

Programme for Regional R&D and Innovation (VRI)

Work programme

2014-2017

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Table of contents

Summary.....	4
1 Background.....	5
2.1 Strategic perspectives	5
2.2 Scientific perspectives	7
3 Objectives and target groups of the programme.....	9
3.1 Objectives	9
3.2 Target groups.....	9
4 Collaborative projects	10
4.1 Funding instruments in collaborative projects.....	11
4.2 Roles in the collaborative projects	12
5 Innovation-oriented research	13
5.1 Innovation-oriented research projects and synthesis projects.....	13
5.2 Graduate-level researcher school for innovation	15
6 Gender balance, internationalisation, learning and dissemination	15
7 Budget	17
8 Coordination with other related programmes and instruments at the Research Council	17
8.1 Regional research funds	17
8.2 Related programmes at the Research Council	18
8.3 Funding instruments outside of the Research Council.....	18
9. Organisation	20
9.1 Roles of the Research Council in the VRI programme.....	20

Summary

The primary objective of the VRI programme is to generate knowledge about innovation processes in the regions, enhance cooperation on innovation among regional actors and promote research-based innovation in working life.

This will be achieved by:

- enhancing cooperation and encouraging greater knowledge flow between companies, research groups and actors in the public sector;
- mobilising participation in and enhancing the quality of research-based development projects in companies and public enterprises, networks and regions;
- conducting innovation-oriented research of regional significance.

The VRI programme was established in 2007 for a 10-year period. In 2014, the programme will be entering its third programme period.

The programme consists of two main types of activities:

- regional collaborative projects
- innovation-oriented research projects.

Collaborative projects are to ensure an effective knowledge flow between companies, research groups and actors in the public sector, and in so doing strengthen regional innovation systems. The VRI programme is to serve as a driving force for research-based development processes and to encourage high-quality research projects that qualify for grants from regional, national and international funding schemes. There is a specific set of instruments that are used in these efforts.

The institution serving as the Project Owner must be a county administration. So far in the programme, all of Norway's counties have been represented in the 15 collaborative projects. Each collaborative project has a steering group, which must have its basis in the regional partnerships comprised of representatives from the public administration, working life organisations, Innovation Norway, the research and higher education sector, etc.

The other main activity under the programme is innovation-oriented research. The VRI programme provides funding for innovation-oriented research projects and the Norwegian Research School in Innovation (NORSI). The research projects must have regional significance and be designed to increase the knowledge base for innovation activity.

1 Background

2.1 Strategic perspectives

The VRI programme is a key component in realising the strategies of the Government and the Research Council of Norway to promote research, innovation and regional development. Activities under the VRI programme seek to promote innovation in public and private sectors in all parts of the country, which is one of the main tasks of the Research Council (section 2 of the statutes). In addition, the VRI programme will facilitate the realisation of regional R&D strategies in cooperation with other funding instruments such as the regional research funds.

Background in policies and government white papers

The VRI programme follows up the Government's research policy, industrial policy and regional policy. The programme seeks to promote research-based innovation and stimulate value creation in Norwegian trade and industry, ensuring that resources throughout the country are utilised.

The concept underlying the VRI programme is that research and development is a core source of innovation, as emphasised in Meld. St. 18 (2012–2013) Long-term perspectives – knowledge provides opportunity, white paper on research from the Ministry of Education and Research. Both this white paper and Meld. St. 13 (2012–2013) Ta heile Noreg i bruk, white paper on Norwegian district and regional policy, Ministry of Local Government and Regional Development, emphasise that regionally oriented activities under the Research Council, including through the VRI programme, help to promote research-based innovation. In the white paper on regional and district policy, the Government states that it will explore how the public innovation agencies at the regional level can bolster their efforts to encourage companies to conduct national and international R&D activities. The Government also emphasises that the public innovation agencies must be more proactive, especially in the areas posing the greatest challenges.

Research and innovation strategies for “smart specialisation” are on the EU agenda, as part of the effort to link research policy and regional policy.¹ Like the EU's policy on smart specialisation, the VRI programme bases its activities on theories relating to regional innovation systems.

Background in the Research Council's strategies

Activities under the VRI programme support the achievement of objectives set out in the Research Council's main strategy as well as its strategies on innovation, international cooperation and communication. The Research Council's main strategy describes how the Council can promote knowledge-based trade and industry throughout the country. The innovation strategy emphasises that the Research Council will concentrate its innovation activities on three main action points: breadth, impact and focus. Collaborative projects under the VRI programme will help to mobilise more companies with growth potential to conduct research, engage in research cooperation and expand interaction. The programme will also facilitate the creation of new networks, which will contribute to the efforts related to the action points on breadth and impact. Projects under the VRI programme

¹ Smart specialisation is a strategic approach to economic development that employs targeted support to research and innovation activities (<http://s3platform.jrc.ec.europa.eu/home>)

will conduct innovation research aimed at developing theory and methods for innovation activities and policy formulation, which will support the efforts related to the action point on focus.

Reasoning behind including innovation efforts in the public sector

In 2012 the Research Council drew up a separate strategy for innovation in the public sector which states that “*Better knowledge about the way the public sector works and the obstacles it must surmount will be crucial to ensuring continued economic growth and welfare*”. The strategy points out that the cooperative instruments under the VRI programme, especially competence brokering, will comprise important work methods in the future.

The importance of innovation in the public sector is noted in several Government white papers, most recently in the white paper on research from 2012. This is elaborated on in documents such as the white paper on innovation (Report No. 7 (2008–2009) to the Storting, *An Innovative and Sustainable Norway*), the white paper on coordination in the health and care services (Report No. 47 (2008 – 2009) to the Storting, *The Coordination Reform – Proper treatment – at the right place and right time*), and the coordination research strategy from the Ministry of Health and Care Services, *Forskning og innovasjon for bedre samhandling* (“Research and innovation for better coordination”).

A pilot project shows that funding instruments under the VRI programme can help to improve research-based development activities within the public administration and public service production. A VRI initiative encompassing the public sector is therefore desirable, but this will require special allocations at the national or regional level. New funding is needed to ensure that the activities vis-à-vis the private sector are not undermined.

Value added and programme development

In 2012, Oxford Research AS conducted a midterm evaluation of the VRI programme in cooperation with Jerker Moodysson of the Centre for Innovation, Research and Competence in the Learning Economy (CIRCLE) at Lund University. In its overall assessment in the midterm evaluation, Oxford Research states that “*The VRI programme is an important initiative that makes a substantial contribution to the development of research and innovation systems and thereby enhances the conditions for innovation in companies*”. However, the evaluation goes on to point out areas in need of improvement, including several aspects of innovation research activity and grant allocations to collaborative projects. The recommendations presented in the evaluation have been integral to the development of this work programme.

This work programme has been prepared by the VRI programme board. A broad-based process has been carried out in all of the VRI regions, and the Nordic Institute for Studies in Innovation, Research and Education (NIFU) has assessed the thematic areas of research under the VRI1 and VRI2 programmes viewed in relation to the international research front. A draft of the work programme has been circulated for review.

The Research Council has given consideration to many of the recommendations received. The most important changes from the VRI2 programme to the VRI3 programme are as follows:

Under the VRI2 programme, each collaborative project was to be linked to a research project, and vice versa. Under the VRI3 programme, the Research Council has decided to discontinue the one-to-one relationship between collaborative projects and research projects.

- The thematic priority areas of research have been changed.
- The requirements related to the scientific merit of research projects have been further clarified under the VRI3 programme.
- The regions must establish objectives for the results following 10 years of collaboration with the VRI programme (final targets).
- The distribution of funding to the collaborative projects is more predictable under the VRI3 programme. All regions will be offered funding for a collaborative project when they meet the stipulated quality requirements.

The work programme was approved by the Research Board of the Division for Innovation on 11 April 2013.

2.2 Scientific perspectives

Cooperation entails the coordination and implementation of activities in a process where no single person or institution has complete responsibility. These processes must therefore take place in a dialogue between the actors. Networks for cooperation are preferably based in the regions and/or encompass actors within the same field or industry. Cluster programmes such as the Arena programme and the scheme for Norwegian Centres of Expertise (NCE) stimulate cooperation between actors within the same or overlapping fields or industries. The VRI programme has a broader reach, as the programme seeks to develop regional innovation systems. These include the regional industrial, knowledge and public support structures.

Innovation in Norwegian trade and industry is based largely on experiential knowledge. At the same time, research shows that companies which are able to combine experiential knowledge and research-based knowledge have the highest level of innovation. It is primarily this combination of research-based and experiential knowledge that is at the core of the VRI programme's efforts to enhance cooperation between companies and research institutions, and thus contribute to research-based innovation.

Under the VRI programme, innovation and new creation are viewed as collective, interactive processes. They are collective because they involve gaining insight and expertise from a variety of actors, and they are interactive because they entail mutual learning among the actors. Expertise, technology and attitudes play an essential role in whether the actors will succeed in developing a new product or new service or organising work processes in a better way. At the same time, the ability to identify and utilise the expertise of other actors is vital to the ability to innovate. Consequently, it is critical to include different types of actors in the processes.

The literature on innovation points to some weaknesses in regional innovation systems:

- Fragmentation: the actors in the innovation system do not cooperate sufficiently.
- Shortage of key resources: one or more key resources in the system is lacking.

- Negative confinement: the region has specialised in areas that do not have long-term growth potential, and it is difficult to obtain support for ideas lying outside of the focus areas.

The Research Council works through the VRI programme at several levels to develop the regional innovation systems. First, broad regional partnerships help to identify and implement strategies for developing the regional innovation system in the collaborative projects. This enables the regions to expand their capacity to carry out cooperative and innovation processes.

Second, the actors in the collaborative projects work proactively with companies and networks of companies to link these with research institutions in order to establish and strengthen relations. The purpose is to increase the use of research-based knowledge in the companies' innovation processes and strategic development processes and to enhance the quality of research-based development projects. The efforts are also intended to encourage high-quality research projects that qualify for grants from regional, national and international funding schemes.

These efforts are supported by innovation-oriented research of regional significance. The VRI programme provides funding for the organisation of the Norwegian Research School in Innovation (NORSI) and for innovation-oriented research projects.

Due to regional differences it is necessary to differentiate or adapt national funding instruments for use at the regional level. This forms the backdrop for the extensive regional focus of activities under the VRI programme. In addition, a regional approach requires the regions to actively analyse their own regions and determine which challenges are most pressing and where the VRI programme and its funding instruments can have the greatest impact.

Norwegian companies compete in global markets, and knowledge is generated and disseminated globally. It is therefore necessary to combine regional and international perspectives by opening up the regional systems to cooperation with the outside world.

The dissemination of knowledge and sharing of experience must be given an essential role in a regionally differentiated programme that aims to enhance knowledge about innovation and increase the ability to innovate. This is the reasoning behind the programme's learning and dissemination activities.

Efforts related to gender balance under the VRI programme have their basis in the need for broad-based expertise and scientific perspectives, which in turn may contribute to creativity and higher quality.

3 Objectives and target groups of the programme

3.1 Objectives

Primary objective

The primary objective of the VRI programme is to generate knowledge about innovation processes in the regions, enhance cooperation on innovation among regional actors and promote research-based innovation in working life.

This will be achieved by:

- enhancing cooperation and encouraging greater knowledge flow between companies, research groups and actors in the public sector;
- mobilising participation in and enhancing the quality of research-based development projects in companies and public enterprises, networks and regions;
- conducting innovation-oriented research of regional significance.

Secondary objectives of the collaborative projects

The regional collaborative projects define their own secondary objectives, which are drawn up on the basis of each region's priority areas and in keeping with the guidelines set out in this work programme.

The regions are to make plans for their future efforts to develop the regional innovation system and link together companies and R&D institutions after the programme period has concluded on 31 December 2016 (final target). It will also be natural to include the region's dealings with the regional research funds in these plans.

Secondary objectives of the innovation-oriented research projects

- The research projects must maintain a high level of scientific merit and contribute to national and international knowledge development through e.g. scientific publications.
- The research projects must carry out relevant knowledge development and participate in an exchange of knowledge with actors that develop and implement innovation policy at the regional and national levels.

3.2 Target groups

- The counties and the regional partnership

The VRI programme must have a firm basis in the regional partnership if it is to achieve its objective of developing regional cooperation. The counties are key actors in regional development and should take responsibility for VRI activities in their areas. According to the midterm evaluation, active participation by the counties in the collaborative projects is beneficial in terms of institutional learning from the project. The counties should lay a good strategic foundation for the project and ensure diversity among the project participants involved, adequate progress and achievement of objectives in the projects. The VRI programme provides the counties and the regional partnership with work methods that facilitate increased research-based innovation as well as innovation-oriented research to generate knowledge for use in policy formulation.

- Companies
The VRI programme targets its activities towards individual companies, business networks and business clusters. While the VRI programme is not meant to be a cluster-based programme, it may nonetheless cooperate with or help to develop such clusters. It is vital that participating companies have the desire, ability and potential to take advantage of research-based innovation processes and that the companies will reap significant benefits from the VRI instrument(s) that are used.
- University colleges, universities and other R&D institutions
R&D institutions manage the innovation-oriented research projects and should also play a key role in the collaborative projects. It will be preferable to have more than one R&D institution taking part in the collaborative projects, as this will facilitate learning and the exchange of experience between the institutions. Company projects launched as a result of such collaboration must involve R&D institutions. These will be located in the same region, elsewhere in the country or abroad, according to the needs of the company.
- The public sector
The inclusion of the public sector as a target group under the VRI programme requires additional funding. This target group may include public enterprises such as hospitals, municipal and county enterprises, and administrative entities such as municipalities and counties. Like companies, the public enterprises must have the potential to conduct and/or participate in research-based innovation processes and be able to reap sizeable benefits from the VRI funding instrument(s) that are used.

4 Collaborative projects

A county may participate in only one collaborative project. Several counties may work together on a joint collaborative project. The activities to promote collaboration are to be implemented within priority areas through the use of a variety of instruments. The region must base the collaborative project on its own plans and strategies, such as a regional R&D strategy. The Research Council would like to see all counties continue their efforts to develop the research and innovation systems and to promote research-based innovation in companies through the VRI3 programme. Activities under the VRI3 programme will also lay the foundation for further efforts after the VRI programme concludes. All counties are therefore ensured basic funding that will be sufficient for implementing a collaborative project.

These priority areas may be, for instance, a branch of industry, an industrial cluster, a type of company or a geographic region that has particular innovation challenges. All industries are of interest, including service industries.

The collaborative projects must have an action plan for gender balance and plans for learning and dissemination activities. This requirement is explained in more detail in section 6.

4.1 Funding instruments in collaborative projects

The funding instruments are the tools in the collaborative projects for achieving the VRI programme's primary objective and the regionally defined secondary objectives, and for implementing the VRI-defined strategies. The following provides a brief description of the VRI funding instruments and their purpose. A more detailed description of the various funding instruments is provided on the VRI programme's webpages at www.forskningsradet.no/vri.

All activities, both with the funding instruments and with experimentation, must comply with current laws and regulations, such as the Public Administration Act, regulations regarding national funding and regulations regarding public procurements.

- **Competence brokering** comprises proactive efforts to establish ties between companies and research institutions. Competence brokers with good knowledge of trade and industry, research activity and research institutions assist companies and groups/networks of companies with finding the R&D expertise they need for project development. Brokering activities may entail seeking out companies/enterprises to offer assistance, companies contacting the VRI programme directly or through dialogue meetings/network meetings. To prevent a negative situation caused by the absence of external input that can promote innovation and development, the brokers must look for the best available R&D expertise for the companies within the region, in other regions and outside of Norway.

The target group that the competence broker chooses to focus on will depend on the kind of research programmes it is desirable to mobilise to achieve the established objectives. Companies that may be eligible for grants through international funding instruments, such as the EU's research and innovation programmes, must be more mature R&D users than companies that are embarking on early-stage cooperation with R&D institutions. Companies that intend to participate in the EU Framework Programme should be engaged in R&D activity and have an innovation strategy that can be realised through international cooperation. The regions must analyse the needs of the companies in the priority areas they have chosen to work with and target their efforts with this in mind.

- **Company projects** are small R&D projects involving R&D institutions and companies. Through these projects, companies, either individually or in a network, can work together with R&D institutions to find solutions to smaller-scale R&D tasks. The company projects that are launched through the collaborative projects must fall into one of the following categories in the regulations regarding national funding: technical pre-project, experimental development or industrial research. The target group for company projects is companies with limited experience in conducting and using research in its development and innovation activities. Funding for company projects is not intended to support the writing of applications for other programmes, but it may be used to prepare for participation in projects under such programmes. The regions should clarify the distribution of roles between company projects under the VRI programme, regional qualifying grants from the regional research funds, Project Establishment Support and other pre-project funding.

- Mobility initiatives are projects that enable students/researchers and business people to participate more extensively in each other's activities. The VRI programme can facilitate and support such mobility. Mobility from R&D institutions to companies may entail funding of additional expenses incurred from student mobility and funding for mobility of highly qualified personnel. Mobility from companies to R&D institutions may entail a lump-sum grant to an R&D institution to employ/temporarily hire an individual from trade and industry. The contract will be for a limited period of time, for all or part of the person's work hours for that period.
- Dialogue and broad participation involves an array of work methods that focus on organisational development and cooperation between various actors. Organised cooperation between employers' and employees' organisations on innovation processes/innovation in individual companies, networks of companies or regions is a part of this. Dialogue conferences, regional foresight processes, regional learning arenas, etc. may be used to encourage participation in innovation processes, cluster development and the development of new perspectives in branches of industry, networks and regions. Activities may be supported by analyses. In efforts related to cluster development, it will be natural to cooperate with the Arena programme.
- Experimentation refers to the testing out of new tools and methods. The regions may experiment with using the funding instruments outlined above and may also develop totally new work methods. New funding instruments must be documented and comply with the laws and regulations mentioned above. Experience with the use of these must be shared with the Research Council and the other regional collaborative projects.

4.2 Roles in the collaborative projects

The collaborative projects must satisfy the needs of a broad target group and ensure that a diversity of resources within the region are utilised, based on the presumption that a wide range of participants and different approaches will strengthen the innovation processes.

The regional collaborative projects must have their basis in the regional partnership in the counties involved. All the R&D-performing and managing institutions participating in a regional collaborative project must enter into a consortium regulated by a contract between the partners. It is up to the partnership to determine which roles the participating R&D institutions will play. Participation in a collaborative project is not limited to those R&D institutions located in the region concerned, which means that tasks within the regional collaborative projects may be assigned to all R&D institutions.

The institution serving as the Project Owner must be a county administration. However, in special cases the county(ies) may decide to delegate this responsibility to one of the participating institutions in the partnership. If this is the case, an explanation must be provided. The Project Owner also serves as the contractual partner for the Research Council. The Project Owner appoints a project administrator, which is the individual authorised to represent and undertake commitments on behalf of the Project Owner vis-à-vis the Research Council.

The institution serving as Project Owner is responsible for ensuring that the collaborative project is implemented in accordance with the contract. The Project Owner must ensure that leading positions in the project are distributed as much as possible between women and men. The Project Owner, in consultation with the county administration if relevant, appoints the steering group for the collaborative project. The steering group must have its basis in the regional partnerships. Companies, R&D institutions and the county administration must be represented in the steering group, preferably by leaders in the institution. The steering group assists the Project Owner with following up the project and is responsible for following up the project's progress and achievement of objectives.

The Project Owner must appoint/employ a project manager who will serve as the main contact and facilitator of the collaborative project at the regional level. The project manager is not required to be an employee of the institution serving as Project Owner.

5 Innovation-oriented research

The VRI programme provides funding for innovation-oriented research projects and the organisation of the Norwegian Research School in Innovation (NORSI).

5.1 Innovation-oriented research projects and synthesis projects

As of 2012, the VRI programme is the Research Council's largest programme for the funding of innovation-oriented research, and thus is a key contributor to the development of the knowledge base for research and innovation policy. This emphasises how essential it is for research conducted under the VRI programme to be of high scientific merit. The midterm evaluation of the VRI programme shows that there is a need to enhance both the quality and the regional relevance of the innovation-oriented research projects. Knowledge sharing and dissemination of results to relevant actors are critical if the projects are to have regional significance. Both regional and national actors must be continually challenged by and take part in discussions founded on new research-based insight. This forms the backdrop for the VRI programme's secondary research objectives, which are presented in section 3.

During its first two programme periods, the VRI programme contributed to the development of researchers' expertise on innovation in all regions. Under the VRI3 programme, the Research Council will continue to provide partial funding to innovation-oriented research projects. In addition, the Research Council will provide funding to synthesis projects. Both types are to be researcher-driven projects of high scientific merit that have good plans for dissemination activity.

Synthesis projects must be designed to further develop knowledge generated by research activity funded under the VRI programme thus far by viewing regional analyses in relation to each other and producing more general knowledge about and theories of innovation, innovation policy and the use of funding instruments at the regional level. Participants in these projects are to play a role in the coordination of learning and dissemination from VRI research in general.

Innovation-oriented research projects are to enhance the knowledge base for innovation policy, and may be based on empirical data from the VRI programme or from other regional conditions.

Thematic priority areas

Innovation-oriented research under the VRI programme is to be aimed at improving the knowledge base for use in innovation policy. Research activities are to take place in the following thematic priority areas or an area of overlap.

1. Innovation systems and innovation policy, e.g. analyses of regional innovation systems (RIS), clusters and networks, of knowledge bases, and of the impact of innovation policy choices, development strategies and policy instruments.

Research is to provide increased insight into regional innovation and collaboration and the impact of these on societal development and policy at the regional, national and international levels.

2. Innovation in companies, e.g. how innovation occurs in the individual company and whether the company takes part in the innovation environment through the flow of expertise and knowledge or through cooperation with public actors.

Research must be designed to increase insight into the innovation challenges and opportunities of the individual company and how collaboration and innovation policy affect these.

Projects may take a broad or targeted approach, and may address one or more regions or industries or the significance of gender. All types of companies may be involved in the research projects.

Strategic priorities

The Research Council considers it essential that research projects seek to promote the internationalisation of Norwegian research, to increase the recruitment of women to higher academic positions, to enhance the gender balance in Norwegian research and to ensure that gender perspectives are adequately integrated into research activities.

The Research Council will assess the innovation-oriented research projects according to the standard criteria for Researcher Projects. Regional co-financing, together with the portfolio assessment described below, active dissemination activity throughout the entire project period, and reference groups in which the funders take part, will ensure that the projects have their basis in and are relevant for the regions.

Following the assessment by referees, the Research Council will review the projects found to be of sufficiently high quality and assess them in relation to the VRI programme's project portfolio. The following factors will be of importance in the programme board's ranking of projects that satisfy the quality-related criteria:

- whether the thematic areas addressed by the projects overlap, thereby enabling cooperation between projects;
- whether the portfolio includes a wide range of innovation-oriented research of regional significance;
- the geographic location of the participants in the projects;

- a genuine, effective distribution of tasks between the actors in each projects, based on the various strengths of the research institutions.

Roles in the innovation-oriented research projects

For innovation-oriented research projects and synthesis projects, an R&D institution must serve as the Project Owner, appoint a project administrator and engage a project manager. The project manager is not required to be an employee of the institution serving as Project Owner.

5.2 Graduate-level researcher school for innovation

Since its inception, the VRI programme has provided funding for a national, graduate-level researcher school, i.e. a doctoral degree programme. From 2007–2010 this programme was known as the Enterprise Development and Working Life programme (EDWOR), and in 2012 the name was changed to the Norwegian Research School in Innovation (NORSI). The researcher school promotes the recruitment of researchers and provides high-quality researcher training. The researcher school may also help to reduce the fragmentation of innovation research in Norway, and efforts should be made to link the research conducted to the other research activities under the VRI programme to the degree this is beneficial.

NORSI consists of two programme tracks: the Programme in Innovation Management and Innovation Strategy (PIMS) at the Norwegian University of Science and Technology (NTNU) and the Programme in Innovation and Growth (PING) at the Norwegian Business School (BI).

- The Programme in Innovation Management and Innovation Strategy (PIMS) focuses on innovation processes in and between existing organisations.
- The Programme in Innovation and Growth» (PING) takes an interdisciplinary, integrated approach to understanding innovation processes and how these relate to economic growth.

A total of 10 institutions take part in developing the courses held at NORSI. Experts and lecturers from highly recognised schools and universities throughout the world are affiliated with the researcher school. Students are admitted as doctoral students at their respective educational institutions. NORSI does not provide funding for doctoral research fellowships. NORSI will operate in the period 2012–2016, with the possibility of a four-year extension following an external evaluation.

6 Gender balance, internationalisation, learning and dissemination

Gender balance

The VRI programme puts special emphasis on strengthening the participation of women in innovation processes and strives for gender-balanced participation in the programme at all levels and in all key processes. This means that all participants within the VRI programme must be aware of the choices made at all levels of the projects and the significance of these for women and men and for the understanding of innovation. This is based on the Government's action plan to increase entrepreneurship among women

(2008) and is stressed in the Government's white paper on research, Long-term perspectives – knowledge provides opportunity (2012).

Internationalisation

VRI participants in both the collaborative projects and the innovation-oriented research projects should develop and strengthen their international relations and in so doing gain new insights and improve dynamics. This may be achieved through the development of alliances and participation in international cooperation that is of strategic importance for the development and acquisition of knowledge within the specified priority areas or in the innovation-oriented research projects. International activities must not be limited to the EU region.

Collaborative projects can help to encourage more companies to participate in European R&D and innovation activities.

The EU-VRI pilot project, which was implemented in 2012, has yielded positive results by using the VRI programme and competence brokering as a tool to increase company participation in the EU Seventh Framework Programme for Research and Technological Development. These efforts will be continued through a focus on potential international cooperation resulting from competence brokering under the VRI3 programme.

Innovation-oriented projects should promote the internationalisation of Norwegian research through activities such as international networks.

Learning and dissemination

The VRI programme will contribute to the learning of the project participants. All projects should focus on the facilitation of learning so that the VRI programme can help to improve the practices applied in regional innovation efforts.

Collaborative projects must have specific activities to promote learning and development within the projects. Cooperation with innovation-oriented research projects should be a key element of these efforts, as well as learning and exchange of experience between the various priority areas. These efforts may be supported by the compilation of knowledge data, analyses and measurements of impacts and results, and cooperation between the regional collaborative projects.

Collaborative projects must incorporate plans for external dissemination of results and activities targeted towards the general public as well as relevant users. Relevant topics include the impact of VRI activities in companies, promotion of use of other instruments, and the impact of VRI activities on regional cooperation.

Innovation-oriented research projects must establish reference groups in which regional funders are allowed to participate. Innovation-oriented research projects are to ensure effective dialogue about relevant research and innovation policy issues by making extensive use of learning arenas, conferences and workshops.

7 Budget

Under the VRI3 programme, the Research Council will issue funding announcements for collaborative projects, innovation-oriented research projects and synthesis projects. The total budgetary framework for the VRI programme in the period 2014–2017 is approximately NOK 188 million, not including the Norwegian Research School in Innovation (NORSI). The budget will be distributed in roughly the same manner as it was under the VRI1 and VRI2 programmes, i.e. about one-fourth will be allocated to innovation-oriented research projects and synthesis projects and the remainder to collaborative projects.

As under the VRI1 and VRI2 programmes, 50 per cent regional co-financing will be required for collaborative projects and innovation-oriented research projects. Synthesis projects will be funded 100 per cent by the Research Council.

The financing model for collaborative projects is new under the VRI3 programme. The financing model is designed to ensure that all regions have a collaborative project of a size sufficient to carry out activities that can help them to achieve their objectives. The regions will be offered a basic funding amount that will be the same for all counties, as well as the opportunity to take part in a competition for additional funding. The basic funding will be allocated as soon as the region has satisfied the quality requirements for funding.

Approximately one-third of the funding for collaborative projects will be included in the competitive funding pot. Counties that cooperate are not to experience any financial disadvantage from this.

8 Coordination with other related programmes and instruments at the Research Council

The VRI programme is an integral part of a set of national and regional programmes and activities. The regions must assess the role of a VRI project in relation to other instruments. The following section describes programmes and activities that may be relevant in this context.

8.1 Regional research funds

The Research Council's strategy for 2009-2012 states: "*Increased investment in research in trade and industry must take place in consultation with the funding agencies in the innovation system and the regional research funds*". The VRI programme has helped to establish the regional research funds, and cooperation between the regional research funds and the VRI programme has been established.

The VRI programme will encourage high-quality projects to seek support from the funds. Those responsible for the VRI programme and regional research funds are encouraged to coordinate the use of company funding under the VRI programme and qualifying grants under the regional research funds.

8.2 Related programmes at the Research Council

Other innovation-oriented research programmes

The Research Council's funding for innovation-oriented research comprises an integrated whole that generates policy-relevant knowledge of both regional and national interest. As of 2012, the Research Council provides funding for innovation-oriented research through the VRI programme, the initiative on the Knowledge Base for Research and Innovation Policy (FORFI) and the Programme on Democracy and Governance in Regional Context (DEMOSREG).

National innovation programmes and centre schemes for companies

Activities under the collaborative projects must encourage projects to participate in programmes that provide research funding. The VRI programme can promote participation in national programmes such as:

- the SkatteFUNN tax incentive scheme, which is a rights-based scheme that allows a tax deduction for a company's costs related to R&D activity;
- national innovation programmes, such as User-driven Research Based Innovation (BIA), Optimal Management of Petroleum Resources (PETROMAKS), Maritime Activities and Offshore Operations (MAROFF), Large-scale Programme for Energy Research (ENERGIX), Core Competence and Value Creation in ICT (VERDIKT) and Sustainable Innovation in Food and Bio-based Industries (BIONAER);
- the Industrial Ph.D. scheme, in which doctoral research fellows are employed in companies and their research topics are relevant for the companies in which they work;
- Centre schemes, which are designed to strengthen innovation through a focus on long-term research conducted in close cooperation between research-intensive companies and outstanding research groups.

The Research Council's Arctic and Northern Areas initiative will have an interface with the VRI programme. This is also the case for the Programme on Commercialising R&D Results (FORNY).

The Programme on Welfare, Working Life and Migration (VAM) has economic growth and the organisation of working life as one of its thematic priority areas and seeks to generate new knowledge on developments and instruments in working life. This may have an interface with innovation-oriented research under the VRI programme, especially with research focused on innovation in companies.

8.3 Funding instruments outside of the Research Council

The VRI programme is intended to improve cooperation not only among its own key participants, but also between Norwegian public innovation agencies. The county administration is responsible for, and has the opportunity to, coordinate VRI programme activities with other funding instruments. The Research Council, Innovation Norway and SIVA are the principal organisations for administering the system and network-oriented instruments that are relevant to efforts to promote regional innovation. The county administrations serve as important public innovation agencies at **the regional level**.

Cluster programmes

The Norwegian Centres of Expertise (NCE) and the Arena programme are administered jointly by Innovation Norway, the Research Council and the Industrial Development Corporation of Norway (SIVA). The Arena programme seeks to increase value creation in regional industrial groups, whereas the NCE scheme is designed to enhance innovation activity in the fastest growing, most internationally oriented industrial clusters in Norway. The VRI programme should provide support to and work in conjunction with both of these programmes. The instruments under the VRI programme have proved to be especially relevant to the development of potential Arena projects (Pre-Arena). The regions should take this into account when considering which priority areas to include in their VRI projects. Experience from previous programme periods shows that the most important criterion for success in this context is the establishment of good contact and a constructive cooperative relationship between the VRI programme and the other programmes, at both the regional and the national level. It will be crucial in this regard to clarify roles and value added. The secretariats for the programmes have established cooperation at the national level on administrative as well as strategic matters.

Funding instruments from Innovation Norway and SIVA

Industrial and public sector R&D contracts, which are organised by Innovation Norway, are relevant for projects and actors being mobilised by the VRI programme.

Other funding instruments under Innovation Norway and SIVA

Individuals who work actively with companies through the VRI programme should be familiar with the main features of Innovation Norway's funding instruments so that they can refer companies to other appropriate instruments when it is natural to do so. Likewise, employees of Innovation Norway, especially those at the district offices, should be very familiar with the VRI programme and the opportunities available there. Representation by Innovation Norway in the steering groups of the collaborative projects will ensure coordination between these funding instruments.

SIVA plays a vital role in regional innovation systems through its research parks, science parks, business gardens and industry incubators. SIVA's networks can be utilised more often as a resource for reaching out to companies than is the case today.

International funding instruments

The EU's funding instruments for research and innovation

The EU Framework Programme for Research and Innovation (Horizon 2020) and the Programme for the Competitiveness of Enterprises and SMEs (COSME) are important sources of research funding. As part of an international strategy, the collaborative projects can encourage projects to seek funding from these sources. In addition, the EU has regionally adapted innovation measures that provide access to international networks. These opportunities should be exploited, preferably in cooperation with the Arena programme and the Norwegian Centres of Expertise (NCE) scheme.

European Enterprise Network is an EU-funded network of advisers who help small companies to take advantage of the opportunities within the EU. In Norway, the European Enterprise Network is administered by Innovation Norway, which provides services such as assistance in finding technology, commercial and research partners.

9. Organisation

The roles in collaborative projects and research projects are described in chapters 4 and 5, respectively. In addition, both types of projects must comply with the guidelines set out in the VRI handbook as well as with the Research Council's general requirements. This will be stipulated in the contract with the Research Council. The handbook is updated on an ongoing basis and is available in Norwegian on the VRI programme's webpages:

<http://www.forskningsradet.no/vri>

9.1 Roles of the Research Council in the VRI programme

The Research Council has the overall responsibility for quality assurance, administration and development of the VRI programme. The Research Council may guide and instruct the projects in keeping with the contract and national and international regulations.

The Research Council will promote learning in all its activities related to follow-up, cooperation, reporting and evaluation. Learning arenas are a key aspect of the Research Council's follow-up of the VRI programme. The Research Council will facilitate the dissemination of results and activities from the collaborative projects, innovation-oriented research projects and the graduate-level researcher school on innovation. The Research Council may provide assistance in connection with popular scientific dissemination from the collaborative projects and innovation-oriented research projects. Research funding agencies comprise one of the VRI programme's primary target groups. Key dissemination channels are the VRI programme's webpages and the Research Council's website and newsletter, in addition to the press and social media. This is in keeping with the principles and objectives of the Research Council's communication strategy.

The Research Council will serve as an adviser for the regional collaborative projects to ensure that the projects achieve the best possible results.

The Research Council will, among other things, utilise learning arenas to facilitate scientific dissemination of results from the research projects and measures designed to enhance cooperation between the research and collaborative projects. The Research Council will lay the foundation for coordination of the activities under NORSI and the innovation-oriented research projects funded under the VRI programmes.

The Research Council will clarify its role after the conclusion of the VRI3 programme in a dialogue with the regions. The Research Council's regional representatives are cooperating with the VRI secretariat on the follow-up of the regional collaborative projects in particular. The regional representatives provide strategic advice and participate in the steering groups as observers.