

Work programme
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Programme for Research and Innovation in the Educational Sector
FINNUT

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1 Introduction

Education plays an important role in an individual's health, quality of life, social engagement, social integration and affiliation with working life. Knowledge and expertise are crucial to the innovation capacity and competitiveness of industry as well as the sustainability of the welfare state, the formation of public opinion and democracy.

The quality and relevance of education must be strengthened to better equip children, young people and adults to meet future challenges in society and working life. This will affect the objectives and substance of the educational system, methods of working and learning, organisation and the achievement of results, and the manner in which the sector functions in conjunction with the development of society and working life. It also requires more clearly targeted investment in research and innovation in the sector.

The *Programme for Research and Innovation in the Educational Sector* (FINNUT) is a key instrument for following up the Government's current policy for research on how the welfare society and the educational system function.

The FINNUT programme will:

- develop knowledge of high quality and relevance for policy development, the public administration, the field of practice and the individual;
- promote scientific renewal in the field of educational research;
- stimulate innovation in the educational sector.

This is the revised work programme for the FINNUT programme, completed in spring 2017.

2 Summary

The FINNUT programme is a large-scale, long-term programme that encompasses the entire educational sector from early childhood education and care (ECEC) institutions and schools to higher education and adult learning. The programme expands on experience from previous programmes at the Research Council and promotes a new focus on innovation in the educational sector. This work programme sets out the objectives for the programme from 2017 onwards.

To address future challenges, there is a need to enhance the quality and relevance of educational programmes and to concentrate greater attention on the interplay between the educational system and the learning and knowledge development that occurs in working life and society at large. This will require a clearer focus on research and innovation within and across the following, broadly defined thematic priority areas:

- A. Learning processes, assessment forms and learning outcomes;
- B. Praxis, professional practice and competence-development;
- C. Governance, management, organisation and achievement of results;
- D. Education, society and working life.

All of the thematic priority areas are relevant for research on and innovation in early childhood education and care, primary and lower secondary education, upper secondary education and training, higher education and adult learning. The programme is also concerned with the transitions and interplay between the various levels of the educational system and working life as well as the individual's educational pathway and competence-development.

The educational sector is extensive and complex, and involves many actors. The programme will mobilise a wide range of relevant research groups, national and local public administration, and organisations in the educational sector. The FINNUT programme will strengthen ties between strategic basic research, applied research and innovation in the field of education, serve as a national cooperative arena between actors in the field, and have a clear, international orientation. The programme will put emphasis on communication and dissemination targeted at researchers, users and the general public.

The programme has an ambitious primary objective, and the work programme also defines seven secondary objectives. To achieve these objectives, the programme will employ coordinated, differentiated use of various funding instruments and forms of support.

3 Background and challenges

To address future challenges, there is a need to enhance the quality and relevance of educational programmes and to concentrate greater attention on the interplay between the educational system and the learning and knowledge development that occurs in working life and society at large. Education is essential to ensure that individuals achieve affiliation with working life and to promote social equality and sustainable growth. The educational sector is a wide-ranging, important sector that directly or indirectly affects a large proportion of the population in various life phases. Education and competency are vital for the individual's affiliation with working life, social integration and responsible citizenship, as well as growth and prosperity. This is a multi-faceted, highly complex sector, and it is important that the developments taking place are research-based. The amount of resources targeted towards the educational sector is very high. In 2013, 6.3 per cent of GDP was spent on primary and secondary school education. Norway's public expenditures on education are among the highest in the OECD.¹

Educational research accounted for 2.3 per cent of overall R&D expenditures in Norway in 2015.² Of the overall expenditures in the field of educational research, one-tenth was funded by the Research Council, while the bulk was provided through basic funding to universities and university colleges.³ This means that to a large extent, long-term competence- and capacity-building in research groups is tied to internal institutional priorities. At the same time, research in general is characterised by significant challenges relating to quality and capacity. There is therefore a need for an instrument that can enhance the quality and orientation of research about and for the sector.

3.1 Knowledge base and experience

3.1.1 Educational research in Norway – resources and results

An overview of national investments and results from the field of educational research reveals a diverse but relatively fragmented research field that is undergoing significant growth and change.⁴ Measured in terms of R&D expenditures, the volume of educational research conducted during the period increased dramatically, and has more than doubled in the period 2007–2015. The number of scholarly publications rose, but the percentage of publications in channels with high international prestige remains low compared with other subject areas. Recruitment to the field has been strengthened, and the number of doctoral and post-doctoral research positions and completed doctoral degrees at the institutions has increased greatly. The level of expertise among the research communities has risen. The number of employees in associate professor and senior lecturer positions has increased, while the proportion of these with doctoral degrees has increased. The reports show, however, that the field of educational research faces a number of challenges that still need to be addressed. These include:

- **Research capacity and knowledge needs:** Research activity is unevenly distributed across the various levels of the education pathway. Traditionally, the most research has been conducted on primary and lower secondary schools and the least on adult learning, upper

¹ OECD (2016) Education at a Glance.

² NIFU (2017). *Indikatorrapporten* (Science and Technology Indicators for Norway) 2017.

³ Gunnes, H., Hovdehaugen, E. & Olsen, B. M. (2017). Utdanningsforskning i Norge 2015. Ressurser og resultater (Educational research in Norway 2015 – Resources and results). NIFU Report 2017:4.

⁴ Gunnes, H., Hovdehaugen, E. & Olsen, B. M. (2017). Utdanningsforskning i Norge 2015. Ressurser og resultater (Educational research in Norway 2015 – Resources and results). NIFU Report 2017:4.

secondary education and training, and early childhood education and care – areas where the sector has a great need for knowledge. Research activity is also unevenly distributed among thematic areas. The most research is conducted on factors related to teaching and learning, followed by the relationship between education, the home, and working life. Relatively little research has been conducted on economics, organisation, management, policy and systems of governance and on how these affect practice.

- **The quality and international orientation of research:** Despite more international collaboration, analyses of publication statistics show that there is relatively little international publication and that Norwegian remains the dominant publication language in the field.⁵ The percentage of publications in channels with high international prestige remained low compared with other subject areas.
- **National collaboration and network-building:** In 2015, educational research was conducted at 199 entities in Norway, compared with 170 entities in 2011. About 37 per cent of the resources were used at entities with a small or moderate volume of educational research in their research portfolios. Similarly, 63 per cent of the research activity took place at 36 entities where more than 70 per cent of the research activity was focused on the field of education. There is very little mobility and co-publication across the entities, and one in three entities does not take part in national collaboration.
- **Recruitment and expertise:** Despite a higher level of expertise within the research groups, the percentage of staff who hold doctoral degrees and the percentage of employees in associate professor and professor positions is lower in the field of educational research than among the researcher population as a whole. There is particular need to strengthen research expertise in teacher education programmes, and there is a need to increase future recruitment to the field in response to the anticipated generational shift due to retirement of academic personnel. An overview of the doctoral degrees completed in recent years also shows that greater breadth in recruitment is needed with regard to doctoral candidates' subject areas and thematic focus.

3.1.2 The Research Council's previous educational research programmes

The FINNUT programme is based on and will replace the *Programme on Practice-based Educational Research (PRAKUT)* (2010–2014) and the *Programme for Educational Research towards 2020 (UTDANNING2020)* (2009–2018). These programmes were evaluated in 2012. The evaluation report concluded that the programmes had made a positive contribution to the development of the research field in Norway, but at the same time identified a number of challenges. These involve the scientific quality of the research being conducted, the degree of interdisciplinarity, user involvement and participation in research, and the contribution of practice-based research to knowledge development and innovation. The report recommended merging the programmes, but also emphasised that knowledge production and innovation must be assessed on the basis of different criteria.⁶

⁵ Gunnes, H. & Rørstad, K. (2015). Utdanningsforskning i Norge 2013. Ressurser og resultater (Educational research in Norway 2013 – Resources and results). NIFU Report 2015:15.

⁶ Evaluering av forskningsprogrammene PRAKSISFOU og UTDANNING2020 (Evaluation of the PRAKSISFOU programme and the UTDANNING2020 programme). Research Council, 2013.

Other related, terminated Research Council programmes have been:

- *Programme for Practice-based R&D in Pre-school through Secondary Schools and Teacher Education (PRAKSISFOU) (2006–2010);*
- *Research Programme on Knowledge, Education and Learning (KUL) (2003–2007);*
- *Research Programme on Knowledge development in professional education and practice (KUPP) (2000–2004).*

3.2 Strategic perspectives

The R&D system for the educational sector consists of many stakeholders with diverse areas of responsibility and roles. The Ministry of Education and Research, the Research Council of Norway, the universities and university colleges, independent research institutes, the Norwegian Knowledge Centre for Education, and the Norwegian Directorate for Education and Training are key actors in this context.

The Research Council's *Programme for Research and Innovation in the Educational Sector (FINNUT)* will cooperate with the other actors in the system to strengthen the knowledge base and contribute to knowledge-based development of the educational sector. The FINNUT programme will follow up the objectives set out in the Government's Long-term Plan for Research and Higher Education, and the strategy for educational research from the Ministry of Education and Research.⁷

The FINNUT programme is a policy-oriented programme⁸ that encompasses the entire educational sector from early childhood education and care (ECEC) institutions and schools to higher education and adult learning. The programme has long-term objectives related to educational research and research-based innovation in the educational sector. This includes, among other things, efforts to *develop productive, competent research communities* that can generate high-quality educational research relevant for the development of the sector in the short and long term. The programme will address knowledge needs for the individual's learning and development, the way in which the field of practice functions, and the knowledge needs of the public administration and policy formulation. Thus, the programme will apply an *interdisciplinary and multidisciplinary approach*.

The FINNUT programme will provide funding to research and innovation projects of *high quality and relevance* to users in the sector and other stakeholders. The programme represents a relatively small but nonetheless important funding source for research groups in Norway. The FINNUT programme can play a crucial role in the further development of the research field by facilitating national competition for funding in strategic priority areas and employing a variety of targeted instruments, types of support and application types. This will require effective cooperation with research groups at the universities, university colleges and independent research institutes, as well as with other funders of research in the field and the Norwegian Knowledge Centre for Education.

The FINNUT programme is developing an *initiative on research-based innovation* in the educational sector. The initiative is based on the Research Council's policy for innovation in the public sector and *Research for Innovation and Sustainability: Strategy for the Research Council of Norway 2015–2020*. The objective is to enhance the role of research in development and change processes in ECEC

⁷ Meld. St. 7 (2014–2015). *Langtidsplan for forskning og utdanning 2015–2024* [the Government's Long-term Plan for Research and Higher Education] and *Kunnskapsdepartementets strategi for utdanningsforskning. Kvalitet og relevans 2014–2019* [Strategy for Educational Research. Quality and Relevance 2014–2019] from the Ministry of Education and Research.

⁸ A "policy-oriented" programme is designed to develop new knowledge for the public sector, with users and researchers collaborating on shaping programme content.

institutions, schools, and educational and training institutions, and facilitate knowledge development based on current knowledge needs of users and challenges in the educational sector.

The FINNUT programme will generate added value by *strengthening ties between strategic basic research, applied research and innovation*. The programme will mobilise research groups and various users of research through strategic, differentiated use of different types of funding and instruments. The FINNUT programme will ensure *effective, national arenas of cooperation, have a clear, international orientation*, and maintain a high profile vis-à-vis research groups, the public administration, the users of research, trade and industry, and the general public in the field of education. Communication and dissemination will be a critical task for the programme, and the FINNUT programme will collaborate with the Norwegian Knowledge Centre for Education, the Norwegian Directorate for Education and Training, and other actors in the sector to ensure knowledge-sharing and dialogue about the research being conducted and the significance of the research results for the development of the sector.

4 Objectives for the programme

The FINNUT programme is a long-term programme that encompasses the entire educational sector from early childhood education and care, primary and secondary education and training to tertiary vocational education, higher education and adult learning.

4.1 Primary objective

The primary objective of the programme is to develop new knowledge of high quality and relevance for policy development, the public administration, the field of practice and the individual, and to promote scientific renewal in research as well as research-based innovation in the educational sector.

4.2 Secondary objectives

The programme's primary objective will be translated into action through the following secondary objectives:

1. Strengthen knowledge accumulation and scientific renewal.
2. Increase expertise and capacity.
3. Encourage theoretical and methodological diversity.
4. Enhance the role of research in innovation.
5. Greater national and international research collaboration.
6. Improve collaboration and dialogue with users.
7. Strengthen communication and dissemination.

5 Thematic and scientific priority areas

The FINNUT programme will provide funding for research and innovation in the following four broadly defined thematic priority areas:

- A. Learning processes, assessment forms and learning outcomes;
- B. Praxis, professional practice and competence-development;
- C. Governance, management, organisation and achievement of results;
- D. Education, society and working life.

The thematic priority areas encompass the scientific breadth of the research field, and the programme invites projects from a variety of subject areas and research traditions that are concerned with educational issues. There is a need to increase the volume of research in all of the thematic priority areas, as well as to view the thematic priority areas in connection with each other and to perform analyses across the areas in order to strengthen interdisciplinary collaboration in the field. There is a particular need to view thematic priority areas A and B in relation to each other.

The FINNUT programme will seek research projects on and for early childhood education and care, primary and secondary education and training, higher education and adult learning within and across all of the thematic priority areas. The programme also seeks projects that shed light on the transition between the various levels of the educational system and the transition and interplay between education, society and working life. Research that explores the interplay between educational programmes and the learning and knowledge development that occurs outside of educational institutions is especially relevant in this context.

The four thematic priority areas are described briefly in the section below. The purpose is to outline the thematic priorities within respective areas which are both relevant and important for the further development of the research field, but which also allow room for creativity and new thinking.

A: Learning processes, assessment forms and learning outcomes

Throughout the entire educational system from early childhood education and care, primary and lower secondary education, upper secondary education and training, higher education and adult learning, there is great interest in how people learn and what promotes good learning and development for various individuals, groups and organisations in a range of contexts. There is a need for research and innovation that can advance knowledge and practice at all levels within the educational sector with regard to learning processes, assessment and forms of assessment, learning outcomes and knowledge development.

Relevant topics are new forms of knowledge and skills acquisition and dissemination, and how the knowledge, skills and insight acquired by children, adolescents and adults can be assessed and evaluated in a qualified manner. This involves research and innovation related to the development and use of various forms of assessment that promote learning. Other relevant topics are new methodology and exploratory teaching and learning methods, learning in and across various subject areas, participation by children and adolescents, adapted education and special needs education. Research may also be related to how learning, the shaping of one's identity, and quality of life are affected by variations in background factors, experience, the content and quality of teaching, the psychosocial environment and socio-emotional development, and other factors.

The interplay between the individual and the learning context is subject to change, and technological and knowledge development is creating new conditions and opportunities, as well as new challenges related to learning. This affects e.g. the content of learning, the development of basic skills, new

areas of knowledge, and new objectives related to competency and learning. Relevant research and innovation issues in this context are how new, relevant knowledge is created, organised and communicated with participation and involvement from relevant expertise or through the use of new media and digital technology.

Children, adolescents and adults have different ways of developing identity, competency and knowledge which is created and shared in new arenas, outside of society's established educational institutions. The programme seeks research on and innovation related to the impact of new forms of learning and knowledge development on educational institutions and the system as a whole. In this context there is a need to mobilise a significantly larger number of researchers who can contribute knowledge and experience from a variety of subject areas.

B: Praxis, professional practice and competence-development

Practice and professional practice in ECEC institutions, schools, and training and educational institutions are a crucial factor in quality. However, there is a question as to what constitutes quality and how quality in praxis, professional practice and competence-development can be enhanced. Consequently, there is a need for research and innovation that focuses on knowledge-based practice and the development of tools, systems and models that can promote knowledge-based practice.

Research and innovation related to qualifying for professional careers and competence-development, new work methods and organisational models is also needed. This may be particularly relevant in connection with challenges related to a lack of qualified personnel.

In activities related to children's, adolescents' and adults' learning and development, there is also a question as to the roles of the various professional practitioners and the field of practice and whether it is possible to promote quality in the educational sector through multi-professional collaboration.

C: Governance, management, organisation and achievement of results

Management and administration are critical in the efforts to improve performance within the educational sector. By the same token, it is not easy to translate educational policy objectives into practical action. It is therefore important to increase knowledge about what works. This means that more research is needed that generates knowledge about the interrelationship between the many reforms and changes that have taken place within governance, management and organisation – and the results at various levels within the educational system. There is also a greater need for research to have a broad interdisciplinary and multidisciplinary basis which is able to identify the impact of management, organisation and administration along various dimensions.

Within the educational sector, governance and organisation are often rooted in historical tradition. At the same time, the many changes in this field have made management of the educational sector more complex. Studies are needed on the features characterising this complexity between management structures and actors in the system. There is therefore a need for research that sheds light on the consequences accountability has for the understanding of actors' roles, processes and results, objectives and forms of organisation – locally, regionally, nationally and internationally.

The fact that many forms of organisation and management in the educational sector are historically determined also opens up the possibility for new, creative thinking about how education can be organised and managed in the future. The interplay between policy, administration and profession will be a major research challenge in the future, not least with regard to exploring new forms of cooperation and organisation. The educational sector has a clear need for innovation with regard to

how to perform and strengthen the management of professional activities and personnel in the years to come and what conditions must be present in order to develop professional management at various levels in the system. Research that increases insight into the conditions for the management of professional activities, in which the connections between formal and informal management, cultural factors and linkages to practice are explored, is relevant in this context.

D: Education, society and working life

Education is critical for promoting democracy, tolerance and equality. Education is also vital for dealing with and addressing inequality and diversity – within the educational system, working life, and society at large. In this context, access to and participation in the educational system, as well as the objectives and content of education, are crucial for societal development.

Education and expertise play a key role in value creation in society. The labour force's expertise, creativity and ability to innovate are vital for future growth and prosperity. Research should contribute more in-depth knowledge about the transitions within the educational system, as well as the transitions and relationship between the educational system and working life. There is a particular need for research that can shed light on the economic and social ramifications of drop-out from the various educational levels and that can identify critical factors that support completion of the educational cycle. Relevant factors are the choice of education, socialisation, identity, gender, social and economic factors, and the interplay between education, working life, the home and the local community. Research is also needed on how knowledge about drop-out and completion can be used to develop practice in schools and in training and educational institutions. The potential that digital development creates for participation in formal, non-formal and informal learning cycles is another relevant area of research and innovation on the interplay between education, society and working life.

In a wider perspective it is important to focus greater attention on the role, mandate, ideas and objectives of the educational system viewed in relation to national and international change processes. For example, technological development and globalisation have a major impact on national labour markets and society's need for expertise. In this context there is a need for more knowledge about how the educational system, including funding for education, can, should and will adapt to the fundamental changes occurring in working life, the family and society at large.

6 Structural guidelines

6.1 Types of research

The FINNUT programme is a long-term initiative with a broad-based scientific/thematic scope and ambitious strategic objectives. To achieve these objectives, the programme will provide funding for long-term basic research involving theoretical and methodological development as well as for applied empirical research and innovation activities.

The programme addresses a research field with varying capacity, quality and expertise and a sector with many actors. In keeping with this, the programme will follow a differentiated strategy with varied use of different funding schemes and instruments which together will support the programme's various objectives. The programme will also serve as a cooperative arena between actors in the field and seek to strengthen ties between strategic basic research, applied research and innovation in the field of education.

6.2 Types of support

The programme will employ application types and types of support based on what is seen as appropriate in the given context. There are standardised application types at the Research Council, and the FINNUT programme will specify deviations from and additions to the application types in its calls for proposals so that the funding schemes will adequately address the knowledge needs in the field of education.

The programme's most important activity will be to provide project funding, and relevant application types in this context may be Researcher Projects, Knowledge-building Projects and Innovation Projects for the Public Sector. In addition, institutional support through Research Institution-based Strategic Projects may be used for some thematic areas.

Researcher Projects is a key application type for developing new high-quality, relevant knowledge. The FINNUT programme will provide grants for Researcher Projects that include funding for documentation of the state-of-the-art, doctoral and post-doctoral research fellowships, national and international cooperation and mobility. This is to enable the programme to promote the development of dynamic research groups that can make a significant contribution on the international research front and counteract fragmentation of the research field.

The application type *Young Research Talents* is designed to support young researchers in the early stages of their career, offering researchers who have recently completed their doctoral degree the opportunity to gain experience. Such research projects are to promote the renewal and development of educational research.

Knowledge-building Projects is a project type that promotes practice-based researcher training and long-term competence development in Norwegian research groups within thematic areas of particular significance for the development of the field of practice and innovation in the educational sector. These projects are not linked to any specific type of institution, but under the FINNUT programme it will be especially relevant to strengthen R&D expertise in teacher education and increase user participation in practice-based knowledge development in the field.

Innovation Projects for the Public Sector is a project type to stimulate R&D activity in the educational sector that contributes in particular to innovation and sustainable development within the sector and among users. Funding for Innovation Projects may be sought by public entities and entities within the

central government and municipalities/counties that carry out public administration and service provision in the field of education. The entities may be publicly or privately owned, but they must be approved by the authorities and comply with current regulations under the Ministry of Education and Research.

To improve the preparation of the projects mentioned above, it may be beneficial to issue funding announcements for separate *Pre-projects*. Pre-projects are especially useful in areas with weak capacity and a need to establish cooperation/networks that can develop a grant application for a main project. Similarly, *Project Establishment Support* may be useful for developing grant applications that will be submitted to various international joint programmes. Funding for positioning Norwegian educational research in an international cooperative arena may be also relevant.

To strengthen cooperation between research groups in Norway and to develop research and innovation clusters in the field of education, for example, the FINNUT programme may also issue funding announcements for various *networking functions*.

In addition to project funding, the programme may provide institutional support through *Research Institution-based Strategic Projects*. Such projects must be in keeping with the strategies laid down by the administration of the applicant institution. This project type is suitable for use in enhancing research groups. This form of support is intended to help research groups to maintain a high level of quality within their spheres of responsibility or develop new research groups of strategic importance through basic research, applied research and competence-building.

To increase international mobility, funding for Personal Overseas Research Grants and Personal Visiting Researcher Grants will also be provided. It will be beneficial to integrate such grants into Researcher Projects, as this will strengthen network-building and cooperative relations internationally and ensure affiliation with a larger R&D community in Norway. Similarly, doctoral and post-doctoral research fellowships will primarily be funded as an integral part of Researcher Projects and Knowledge-building Projects under the programme.

Funding for *graduate-level researcher schools* will also be a relevant instrument for strengthening researcher education in strategically important areas and foster network-building at the national level. As part of the programme's initiative on innovation, a funding announcement for public-sector doctoral research fellowships may also be issued.

The programme will also announce funding for *Support for Events* in order to give research groups a better opportunity to organise regional, national and international conferences, workshops and seminars on educational issues. This may include events targeted towards the research community and/or events directed at users of research in the sector.

6.3 User participation

The programme's primary means of promoting collaboration between researchers and actors in the educational sector is to fund projects that incorporate such collaboration.

The Research Council defines innovation in the public sector as follows: *implementation of major changes in the way in which the organisation functions or in the products/services it delivers, including both completely new or substantially modified services/goods, work processes,*

*organisational methods and the way in which the organisation communicates with its users. The innovation must be new for the organisation, but may be developed by others.*⁹

In the educational sector, for example, innovation activities could mean the development of new tools and methods for use in teaching and learning situations, new systems and models for organisation and cooperation within educational institutions, new management methods, and new forms of cooperation within and across educational institutions and parents, pupils and students.

Research may play various roles in innovation processes, and must be predicated upon active, binding collaboration between researchers, users and other actors in the sector. This will in turn require mobilisation of R&D groups, the national and local public administration, organisations in the educational sector, developers of technology, producers of teaching and learning resources, etc. R&D groups and users/actors in the sector must jointly identify needs in the field of practice and develop research projects of high scientific quality. Innovation under the FINNUT programme will involve both new research design and new methodology.

When research groups carry out projects in the sector (early childhood education and care, school), it increases knowledge about the sector as a research field. Similarly, the sector enhances its competency on research when it takes part in collaborative projects with researchers.

6.4 Internationalisation

In keeping with the Research Council of Norway's *Strategy on International Cooperation 2010–2020*, the programme has set specific objectives plans for international cooperation. The strategy lays a basis for national activities under the Research Council to supplement and complement the activities under Horizon 2020 and the European Research Area (ERA). Bilateral cooperation with selected countries outside Europe will be of relevance as well (cf. the Government's Panorama Strategy for cooperation on higher education and research with Brazil, China, India, Japan, Russia and South Africa (2016–2020)). The Government's Strategy for Research and Innovation Cooperation with the EU from June 2014 states that the Research Council is to use national funding to encourage researchers to apply for EU funding, participate in joint European activities and take primary responsibility for support and mobilisation schemes targeting the EU.

The thematic priority areas under the FINNUT programme share a certain degree of interface with the thematic priorities under European and Nordic initiatives. More and more European research cooperation at the programme level is occurring through platforms such as the ERA-Net scheme and the Joint Programming Initiatives (JPI). At the Nordic level, NordForsk, in cooperation with the Nordic Council of Ministers and the Nordic research councils, has established a joint research programme that is of relevance. The objective is to strengthen the position of the Nordic countries in the field of educational research and provide funding for comparative projects in areas that are highly pertinent to policy development. National programmes often serve as qualification arenas for participation in larger international projects, and the FINNUT programme will ensure there is effective cooperation between the national and international initiatives through a coordinated plan for calls for proposals.

6.5 Gender balance and gender perspectives in research

In keeping with the Research Council's policy on gender balance and gender perspectives in research and innovation, the programme will facilitate the incorporation of gender perspectives as an integral

⁹ Innovasjon i offentlig sektor – Policy for Forskningsrådets arbeid, (Innovation in the Public Sector – Policy for the Research Council's Activities), Research Council, 2012.

part of the research activities it funds, and will promote greater recruitment of the underrepresented gender as project managers in order to promote gender balance in permanent academic positions.

6.6 Ethics in research

Projects funded by the Research Council are to maintain high ethical standards and uphold fundamental principles for integrity and ethics in research and research practice. Research institutions must ensure that their research activities comply with established ethical norms for research. In their project descriptions, applicants for FINNUT funding must explain any ethical issues involved in carrying out the project, and describe how these will be addressed. This explanation will form part of the basis for the application assessment.

6.7 Social dialogue and meeting places

The programme aims to provide relevant target groups with information about the research activity and to promote the application of research results in the sector. The individual projects are responsible for disseminating information about their own research activity, but various measures will be implemented under the auspices of the FINNUT programme as well, possibly in cooperation with the Norwegian Knowledge Centre for Education and other actors within the R&D system.

All projects must have separate plans for communication and dissemination that describe the target groups and activities. The projects' plans must include communication and dissemination activities that are directed at the research community, the users and the general public. It is important that the projects have a targeted plan for these activities and that the activities are adapted to the project's objectives and target groups. National and international scholarly publication and popular scientific dissemination are required. The projects should use established dissemination channels and arenas for dissemination of research results. At the same time, the projects are encouraged to think along new lines with regard to dissemination channels and arenas, and to integrate communication and dissemination activities with other activities throughout the entire project period.

The FINNUT programme will ensure that research funded under the programme is made known to the target groups. The programme will support the projects' communication and dissemination efforts and help to establish state-of-the-art reviews, activities and meeting places where research findings, results and new research questions can be shared and discussed across projects.

The communication and dissemination activities under the programme will be oriented towards the target groups. Researcher-oriented dissemination in the form of articles in national and international journals will be the most important form of scholarly publication. This will be the responsibility of the projects. For the researchers, the programme's objectives related to renewal, greater interdisciplinarity, theoretical and methodological development and internationalisation will serve as guiding principles in the communication and knowledge-sharing activities.

User-oriented communication and dissemination targeted towards the authorities and professional practitioners in the sector will also be critical under the FINNUT programme.

Furthermore, the general public has tremendous interest in educational issues, and the programme will give ongoing consideration to using the mass media as a dissemination channel. Public-oriented dissemination will be important for putting educational research on the agenda and contributing to the debate on education policy.

7 Cooperation with related instruments

Education and competence-building are significant for many sectors of society and branches of industry, and as such the programme shares an interface with a number of programmes and activities under the Research Council. The FINNUT programme will cooperate with related programmes and activities when this is deemed appropriate. Relevant programmes, initiatives and activities include:

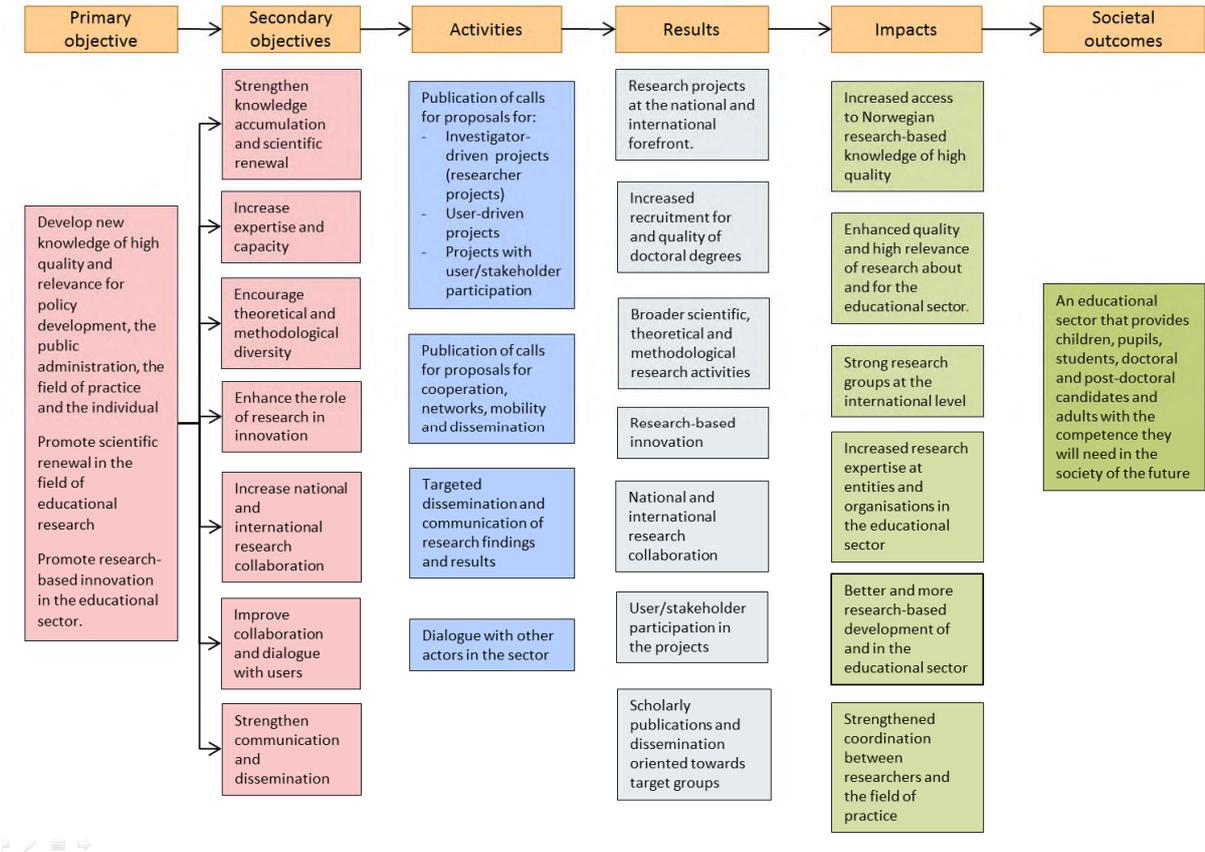
- Research Initiative on Teacher Density and Student Achievement (LÆREEFFEKT)
- Norwegian Knowledge Centre for Education
- Programme for Research Competence for Professional Education (PROFESJON)
- Public sector Ph.D. scheme (OFFPHD)
- Research Programme on Welfare, Working Life and Migration (VAM)
- Research Programme on Better Health and Quality of Life (BEDREHELSE)
- Large-scale Programme on Health, Care and Welfare Services Research (HELSEVEL)
- Research Programme on Sickness Absence, Work and Health (SYKEFRAVAER)
- Funding scheme for independent projects (FRIPRO)
- Research Programme on the Cultural Conditions Underlying Social Change (SAMKUL)
- Research Programme on Democratic and Effective Governance, Planning and Public Administration (DEMOS)
- Research Programme on Research and Innovation in the Municipal Sector (FORKOMMUNE)
- National Financing Initiative for Research Infrastructure (INFRASTRUKTUR)

8 Anticipated results, impacts and societal outcomes

The programme has high aspirations for promoting scientific renewal in the research field, developing new knowledge of high quality and relevance for all levels of the educational sector, and promoting research-based innovation in the sector. Activities under the programme are to help to achieve the programme’s primary and secondary objectives. However, fulfilling the programme objectives will also depend on a number of external factors in the research community, among actors in the field and developments in the rest of the sector.

The progress and final reports from the projects as well as the programme’s own annual reports and portfolio reviews will provide a basis for ongoing assessment of the achievement of programme objectives. In addition, surveys of resource input in the field of educational research will give a picture of its development over time. There will be a need for a status review or external evaluation of the programme after it has been in operation for some years. An evaluation may look at the programme’s scientific content, achievement of objectives, results, impacts and societal outcomes or assess whether the programme is organised in a manner that is conducive to achieving the programme’s objectives.

The programme logic model for the FINNUT programme (below) shows the connections between the primary objective, secondary objectives and activities, and the anticipated results, impacts and societal outcomes of the research effort. Any given activity under the programme may help to achieve multiple secondary objectives, just as it may lead to multiple, different results and impacts.



8.1 Results

The programme will facilitate the achievement of both scientific and structural results through the research funded. Anticipated scientific results are more research projects at the international forefront, a broader scientific, theoretical and methodological approach in research activities, increased recruitment to this field of research, and more research-based innovation in the sector. Anticipated structural results are greater national and international cooperation, increased participation of users/actors in research activities, and better dissemination of research findings.

Indicators for achievement of results include:

- number of publications, level of journals and language;
- number of fellowship-holders and completed doctoral degrees;
- number of new researcher networks and constellations of cooperation with participants from different disciplines, research sectors and/or service levels;
- number of innovation results;
- number of projects with user participation and user-driven projects;
- number of international partners in the research projects;
- number of project managers who seek international research funding for their projects;
- number of dissemination activities oriented towards target groups.

8.2 Impacts

The results from the programme's activities are expected to be implemented in and have significance for the development of the sector. Activities are to lead to increased access to Norwegian research-based knowledge of high quality that can be applied at various levels within the sector, e.g. by teachers at and owners of ECEC institutions and schools, as well as public authorities, politicians and R&D groups. The research community is to be strengthened, and more groups are to gain prominence at the international level. Research expertise at entities and organisations in the educational sector is to grow through, among other things, participation in national and international research cooperation. Additionally, teacher education programmes are to become more research-based.

Indicators for quantifying the impacts of the programme's funding of projects and groups include:

- citation frequency in international scientific journals of research funded under the programme;
- number of publications funded under the programme that are included in systematic state-of-the-art reviews;
- number of project managers who subsequently receive funding from calls in international funding schemes;
- number of projects funded under the programme that include teacher education programmes;
- number of projects funded under the programme that incorporate multidisciplinary cooperation;
- proportion of resources for educational research allocated nationally by entities and organisations in the sector;
- number of projects funded under the programme that are headed by entities and organisations in the sector;

- number of projects funded under the programme that incorporate stakeholder/user participation.

8.3 Societal outcomes

The educational sector is a wide-ranging, important sector that directly or indirectly affects a large proportion of the population. Programme activities are expected to help enhance the relevance of research about and for the educational sector. This will enable the FINNUT programme to improve the quality of the knowledge base needed to ensure ongoing research-based development of the sector. The anticipated outcome of this is a high-quality educational sector that provides children, pupils, students, doctoral and post-doctoral candidates and adults with the competence they will need in the society of the future.

9 Resources and budget

The budget for the programme is estimated at roughly NOK 125 million per year from 2017, contingent on the final budget framework established by the Storting. Each year the programme draws up a three-year action plan with a schedule for calls for proposals and activities. The action plan will take into account other national or international calls that overlap with or share an interface with subject areas, research capacity, research needs and the sector's potential and ability to participate in the projects. The programme is funded by the Ministry of Education and Research.

10 Governance and organisation

The overall responsibility for the programme lies with the Research Board of the Division for Society and Health, which has established the programme's mandate and appointed the FINNUT *programme board*. The programme is headed by the programme board, which acts on behalf of the Research Council. The programme board is charged with ensuring that the programme meets its designated objectives and is implemented as optimally as possible in accordance with the stipulated plans and within the parameters approved by the division research board. The programme board's tasks are primarily strategic in nature. The programme is organised under and reports to the Research Board via the department director and the executive director of the division. The Research Council is responsible for the day-to-day activities of the programme.