

Report of the Executive Board for 2005

Throughout 2005, the Research Council Executive Board has actively sought to promote high aspirations for Norwegian research with regard to overall investment, quality and usefulness to society. The Research Council provided important input to the government white paper on research that was debated in the Storting (Norwegian national assembly) during the spring session. The year also saw the introduction of a new round of applications for support to additional Centres of Excellence (CoEs). New CoEs are expected to be established in the course of 2007. Furthermore, a similar measure has been launched in the sphere of industry-oriented research with a view to establishing Centres for Research-based Innovation (CRIs).

The submission of the new government white paper on research represents the most important research-policy event of 2005. The white paper sets high goals for Norwegian research and states that the Research Council has a key role to play in these endeavours. It assigns the Council responsibility for a number of important tasks, and a great deal of effort has already been focused on follow-up activities.

The strategy document *Research Expands Frontiers* establishes the primary goals of the Research Council's efforts

The Research Council strategy was approved by the Executive Board in April 2004 after a comprehensive process involving many stakeholders in the Norwegian research establishment. The strategy document defines five strategic goals as well as one internal goal designed to enhance the workings of the Research Council itself. The following presents some of the 2005 activities that have been devoted to realising the objectives set out in the strategy document.

Quality in research

"The Research Council shall seek to ensure that Norwegian research activity meets the same quality standards as the other Nordic countries."

There are several signs that recent efforts to enhance the quality of Norwegian research have been successful. A number of discipline-based evaluations show that Norwegian researchers at their best are of top international calibre, although it is clear that overall efforts to increase quality are still needed. Most of these evaluations indicate that activities in a variety of fields are too fragmented, and that greater focus needs to be given to research management.

As part of the effort to meet these challenges, the Research Council has further refined its funding schemes, emphasising larger allocations and better organisation. The most dynamic measures in this context are the Centres of Excellence and the Centres for Research-based Innovation. The latter is a new measure for which the first round of funding was announced in 2005. The Executive Board will make decisions regarding the allocation rounds in June 2006.

Centres of Excellence

The CoE scheme is designed to enhance quality through a greater concentration of research funding and the establishment of a better framework for research management at the institutions. We have not yet passed the halfway mark for the first 13 CoEs, but nonetheless there are clear indications that these centres are contributing to changes in the framework for basic research in Norway. They have become hubs for research in their respective areas, they are helping to increase recruitment, and they have become sought-after workplaces for highly-qualified researchers from abroad. In 2005, the Research Council established the mandate for the evaluation of the first 13 CoEs mid-way

through their first period. The evaluation process will be carried out during the autumn of 2006, and will be crucial to determining the continued activities of the individual CoEs.

A new round of funding was announced in 2005, and a total of 98 applicants are competing for designation as new CoEs. The research groups advancing to the second round were announced in May. Somewhere between five and ten new CoEs may be launched in 2007.

Research for innovation

“The Research Council shall seek to promote research that strengthens Norway’s innovative capacity and competitiveness.”

Norway scores relatively low on the innovation indices utilised by the OECD and the EU. There are a number of reasons for this, not least the fact that Norwegian companies relatively speaking invest little in R&D. Moreover, Norway has a low percentage of students in science and technology. The Norwegian business sector is characterised by a high number of SMEs; as much as 85 per cent of Norwegian companies have five employees or fewer. It is also important to note that the Norwegian industrial framework features few companies in R&D-intensive fields such as the automotive or pharmaceuticals industry.

There is also much to suggest that existing indices do not capture certain unique aspects of the Norwegian economy. For instance, Norwegian companies innovate more in terms of processes than products. The application of technology in the highly advanced petroleum sector is not reflected anywhere in the statistics. The willingness to introduce change, e.g. by utilising new technology, is very high in Norway, even if investment in R&D is on the low side.

Although the current index methods do not fully do justice to Norway’s innovation capacity, there is nonetheless every reason to maintain a high level of effort in national innovation policy. Norway must set high targets if we are to uphold our national standards of living and levels of welfare. In 2005, the Executive Board has established a framework for reorganising the funding schemes that the Research Council uses for industry-oriented research, with a view to strengthening R&D activities in the private sector.

New portfolio of industry-oriented R&D schemes

The launching of the SkatteFUNN tax deduction scheme for R&D expenditures and the introduction of the large-scale research programmes, combined with the desire to coordinate activities with the other institutions administering innovation instruments, led to new lines of thinking in relation to national research efforts in innovation. Innovation-oriented funding measures were subjected to comprehensive review during 2005, and as a result the Research Council has restructured the portfolio of industry-oriented schemes in order to enhance cohesiveness, increase user-friendliness and optimise administration and management procedures.

The Research Council innovation programmes are designed primarily for research tasks that *are not* covered under the auspices of the SkatteFUNN tax deduction scheme. The innovation programmes have now been organised into a small number of industry-specific programmes with clearly-defined thematic delimitations plus a programme for user-driven research-based innovation that is not confined to any thematic priority or branch of industry. The objective is to enable trade and industry to deal more constructively with innovation challenges while at the same time encouraging the private sector to invest more in R&D. The establishment of a broad competitive arena for user-driven research-based innovation is intended to attract and strengthen the best innovation projects, independent of branch of industry or thematic area. It is the quality of the project, and its contribution to overall wealth creation, that will be the determining factor for funding.

In addition to the specific industry-oriented programmes, the seven large-scale programmes under the Division for Strategic Priorities also serve as a useful tool in promoting innovation activities.

An important element in this overall context is the new scheme for Centres for Research-based Innovation (CRIs), which the Executive Board views as having great potential. The CRI scheme is designed to strengthen innovation capacity in the industrial sector by creating a platform for long-term research in close collaboration between research-intensive companies and outstanding research groups.

The first funding round for CRIs was announced in 2005, and the Research Council had received 58 applications by the deadline expiry date in December. At fourteen CRIs are to be established during 2006.

Cooperation agreement between the Research Council of Norway, Innovation Norway and SIVA – The Industrial Development Corporation of Norway

In 2004, the Research Council entered into a cooperation agreement with Innovation Norway and SIVA – The Industrial Development Corporation of Norway. This cooperation will initially extend from 1 January 2005 through December 2007 and will enable the institutions separately and collectively to provide large-scale, effective grants to enhance renewal, innovative capacity, competitiveness and value creation in trade and industry. The collaboration is aimed at defining and coordinating tasks between the three institutions to ensure that funding instruments supplement and support each other and are available to users within a more cohesive structure.

A number of concrete projects were initiated in 2005 as part of the effort to meet the objectives of the cooperation agreement. These included activities to develop a joint electronic portal for users, a better targeted and more unified portfolio of industry-oriented R&D schemes, better coordination of measures designed to stimulate collaboration and networking within innovation systems. Important steps were also taken to strengthen existing collaboration within selected activities.

Research and society

“The Research Council shall seek to enhance the role of research in the context of social development and quality of life.”

Research is crucial to the development of society, but at the same time, researchers are dependent on the support and confidence of the community to be able to carry out their activities. The Research Council seeks to educate and inform the public at large, and invests a considerable of resources in dissemination of research. Ensuring that research activities comply with society's ethical norms is an important objective in this context.

Research to strengthen the knowledge base underlying the designation of policies is an important task with wide-ranging implications, also in relation to the dialogue between research and society. The Research Council strategy document stresses that one of the main challenges is the need to strengthen investment in research to enhance sectoral policy and administrative practice within ministerial spheres of responsibility. Important areas include the environment, welfare, education, health and working life. The Norwegian research community is also morally obligated to contribute to resolving global challenges.

Foresight

In 2004, the Research Council launched seven large-scale programmes as part of the process of translating research priorities in areas of special importance to society into action. These seven programmes are: Research in Functional Genomics (FUGE), AQUACULTURE – An Industry in Growth (HAVBRUK), Nanotechnology and New Materials (NANOMAT), Climate Change and its Impacts in Norway (NORKLIMA), Optimal Management of Petroleum Resources

(PETROMAKS), Clean Energy for the Future (RENERGI) and Core Competence and Growth in ICT (VERDIKT).

The Research Council employed foresight techniques in five different fields during 2004 and 2005 in order to identify the basis for future large-scale initiatives. A foresight analysis of the aquaculture sector was presented in 2004, while the foresight reports for energy, ICT, biotechnology and new materials were completed in 2005. More than 300 specialists from various scientific, government and political circles took part in the processes associated with these efforts. The results and future perspectives were presented at a major conference in May.

Report on nanotechnology and ethics

The Research Council seeks to promote good ethical standards in research in many ways. In light of an international debate on potential risks associated with nanotechnology research, the Council initiated efforts to increase awareness of ethical perspectives in this field. A report on this topic was prepared in collaboration with the Norwegian Board of Technology and the National Committee for Research Ethics in Science and Technology (NENT), and was published in February 2005.

National Science Week (Forskingsdagane)

National Science Week (Forskingsdagane) is an annual event and is one of the largest measures of its kind in Europe in terms of its focus on broad-based dissemination of research. In 2005, National Science Week featuring over 1 000 events hosted at 200 institutions throughout Norway. The Research Council is responsible for this initiative and hosts the secretariat.

Increased internationalisation

“The Research Council shall seek to ensure greater internationalisation of research carried out in enterprises and research institutions.”

Research is by nature international, and Norwegian research is increasingly being carried out in collaboration with researchers abroad. Co-authorship between Norwegian and foreign researchers is on the rise, research findings are rapidly being conveyed between countries and more and more, researchers from different countries are competing for the same research funding. Norway is stepping up activities to promote increased participation in EU cooperation, between governments as well as between institutions. In addition to its two main partners, the EU and the USA, the Research Council is actively pursuing bilateral cooperation with China, which is investing heavily in developing its national research capacity, as well as with a number of other partners. The Executive Board has given high priority to international cooperation during 2005.

Participation in EU cooperation

As a signatory to the EEA Agreement, Norway takes part in EU research cooperation on a par with EU Member States. The EU Sixth Framework Programme is now fully operative. There are many who would claim that Norway needs a high percentage of grant approvals to justify the ostensibly steep cost of membership fees. While there is no question that the financial aspect remains important, the Executive Board views it as even more essential that Norwegian companies and researchers take part in EU collaboration to gain access to networks and knowledge development. The Board is pleased to note that Norwegian participants are enjoying a high rate of success with regard to the funding process.

Planning efforts for the Seventh Framework Programme are underway. The overall budgetary guidelines for the period up to 2013 have also been clarified. The EU intends to increase its budget, and it is clear that there will be a substantial increase in Norway's membership fees. The Executive Board recommends that Norway continues to take part in the framework programme, and the Storting will in all likelihood give its consent to further participation.

North America

Norwegian researchers have a longstanding tradition of collaboration with North American researchers. In recent years, international research cooperation has shifted more and more towards Europe. There has been less focus on North America than previously, relatively speaking, and the Ministry of Research and Education has implemented a strategy to help maintain broad-based contacts with the USA and Canada. The Research Council is in charge of following up the strategy for R&D cooperation with North America.

During 2005, efforts have been concentrated on stimulation measures. These are divided in two groups, one to promote bilateral research cooperation and one to promote mobility (the Leiv Eiriksson mobility programme). Applicants seeking funding for projects whose primary aim is to establish cooperation with partners in the USA and Canada are qualified for grants. The Leiv Eiriksson mobility programme is aimed at increasing mobility between Norwegian and North American researchers, and applies to mobility in both directions.

Recruitment/Do more to foster talent

“The Research Council shall seek to encourage talented young people to pursue careers in research.”

Offensive targets for growth in R&D investments necessitate the establishment of more jobs in research. Good recruitment measures are needed, particularly in science and technology fields. The Research Council is cooperating with various other stakeholders to develop a strategy in this context.

Gender equality in research

At present, the number of women who complete researcher educations and go on to pursue careers in research is too low. There is also a need to increase the number of qualified women recruited into research management and programmes for outstanding research. The most recent figures from NIFU STEP (Norwegian Research Institute for Studies in Innovation, Research, and Education) show that women comprise 39 per cent of the doctoral candidates for the first half of 2005. This figure has remained relatively unchanged for the last four years. Overall, women still comprise just under 30 per cent of the scientific personnel in the Norwegian research sector.

In the coming period, the Executive Board will devote attention to efforts to recruit women into researcher positions, particularly management positions. In 2005, the Executive Board focused special emphasis on gender equality perspectives in the new funding announcement for CoEs.

National graduate schools

In its white paper on research, the government indicates that it will set up a scheme in which graduate schools demonstrating high scientific quality may compete for status as national graduate schools with accompanying financial support. Underlying this is the view that R&D growth will be contingent on the ability to increase the capacity to train more PhDs without compromising on quality. The government has asked Research Council of Norway to prepare a proposal for this scheme in cooperation with the Norwegian Council for Higher Education.

An improved Research Council

“According to its organisational objectives, the Research Council shall be: Accessible, Transparent, Integrated, Service-minded, Efficient, Competent, An important arena.”

The Research Council cannot succeed in its efforts without the implicit confidence of all the relevant parties. Everyone involved in the research establishment is best served by a Research Council that not only documents and achieves good results, but that also works in a manner to which its users can relate.

IT developments

The Research Council is in the process of simplifying and standardising the administrative processes associated with the financing of research projects. In 2005 the modules for expert referee assessment, internal administration and eReporting were completed. The electronic application processing system now encompasses all processes except those related to the contracts.

Research councils in various other countries as well as other Norwegian funding institutions have shown great interest in the Research Council's electronic application system.

Impartiality

After the completion in 2004 of the review of the Research Council's routines concerning impartiality and disqualification, an internal committee was established for ongoing assessment of the various problems that may arise in the programme boards and committees. The overall results of the 2005 application process indicate that greater awareness and understanding of the impartiality rules within the administration, as well as among the programme boards, has made it easier to deal with matters pertaining to disqualification. Much effort is being put into identifying impartiality perspectives and organising processes in the boards in a manner that ensures that these issues may be dealt with efficiently and constructively.

Staff survey

Results of the staff survey show that employees at the Research Council rank themselves as very satisfied with their workplace, adequately able to influence their work situation and highly quality conscious. At the same time, the survey revealed that there is room for improvement in areas related to work processes, customer relations and workload. The survey will be followed up by efforts to clarify the organisation's main priorities, improve the administration of processes and projects, and enhance customer relations.

Results of the year's activities

The Research Council's revenues totalled MNOK 4 813 in 2005. Of this, allocations from the ministries totalled MNOK 4 621. The yield of the Fund for Research and Innovation now constitutes a large portion of these revenues, comprising MNOK 640 in 2005. Operating expenses, including both R&D funds and administrative expenditures, came to MNOK 4 781. The Research Council's net result for 2005 was MNOK 36.4, including administrative and research obligations. Of this, the increase in research obligations comprises MNOK 27.1, which is used to increase capitalised research obligations. The result after research obligations came to MNOK 9.2, which will be added to the Research Council's equity and other obligations.

The gross value of research obligations is MNOK 970, compared to MNOK 985 for 2004. This means that the relative portion of the research obligations in relation to the annual budget is somewhat reduced. This gives capitalised research obligations (previous transfers) totalling MNOK 792, which is somewhat higher than 2004 (MNOK 775). The research obligations in 2005 may be ascribed to late start-up of activities, lower programme and project expenditures than budgeted, and the fact that allocations to co-financing of EU projects are to cover several years and are subject to case processing within the EU. Moreover, the start-up of new research activities requires planning and announcement procedures that take time, and procurement of equipment necessitates time-consuming tendering processes.

There is no uncertainty associated with the accounts that is of significance to the submission of the financial statements, nor have any extraordinary circumstances arisen that will affect the accounts after the end of the financial year. The Research Council is subject to minimal financial risk and is self-insured through the State. The activities of the Research Council do not affect the external

environment. In 2005 an internal project to ensure that environmental perspectives are fully integrated into Research Council operations was implemented as part of a government initiative.

The working environment – sickness absence

The Research Council maintains an ongoing focus on issues relating to the working environment, and employs preventative health measures that include a variety of exercise opportunities. As part of these efforts a total ban on smoking on Research Council premises was introduced as from 1 September 2005. At the same time, a quit smoking programme was made available to all employees.

In 2005, the total sickness absence in the administration was 3.3 per cent, which is extremely low. This includes absence both with and without a doctor's certificate. Absence due to sick children and leaves of absence are not included in this figure.

The Research Council became an Inclusive Workplace Enterprise after signing a cooperation agreement with the National Insurance Service that took effect on 1 January 2003. This entails among other things that employees on sick leave are followed up more closely than was previously the case. There are indications that the scheme indeed helps to reduce absenteeism. For the first time since the agreement was signed, the group of employees whose total sickness absence exceeds ten per cent has been reduced from ten per cent of all employees in 2003 and 2004 to eight per cent (27 individuals) in 2005.

There is a constructive atmosphere of cooperation between management and the employees' associations.

The employees and equal opportunity

As of 31 December 2005, the Research Council's administration consisted of 339.3 man-years/349 individuals. Advisers comprise the largest group of employees, accounting for a total of 157.4 man-years.

As of 31 December 2005, 36 employees (ten per cent) in the administration are working part-time, 29 of whom are women.

Of the Research Council's 339.3 man-years, 206.3 are filled by women and 133 by men, which means that women account for 60.8 per cent of the staff. This is distributed as follows: women comprise 93 per cent of the executive officer group, 58.5 per cent of the adviser group, 37.6 per cent of the senior adviser group, 66.7 per cent of the department director group and 28.6 per cent of the division director group.

Women comprise at least 40 per cent of the membership of the Executive Board and the Research Boards.

The Research Council's established employment procedures make it mandatory to pay due regard to equal opportunity considerations. Of 28 appointments in 2005, 70 per cent were women distributed across all job categories, including two division director positions that will raise the percentage of women in the division director group to 40 per cent.

A thank-you to the staff

The Executive Board would like to thank the Research Council staff for its effective execution of tasks throughout the year.

The road ahead

The government white paper on research has generated optimism among researchers and has been very positively received by trade and industry. The ambitions set out in the report have received broad-based political support, and developments in the next few years will make it clear whether Norway will be able to live up to them.

The Executive Board views the escalation plan for public R&D investments that the Storting has asked the government to submit in a very positive light, and considers it essential that efforts to reach the objective of a public investment level of one per cent of GDP by 2010 are successful. If this objective is not met, the optimism currently fuelling the industrial and research communities may evolve into an unwillingness to place any faith in the promises of the governing powers.

For the most part, the current government is continuing to pursue the intentions laid down in the white paper on research. The government is giving even greater priority to marine and maritime research, health, welfare research and an environment and energy initiative, based on the view that Norway should focus its efforts in areas in which the country has natural advantages and high potential for value creation potential, in addition to special expertise.

The Research Council is well equipped to implement measures to follow up the government's intentions. The structural, thematic and technology-based priorities by and large comply with the Council's recommendations and both the Council's organisation and programme portfolio provide an excellent basis for follow up of the priorities outlined in the white paper on research.

The Northern areas

In the summer of 2005 the Research Council launched efforts to devise a research strategy for the Northern areas, and the Council pledged MNOK 330 for research relevant to these areas. Activities encompass a wide range of research fields such as petroleum, climate, environmental issues, earth monitoring and welfare policy. The Executive Board also considers the Northern areas initiative to be a natural component of the International Polar Year scheme, which actually extends over a period of two years and will have budgetary implications for the four-year period extending from 2007-2010.

International cooperation

In coming years, international perspectives will become more and more important in Norwegian research policy. An increasingly higher portion of research funding, from public and private sectors alike, will be allocated outside of national borders. This competitive situation will pose a variety of new challenges to the research systems in every country.

Norway's international R&D cooperation has traditionally been directed towards the USA and Europe, but in recent years a growing amount of attention has been focused on countries in Asia. China's R&D investments are expanding rapidly, and much indicates that China will become a leading player not only in terms of global trade, but also in the context of R&D activities.

Biotechnology

The government has indicated that it seeks to ease up on some of the restrictions governing biotechnology research, and has initiated efforts to revise the Biotechnology Act. The Research Council has long advocated amendments to this legislation, and the Executive Board welcomes the government's initiative in this area.