

# Regional R&D and Innovation 2007-2017 – VRI

Programme description

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# Programme for Regional R&D and Innovation (VRI)

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# Programme for Regional R&D and Innovation (VRI)

### 1 Introduction

#### 1.1 What is the VRI programme?

The VRI programme is a new Research Council of Norway initiative, targeted toward research and innovation at the regional level in Norway.

The VRI programme offers professional and financial support to long-term, research-based development processes in the regions. The programme is designed to promote greater regional collaboration between trade and industry, R&D institutions and the government authorities, and to establish close ties to other national and international network and innovation measures such as the Arena programme, Norwegian Centres of Expertise (NCE) and the Regions of Knowledge initiative.

The Research Council will employ national, merit-based competition to ensure the quality of the activities and projects funded under the programme. Fundamental components of the VRI programme include research activity, exchange of experience, learning, and cooperation across scientific, professional and administrative boundaries.

The VRI programme is a national programme with an initial time-frame of ten years (2007-2017). This work programme may be revised and developed throughout the programme period.

This work programme has been drawn up by the Research Council. Important input has been obtained from a programme planning group with broad representation and from a series of regional dialogue conferences. In addition, a draft of the work programme has been circulated for review at the national level. The work programme has now been approved by the research board of the Division for Innovation.

#### 1.2 Why is the VRI programme needed?

#### Taking advantage of Norway's national and regional advantages

The VRI programme is designed to increase value creation in regional trade and industry by promoting R&D projects that both expand existing business areas and create new ones. Norwegian companies compete in regional, national and global markets. To succeed in these competitive markets, the companies must continually innovate and seek renewal. R&D activity can and should be given a much more major role in these efforts. In Norway as well as in other parts of Europe, research, development and innovation are increasingly being recognised as crucial to the effort to create dynamic regions. Resilient R&D institutions that understand the challenges related to innovation and industrial development will play an important role in this context. If R&D institutions are to avoid becoming isolated, however, they must actively apply their local knowledge while at the same time viewing their own role in a national and international context.

Norway has certain advantages that can be utilised to devise more effective instruments for promoting knowledge development at the regional level. The cultural and geographic *proximity* of the players in the Norwegian regions makes greater interaction possible. A regional knowledge system consisting of university colleges and independent research institutes is already in place. Moreover, Norwegian society in general is characterised by a cooperative relationship based on trust between the social partners. The Nordic model, as manifested in practical tripartite cooperation and cooperation between employers' and employee's organisations within companies, provides a sound basis for innovation-oriented efforts.

#### Strengthen the role of the R&D community as a regional development stakeholder

The R&D community must be equipped to assume greater responsibility as a stakeholder in regional development. This can only be achieved through active collaboration with trade and industry on specific R&D projects, mobility projects, mobilisation of companies to conduct research, and wide-ranging participation processes within companies. Furthermore, the R&D community must generate knowledge from which trade and industry can draw benefit, and must assume a more strategic role in the regional partnership efforts.

#### Strengthen instruments based on modern innovation research

New innovation research emphasises that innovation is generated for the most part through dialogue and cooperation. The VRI programme builds on a *system-oriented* perspective in which innovation is viewed as a collective, interactive process. It is collective because companies pick up new impulses and expertise from many different players. It is an interactive process because it involves reciprocal learning among the players. The expertise, technology and attitudes found in the individual company are crucial to whether it will be successful in developing a new product or service, for instance. At the same time, the ability of companies to find and utilise the expertise of others, i.e. their absorption capacity, is important for their ability to innovate. Thus, in innovation research, the quality of the companies' environment and their ability to exploit that environment comprise key factors for understanding the power of companies and organisations to innovate. The threat of lock-in if closed local networks prevent the incorporation of new ideas and expertise must also be given focus.

#### Follow up of Government regional policy

The inaugural declaration of the current Government and the white papers on research and regional policy all point to the need to stimulate growth in the regions through greater investment in R&D and innovation as well as the application of more targeted instruments. The government renewal initiative also emphasises the importance of this, and proposes the establishment of a regional research fund. Furthermore, it is recommended that responsibility for basic allocations to the regional research institutes be transferred to the regions themselves, and that responsibility for the remaining basic funding to these institutes be given to the VRI programme. Thus, within the framework of a cohesive national effort, the VRI programme will be an important instrument in the lead-up to 2010, when the regions will assume greater responsibility for R&D activity.

In cooperation with the ministries that are funding the programme,<sup>1</sup> the Research Council will use the VRI programme to administer initiatives targeted at specific industries or research

<sup>&</sup>lt;sup>1</sup> As of 2007, these encompass the Ministry of Local Government and Regional Development, the Ministry of Trade and Industry and the Ministry of Education and Research

institutions considered to be important to regional development. In addition, the Research Council will work together with the Ministry of Local Government and Regional Development to assess the possibility of strengthening the focus on women and young people within the programme framework. The VRI programme applies throughout the whole of Norway and will be used to augment the Research Council's initiative on the Northern Areas.

In the EU, a concerted effort is being made to develop knowledge regions and research-driven clusters through the *Regions of Knowledge* initiative under the Seventh Framework Programme, the new Competitiveness and Innovation Framework Programme, and the structural funds. These initiatives demonstrate the need for an expanded Norwegian commitment to regional R&D and innovation.

## 2 Objectives and players

#### 2.1 Primary and secondary objectives

#### **Primary objective**

The VRI programme is designed to promote knowledge development, innovation and value creation through regional collaboration – particularly between companies and R&D institutions - and to encourage increased investment in R&D in and for the regions.

#### Secondary objective 1

The VRI programme will employ various *activities to promote cooperation* between companies and R&D institutions in order to:

- mobilise and inspire companies to increase investment in R&D;
- promote expertise and capacity within companies to enhance their ability to further develop their own R&D projects and utilise their own research results as well as results generated by others;
- enhance the expertise and capacity of researchers, thereby better equipping them to interact with companies on R&D projects and channel development expertise to trade and industry;
- promote increased focus on research of relevance to regional development, including research on innovation and organisation science.

#### Secondary objective 2

The VRI programme will employ company-driven innovation projects within regional priority areas to help companies to:

- increase their expertise and ability to innovate by participating in R&D efforts;
- further develop their systematic innovation and renewal activities through research cooperation;
- increase their value creation and competitiveness through the application of R&D findings.

#### Secondary objective 3

The VRI programme will work in conjunction with strategic, institute-based research projects at state university colleges and regional research institutes to:

- promote closer cooperation between the R&D institutions;
- encourage closer ties between the institutions' R&D expertise and other regional R&D activities;
- strengthen the dialogue on the relevance of research to regional needs.

#### Secondary objective 4

The VRI programme will employ various nationally initiated activities and measures to:

- create arenas for development and learning, in which experience at the regional level may be discussed in relation to national and international knowledge and activities;
- expand the portfolio of instruments targeted at regional R&D and innovation activity;
- strengthen links to other national and international programmes and activities.

#### 2.2 Participants in the VRI programme

#### The regional partnership

The regional VRI initiatives must have their basis in the regional partnership, i.e. the partnership initiated by the Ministry of Local Government and Regional Development and integrated into the county administrations. The regional partnership is responsible for organising the overall activities under a regional VRI initiative.

The regional VRI initiative will be headed by a steering group comprised at a minimum of representatives from the county authorities, key regional employers' and employee's organisations, regional independent research institutes, state university colleges, Innovation Norway and regional trade and industry. Whereas the national research institutes will participate in the steering group only when they are important stakeholders, it is crucial that trade and industry play an active role in the management of the regional VRI initiative.

The partnership itself may constitute the steering group, or a body may be appointed by the partnership to serve on its behalf as the steering group for the VRI initiative regionally. The same guidelines for representation will apply in both cases.

When designing and implementing VRI initiatives for the regions, importance must be attached to establishing simple, client-friendly procedures. At the same time, effective coordination and open communication with funding agencies that administer related programmes and financial schemes must be ensured. This applies especially to schemes under Innovation Norway and the Industrial Development Corporation of Norway (SIVA).

#### **Companies and company networks**

The VRI programme is targeted toward companies and company networks that have the potential to achieve greater value creation through closer cooperation with R&D institutions. Both service providers and manufacturing companies are eligible to participate in the VRI programme. Companies and company networks that are encompassed by the region's priority areas will be qualified for support.

It is important to establish clear boundaries between the VRI programme and the NCE and Arena programmes. VRI funding instruments can help to support and strengthen the implementation of these programmes. This may be done, for instance, through schemes that promote the mobility of personnel between R&D institutions and companies in clusters.

#### **R&D** institutions

The state university colleges and regional independent research institutes are expected to assume a dominant role in the regional VRI initiatives. They will need to be adequately represented in the regional steering group, and they will have a major part to play in the implementation of the VRI activities. The strategic research funds under the VRI programme are targeted toward these R&D institutions.

Universities and national research institutes may actively contribute to regionally-based innovation processes, both within and outside their own regions. In this way, they may also serve as vital players in the regional VRI initiatives. These research environments may provide useful input to the strategic development of the VRI programme, and may participate in both the regional partnership and the concrete implementation of projects.

### 3 VRI at the regional level

The objectives and desired effects of the VRI programme will be achieved through the establishment of cohesive, well-coordinated regional VRI initiatives. At the regional level the VRI programme will consist of various activities aimed at enhancing interaction between companies and R&D institutions, user-driven research and R&D expertise in regional institutions in the priority areas defined by the region itself. These priority areas may be, for instance, a special initiative targeted toward an industry, an industrial cluster, a type of company, a thematic area of knowledge or a geographic region that has particular innovation challenges. It is expected that the research projects described will reflect the priority areas listed under the VRI programme's research themes (see Chapter 5.1).

Each county may launch only one overall regional VRI initiative, but this initiative may consist of several priority areas. Several counties may collaborate on a joint regional VRI initiative headed by a cooperative body. The VRI activities should be organised in such a manner that new, relevant groups of stakeholders may be incorporated as the regional VRI collaboration develops over time.

#### 3.1 Funding instruments under VRI – three main types

The instruments under the VRI programme may be combined and delimited in various ways, based on the region's priority areas. When applying for funding under the VRI programme, the regional partnership must describe how it wishes to combine and organise the various instruments – in terms of financial and practical considerations as well as time-frame. A satisfactory funding application to the VRI programme from the regional partnership will describe the interplay between the instruments and indicate how these may be viewed in connection with one another. Specific guidelines describing the various funding instruments under the VRI programme and how these may be combined have been drawn up. The funding instruments themselves are described in separate fact sheets. Instruments under the VRI programmes, other public innovation agencies, or relevant instruments initiated within the region.

The VRI programme encompasses three main types of funding instruments. These are illustrated in Figure 1.



Figure 1 – The three types of funding instruments under the VRI programme

#### 3.1.1 Activities that promote cooperation between companies and R&D institutions

The VRI programme will employ various activities to promote cooperation between companies and R&D institutions in order to:

- mobilise and inspire companies to increase investment in R&D;
- promote expertise and capacity within companies to enhance their ability to further develop their own R&D projects and utilise their own research results as well as results generated by others;
- enhance the expertise and capacity of researchers, thereby better equipping them to interact with companies on R&D projects and channel development expertise to trade and industry;
- promote increased focus on research of relevance for regional development, including research on innovation and organisation science.

Innovation is an interactive process that entails learning and knowledge-sharing among many participants. Activities to promote interaction are intended to mobilise companies and R&D institutions to increase their focus on competence development and R&D cooperation. The companies will become more familiar with the R&D environment's activities and subject areas, as well as learn how R&D institutions can contribute to trade and industry. Cooperation with companies will enable the R&D community to tailor its activities more to the needs of trade and industry. Closer contacts with the industrial sector will help to increase the commercial relevance of the higher learning sector's primary domain: education and research.

Activities that promote interaction may be implemented:

- *within the individual company* to generate wide-ranging mobilisation and focus on innovation from all the company's players through cooperation with R&D institutions;
- *between companies* to strengthen R&D cooperation that triggers innovation
- *throughout the region as a whole* to ensure harmonisation between the region's overall resources, from companies, R&D institutions and government authorities.

The most important cooperative activities under the VRI programme are outlined in detailed guidelines<sup>2</sup>. These are as follows:

- Competence brokering: brokers who assist companies in finding suitable researcher expertise
- Mobility schemes: Exchange schemes between industry and R&D institutions for students and researchers
- Action research: Dialogue and participation in companies, networks and the region as a whole
- Pre-project funding: funding to help companies prepare for larger-scale R&D projects.

In addition, a range of activities and instruments are available to support efforts to make strategic choices and to initiate, delimit and implement the VRI initiative. These are also listed on the fact sheets. Most of these instruments have already been tested under the Mobilisation for R&D-related Innovation (MOBI) and the Value Creation 2010 (VS2010) programmes. New types of activities that promote cooperation may also be initiated by the regions.

Applications to the Research Council regarding activities to promote cooperation must be submitted by the regional partnership.

#### 3.1.2 Company-driven Innovation Projects

The VRI programme will employ company-driven innovation projects within regional priority areas to help companies to:

- increase their expertise and ability to innovate by participating in R&D efforts;
- further develop their systematic innovation and renewal activities through research cooperation;
- increase their value creation and competitiveness through the application of R&D findings.

The VRI programme will provide funding for company-driven innovation projects aimed at enhancing the industrial sector's expertise, ability to innovate and competitiveness within regional priority areas. This will, among other things, ensure funding of high-quality projects developed through activities to promote cooperation.

Company-driven innovation projects involve cooperation between one or more companies and one or more R&D groups. The research expertise involved in the project should be of the highest calibre possible so as to generate in turn the highest possible level of innovation and value creation. The projects must be eligible for support from regional and national funding, and must be included under the region's priority areas.

This funding instrument is intended to promote the companies' use of research as a strategic measure to achieve innovation. It is also intended to increase a company's ability to participate in national and international R&D activities. Companies may apply for pre-project funding to assist them in developing successful company projects that coincide with regional priorities.

<sup>&</sup>lt;sup>2</sup> Veiledning. Virkemidler og aktiviteter i VRI-programmet (*Guidelines. Funding instruments and activities under the VRI programme*, currently only available in Norwegian).

The use of company-driven innovation projects as a separate funding instrument under the VRI programme is dependent on growth in the programme budget, and will not be introduced until 2008 at the earliest. Pilot projects will be carried out in a few counties during 2007 to facilitate the constructive development of this instrument. Among other things, this will require a clear distribution of tasks and a well-established decision-making process between the regional and national levels.

Virtually all countries in Europe have programmes for user-driven research that require cooperation with R&D institutions. The VRI programme participates in EraSME, a European cooperative network that funds programmes of this type. In 2007 EraSME issued a pan-European call for proposals for company-driven projects with international partners, to which the Research Council has allocated NOK 3 million.

#### 3.1.3 Strategic R&D projects

The VRI programme will employ strategic, institute-based research projects at state university colleges and regional research institutes to:

- promote closer cooperation between the R&D institutions;
- encourage closer ties between the institutions' R&D expertise and other regional R&D activities;
- strengthen the dialogue on the relevance of research to regional needs.

The VRI programme seeks to increase the volume of R&D activity targeted at regional needs at the state university colleges and regional research institutes. Under the VRI programme, it is crucial that the development of such R&D activity takes place through cooperation and dialogue with the regional partnership.

There are two types of funding instruments in this category:

- Strategic Projects University Colleges (SHP)
- Strategic Competence-development Projects (SKI) at regional research institutes

The SHP funding scheme is an independent scheme that is highly relevant in the context of the VRI programme. This scheme has been designed to enable the university colleges to establish high-calibre R&D projects and expertise within the context of their specific scientific and educational responsibilities and features. It is important that the university colleges enhance their R&D activity in areas that are directly relevant to regional innovation, development and value creation. The VRI programme will play a vital role in helping the university colleges to achieve this. The SHP scheme may be used in tandem with the VRI programme to achieve the programme's objectives. The university colleges may decide themselves whether they wish to give priority to this type of project.

The SKI scheme will correspond to the SHP scheme, except that it will be targeted at the regional research institutes. However, funding for this scheme is dependent on growth in the programme budget, and the first funding announcement will not be available until 2008 at the earliest.

One desired effect of the strategic research projects under the VRI programme will be to strengthen cooperation between the state university college, regional research institutes and relevant national R&D communities.

Applications for funding via these instruments must be submitted directly from the institutions to the Research Council. Separate committees will allocate funding under the SHP and SKI schemes. SHP projects of particular relevance to a region may comprise a key

component of the regional priority areas while at the same time supporting the individual university college's strategic R&D aims.

In addition to the strategic R&D projects, the VRI programme will also encompass research projects targeted in particular toward innovation and organisation science topics. These will be initiated at both the regional and national levels, and are described in more detail in Chapter 5.

#### 3.2 Overall principles and distribution of tasks

**The regional partnership** is responsible for heading and coordinating the regional VRI efforts. The application submitted to the Research Council must have the full endorsement of the partnership, and it is up to the partnership to determine which roles the participating R&D institutions will play, including which institution/legal entity will enter into the contract with the Research Council. All R&D institutions throughout the country are eligible to be given tasks within the VRI programme's various activities to promote cooperation. The partnership is responsible for the general reporting and evaluation of the overall VRI initiative within the region.

The partnership must appoint a coordinator who will serve as the main contact and facilitator of the regional VRI initiative. The coordinator is responsible for ensuring that the various activities included in the VRI initiative adequately harmonise with each other as well as with relevant projects financed through other public innovation agencies.

It is up to the partnership to designate the priority areas to be covered by the VRI activities. The priority areas should build on relevant regional strategies and plans for regional R&D activity. Priority areas should be defined on the basis of the region's specific R&D challenges, and must involve companies as well as R&D institutions. The number of priority areas should be limited. The priority areas should combine different types of funding instruments. According to current plans, the **companies** will as from 2008 be able to submit direct applications to the VRI programme for company-driven innovation projects in the region's priority areas. It is important in this context that the partnership assumes responsibility with regard to mobilisation, priority setting and follow up of the company-driven projects. **Researcher projects** in innovation-related areas (as defined in Chapter 5), that have been initiated via the application from the partnership, must also address the region's priority areas.

It is essential that the activities under the VRI initiative are satisfactorily coordinated both within and between the priority areas.

#### 3.3 Funding of regional VRI initiatives

The Research Council will issue a call for proposals for the establishment of regional VRI initiatives, and will provide partial funding for the selected activities. Partnerships may apply for funding for a three-year period, but may submit annual applications for adjustments and supplements related to activities in progress. Funding from the VRI programme must be supplemented with financing from the region.

#### The Research Council will fund the following activities under the VRI programme:

- *Funding instruments:* This encompasses the instruments described in detail on the attached <sup>3</sup>fact sheet. Any new instruments initiated by the region may also be considered for funding.
- *Project management:* Support may be provided for scientific/professional management of projects and activities implemented within the priority areas.
- *Research activity:* Research conducted on the innovation and organisation science research topics defined in chapter 5, as well as strategic R&D projects.
- *Dissemination:* Funding may be provided for dissemination of research findings from the projects and activities under the VRI programme.

#### **Principles for co-funding**

As a general rule, The Research Council will provide funding of up to 50 per cent of the total costs for VRI activities. The remaining financing is expected to come from regional stakeholders.

With regard to regional financing of the activities, the following principles will apply:

- Up to 50 per cent may be financed through documented use of resources from industrial participants and knowledge providers, according to established principles and hourly rates.
- The remaining financing must be covered by funds form the participating stakeholders.
- Funding from other national programmes may not be included in the regional portion of the funding.

The planned company-driven research projects, for which the companies submit direct applications for funding, may receive support both from the Research Council and from regional funding sources. The total public funding amount, including from the SkatteFUNN tax deduction scheme, must lie within the parameters established by the rules for state support set forth in the EEA Agreement.

Strategic research projects under the SHP and SKI schemes may be wholly funded by the Research Council, and are not subject to the principles for co-funding listed above. In these cases, the contract is signed between the Research Council and the researchers involved.

## 4 Applications

#### 4.1. The regional partnership

The regional partnership is responsible for submitting an application for funding over a oneto three-year period to the Research Council.<sup>4</sup> The partnership may choose to submit an annual application within the stipulated deadline to expand on or amend the priority areas or activities defined in its original application and accompanying applications for researcher

<sup>&</sup>lt;sup>3</sup> The fact sheets are not translated to English

 $<sup>^4</sup>$  The contractual partner here will be the legal entity that submits the application here on behalf of the regional partnership.

projects. An annual application must reflect the original application(s) and indicate how the changes or new activities support or modify this/these. External evaluations will be conducted on a regular basis to provide information on the need to continue or adjust the activities.

Special application procedures apply for the strategic R&D projects and company-driven projects.

The regional VRI initiative may outline researcher projects on innovation and organisation science topics related to the regional activities to promote cooperation designated by the region as a priority area. The researcher projects must be endorsed by the partnership and must be developed in cooperation with the relevant stakeholders. The application must be submitted by a research institution, which will also serve as the Research Council's contractual partner.

The Research Council has developed a specific set of assessment criteria for applications to the VRI programme. These criteria apply to the establishment of a regional VRI initiative as well as to changes in or implementation of new priority areas. They are designed to ensure that results are achieved and that the regional VRI activities function well individually and as a group. The Research Council will not evaluate the priority areas selected, only the quality of the activities within these areas. The main features of each criterion are presented below and provide useful guidance on what a regional VRI initiative is expected to achieve.

#### Assessment criteria

#### 1. Overall quality

To what extent does the application meet the general requirements of a good project?

#### 2. Strategic basis and cooperation

Have the relevant stakeholders participated in the designation of the priority areas and how are the instruments in the VRI programme combined within the priority areas?

#### 3. Feasibility

Do the stakeholders have sufficient qualifications, capacity and desire to implement the VRI initiative/activities within the priority area?

#### 4. Relationships and dynamics

To what degree do the participants have an understanding of the needs of, shared interests among and challenges facing the individual participants, and how do they cooperate on establishing and maintaining a common vision?

#### 5. Economic relevance and benefit to society

To what degree is the VRI initiative/activity within the priority area economically relevant and beneficial to society?

#### 6. Development potential

What is the potential of the VRI initiative/activity within the priority area as well as the region in terms of value creation through cooperation?

#### 7. Mobilisation and innovation activity

Are the implementation methods for the activities to promote cooperation adequately described and how extensive is the innovation activity within the priority areas?

#### 8. Research content

How well is the connection between the priority areas, funding instruments and research activity described, how clearly in the role of research defined, how does the planned research activity relate to national research themes, and how will the research results be disseminated?

#### 4.2 The state university colleges and regional research institutes

Projects under the SHP and SKI scheme will normally have an application deadline once a year. Applications for funding over these instruments are submitted directly from the institutions to the Research Council. Special assessment criteria have been developed for SHP projects. For SKI projects, assessment criteria will be developed as soon as budget allocations make it possible to implement this instrument under the programme. These criteria will probably not differ materially from the criteria for SHP projects.

#### 4.3 Companies

The framework for company-driven innovation projects is under development. During 2007 pilot projects will be implemented in some counties.

Company-driven innovation projects under the VRI programme will be based on the Research Council's user-driven innovation projects (BIP) with regard to **assessment criteria and selection**. When applications are assessed, emphasis will be placed on the level of innovation and research content. The project's significance for the development of the industrial groups, trade and industry, and employment in the region will be essential. Funding announcements will be open only to projects that address the region's priority areas. Cooperation with one or more R&D institutions, inside or outside the region, is required, but the company need not be part of a consortium.

The company projects must be eligible for support from both regional and national sources, as well as from the SkatteFUNN scheme. Companies may apply for pre-project funding to assist them in developing successful projects that coincide with regional priorities. Both pre-project funding and company-driven research projects are described in detail in separate fact sheets.

The VRI programme will also offer companies the opportunity to participate in a Europeanwide call for proposals through EraSME.

#### 4.4 National call for proposals for innovation-related research projects

The Research Council will initiate national calls for proposals for research projects on topics not addressed by the regional applications. Such projects will normally have one deadline per year, and important assessment criteria will include the project's relevance relative to the call for proposals, the ability of the research community to achieve the intended outcome, and the project's overall scientific merit (see Chapter 5).

# 5 National tasks and challenges

#### 5.1 Research, learning and knowledge development under the VRI programme

The VRI programme places considerable emphasis on learning and knowledge development. In addition to strategic research activities (see Chapter 3.1), the VRI programme also encompasses research on innovation and organisation science, the doctoral degree programme entitled Enterprise Development and Work Organisation Research (EDWOR) and learning arenas.

Innovation and organisational research under the VRI programme will be targeted toward the following main topics:

- *Prerequisities for regional cooperation to promote innovation.* How does the regionalisation affect the framework for regional development and innovation processes? What might the next generation of partnership entail? What needs to be done to enable regions in Norway to adapt to new forms of governance and user participation?
- *The individual, regional stakeholder:* Regional cooperation involves a number of key stakeholders with divergent motives and interests. The manner in which each of these is organised and their attitudes toward regional cooperation are important to consider. How can effective interaction be created across professions, sectors and subject areas?
- Innovation and interaction between different geographical levels. Cooperation at the regional level is crucial to ensuring a viable, innovative industrial circle. However, the world economy is global, and contact with other regions, contact at the national and European levels, and the ability to view the region in relation to the global economy will also be important to enhancing competitive advantages. Relevant research topics include how to develop regional advantages in a global economy and how to avoid regional lock-in.
- *The Nordic model.* Increasing attention is being afforded to the Nordic model of collaboration. The mounting emphasis on innovation has raised issues regarding how much guided learning can achieve and whether focus on more cooperation-based solutions is needed. How can the Nordic model be further developed? The VRI programme is designed to serve as a source of knowledge on, among other things, the role of the cooperation between employers' and employees' organisations in enterprise development.

These four topics are not exhaustive and should not be used to limit the scope of innovation and organisation science research under the VRI initiatives. This research activity, combined with the other activities under the VRI programme, is intended to strengthen regional cooperation and the regional innovation community.

Research projects may also be initiated in order to facilitate the ongoing development of both the VRI programme as a whole and its funding instruments. In this context, the research activity should be viewed in relation to the VRI programme's probative role.

**EDWOR**, a doctoral degree programme in the area of enterprise development and work organisation research, will be a part of the VRI programme. The main focus of EDWOR is action research within the framework of work and organisational theory.

The programme is intended to:

- make it easier for candidates to complete a doctoral degree in organisation science on the basis of material and experience from practical development efforts;
- provide researchers with a background in organisation science with the opportunity to work together and support each other;
- enhance cooperation between universities on the one hand and independent research institutes and regional university colleges on the other;
- help to build common professional and academic arenas.

The VRI programme will provide funding for the infrastructure for the educational programme, but not for the doctoral fellowships themselves. Most of the candidates come from research institutions that do not confer doctoral degrees and must therefore apply to other institutions.

The **knowledge development and learning** that occur as a result of the VRI programme are intended to benefit Norway as a whole. Thus, various types of learning arenas and conferences for development stakeholders will be organised under the VRI programme at both the national and the regional level. Plans also call for ongoing dissemination through Internet-based tools and other media. The Research Council will review the practicability of the funding instruments on a regular basis. This task will largely be carried out or coordinated in conjunction with corresponding activities at Innovation Norway and SIVA.

The VRI programme is experimental in nature and will be subject to ongoing improvement and expansion. The programme has a probative role that involves among other things developing and testing new innovation policy instruments. These may be initiated at the regional as well as the national level. The VRI programme will also seek to continually improve and refine the funding instruments that are being applied under the programme. These components of the programme must be rooted in a clearly-documented knowledge base that builds on learning from the various instruments employed.

As a national commitment, the VRI programme must also stay apprised of the international trends in the fields addressed by the programme. It is therefore critical that the VRI programme takes part in international forums in which related programme initiatives are represented, such as the ERA-NET scheme.

#### 5.2 Professional assistance from the Research Council

The Research Council will offer active professional assistance to the VRI initiatives in the regions.

This support will consist of the following main activities:

- quality assurance of the regional activity;
- quality assurance of the research conducted under the VRI programme;
- ongoing dialogue with and monitoring of the individual VRI initiatives and priority areas;
- professional assistance for development processes under the VRI programme;

- dissemination of important research findings on the topics covered under the VRI programme;
- development of learning arenas;
- implementation of courses/seminars and development projects on the main topics covered under the VRI programme;
- linkages to relevant national and international programmes and initiatives;
- systematic evaluation of impacts and results, and active dissemination of these;
- communication and information via a common website.

The target group for these measures will primarily be the players participating in the VRI programme, not least those serving as the regional coordinators and project managers for the regional VRI initiatives.

#### 5.3 Coordination with other national instruments

The VRI programme is intended to improve cooperation not only among its own key players, but also between the Norwegian public innovation agencies. The Research Council, Innovation Norway and SIVA are the principal organisations for administering the systemand network-oriented instruments that are relevant to efforts to promote regional innovation.

The portfolio of instruments under the VRI programme must be viewed in connection with the Arena programme and the Norwegian Centres of Expertise (NCE). Regional restructuring programmes and the BIT programme at Innovation Norway are also relevant for the VRI programme. SIVA plays a central role as bridge-builder with its research parks, science parks, business gardens and industry incubators.

Companies that participate in regionally based networks, value chains and clusters will have better access to research services in priority areas under the VRI programme. Close links will be established between the VRI programme and Innovation Norway with regard to development and provision of services targeted at companies.

The VRI programme will work actively to ensure that projects initiated under the VRI programme are adequately coordinated with other programmes and initiatives at the Research Council, including Democracy and Governance in Regional Context (DEMOSREG), Work Life Research (ARBEIDSLIV), the Large-scale Programmes (such as Optimal Management of Petroleum Resources [PETROMAKS], Functional Genomics in Norway [FUGE], Clean Energy for the Future [RENERGI], AQUACULTURE – An Industry in Growth [HAVBRUK] and Core Competence and Growth in ICT [VERDIKT]), User-driven Research-based Innovation (BIA), the Focus on the Northern Areas Initiative, and the Centres for Research-based Innovation (CRIs).

#### 5.4 International cooperation

The stronger, more coordinated focus on regional innovation cultivated by the VRI programme will also facilitate the establishment of productive international contacts. The Research Council seeks to increase participation of the regional research institutes and the state university colleges in the EU Framework Programmes and to encourage regions in Norway to participate in European regional cooperation activities.

The Research Council will work together with Innovation Norway in efforts to mobilise companies to participate in the EU Framework Programmes.

# 6 System for evaluating impacts and results

One objective of the VRI programme is to document the activities, results and impacts of the various VRI initiatives to facilitate assessment of whether public and private funding is being used effectively. This applies at the national and regional levels as well as at the level of the individual stakeholders. A system must be devised to promote maximum learning and dialogue on processes and results.

At the level of the individual region or stakeholder, project monitoring efforts will primarily encompass annual reporting on activities and results. As the party responsible for the application, the partnership must ensure that such reporting is carried out. In addition, external evaluations of the regional VRI initiatives will be conducted on a regular basis to provide information on the need to continue or adjust the activities.

At the national level, impact and performance assessment will primarily take the form of evaluations and annual reports submitted to the funding ministries.

# 7 Budgetary aims

The Research Council hopes to achieve an overall commitment to the VRI programme of NOK 300 million per year beginning in 2009. In 2006 the Research Council funded activities to promote cooperation and projects under the SHP scheme totalling NOK 60 million NOK 40 million, respectively, in addition to the basic funding granted to the regional research institutes.

No separate budgetary framework has been established for 2007 for company-driven innovation projects of regional relevance (see Chapter 3.1.2). However, a few company pilot projects are planned for implementation in certain regions during the course of the year.

No separate 2007 budgetary framework been established for Strategic Competencedevelopment Projects at the regional research institutes (the SKI scheme) either. Nonetheless, the VRI programme intends to develop this instrument, assuming there is growth in the research budget, to a minimum framework of NOK 10 million per year.

If the aims for the VRI programme are to be achieved, a budget increase from 2007 to 2009 in all areas of the VRI programme will be necessary.

Except for the strategic R&D projects, the instruments under the VRI programme require cofunding from the regions. The partnership at the county administration is responsible for drawing up a financial plan for the regional VRI initiative that includes regional co-funding.

# This publication may be ordered at www.forskningsradet.no/publikasjoner

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