ideas and suggestions, and been allowed to develop over time. New initiatives have been welcomed, and there has been freedom to adjust and make changes within the programmes. All in all, the conclusion is that the programmes are fairly well-balanced when it comes to meeting the research needs.

However, this picture can be regarded as a little too clear-cut. Possible doubts could be that research in the areas of the NCoE programmes is broader than each of the centres, and that there are research fields not represented among centre activities, and they will thus never be able to respond to all needs. From the welfare research point of view, more research on the latest developments in Europe could have been included, which would set requirements regarding flexibility and availability of resources under the programme. Few conflicting views on what the programmes should focus on are reported, other than occasional heated debates within programmes, which are seen as a normal part of business in research communities. In some areas, no conflicting views are perceived inside academia among the researchers, but there might be conflicting views among policymakers.

Researchers often struggle with continuing their research activity when the funding period is over. In instances when it would be possible to make use of such things as the network, the knowledge built up and/or datasets, it would be helpful to have an extension mechanism or in-between planning grant to continue promising activities, and to make expanded plans, which might include industry and former partners, for instance. NordForsk could potentially enter into an agreement with individual national funding bodies to establish such a support mechanism and provide follow-up funding for successful NCoEs. This could either be done per country or by NordForsk.

Nordic researchers and research groups should be able to exploit comparative advantages, such as very good public registry data and a regulatory framework which allows the data to be used for research.

The overall management and governance of the centres gets good reviews. The centres have apparently managed to create a well-defined division of labour that has favoured collaboration and functioned efficiently. The fact that the centres live on in different forms is seen as evidence of fruitful cooperation. At the same time, the general governance structure of NordForsk seems to comprise a somewhat weak connection with the policy branch on the Nordic level (Nordic Council of Ministers). This may be due to the fact that NordForsk is governed primarily by various national research funding bodies and that there is no real Nordic policymaking process. Either way, the question of through which channels and at what level the basis for policy in each area should be communicated could be more clearly clarified. The mid-term evaluation implicated management and governance issues, but seems in practice to have had little effect on these particular aspects.

An illustration of a somewhat contradictory view among the different national funders is the diametrically opposed outcomes of NCoE researchers' applications for the national part of the funding. In some cases, it has been seen as advantageous to be part of the NCoE, and complementary national funding has come easier, while others were denied funding since they had already been granted national funding – albeit channelled through NordForsk.

7. Conclusions and recommendations

Project coordinator in
NCoE HELGA Anja Olsen,
senior researcher at the
Danish Cancer Society
Research Centre, Copenhagen.
Photo: Terje Heiestad



7. Conclusions and recommendations

Schemes such as the Nordic Centres of Excellence Programmes are beneficial for already established groups of researchers who have pre-existing professional relationships and trust. Due to the special circumstances of the NCoEs, the researchers were still nationally based in terms of both content and funding.

Within the NCoEs, researchers have performed very much in line with what has been expected from them. This kind of excellence centre focuses on rewarding and fostering exceptional quality in research and research-related activities in a way that differs from two other established models of funding: institutional (block) funding and project funding. The CoE model is different from block funding and similar to project funding in that it is competitive and goal-oriented, but it differs from project funding in that it entails more extensive, long-term funding. The model also incorporates a central institutional aspect as there is an overarching central objective of re-structuring the research landscape, which makes it even more different from other models.

In general, the purpose of a CoE is to establish international competitiveness in basic research, and hence:

- To conduct basic research in areas where there is under-investment in basic research in the private sector due to externalities and spillover effects (i.e. as a public good) for the purpose of bolstering industrial competitiveness in the long-term
- To increase international competitiveness/build capacity in basic research through defragmentation of research activities and creation of critical mass

The business of a Centre of Excellence is typically conducted at a higher education institution (HEI) or public research organisation. The centres are 100% publically funded, and their accomplishments are measured with an emphasis on traditional academic outputs, such as publications, conferences attended, academic prizes, awards and skilled researchers (PhDs/Master's). The relationship with industry is typically confined to about 5% of its activities, which could lead to measurement of data on commercial outputs, such as long-term industrial relationships, patents, licences and spin-outs.

The NCoEs were intended to facilitate more efficient use of resources by gathering people, funding and infrastructure into collaborative entities, thus promoting better coordination of research efforts. Further, they were expected to stimulate international researcher mobility, true interdisciplinary research, and joint use and establishment of research infrastructure. By means of an international strategy and providing joint access to the best research environments in the Nordic region, the NCoEs were to enhance to the attractiveness of the region and strengthen linkages to and impact on relevant European research initiatives. By coordinating graduate education they strove to build competence and long-lasting networks of, and promote the career opportunities of, younger researchers.

As discussed in the previous chapters of this report, the NCoEs have been relatively successful in achieving the objectives of the programmes. It has been a novel experience for all the actors involved - the participants in the NCoEs as well as for NordForsk with its governing and advisory bodies. Given that the programmes have been quite successful there are good reasons to carry on with this type of funding as part of the larger mix. We therefore offer the following recommendations for future programme design:

- Keep the five-year horizon for the NCoE centres, which is probably well balanced. The role of NordForsk in supporting networks is critical to the Nordic area. A scheme with this kind of perspective is needed in order to build or modify networks and attain meaningful research results. The normal two-year perspective is useful only for individual projects.

- Sort out and clarify the respective roles of NordForsk and national funders, as well as the centre's management, steering committee and scientific advisory board. As long as this remains unclear to centre participants, it will contribute to frustration and inefficiency in the centre's performance
- Be clear about whether centres are expected by and large to focus at the level of networking. If this really is the case, the present instruments are fairly good. If the aim is to pursue research and research goals in their own right, the funding scheme must be designed accordingly
- Decide whether NordForsk should assume more responsibility for funding researchers' normal salaries. In that case, NordForsk would also need to be more flexible about how the grants can be used. A recurring idea has been that funds should not only have been for networking, and that the centres themselves should have been able to decide more on how to use them
- As a general rule, consider establishing a start-up period. Many programmes are set up too fast, there is too little time to write proposals, and administration must be done in a rush, creating difficulties with recruiting researchers and PhD students
- Explore the possibility for a Nordic action under "variable geometry". For instance, invite some additional countries to join in (presumably on the same "pay your own way" funding model) so that the network can be expanded to fit the subject
- Explore the possibility of letting the Nordic activity form a "regional" node in a wider European or global cooperation
- Consider whether an extension mechanism or in-between planning grant could help to continue promising activities and make expanded plans, which could also include e.g. industry and former partners. Researchers often struggle with continuing their work when the funding period is over. Such instruments could facilitate the extended use of networks, the knowledge built up and/or datasets beyond the programme. NordForsk could make agreements with individual national funding bodies to establish such a support mechanism and funds that provide follow-up funding for successful NCoEs
- Clarify and develop the relationship between NordForsk and the Nordic policy level. This connection seems somewhat weak, which may be because NordForsk is governed primarily by different national research funding bodies, as there is no real Nordic policymaking process. It could be clearer through which channels and at what level the basis for policy in each area should be communicated. The mid-term evaluation did address management and governance issues, but seems in practice to have had little effect on these particular aspects.
- Decide whether academic-industry centres should be established, in which long-term use-oriented research is conducted to accelerate the exploitation of research outputs in support of medium to long-term industrial and Nordic competitiveness. The NCoEs are academic centres, but the time may be ripe to take this path in any case if NCoE objectives already include formulations on contributions to innovative product development, and if ideas about additional actors in the centres include industry
- Clarify and gain support for a well-thought out goal structure among current and relevant incoming stakeholders. Make the objectives truly joint in nature
- Identify and exploit comparative advantages, such as very good public registry data and a regulatory framework which allows them to be used for research
- In communication with national funding bodies, NordForsk should strive to harmonise the rules. Nordic collaboration is harder to achieve if the rules diverge or are applied differently in the various Nordic countries. Additional national funding should preferably be granted or denied on the same grounds.

Appendix





Members of the Welfare programme steering committee, NCoE Chairs and NordForsk's programme secretary at the final conference in Berlin 2013.
Photo: Terje Heiestad

Appendix A

Interviewees and focus group participants

A.1 Interviewees

Kenneth Abrahamsson	Steering Committee NCoE Welfare (retired)
Stefan Alexson	Karolinska Institutet
Anneli Anttonen	University of Tampere
Rolf Kristian Berge	University of Bergen
Lars Dragsted	University of Copenhagen
Anders Elverhøi	Steering Committee NCoE Welfare FNH (University of Oslo)
Jørgen Goul Andersen	Aarhus University
Göran Hallmans	Umeå University
Karl-Heinz Herzig	University of Oulu
Kalervo Hiltunen	University of Oulu
Bjørn Hvinden	Oslo and Akershus University College of Applied Sciences
Guðmundur Jónsson,	University of Iceland
Pauli Kettunen	University of Helsinki
Steinar Kristiansen	Steering Committee NCoE Welfare (Research Council Norway)
Stein Kuhnle	University of Bergen
Reijo Laaksonen	Zora Biosciences Ltd
Ivar Lødemel	Oslo and Akershus University College of Applied Sciences
Urban Lundberg	Stockholm University
Susanne Mandrup	University of Southern Denmark
Pirjo Markkola	Åbo Akademi University
Hannu Mauno Mykkänen	University of Eastern Finland
Ottar Nygård	University of Bergen
Mai Heide Ottosen	Danish National Centre for Social Research
Klaus Petersen	University of Southern Denmark
Ulf Risérus	Uppsala University
Veli-Matti Ritakallio	University of Turku
Guri Skeie	University of Tromsø
Laufey Steingrimsdóttir	Landspítali University Hospital
Marta Szebehely	Stockholm University
Inga Thorsdóttir	University of Iceland
Anne Tjønneland	Danish Cancer Society
Stine Marie Ulven	Oslo and Akershus University College of Applied Sciences
Matti Uusitupa	University of Eastern Finland
Eskil Wadensjö	Stockholm University
Harry Zilliacus	NordForsk (retired)
Per Åman	Swedish University of Agriculture Science

A.2 Focus group NCoE Welfare, 28 January 2014

Bjørn Hvinden	Oslo and Akershus University College of Applied Sciences
Pauli Kettunen	University of Helsinki
Urban Lundberg	Stockholm University
Pirjo Markkola	Åbo Akademi University
Viggo Nordvik	Oslo and Akershus University College of Applied Sciences
Klaus Petersen	University of Southern Denmark
Mi Ah Schøyen	Oslo and Akershus University College of Applied Sciences
Marta Szebehely	Stockholm University
Eskil Wadensjö	Stockholm University
Erik Arnold	Technopolis Group
Peter Stern	Technopolis Group

A.3 Focus group NCoE Programme on Food, Nutrition and Health, 28 January 2014

Rolf Kristian Berge	University of Bergen
Lars Dragsted	University of Copenhagen
Kalervo Hiltunen	University of Oulu
Reijo Laaksonen	University of Helsinki/Bioscience
Matej Oresic	University of Helsinki
Ulf Risérus	Uppsala University
Stine Marie Ulven	Oslo and Akershus University College of Applied Sciences
Matti Uusitupa	University of Eastern Finland
Björn Åkesson	Lund University
Christien Enzing	Technopolis Group
Anders Håkansson	Technopolis Group

Appendix B Survey results

B.1 Programme on Welfare Research

Eighty-two of the 93 survey respondents (88%) have participated in one of the two centres under the Programme on Welfare Research.

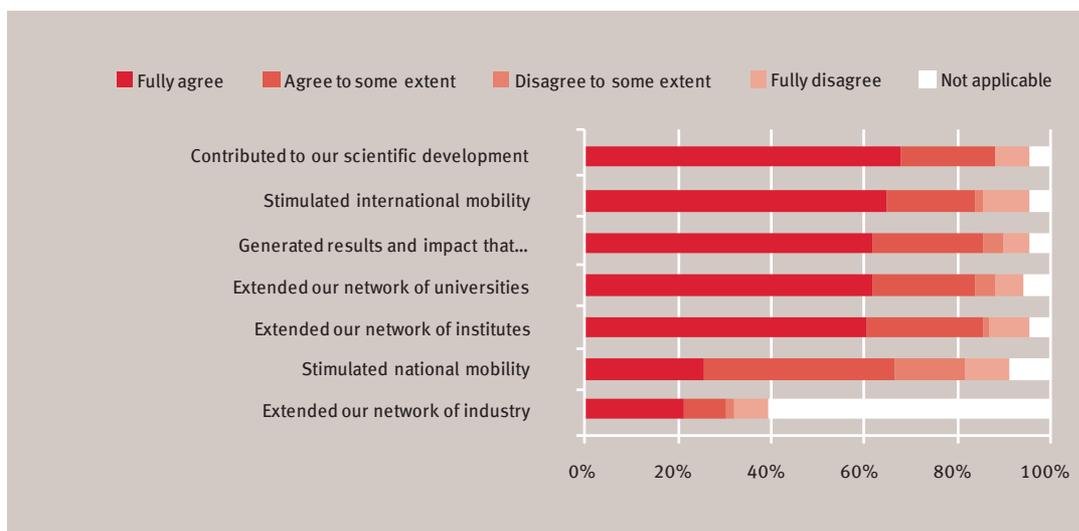


Figure 7. Results of NCoE participation according to survey respondents. The truncated option continues “... otherwise would not have occurred”.

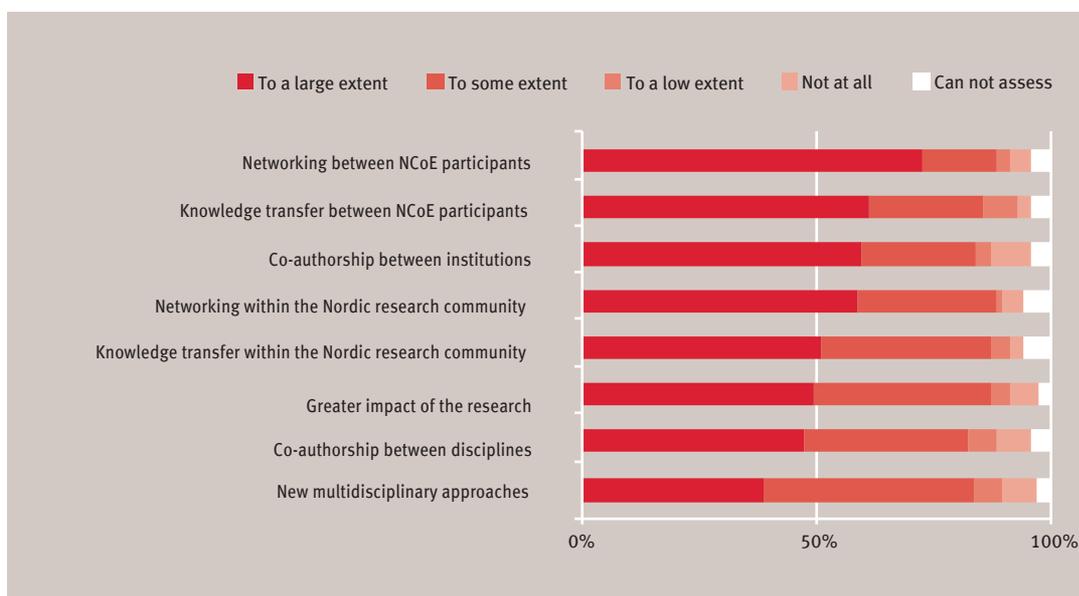


Figure 8. How NCoE funding has provided opportunities for the above-mentioned activities, according to survey respondents.

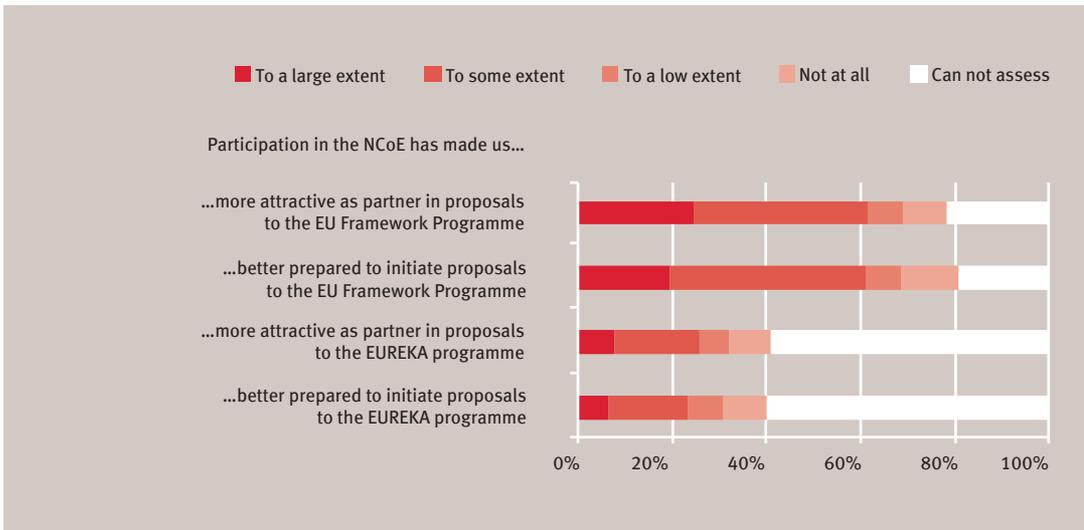


Figure 9. Results of NCoE participation regarding future participation in EU programmes according to survey respondents.

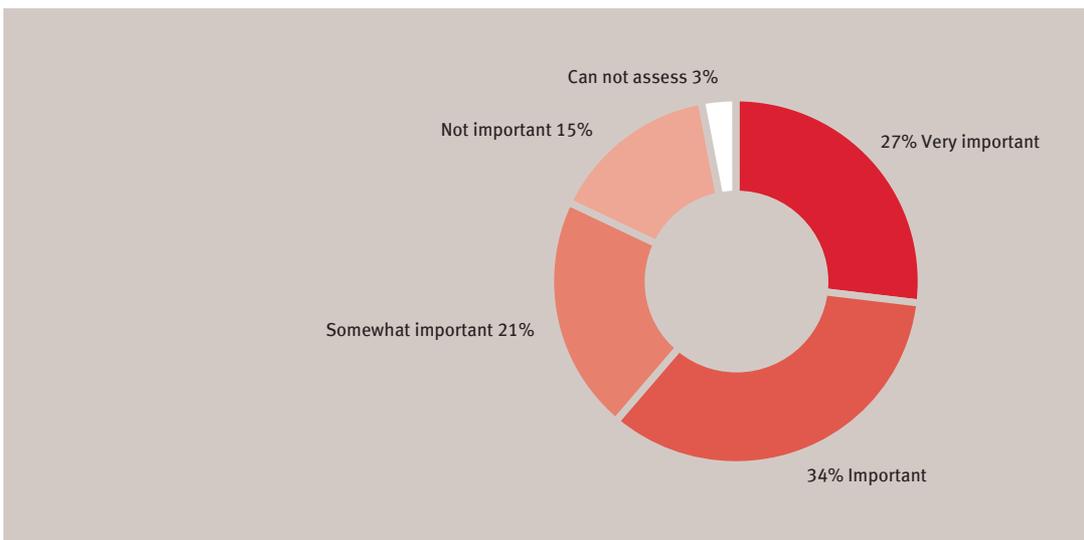


Figure 10. Importance of NCoE participation to survey respondents' current professional position.



Figure 11. Personal meaning of NCoE participation according to survey respondents.

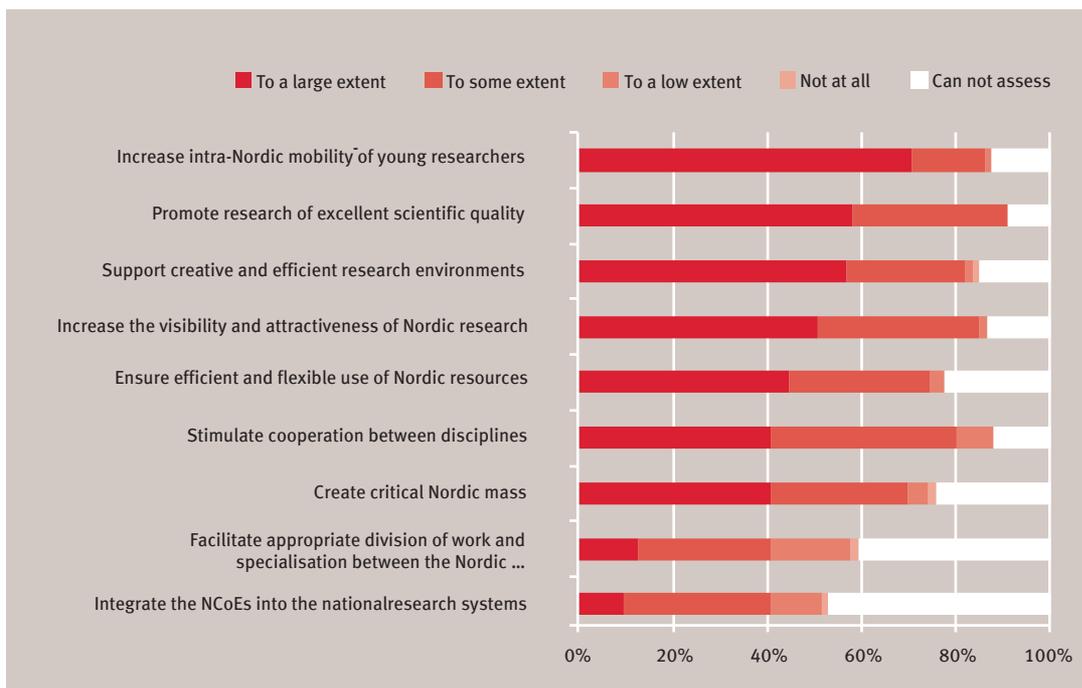


Figure 12. Centre activities' contribution to fulfillment of objectives according to survey respondents.

B.2 Programme on Food, Nutrition and Health

The three centres under the Programme on Food, Nutrition and Health are represented by 11 of the 93 survey respondents (12%). Due to the low response rate and small sample, these results should be interpreted with great caution.

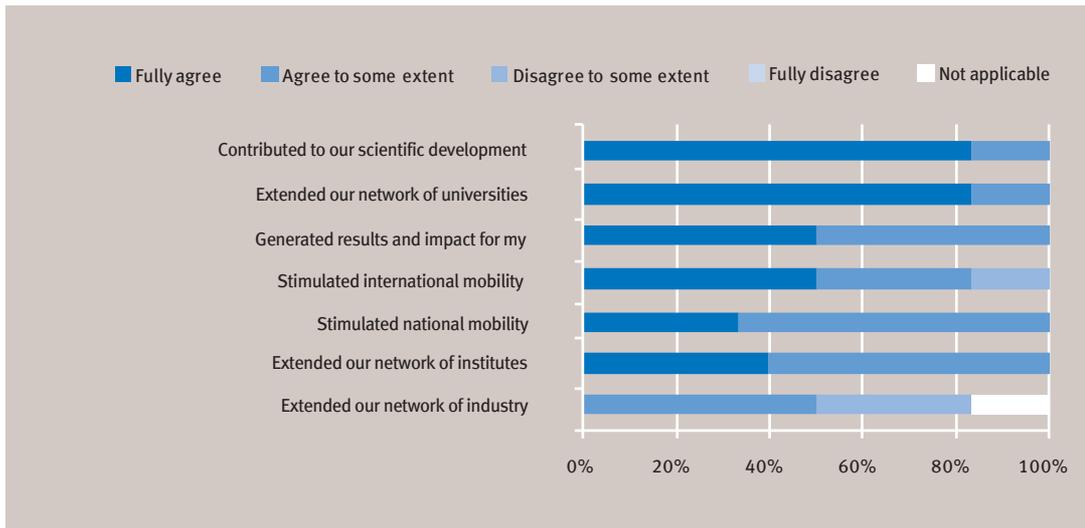


Figure 13. Results of NCoE participation according to survey respondents. The truncated option continues “... otherwise would not have occurred”.

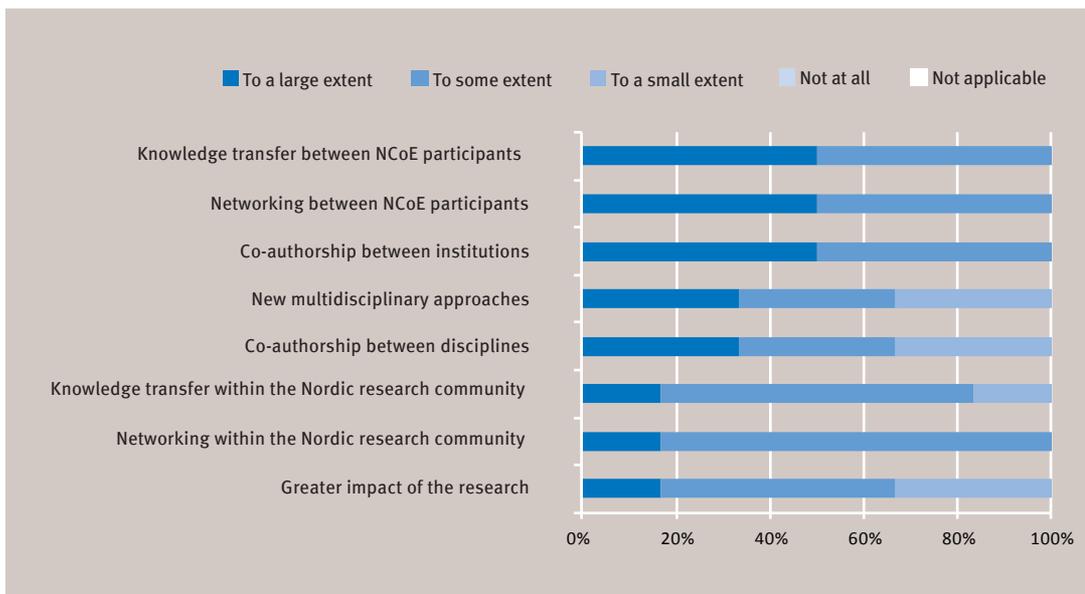


Figure 14. How the NCoE funding has provided opportunities for the above-mentioned activities, according to survey respondents.

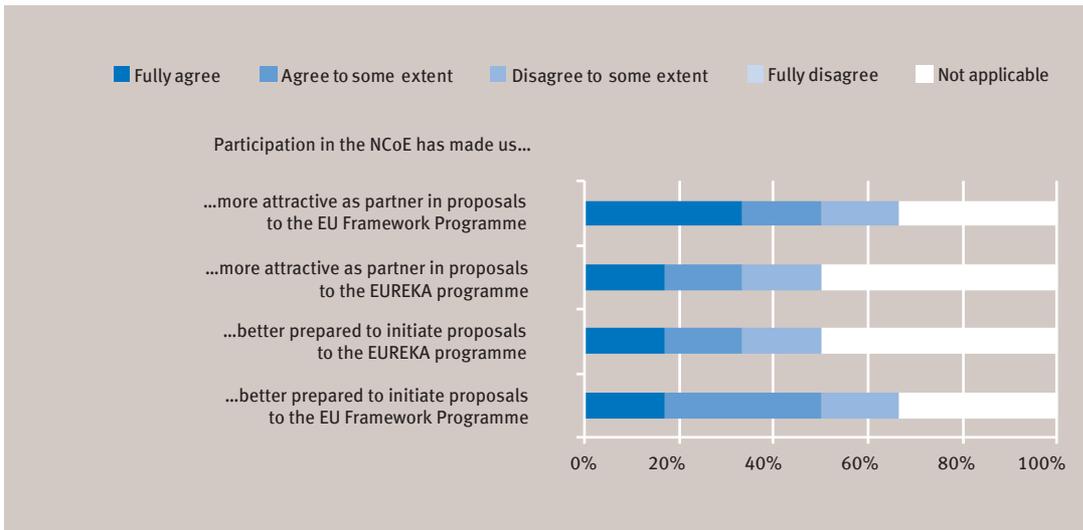


Figure 15. Results of NCoE participation regarding future participation in EU-programmes according to survey respondents.

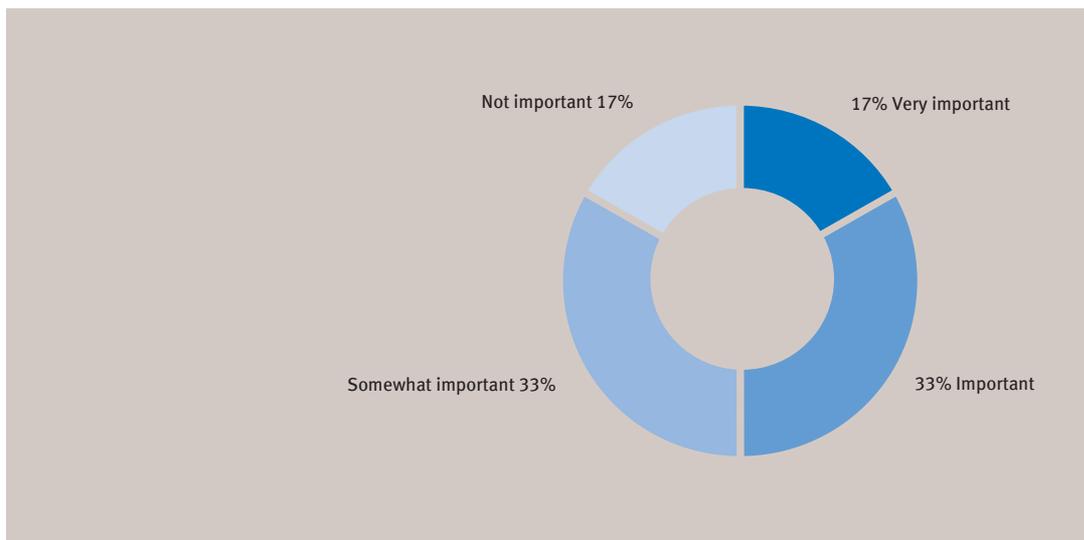


Figure 16. Importance of NCoE participation to survey respondents' current professional position.

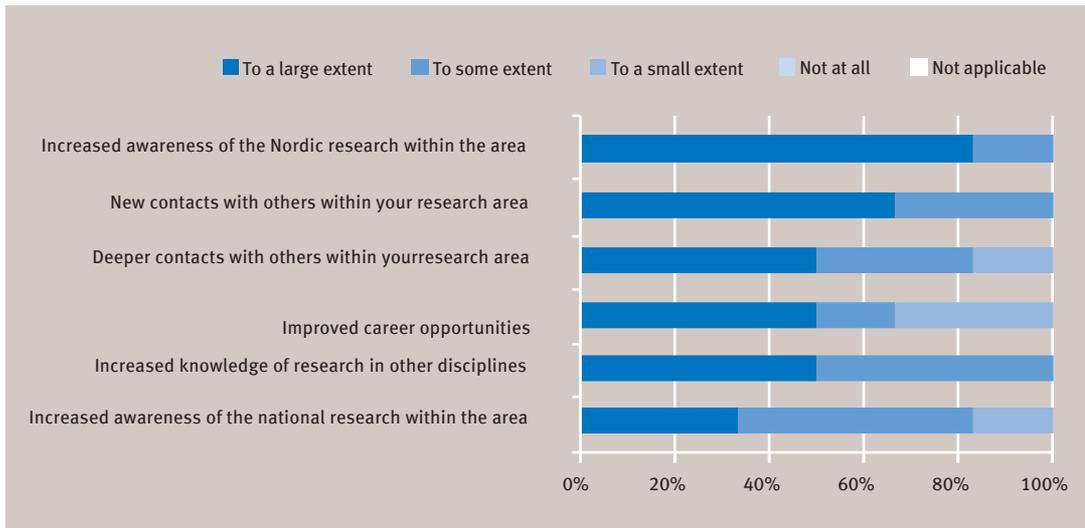


Figure 17. Personal meaning of NCoE participation according to survey respondents.

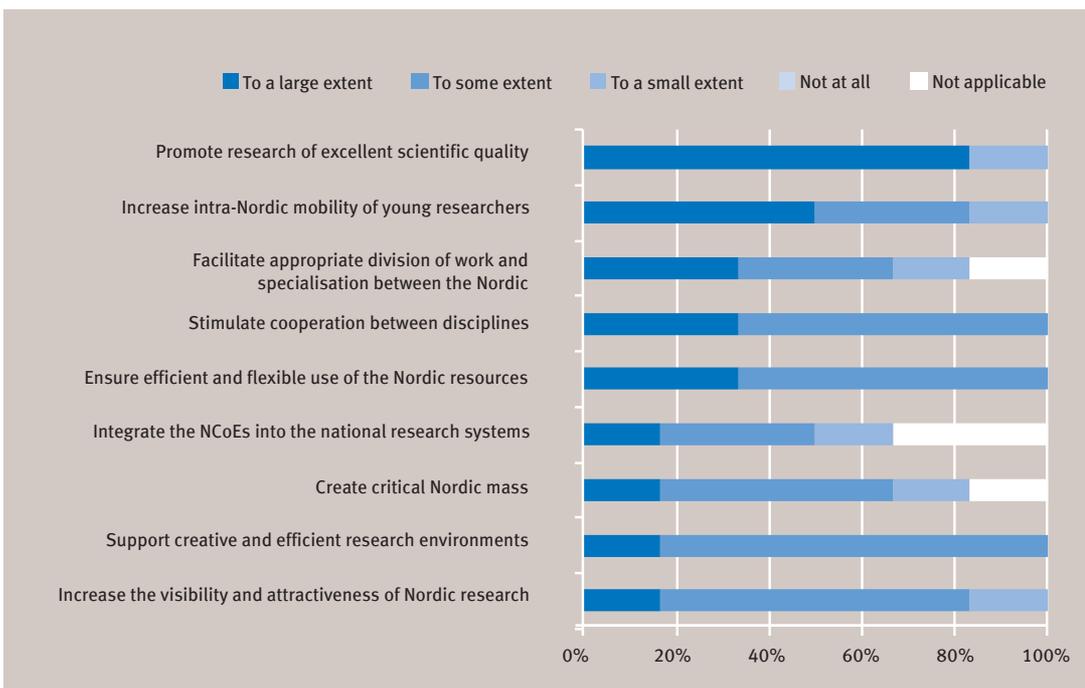


Figure 18. Centre activities' contribution to fulfillment of objectives according to survey respondents.

Appendix C

Scientific assessment of the NCoE Programme on Food, Nutrition and Health and the Programme on Welfare Research

Instructions for the review

The purpose of this review is to analyse and assess the quality of a sample of the scientific work conducted in the programme, i.e. quality of methods and visibility. This peer review is complementary to other investigations undertaken by Faugert & Co Utvärdering (Technopolis, Sweden) as part of the overall evaluation of the research centre at hand.

The template contains seven questions which all should be sufficiently answered. Each question is subject to both a quantitative assessment (rating) and a qualitative assessment (where experts are asked to comment, elaborate and justify their rating). The qualitative assessment should be as comprehensive as possible, since it is the core element of this exercise. Comments in this part should not be limited to Technopolis' suggestions and requests under each question (written in parentheses), but should include other free comments from the experts as well.

Please do not use half-grades or other figures with decimals (1.5, 4.5, etc.).

The material provided for the analysis is twelve scientific publications and full publication lists. If some questions are difficult to assess and rate properly, due to insufficient information, please try to present a rating still and explain the circumstances in the comments.

The centre is peer reviewed by two experts. We kindly ask experts to also rate their own level of expertise, indicating whether the expert has a broad or deep understanding of the conducted research in the whole centre. Comment and explain as clear as possible.

Questions related to the completion of this report should be addressed to Anders Håkansson (anders.hakansson@technopolis-group.com).

C.1 Review 1 of the Programme on Food, Nutrition and Health

Experts own rating of his/her qualifications and competence to evaluate the programme at hand?

1 (poor) – 5 (high)

Rating	Comment
5	I am a nutritional epidemiologist, with both a BS and PhD in nutritional science and broad exposure to different study types linking nutrition to health. I also direct a center on population health, which has a similar collaborative structure across disciplinary expertise “from cells to society” and across institutions; thus I am very familiar with most of the types of work presented here. My work focuses mainly on dietary patterns, nutrients and foods in relation to chronic diseases and intermediate markers of metabolic pathways; including gene*diet interactions. I am familiar with metabolomics and biomarkers. I have done work with fatty acids, and phytonutrients from both intake and plasma or urine. I do not use animal models in my work, but I refer to them in understanding pathways. As a journal editor, I review all types of nutritional science.

To what extent are published results of high scientific quality?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (provide and justify your evaluation of the scientific quality of the work produced)
HELGA	5	<p>I was aware of the HELGA group before being contacted to do this review and it was a great pleasure to read their papers. The stated aim of their center is to study the health effects of whole-grain foods focusing on clinical, epidemiological and anthropological aspects using food science, biomarker research, metabolomics, intervention studies, epidemiologic studies and anthropology.</p> <p>A review of their publications shows that they have accomplished this aim well, using all of these approaches. Their work with the Nordic dietary pattern is a major contribution to our thinking about dietary patterns, as is the work on biomarkers of whole grain intake.</p> <p>Their use of large population studies to examine relationships between whole grains and cancer outcomes, along with smaller human feeding studies to examine metabolomics profiles and biochemical changes related to mechanism together contribute a compelling body of research that has advanced the field significantly.</p> <p>I am impressed with the quality of the writing and clarity of presentation in the articles, which makes the work accessible and likely to be highly cited.</p>
MitoHealth	4	<p>The aims of MitoHealth are to establish a research community in the area of bioactive marine food components for human health and to investigate their action on metabolism in cells and tissues and their influence on mitochondrial and intestinal function; to identify contaminants in bioactive fractions and their impact on safety; and to document health effects of bioactive compounds in human studies.</p> <p>This project involves more basic science than the other two, so that it is difficult to connect some of the presented manuscripts directly with the aims. The papers include a study of liver X receptors in mouse liver showing that there is cross talk between hepatic LXR and PPARα at the binding sites. This is an excellent paper with important scientific implications, and it does acknowledge MitoHealth and NordForsk. It is unclear how it relates to seafood components, however. A paper on proteomics is more directly related, testing fish oil and tetradecylthioacetic acid (TTA) a synthetic modified fatty acid in relation to lipid metabolism. They find that both modulate mitochondrial metabolism, but that TTA has more dramatic effects including evidence of strong antioxidant properties. This is a very interesting study with implications for functional foods, but it is not clear from this article how TTA relates to use of fish products in the Nordic diet.</p> <p>The third paper shows mitochondrial dysfunction in diabetic myotubes caused by disturbances in fatty acid β-oxidation; EPA enhanced β-oxidation and increased glucose oxidation, and TTA improved palmitic acid oxidation, opposed increased lipid accumulation and increased glucose oxidation. Again, an excellent paper, but which seems to be focused more on TTA than on fish components.</p> <p>Finally, a paper on how apicoplast and endoplasmic reticulum cooperate in fatty acid biosynthesis in a parasite model showing that the elongase pathway has a unique role in generating very long unsaturated fatty acids that cannot be salvaged from the host. Again, a very nice study, but with questionable links to the funding aims. Other studies in the publication list appear more relevant to the aims, but were not provided.</p>
SYSDIET	3	<p>SYSDIET has 12 partners from 5 Nordic countries and aims to coordinate exploitation of nutrigenomics/ systems biology tools in human randomised controlled dietary interventions as well as with animal and cell culture studies to discover novel mechanisms by which Nordic foods and diets could be modified to promote health and prevent disease. As such, it overlaps with the work and goals of HELGA, but excludes descriptive epidemiology or anthropology and focuses more on experimental design with human, animal and cell models. They oversee a major multi-site trial. For this collaborative work, they have developed a shared database.</p> <p>At the point of this report, a major publication from the trial has been accepted, and many biomarkers have been analysed; as well methods have been set up to study epigenetic regulation of gene expression, for metabolomics, and for integrating systems biology data.</p> <p>I found this group much more difficult to evaluate due to lack of clarity of objectives and accomplishments in the report and too many separate and overlapping publication reports, which contained non-related material. The publications presented for review include 2 from their recently completed, randomised trial with 166 participants, showing that feeding a Nordic diet, vs. control, 1) resulted in higher fibre intake and plasma alkylresorcinol, but not β-carotene and 2) improved lipid profile and reduced low-grade inflammation, with no changes in insulin sensitivity or blood pressure.</p> <p>A third was a collaboration with HELGA, and showed that non-targeted metabolite profiling identified major urinary metabolites which discriminate rye bread intake from refined wheat bread intake. The fourth, comparing n6 PUFA with saturated fat was from a different small trial seemed less centrally related to the aims, did not mention Nordic diet, and did not acknowledge SYSDIET or NordForsk. The papers that I did review were of high scientific quality and it is understood that the completion of a trial of this sort is demanding and therefore most of the papers are currently in progress and should emerge from this important study soon.</p>

Do published results develop new scientific methods to solve the problems it addresses (including approaches, experiments, equipments, etc.)?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (e.g. the latest / most innovative methods used by the centres)
HELGA	5	Metabolomics is a relatively new method of measurement to identify biochemical changes. The HELGA study has developed these methods to identify novel markers of whole grain intake that help to explain the likely biochemical pathways that explain observed epidemiologic relationships. This is a major advance in approach. Their focused work specifically on alkylresorcinols, including the development of new analytical methods for measurement in a variety of tissues, provides solid evidence for the use of these compounds as biomarkers for whole grain rye intake. Further, their detailed measurement of whole grain components in food is an important contribution for future studies in order to quantify exposure from diet. The Nordic diet score they created is an important response to the Mediterranean diet and challenges our thinking about measurement of dietary patterns in diverse settings.
MitoHealth	2	The studies presented represent advances in basic mechanisms, but do not relate directly to the stated aims of use of seafood components.
SYSDIET	3	The demonstration of the benefits of the Nordic diet through a well-designed randomised trial is very important evidence in support of the diet. It appears that much methodological work is ongoing, including the development of their database systems, work with metabolomics and biomarkers, but most of this remains forthcoming.

To what extent has published results enhanced scientific knowledge?

1 (not at all) – 5 (very much)

Centre	Rating	Comments
HELGA	5	It is clear that the unique consortium formed with this funding has led to communication across disciplines working on food, nutrition and health. The body of work together contributes much more than the sum of its parts, and adds convincing data to the literature in a way that moves the field forward more rapidly than it otherwise might have. Although focused on a specific region with somewhat unique dietary intakes relative to other parts of the world, this work has demonstrated the utility in an otherwise overlooked grain-whole rye- and reinforced the role of cold weather vegetables in contributing to health.
MitoHealth	3	The studies contribute significantly to basic scientific knowledge of biochemical action.
SYSDIET	3	Trials are considered by many to be essential for establishing causality. Therefore the work being done by this group is an important confirmatory step for many of the associations seen in HELGA.

Has published results developed opportunities for further research in the area?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (list the new research opportunities developed by the centres)
HELGA	5	The enhanced methods, both laboratory and population based, will certainly be used by other scientists interested in these issues. The clarity and quality of the presentation in the manuscripts I have read by this group is greatly appreciated and increases the likelihood of citation and continuing use in future scientific inquiry by others. I have no doubt that aspects of the Nordic diet score will be looked at more closely in many diet studies and that there will be great interest in replicating and expanding the work on metabolomic profiles and using the biomarkers developed.
MitoHealth	4	The findings from these studies are limited mainly to animal models and thus stimulate questions that need further confirmation in human studies.
SYSDIET	3	Trials are generally designed to address causality rather than to generate new work. However, these also need replication. To the extent that they are reinforcing the importance of an interest in the Nordic diet this work is contributing to further research.

Are you aware of any major impacts and achievements of the centres (scientific and societal, if possible)?

The work on the Nordic diet by HELGA has been received with enthusiasm by the nutrition community and with great interest by the public, as evidenced by its high profile in the international media. As noted in the slide set, work from HELGA led to an upgrading of the assessment of evidence for dietary fibre in the prevention of colon cancer from probable to convincing in the influential WCRF report. I will not be surprised if it leads to greater consumption of whole grain rye products in many countries. The work of SYSDIET is just beginning to show results, and the randomised trial supports health benefits from the Nordic diet, which is quite important. The MitoHealth reports to date contribute to our understanding of the use of supplements—of fish oil or TTA—with respect to mitochondrial or liver health, but have not yet directly addressed the goals presented regarding seafood components.

Has published results been disseminated in high level publications?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (list some of most important publications and comment on choice of journals or conference contributions, and international visibility)
HELGA	5	Yes, their publications are included in the most widely read nutrition journals, including several in the ASN journals AJCN and JN; with other publications (with specific outcomes or methods) appropriately reaching other groups of scientists, in high impact journals like JNCI, and relatively high impact journals like Cancer Causes Control and Food Chem. Several of the studies have been picked up by the international media with widespread public exposure.
MitoHealth	3	The publications presented are in medium impact journals and contribute to the general body of literature on this topic.
SYSDIET	4	The J Internal Medicine has a relatively high impact factor and is an excellent venue for the trial results. Other papers have been accepted from this group at AJCN and JN, among other good journals.

Overall rating of activities in the centres and the programme as a whole (based on the sample material)

5 excellent, world class • 4 internationally competitive • 3 'average'; acceptable at a national level

• 2 underperforming • 1 bad

Rating	Short summary of the positive and negative aspects of the programme to support the ratings:
5	<p>Positive: Together, this is a highly impressive set of work ranging from descriptive epidemiology... to population studies with important outcomes... to human feeding studies with novel methods of assessing response to inform pathways, with concomitant advances in measurement methods...to consideration of novel compounds and functional foods. In a relatively short time point, these projects have made great scientific progress on both understanding and communicating the value of Nordic foods. These findings have been communicated widely in appropriate journals reaching a vast audience that include not only nutrition scientists, but also food scientists, cancer and chronic disease epidemiologists, biochemists, and the food industry. Importantly they have presented their work widely in both oral seminars and in review papers. It is clear that by working together and communicating across disciplines and Universities that all participants have benefited by broadening their understanding of the utility of their work. Further, many students and post-docs have been involved and received training to continue to work in this important area. I am particularly impressed by the HELGA project, which appears to have stayed true to the aims it set forth, and has showed great accomplishment with high impact publications and media attention that has the potential for dietary change and direct translation to human health. While basic mechanisms remain critically important and the other two projects have excellent quality manuscripts, their fidelity to the original aims to better understand the Nordic diet, its foods and components, seems less clear.</p> <p>Negative: In reviewing the material, I found that the presentation of the reports varied greatly, making it more difficult to review those with multiple files and overlapping information. In particular, the report and publication lists from SYSDIET were poorly organised, giving a sense that the project may be disorganised as well. There was much overlap and excessive inclusion of publications that did not seem to be related specifically to this funding. Similarly, the MitoHealth has an interesting set of aims, but the papers published to date seem to address these only peripherally.</p>

C.2 Review 2 of the Programme on Food, Nutrition and Health

Experts own rating of his/her qualifications and competence to evaluate the programme at hand?

1 (poor) – 5 (high)

Rating	Comment
4	<p>As a researcher I have participated in 34 funded projects in the field of chronic diseases and nutrition, mainly cardiovascular disease, diabetes, dyslipidemias, genetic and environmental predisposition, as well as cancer disease. In 13 of them I was the principal investigator (PI) and in nine of them, I was the supervisor, too. The total grants were around 1,8M euro.</p> <p>As an evaluator I have asked to review and justify research achievements from 11 international organisations from eight countries around the world, and 14 national organisations or grants, of a total amount of 7,8M euro. Moreover, I am the editor of seven international journals and reviewer for 47 international journals.</p> <p>Regarding my special research interests include the evaluation of the role of diet, nutrition on the risk of developing cardiovascular disease, including all its manifestations, as well as cancer. During my career I have contributed in publishing 499 original research or review or metanalysis articles, in widely accepted international Journals, including almost all nutrition journals, as well as NEJM, Lancet, JAMA, AIM, JACC, EHJ, etc. The international reputation can be guaranteed by the almost 9,000 citations by other scientists, which lead to an h-index = 43, as well as by the international invitations from 12 countries around the World, in order to give lectures in the field of Research Methods and Epidemiology of Nutrition. Moreover, I have published 3 books and 19 Chapters in Books (7 in English language).</p> <p>Since 2011 I serve as a Board Advisory Member of the Hellenic Food Authority and as a Board Member of the National Council of Public Health.</p>

To what extent are published results of high scientific quality?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (provide and justify your evaluation of the scientific quality of the work produced)
HELGA	4	Until November 11th, 2013 the HELGA Group has published 87 papers in peer reviewed international Journals, in the fields of: whole grains and cancer, type 2 diabetes, and its metabolic effects through intervention studies, metabolomics, biomarkers, characterization of whole grains and some descriptive articles and reviews. The publications also include the overall assessment of the Nordic Diet, and Anthropology of Nutrition. The quality of the selected papers I reviewed is very good and the journals published are of moderate - to - acceptable reputation. E.g., the Am J Clin Nutr, the Br J Nutr, the J Nutr, as well as specialty journals in food chemistry and cereals.
MitoHealth	2	The MitoHealth Group has published 18 papers in peer reviewed international Journals, in the fields of: food chemistry, observational and interventional studies, and biomarkers. The quality of the selected papers I reviewed is moderate and the journals published are of moderate reputation.
SYSDIET	3	During 2010-2013 the SYSDIET Intervention consortium has published 28 papers in peer reviewed international Journals, and claimed that has prepared almost another 20 articles. The fields studied include: Nordic dietary constituents in the promotion of health and prevention of chronic diseases, like cardiovascular and diabetes. The quality of the selected papers I reviewed is very good and the journals published are of moderate to acceptable reputation, e.g., the Am J Clin Nutr, the Br J Nutr, the J Nutr, as well as specialty journals in food chemistry and cereals.

Do published results develop new scientific methods to solve the problems it addresses (including approaches, experiments, equipments, etc.)?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (e.g. the latest / most innovative methods used by the centres)
HELGA	4	The HELGA Study group has used new scientific methods to answer to the research hypotheses stated, mainly based on metabolomics.
MitoHealth	4	The MitoHealth Study group has used new scientific methods to answer to the research hypotheses stated, mainly based on the evaluation of the cellular combustion of food which is mainly localized to small bodies in the cells, mitochondria. Based on bench studies and clinical trials the MitoHealth partners evaluated dietary lipids, proteins and peptides as regards their role for improving human health, based on basic research in nutrients, and their interactions with metabolic regulation, mitochondrial function and gene expression. In addition the Group used standard approaches to assess the safety of marine products.
SYSDIET	3	The HELGA Study group has used standard scientific methods to answer to the research hypotheses regarding the role of whole grains within the Nordic diet.

To what extent has published results enhanced scientific knowledge?

1 (not at all) – 5 (very much)

Centre	Rating	Comments
HELGA	2	The published results have moderately enhanced the current scientific knowledge in the field of whole grains and health.
MitoHealth	4	The published results have substantially enhanced the current scientific knowledge in the area of Bioactive Marine Food Components and human health, since they facilitated communication between different existing research programs and developed new research initiatives, including research training programs, mobility of researchers and cooperation between the academia and industrial partners.
SYSDIET	4	The published results have substantially enhanced the current scientific knowledge and particularly they pushed towards the investigation of nutritional systems biology platform in genomics, transcriptomics, proteomics, metabolomics and bioinformatics, by information sharing, joint training and data analysis.

Has published results developed opportunities for further research in the area?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (list the new research opportunities developed by the centres)
HELGA	3	The published results have moderately developed new opportunities for further research in the area of whole grains and health.
MitoHealth	3	The published results have moderately developed new opportunities for further research in the area of Bioactive Marine Food Components and human health.
SYSDIET	3	The published results have moderately developed new opportunities for further research in the area of diet-nutrition-gene-interactions and large scale molecular profiling.

Are you aware of any major impacts and achievements of the centres (scientific and societal, if possible)?

No. I just had the opportunity to review few articles before published by one of the centers.

Has published results been disseminated in high level publications?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (list some of most important publications and comment on choice of journals or conference contributions, and international visibility)
HELGA	4	The HELGA group has very good quality of the published papers and the journals published are of moderate - to - acceptable reputation. E.g., the editorials about the role of dietary fiber and whole grains in the prevention of chronic diseases have been published in British Medical Journal and American Journal of Clinical Nutrition, are well cited and appreciated by the scientific community. Similarly, the paper in Br J Nutr, 09(12):2269-75, the paper in J Nutr 141:1712-18, the paper in Int J Cancer 124:745-750, the paper in Int J Obes (Lond) 35:1104-1113, the paper in Am J Clin Nutr 87:1497-1503, the paper in Am J Clin Nutr 90:561-569, the paper in J Nutr 142:1547-1553, the paper in Am J Epidemiol 175:144-153, have all made good impact based on their findings.
MitoHealth	2	The MitoHealth Group has published few papers in peer reviewed international Journals, with a moderate and the journals published are of very moderate reputation. I can recall the paper in J Biol Chem 287: 4957-4971, 2012, the paper in PLoS One. 2013 Jun 24;8(6):e66926 and the paper in Mol Cell Biol. Feb;32(4):852-67.
SYSDIET	3	The SYSDIET Intervention consortium has published papers in the field of Nordic dietary constituents in the promotion of health and prevention of cardiovascular and diabetes. The quality of the selected papers I reviewed is very good and the journals published are of moderate - to - acceptable reputation, for example the paper in Am J Clin Nutr. 2012;96:1354-61, the paper in J Nutr, 2012,143:470-477, the paper in Diabetes Care 2012;35:211–217, the paper in Nutr Metab Cardiovasc Dis 2012; http://dx.doi.org/10.1016/j.numecd.2012.07.006 .

Overall rating of activities in the centres and the programme as a whole (based on the sample material)

- 5 excellent, world class
- 4 internationally competitive
- 3 'average'; acceptable at a national level
- 2 underperforming
- 1 bad

Rating	Short summary of the positive and negative aspects of the programme to support the ratings:
4	Overall the program is very well organized and conducted, with specific aims and important public health aspects. The scientific community, but more importantly the populations referred to, would be benefit by the studies outcomes. The centres were of various capabilities, aims and procedures. All of them I could characterized as important in the field, but none as a pioneer. However, and in general, the whole program is internationally competitive and should be further promoted and diminished.

C.3 Review 1 of the Programme on Welfare Research

Experts own rating of his/her qualifications and competence to evaluate the programme at hand?

1 (poor) – 5 (high)

Rating	Comment
4	I am a widely-published comparative political economist whose work bears on the welfare state, although I am not a specialist on the welfare state per se. I use multiple methodologies in my research, including the kinds of historical analysis and statistical analysis employed in the works I have reviewed. The topics about which I have written range widely to cover many of the broad issue-areas pertinent to the scholarly works I have read for this report, including work on the role of ideas in politics, on inequalities in health and cross-national comparisons of social and economic policy. Many of the key references in these articles are familiar to me, as are the general literatures on which they rely.

To what extent are published results of high scientific quality?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (provide and justify your evaluation of the scientific quality of the work produced)
Reassess	4	<p>This is a high score, reflecting scholarship of the highest international standard. I would reserve a score of 5 only for seminal works so field-defining that most subsequent work in the field would have to refer to them. With some variation among them, all six of the articles read for this review approximate this standard.</p> <p>The article by Anttonen and Sipilä on universalism is a clear and incisive overview of universalism in theory and practice. They make good sense of a complex concept and the comparison between British and Nordic experience is well-chosen and fruitful. The article is nicely balanced between theory and politics.</p> <p>The article by Brennan et al. on marketization is deservedly in a highly-ranked journal. It is succinct, highly-informative and well-referenced.</p> <p>The article by Hvinden on the evolution of the Nordic model does a nice job of delineating the main features associated with the model and establishing their validity, albeit with a relatively-simple methodology.</p> <p>The article by Kotsadam and Jakobsson is clear and methodologically sophisticated. It is a well-done contribution to a literature of wide importance on the normative impact of law.</p> <p>The article by Larsen and Andersen is an important contribution to debates about the role of ideas in politics. The authors develop a sophisticated analytical perspective and reason impressively with the empirics to produce new formulations on this topic. Although one might argue with a problematic that counterposes 'ideas' and 'interests', the empirical material is well-presented in ways that allow the reader to form his/her own judgments about the argument. This article is in the journal that is the leading venue for work on this subject.</p> <p>The article by Tossebro et al. on provision for those with intellectual disabilities is a useful overview limited only by the paucity of empirical material available in the literature on this subject.</p>
NordWel	4	<p>From my perspective this is a high score, reflecting scholarship of the highest international standard. I would reserve a score of 5 only for seminal works so field-defining that most subsequent work in the field would have to refer to them. All six of the articles read for this review meet this standard.</p> <p>The article by Blomberg et al. on the perceptions of social workers is analytically sophisticated, well-referenced and elegantly written. The core survey question is a relatively slim instrument, but more substantial than those used in some other respected studies, and the authors are scrupulous about reporting the nuances in their results. It is in one of the leading journals on social policy and deserves to be there.</p> <p>The article by Careja and Emmenegger is in one of the two leading journals in comparative politics, which accepts less than 10% of its submissions, and merits its place. The analysis is carefully-done and relatively clearly presented. There is room to question the inference that the effects of migration on economic status mediate the impact of migration on political attitudes, but this is a minor point in a highly-revealing analysis that is attentive to the methodological issues raised by the study and nicely situated in a wider literature of cross-national importance.</p> <p>The study of pensions by Esser and Palme is very carefully done and highly revealing about the impact of different kinds of pension arrangements, notably across genders. The authors are attentive to the methodological difficulties associated with this type of analysis and careful to report the effects of removing outliers from the cases.</p> <p>The article by Kettunen is a small tour de force of imaginative historical analysis, dense at times but full of original insights, which casts the Nordic welfare states in a new light. An unusual combination of interpretation and empirics, it deploys a very wide range of references effectively to raise fundamental issues of interest to the study of the welfare state more generally, well beyond the Nordic cases.</p> <p>The article by Lundqvist and Roman ranges less widely in subject matter and references but deploys the concepts of Fraser with considerable effectiveness to illuminate the development of family policy in Sweden. It is especially revealing about the dynamics of conflict between those seeking to politicize or privatize particular issues in terms that will be of interest beyond the Swedish case. It makes excellent use of an extensive survey of the relevant policy commissions and associated publications.</p> <p>The article by Petersen and Petersen is a clear and deeply-researched study more revealing about the origins of the use of the term 'welfare state' than any other of which I know, balanced in its judgments, judicious in interpretation and very well-written. It too deserves its place in a leading journal of social policy.</p>

Do published results develop new scientific methods to solve the problems it addresses (including approaches, experiments, etc.)?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (e.g. the latest / most innovative methods used by the centres)
Reassess	3	<p>Since one of the core objects of this program is to assess the evolution and state of the Nordic model, it is not surprising that many of the research products are overview essays drawing largely from the existing literature, as are several of the six I read for this review. Those do not develop new scientific methods but they are very competently done.</p> <p>Of the others, the article by Kotsadam and Jakobsson is the most innovative. It uses a differences-in-differences research design and original dataset based on an internet survey to secure longitudinal data, a relatively recent method. The design is well-deployed and nicely described with appropriate cautionary notes. This article reflects the use of the latest methods in social science.</p> <p>Although the methods used by Larsen and Andersen are not new, in that they depend on case-studies of changes in Danish policy, they make very good use of this method, in particular, by identifying the relevant counterfactuals for each core point in the analysis.</p>
NordWel	3	<p>For the most part, the works I have read use methods familiar to the social sciences, although many are innovative in some respects, and all use the latest methods appropriate to the issues they address with effectiveness. In other words, if the issue is whether this scholarship deploys up-to-date methods, the answer is surely yes. If the issue is to what extent do they develop and deploy innovative methods, the answer is they do to some extent.</p> <p>The work by Blomberg et al. can be seen as innovative, in a particularly useful way, in that it develops an original dataset and uses it to provide cross-national analysis of a subject rarely addressed in terms of this wide a comparison. By reporting results for all four types of diagnoses of poverty, it also usefully transcends standard treatments that amalgamate the responses into a unidimensional measure.</p> <p>The study by Careja and Emmenegger is, to my knowledge, the first analysis of the political attitudes of migrants to use cross-national survey research and, as such, it is a very important contribution to a literature that is often based on less systematic data.</p> <p>The article by Esser and Palme is a sophisticated exercise in multi-level modeling, especially notable for the innovative way in which it removes the effects of national culture on measures of self-reported health and well-being in order to compare 'excess' poor health or well-being in the elderly. This is a technique others could usefully deploy, and the study also makes innovative use of new data allowing for distinctions to be drawn between the effects of basic pensions and income-related pensions.</p> <p>The articles by Kettunen, Lundqvist and Roman and Petersen and Petersen all reflect the part of the program that focuses on the historical development of welfare states and, in particular, on the role of an evolving set of concepts and languages in their construction. This focus in itself is innovative from the perspective of the contemporary field of welfare-state studies, although not without precursors. Kettunen is especially innovative in the way in which he merges critical theory with historical inquiry, a difficult and sometimes treacherous task that is accomplished highly effectively here. Petersen and Petersen appear to have used electronic databases in an innovative way to track the origins of the use of the term 'welfare state'.</p>

To what extent has published results enhanced scientific knowledge?

1 (not at all) – 5 (very much)

Centre	Rating	Comments
Reassess	5	<p>In different ways, all of these six articles make a distinct contribution to scientific knowledge and, no doubt, there are many other contributions in the multiple publications of the program.</p> <p>Anttonen and Sipilä provide the most up-to-date and useful overview of the conceptualization and practice of the principle of ‘universalism’ that I have seen. This is an article of considerable value to the field given the ambiguities of the concept and its centrality to contemporary models of the welfare state.</p> <p>Brennan et al. do something similar for the practices associated with ‘marketization’ – another key development within welfare states of importance for contemporary analysis. Their balanced and well-judged analysis provides the kind of overview that should constitute a key reference for the field.</p> <p>Hvinden’s overview of the Nordic model is slightly superficial, of necessity given the article-length format, but adds to our knowledge by highlighting the limitations of the Nordic welfare states with regard to integrating migrants into labor markets.</p> <p>Kotsadam and Jakobsson have produced an important intervention into debates about whether new laws give rise to new norms, notable for a strong research design based on panel data and a cross-national comparison, which few works on this subject deploy. Its import is limited only by the short length of time between passage of the law and the survey.</p> <p>The article by Larsen and Andersen is an important contribution to contemporary debates about the role of ideas in politics – an issue of practical as well as theoretical importance. By studying a ‘hard case’ for the contention that ideas have an effect on policy independent of interests, they bolster confidence in that contention, and the article provides a nicely-judged account of important changes to the Danish welfare state, now widely seen by policy-makers as a model worthy of emulation.</p> <p>Tossebro et al. offer a useful overview of the development of services for the intellectually disabled in the Nordic countries that will be of value to specialists in the field.</p>
NordWel	5	<p>All six articles that I have read by members of this program make distinctive and valuable contributions to knowledge. The acid test is that, in each case, I want to refer my colleagues and doctoral students to these works, something I do only occasionally.</p> <p>In broad terms, the work by Blomberg et al. confirms existing findings but with much better data than previous works have used and with a higher level of precision. The divergence in the accounts of poverty given by social workers in Denmark, and in quite different terms in Finland, in comparison to those in Norway and Sweden is striking. Although the authors do not dwell on the point, in some ways, this contradicts the expectations one might have from the literature on professionalization and it raises intriguing questions about how such differences are to be explained.</p> <p>The study by Careja and Emmenegger provides convincing evidence that migrants from East Central to Western Europe develop a greater interest in the politics of the European Union and become more active in the domestic politics of their own country, even if their satisfaction with that politics does not much change. These are very solid findings and important, given how prominent a feature of the world this kind of migration is becoming.</p> <p>The article by Esser and Palme is significant for its demonstration that basic pensions are much more important to the health of elderly women than are income-related pensions and that both feed, as one might expect, into the health and well-being of the retired. Important policy implications follow from this.</p> <p>Kettunen’s study offers a new and original perspective on the Nordic welfare states that I found highly stimulating for how it qualifies the standard account of Esping-Andersen which emphasizes decommidification and places the clash of interests between workers and employers at the center of the development of these welfare states. It is usefully provocative to see the development of social citizenship as a matter of forging compromises rather than of developing consensus and the general perspective of the article, which focuses on the ideological underpinnings of the development of the welfare state, is refreshing and highly revealing.</p> <p>Lundqvist and Roman provide a nicely-judged and succinct account of the substantial changes in thinking that lay behind the development of family policy in Sweden. Their argument that policy moved out of a discourse that focused on the family unit as what must be preserved toward a focus on the rights and roles of individuals is persuasive and, as noted, the emphasis of the analysis on how issues formerly seen as private were politicized is illuminating for our understanding of how these important policies developed.</p> <p>Petersen and Petersen provide the best succinct account of the origins of the term ‘welfare state’ that I have seen and one that places the first uses of the term some decades before standard interpretations have it. They correct multiple misimpressions in the literature and trace the evolving meaning of the term with real finesse. Given the centrality of the welfare state to contemporary scholarship, this is important work.</p>

Has published results developed opportunities for further research in the area?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (list the new research opportunities developed by the centres)
Reassess	4	<p>The work in this program points the way toward a number of new research opportunities. Anttonen and Sipilä set the stage for further studies of the extent to which programs some of whose benefits are means-tested still deserve to be seen as ‘universalist’ and for research that analyzes the effects often said to follow from universalistic approaches to policy, such as solidarity within cross-class coalitions and higher levels of trust in government.</p> <p>Brennan et al. raise important issues about the impact of the marketization of policy on the quality and cost of the childcare and eldercare that states provide, thereby laying the groundwork for further empirical research into these issues.</p> <p>Hvinden’s work makes the case for more intensive empirical investigation of the impact of different types of welfare states on the integration of immigrants into labor markets, raising the issue of whether solidaristic wage bargaining and narrow wage differentials are a factor of exclusion for migrants or whether the types of production profiles encouraged by the Nordic model militate against migrant labor force participation.</p> <p>The findings of Kotsadam and Jakobsson that a new law on prostitution had few effects on people’s normative views, albeit more effect on younger respondents, paves the way for further research into the impact of age-differences on the formation of normative views and for research that examines the longer-term impact of such laws.</p> <p>There are many intriguing formulations in the work by Larsen and Andersen that point to the value of follow-up research. Especially useful is their conjecture that policy paradigms can be seen as institutions that do not dictate the instruments to be used to address a problem but rather a kind of political opportunity structure that conditions the direction of debate about those instruments.</p> <p>The study of services for the intellectually disabled by Tossebro et al. identifies limits to how much we know about how the quality of those services has changed, both with ‘normalization’ and marketization, pointing to the need for further research into these topics.</p>
NordWel	4	<p>Each of these works opens up new research opportunities. Blomberg et al. point to a fundamental puzzle deserving of further research: how can the differing diagnoses of poverty, present among social workers as well as the general populace across the Nordic countries, be explained? They provide a secure basis for posing the problem.</p> <p>Careja and Emmenegger trace the impact of temporary migration on migrants from East Central Europe during the pre-accession era but his raises the issue of whether such migration has similar or different effects in the post-accession era when the volume of migration and its ease increased substantially. In this regard, they provide a baseline for an important research agenda.</p> <p>The useful study by Esser and Palme indicates how different dimensions of programs that are often considered in unidimensional terms can have quite different effects for different sub-groups in the population, including on men and women. This directs our attention away from a focus on the overall generosity of such programs and even away from models of the welfare state toward the study of the effects of individual programs.</p> <p>Kettunen’s work points to the value of studying in more intensive terms the roles played by evolving concepts of the social whole and of its parts in the development of social policy. For those of us interested in systematic variations in political economies, where the emphasis is normally on cross-national variation in institutions, he points implicitly toward the value of considering the potentially complementary role that particular sets of ideologies might play in sustaining those institutions and conditioning their effects. That points toward an exciting research program.</p> <p>In some respects, Lundqvist and Roman and Petersen and Petersen dispose of important and understudied issues rather than raising new ones. However, they too point toward the value of approaching welfare states as objects with a certain historicity, whose character is shaped by larger features of context and whose development cannot be understood independently of the public debates through which the interests of the relevant actors were interpreted. As I understand it, one of the objects of this program was to advance this perspective on the development of the welfare state and, based on these articles, I would say they have succeeded handsomely, paving the way for further research, both on these countries and others, in this vein.</p>

Are you aware of any major impacts and achievements of the centres (scientific and societal, if possible)?

See the preceding paragraph for commentary on one of the most important and evident scientific impacts of the NordWel program. Through multiple conferences and publications, they have advanced a new perspective on the development of the welfare state, whose effects were apparent to me before I read the articles distributed for this review.

In multiple publications, the Reassess program has accomplished its goal of providing accessible and astute evaluations of how the Nordic model has changed, in multiple service arenas, in recent decades.

I also know from colleagues that both programs have raised the international profile of Nordic scholarship on the welfare state, both through the publications they have sponsored and through the multiple international conferences that have brought Nordic researchers together with other scholars of the welfare state from around the world. Those gatherings have also fostered transnational collaboration both within the members of the program and among much wider groups of scholars. I am not aware of clear societal impacts but those are most likely to have occurred in regions where I know little of recent policy developments.

Has published results been disseminated in high level publications?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (list some of most important publications and comment on choice of journals or conference contributions, and international visibility)
Reassess	4	A significant number of the 72 journal articles to issue from this program are in highly-ranked journals, including the Journal of European Social Policy, Social Science and Medicine, the European Sociological Review, West European Politics, Social Policy and Administration, the European Journal of Public Health and Governance as well as many of the leading journals in sub-fields devoted to such issues as aging or childcare. In general, the articles appear to be in appropriate journals given their subject matter. More than half the publications are in English and thus accessible to an international research community. It is notable that the book by Larsen is published by Oxford University Press, a leading international publisher, and, given the wide interest in the topic, it is likely to be widely read and cited. I note that a significant number of the edited volumes produced by this program are still forthcoming, although five of them are contracted.
NordWel	4	Of the six articles from this program I read, one is in one of the two leading journals in comparative politics, a major subfield of political science, Comparative Politics, and two are in the Journal of European Social Policy, now recognized as the leading venue for research on social policy in Europe. The others are in well-respected but more specialized journals appropriate to their subject matter. The 259 journal articles published under the aegis of this program are, as might be expected, in a wide range of venues, ranging from some that are barely newsletters to others that are leading national journals or major journals in a sub-field. A significant minority are in well-recognized journals that are widely-read internationally, including the Journal of Epidemiology and Community Health, the European Journal of Industrial Relations, the European Journal of Political Research, West European Politics, the Journal of European Social Policy (where multiple articles appear), Socio-Economic Review, and the Journal of Social History. A large number are in well-regarded but more specialized journals. About half appear to have been published in English, thereby reaching a wider audience. My overall impression is that, given the diversity of topics and approaches reflected in the program, these are appropriate venues for the work. When a study is more specialized, as many fine works of scholarship are, it should be in a more specialized journal. The wide variety of journals in which it appears ensures the program has considerable reach into multiple scholarly communities.

Overall rating of activities in the centres and the programme as a whole (based on the sample material)

5 excellent, world class • 4 internationally competitive • 3 'average'; acceptable at a national level
2 underperforming • 1 bad

Rating	Short summary of the positive and negative aspects of the programme to support the ratings:
4	<p>It is difficult to interpret the terms given above beside the possible scores. Based on the quality of the twelve articles I have read carefully (which is what I gather this score should be based on), there is no question in my mind that this work is internationally competitive. Indeed, I would not hesitate to say it is 'excellent' or 'world class' if that term means that it would be widely recognized as excellent work by the international community of scholars. As noted in my response to the first question, however, I am reserving the 5 – highest score – for work that is field-defining and a required reference for most subsequent work, namely, seminal works of the sort produced on one or two occasions by Esping-Andersen, Pierson, Iversen and Soskice, Kenworthy and Pontusson, Fraser, Honneth to mention a few working in this field. In short, these sample articles are very fine pieces of scholarship, and the best of them are outstanding.</p> <p>I presume that my sample contains some of the best work produced by the program, although I gather it was also chosen to be representative, and that not all the other publications are of this standard. However, it should also be noted that the volume of work published by the NordWel program, in particular, of which I have a full list is remarkably large. It includes 65 monographs, 93 edited volumes or special journal issues, 259 journal articles and 498 book chapters. This is an amazing output for a program that has been in operation for six years. I cannot think of any other program, in any field of which I know, that has been so productive; and this does not take into account the many workshops and conferences these programs have sponsored, since I do not have a list of them.</p> <p>The output of the Reassess program is more modest but reflects high productivity by any reasonable standard. Including forthcoming works, it has produced 6 monographs (mainly dissertations but one book published by Oxford University Press), 17 edited books or special journal issues, 72 journal articles, 25 book chapters and 16 working papers.</p> <p>This level of output undoubtedly also reflects the extent to which the program has encouraged cooperation among scholars. There are many co-authored publications in the lists of both programs and it is apparent from the acknowledgements in the articles I read that the programs have made a great deal of intensive international interchange possible. This too should be seen as an accomplishment of such a program, as it is important for the development of the highest quality work in the scientific community.</p> <p>Based on my reading of their work, my sense is that both of these programs have been highly successful at accomplishing their objectives.</p>

C.4 Review 2 of the Programme on Welfare Research

Experts own rating of his/her qualifications and competence to evaluate the programme at hand?

1 (poor) – 5 (high)

Rating	Comment
5	<p>It seems very “udansk” to rank oneself so highly, but I suspect that this is where others (and especially my American colleagues) would place me. I am a full professor of Political Science at Boston University, former chair of the Council for European Studies, and co-chair with Jane Mansbridge on the American Political Science Association’s presidential task force, “Negotiating Agreement in Politics.” I have written three books in English and my most recent volume with Duane Swank, <i>The Political Construction of Business Interests: Coordination, Growth and Equality</i> (Cambridge University Press 2012), received the David Greenstone Book Prize from the Politics and History Section of the American Political Science Association. I suggest that the book has important ramifications for welfare state studies, as it investigates employers’ struggles to define their collective social identities at turning points in the evolution of modern capitalist democracies. Using a blend of methods (quantitative, cross-national analysis, a quantitative and qualitative study of 107 randomly-selected firms, and archival research), my co-author and I find that employers are most likely to endorse social investments that promote economic productivity in countries with strong peak business associations, that help members form collective preferences and realize policy goals in labor market negotiations. The research has important implications for the construction of business as a social class and powerful ramifications for equality, welfare state restructuring and social solidarity.</p> <p>I am also the author of <i>Stuck in Neutral: Business and the Politics of Human Capital Investment Policy</i> (Princeton University Press) and <i>Shifting the Burden: the Struggle over Growth and Corporate Taxation</i> (the University of Chicago Press, 1991). I have written many articles and book chapters, including three in the <i>American Political Science Review</i> and three in <i>World Politics</i>. My work has also appeared in the <i>British Journal of Political Science</i>, <i>Comparative Political Studies</i>, <i>Governance</i>, <i>Politics and Society</i>, <i>Business History Review</i>, <i>Regulation and Governance</i>, and <i>Studies in American Political Development</i>, among others. I have been a fellow at the Radcliffe Institute for Advanced Study, the Russell Sage Foundation, and the University of Copenhagen, and have received grants from the Robert Wood Johnson Foundation, the German Marshall Fund, the Danish Social Science Research Council and the National Science Foundation. I am a long-term visiting professor of the Copenhagen Business School and serves on the strategic advisory board of the Danish National Institute for Social Science Research. I received my Ph.D. from the Massachusetts Institute of Technology in 1987. Further information may be found at www.people.bu.edu/cjmartin/.</p> <p>I have lived in Denmark for three separate years – in the seventies as an exchange student, the eighties as a visiting scholar at Copenhagen University and in 2000-2001 as a visiting professor at Copenhagen University.</p>

To what extent are published results of high scientific quality?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (provide and justify your evaluation of the scientific quality of the work produced)
Reassess	4	<p>A central goal of the Reassess project is “to create greater international visibility of Nordic welfare research.” In particular, the project aims to describe recent (and possible divergent) trends in the Nordic welfare states, compile datasets for comparative research, and sponsor collaborative research that focuses on the viability and the institutional determinants of the Nordic welfare model. The partner institutions largely consist of schools of social work or social policy analysis and, as such, should be expected to have a somewhat more practical focus than programs grounded in departments of political science and sociology.</p> <p>As I also suggest in my discussion of NordWel, the Scandinavian welfare state has been an object of great interest (and frequently misunderstanding) among the international community of scholars, and a great virtue of this program is its mandate to disseminate theoretical insights and empirical facts about the Nordic social model. I learned much from reading the work of the scholars represented here and very much appreciate their rich empirical descriptions.</p> <p>But because the social work field draws inspiration from diverse disciplines, I was not always entirely sure of the intended target audience of the pieces, and this complicates the business of assessment. The relevance of the work to political science might be quite different from its relevance to public administration, and academics driven by a desire to construct new theories might use these pieces in quite different ways from those training future practitioners in the field. Some of the articles included here will undoubtedly attract an international audience, whereas others hold greater fascination for those who specifically seek a greater understanding of the details of Nordic social policies. Therefore, my numerical rankings reflect the somewhat mixed goals of these varied pieces.</p> <p>To offer an illustration, in “Normalization Fifty Years Beyond – Current Trends in the Nordic Countries,” Tøssebro et. al. offer a fascinating history of the treatment of individuals with intellectual disabilities across the Scandinavian countries. In particular, the authors compare and contrast the treatment of people with intellectual disabilities among Scandinavian countries after the reforms associated with the deinstitutionalization and decentralization movements. The authors make some valuable contributions in highlighting how vulnerable groups have suffered as managerial and economic accountability have replaced political accountability and emphasize how professional experts have, in some cases, played a rather marginal role as drivers of change. This piece with its thick description make a superb <i>policy</i> contribution, but I was less certain of its intended message about the determinants of political processes.</p>
NordWel	5	<p>The NordWel program constitutes a multi-disciplinary, multinational research consortium including eight Nordic universities. In general, I am very impressed by this research program and feel that it has made a sizable impact on the politics and sociology of the welfare state. When I was a guest researcher at Copenhagen University in the 1980s, one might have criticized many Danish scholars for having rather insular conversations and for being a bit too caught up in the trees, so that they missed the forest. Articles were sometimes a bit too descriptive and prone to categorization and, of course, fewer people wrote in English at that time, which made dissemination of Nordic research more challenging. Happily, as this assessment reflects, times have changed.</p> <p>The Scandinavian welfare state has been an object of great interest (and frequently misunderstanding) among the international community of scholars, and a great virtue of this program is its mandate to disseminate theoretical insights and empirical facts about the Nordic social model. I have personally learned much over the years from reading the works of the network scholars and particularly appreciate their rich empirical descriptions and often counter-intuitive findings about the inner workings of the welfare state. The articles sampled in this evaluation engage the academic literature and make a significant contribution to debates that extend beyond the borders of Skandia. The selected pieces make sharp analytic arguments and this is consistent with broader trends within Scandinavian scholarship.</p>

Do published results develop new scientific methods to solve the problems it addresses (including approaches, experiments, etc.)?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (e.g. the latest / most innovative methods used by the centres)
Reassess	4	<p>The multi-dimensional nature of the program is reflected in the book chapters and articles sampled for evaluation. The submissions largely rely on case studies, often utilizing secondary sources, and mostly fall into the categories of practical policy analysis rather than empirical tests of theories. I found these thick description case studies to be quite fascinating, yet in my field of political science, the more descriptive book chapters would not be selected for assessment. Thus, my ranking reflects the fact that several of the selected pieces are chapters in edited volumes and in my field, these would not add much to tenure cases, as our emphasis is almost entirely on peer-review articles in the leading journals or on university press monographs. It is very difficult to achieve an innovative break-through in methods with case studies.</p> <p>Yet I found the sampled pieces generally to be of a very high quality and compelling. I learned a lot reading them and do not wish to disparage their contribution. For example, the book chapter by Hvinden did a terrific job summarizing the literature on the challenges of globalization on the Nordic Welfare State. But I would have appreciated being given a chance to evaluate an article that articulated a clearly-stated hypothesis and tested this hypothesis with empirical methods.</p> <p>One article with a superb research design and a creative use of innovative methods was that by Kotsadam and Jakobsson. The piece investigates the causal relationship between legal reform and shifting attitudes and the authors use a “natural experiment” that compares cases both over time and between countries. They analyze factors determining attitudes toward the buying and selling of sex both before and after a new law was passed in Norway and compared these findings to similar attitudes in Sweden, in which no reform has occurred. They hypothesized that the criminalization of buying sex should make individuals more critical of prostitution, especially a) in localities with a high density of prostitutes, b) among those who trust politicians and c) among young citizens, whose attitudes are in greater flux. Although the authors find somewhat mixed results for their hypotheses, the paper is very well-written, clearly argued, and meticulously researched. It deserves to have an impact on both scholars of public opinion and policy makers alike.</p> <p>Although it is, perhaps, easiest to demonstrate scientific methods using quantitative analyses, careful process-tracing may also be used in qualitative analysis, as is done by the very carefully-argued and fascinating article by Larsen and Goul Andersen, which is discussed below.</p>

Centre	Rating	Comments (e.g. the latest / most innovative methods used by the centres)
NordWel	4	<p>Some of the articles are very creative in developing innovative methods to pursue their research questions. For example, Careja and Emmenegger's, "Making Democratic Citizens," is a superb article, appearing in a highly-rated journal within political science. The authors ask a crucial question about how the immigrant experience changes attitudes toward national and international political institutions, and adopt a wonderful research design to investigate their central question. They carefully define their dependent variable, choose an under-studied target group (returning migrants), and fully recognize the obvious limitations to their data sources and argument.</p> <p>The authors offer a fascinating finding that migrants have a more positive attitude toward the European Union but do not feel more positively toward national political institutions. Moreover (and not surprisingly), improvements in their material circumstances contribute to positive attitudes toward political institutions. It is possible, of course, that these migrants are more Euro-centric individuals in the first place and that this contributes to their desire to emigrate. Moreover, it would be interesting to try to grasp whether cross-national differences (or even differences across regions/municipalities/urban versus rural areas) contribute to migrants' subsequent attitudes toward national political institutions. One might imagine that living in a country with a notoriously poor treatment of migrants would turn individuals off to politics and that these negative experiences would follow them back to their home countries, and it would be fascinating to explore this possibility. I also wondered about the impacts of the specific designs of welfare state policies on political attitudes and participation of migrants, and this might be another interesting venue for cross-national consideration. Here I would direct the authors to the work of Joe Soss and Suzanne Mettler on policy feedback effects on political participation.</p> <p>I was also very impressed with the research design and methods utilized by Blomberg et al. in their exploration of social workers' perceptions of the causes of poverty in the Nordic countries. Specifically, the authors seek to understand whether individual factors (such as income, gender, work experience) or political, institutional factors (e.g. party control of municipalities) matter more to the attribution of blame for this vexing social problem. They address a literature on the motivations of "street level bureaucrats" that has anchored policy research for three decades, but they construct and implement a wonderful, empirical research design that explores differences among nations and municipalities. In particular, they are able to document what to me is a signature characteristic of the Scandinavian model – local civil servants exercise considerable discretion to solve community problems and operate according to a logic that evades changing party control.</p> <p>This piece is extremely well-written and researched; moreover, the authors reference international debates within social work on attitudes toward poverty. I would love to hear more about the authors' perceived explanations for cross-national differences in attitudes toward poverty (that influence social workers' perceptions). They might find very interesting some of the recent work within political science and sociology on public opinion toward the welfare state (such as Leslie McCall and Andrea Campbell). Recently, experimental design methods drawn from psychology have become popular within US political science circles, and a mixed-methods approach might help to flesh out some of the micro-level mechanisms at play in individuals' attribution of blame for social problems.</p>

To what extent has published results enhanced scientific knowledge?

1 (not at all) – 5 (very much)

Centre	Rating	Comments
Reassess	4	<p>Some of the pieces submitted seemed to make a very interesting contribution to scientific knowledge. For example, Larsen and Goul Andersen formulate a very clear research question and utilize careful process tracing to make their claims. They cite relevant international literature and engage in the community of international scholars. For these reasons, I felt that this was an excellent article to serve as a sort of role model for network scholars.</p> <p>The authors wish to grasp whether interests or ideas drive policy change and use the rise of active labor market policy as a test case to separate the impact of economic ideas from other determinants of change. ALMP represents a case of ideological change without regime change, they argue, and the new paradigm established new directions in social policy without a significant shift in coalitional interests. The authors carefully reconstruct the events leading to the emergence of ALMP with process tracing and claim that this episode clearly demonstrates the power of ideas over interests.</p> <p>I very much appreciated the authors' clarity, precision and obvious knowledge about their case, which is why I suggest this as a role model.</p> <p>In the spirit of offering advice, however, I would urge the authors to think about two issues in the future. First, the ideas underlying ALMP were taken up across many countries, yet the application of these ideas varied enormously and one wonders why. If economic ideas constitute a stand-alone determining factor, then one might expect some uniformity of impact. Instead, the institutional context seems to influence both the implementation of the ideas and their take-up by actors. Personally, I think that processes of negotiation influence the adoption of ideas, as was argued in the recent APSA presidential task force, Negotiating Political Agreement. Second, it could be fruitful to think about how ideas matter. Here, I might recommend to the authors some recent work in grappling with the question of the endurance of neoliberalism, for example, in the co-edited volume by Vivien Schmidt and Mark Thatcher, Resilient Liberalism.</p>

Centre	Rating	Comments
NordWel	5	<p>I was also very impressed by the articles' general contribution to scientific knowledge, but I felt that the submitted pieces were a bit varied in their contribution to international dialogues, which accounts for my general score. For example, the terrific piece by Esser and Palme, "Do Public Pensions Matter for Health and Well-being Among Retired Persons," investigates the fascinating interactions between pension systems and health in thirteen advanced, industrial democracies. The piece both addresses a very cutting-edge issue in social science (for example, taken up in Peter Hall and Michele Lamont's Successful Societies project) and represents first-rate research. The findings are particularly salient for issues of gender equality: "women's health is significantly better in countries with higher basic security pensions."</p> <p>The work raised many questions which would be great to investigate with future research; for example, I wondered about the intersection between health care spending and pension spending. What happens to the impacts of spending on basic pensions when one controls for health care costs and program design? Moreover, it seems that the this research has significant implications for the seemingly worldwide race to shift to capital investment pension systems, and would like to hear more about the authors' perceptions of the significance of their work.</p> <p>At the same time, the selected articles were a bit mixed in their attention to broader themes in the discourse of international social scientists, and I would encourage all of the scholars to engage with this broader literature as much as possible.</p> <p>For example, Lundqvist and Roman offer "Construction(s) of Swedish Family Policy" as a reflection on the impacts of shifting paradigms of the family on changes in Swedish family policy. Inspired by Nancy Fraser's concept of "bridge discourse," the authors carefully trace the crucial impact of expert opinion and role of expert commissions on the evolution of diverse family policies. The authors then demonstrate how the shifting perceptions of functional families informed expert commissions' thinking about social reforms and the consequent impact of paradigm shifts among the experts on policy outcomes.</p> <p>I was quite intrigued by their story and particularly by the claim that a faith in science is an objective force in the evolution of Scandinavian welfare state regimes. The authors do a marvelous job addressing the Swedish case and I would love to see follow-up comparative work on the impacts of differences in the reliance on technical expertise. Moreover, I would advise the authors to engage more directly with the scholarly discourse about "knowledge regimes" (Campbell and Pedersen) and somewhat older attention to epistemic communities. They might also take a look at the recent American Political Science Association presidential task force report, Negotiating Political Agreement, which emphasizes how the differential reliance on non-partisan technical experts plays a crucial role in countries' capacities to negotiate social pacts.</p> <p>In like manner, Kettunen's "Reinterpreting the historicity of the Nordic model," argues that "In conventional images of the so-called Nordic model, the strong state is opposed to markets or civil society" and recommends that we view interests at the center of the Nordic model. The author proceeds to offer an interesting critique of Esping-Andersen's "politics against markets" and suggests that Nordic industrial relations systems gave both employers and workers an interest in the welfare state. Thus the growth of social interventions was driven not only by conceptions of social citizenship, but by the social partners' interests in the system. The author does a nice job discussion the model of a "virtuous circle" of employers and workers' cooperation and the impacts of this cooperation on the evolution of the welfare state.</p> <p>I agree completely with the arguments made in this piece, but am concerned that the straw man argument misses crucial scholarship since Esping Andersen made these arguments in the mid 1980s. This piece could really benefit enormously from greater attention to recent international literature, which is almost entirely neglected in the references. First, there is an enormous literature on corporatism dating from the 1980s on the material interests of the social partners in cooperative social policies and the virtuous circle of cooperation. Colin Crouch, Wolfgang Streeck who is cited, Philippe Schmitter and Bo Rothstein were some of the early representatives of this school, but see also Hemerijck and Vissen, Treu, Traxler, etc. Second, scholars have also written widely on the (historical) construction of employers' and workers interests in the welfare state; for example, please see my articles (some with Duane Swank) in Comparative Political Studies, American Political Science Review, World Politics, British Journal of Political Science and our recent book. I have also made the precise argument that strong societies enable the state to mobilize support for its social agenda (e.g. Martin and Thelen World Politics, 2007). Third, scholars writing in the varieties of capitalism literature are very much taken up with the benefits of social interventions for economic productivity and especially the design of skills systems (Hall and Soskice 2001; Estevez-Abe et al 2001; Iversen 2005; Streeck; Busemeyer and Trampusch, Swenson.) Fourth, there has been a big debate on dualism within rich capitalist economies in recent years. Specifically, scholars wonder why in some countries business and labor are able to sustain their material interests in broad social policies, whereas other countries have seen the decline of commitment among employers for social interventions and the growth of marginal populations who are left out of the historical social pacts between employers and workers (e.g. Palier, Busemeyer, Pontusson).</p>

Has published results developed opportunities for further research in the area?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (list the new research opportunities developed by the centres)
Reassess	4	<p>Many of the papers open the door for additional research, and I would love to see the scholars venture to use a wider range of methods in their future undertakings. For example, in “The marketisation of care,” Brennan et al. use a comparative case methodology to investigate cross-national differences in the ways that markets have been introduced into child care delivery systems. The authors suggest that the new discourse of markets interacts with traditional policy legacies, so that the national contexts – local histories and practices – shape the introduction of markets. The thick description of the variations across countries taught me much about diverse trajectories in Scandinavian child care policy and the authors point out some interesting, albeit not entirely surprising, cross-national differences. For example, child care privatization served to expand supply in Australia. But in Sweden, where markets came to child care as part of the larger “freedom of choice” revolution, marketization led to a proliferation of private options for children from wealthy families and eroded these institutions as a social equalizer.</p> <p>I found the arguments to be quite plausible and a fresh take on the politics of privatization. But I also think that the authors could experiment with other types of methods, such as quantitative analyses of the impacts of market penetration on policy outcomes, to demonstrate their findings.</p>
NordWel	5	<p>I am quite familiar with research projects underway at the Syddansk Universitet’s Center for Velfærdsstatsforskning. I have been particularly inspired with scholarly efforts to merge insights from politics and literature to produce cutting-edge work on the imaging of the welfare state. The intriguing article by Petersen and Petersen, “Confusion and Divergence: Origins and meanings of the term ‘welfare state’ in Germany and Britain, 1840-1940,” represents an example of this line of research. The article explores shifting historical images of the welfare state, a topic of great interest to scholars at the moment. The authors take seriously Beland’s recommendation that we look at social policy language rather than concepts, and set out to investigate how different historical experiences influence contemporary meanings of key social concepts. They demonstrate the vastly different meanings of the term “welfare state” in diverse historical periods in Germany and Britain. This reflection on shifting images of the welfare state and historical distinctions among the welfare, legal, and cultural states have important ramifications for how we think about impacts on processes of modernization and cross-national differentiation.</p>

Are you aware of any major impacts and achievements of the centres (scientific and societal, if possible)?

The NordWel and Reassess summer institutes (in which I once participated) are terrific venues for scholarly exchange, as they bring leading scholars to conduct seminars on cutting edge issues and attract graduate students from all over the world.

I am familiar and have been impressed by many of the participating institutions within these programs. Within the NordWel project, for example, I have read some of the work of the major history of the welfare state project at Syddansk Universitet in Odense. I consider it to be a masterful undertaking and significant contribution to our understanding of the history of the welfare state. Of course, these volumes are in Danish, which might limit their wider adoption, but the scholars have also published some of their findings in English as well.

Within the Reassess project, I am also very familiar with and impressed by the work being done at the Center of Comparative Welfare State Research at Aalborg Universitet, and have followed the work of Joergen Goul Andersen for many years. I am also very familiar with the work being done at the Socialforskningsinstitut in Copenhagen.

Has published results been disseminated in high level publications?

1 (not at all) – 5 (very much)

Centre	Rating	Comments (list some of most important publications and comment on choice of journals or conference contributions, and international visibility)
Reassess	3	<p>As I mentioned at the outset, social work studies combine diverse disciplines, and this makes assessment difficult because fields have different standards. I thought that the quality of these pieces was quite high and wished that they had been showcased in more prestigious venues. In particular, I would encourage the authors to submit more frequently to peer-review journals rather than to publish in edited volumes, as these tend to build standing within the discipline.</p> <p>For example, the piece by Anttonen and Sipilä offers a very worthy contribution and could well be featured as a review essay in a more prominent venue. Their efforts to uncover commonly misunderstood truths about the universal nature of Scandinavian welfare states constitute an extremely valuable undertaking. They suggest that universalism was linked to nation-building and an effort to strength state and citizen capacities in the early days of the welfare state but only truly came of age as a defining feature of welfare states after the second world war. During this later period, a certain irony informs the comparison between Scandinavian and British social policies: British interventions were more explicitly motivated by the concept of social citizenship than the Scandinavian universal welfare states, which slipped into this category more gradually. Both the authoritarian origins of the welfare state and the essentially pragmatic nature of Scandinavian welfare state invention have been well-known to scholars for some time. But the authors do a lovely job of highlighting the myriad influences beyond social democracy that are sometimes lost in more facile treatments of welfare state studies. An interesting topic for further reflection might be to think about how the diverse motivations for universalism in Britain and Scandinavia influenced the latter capacities of these countries to sustain extensive social interventions.</p>
NordWel	4	<p>Although the quality of the research in the sample articles is quite high, I felt that the authors could have published in even more prestigious journals. Because the research network is a multi-disciplinary group, it is somewhat difficult to determine precisely how journals rank across disciplines. But I looked on several lists ranking journals in political science, sociology and social work, and could not find several journals on any list. One article appeared in the prestigious Comparative Political Studies (ranked # 11th on one list and #15th on another list). Two others appeared in the Journal of European Social Policy, which I consider an exceedingly useful journal, although I could not find it ranked on the lists I consulted. I had greater difficulty finding rankings for the other three journals.</p> <p>I do not wish to disparage these journals, but it struck me that the scholars might well have been able to place their very interesting pieces more prominently and I would encourage them to try for some of the top journals in the future, such as the American Political Science Association, World Politics, the British Journal of Political Science, and Comparative Political Studies. Socio-Economic Review – while newer and less highly ranked – is an up and coming venue that would also be terrific for some of these pieces. Of course, one runs the risk of rejection and it is definitely an unjust fact of our profession that more mature scholars have an easier time getting published than the younger folks (who have greater need to appear in the top journals.) But papers of the caliber of these pieces deserve significant attention and the best way to get just rewards is to aim high.</p>

Overall rating of activities in the centres and the programme as a whole (based on the sample material)

- 5 excellent, world class
- 4 internationally competitive
- 3 'average'; acceptable at a national level
- 2 underperforming
- 1 bad

Rating	Reassess scholars possess a wonderful body of knowledge about the inner workings of the Nordic welfare state and I urge them to continue to publicize their findings and to do so in the most visible scholarly venues in their fields. The greatest strength of many of these offerings is the analysis of policy impacts.
4	<p>NordWel scholars as a whole engage international debates and participate in multi-disciplinary and multi-national forums that publicize their work and raise the standing of social science within the participating countries. The articles sampled in this evaluation make sharp analytic arguments and this is consistent with broader trends within Scandinavian scholarship. The NordWel and Reassess summer institutes (in which I once participated) are terrific venues for scholarly exchange, as they bring leading scholars to conduct seminars on cutting edge issues and attract graduate students from all over the world.</p> <p>At the same time, I would like for this assessment to be useful to those receiving it; therefore, I would also like to provide an outside reader's impression of possible avenues for future research and techniques for improving already excellent articles. Therefore, despite my very positive assessment of the NordWel program, I feel it part of my job to suggest areas for improvement, and I do so very much in the spirit of collegial assistance. First, I felt that based on quality, some of the articles deserved to appear in more prestigious journals. Second, in some cases, I felt that the articles should have addressed broader themes in the social science literature. Third, some of the articles could have cited a broader range of scholars outside of Scandinavia.</p>
