

TECHNOPOLIS



RCN Needs and Strategy

Background report no 15 in the evaluation
Of the Research Council of Norway

Erik Arnold

December 2001

Reports in the evaluation of the Research Council of Norway

Synthesis report

Erik Arnold, Stefan Kuhlman and Barend van der Meulen, **A Singular Council? Evaluation of the Research Council of Norway**, Brighton: Technopolis, 2001

Background reports

1. The Research Council of Norway and its different funding mechanisms: The experiences and views of researchers in universities, colleges and institutes.

Background report No 1 in the evaluation of the Research Council of Norway
Magnus Guldbrandsen, NIFU

2. Bibliometric Analysis of Norwegian Research Activities.

Background report No 2 in the evaluation of the Research Council of Norway
Sybille Hinze, ISI

3. RCN in the Dynamics of Research: A Scientist's Perspective.

Background report No 3 in the evaluation of the Research Council of Norway
Frank van der Most and Barend van der Meulen, University of Twente

4. RCN in the Research and Higher Education Sector.

Background report No 4 in the evaluation of the Research Council of Norway
Erik Arnold and Ben Thuriaux, Technopolis

5. RCN Divisional Reviews.

Background report No 5 in the evaluation of the Research Council of Norway
Ben Thuriaux and Erik Arnold, Technopolis

6. RCN and international co-operation .

Background report No 6 in the evaluation of the Research Council of Norway
Paul Simmonds, Sarah Teather and Alina Östling, Technopolis

7. RCN budgets, policy instruments and operations

Background report No 7 in the evaluation of the Research Council of Norway
Egil Kallerud, Liv Langfeldt and Randi Søgne, NIFU

8. Internal functioning of RCN.

Background report No 8 in the evaluation of the Research Council of Norway
Barend van der Meulen, University of Twente, James Stroyan, Technopolis

9. RCN in the Public Understanding of Science.

Background report No 9 in the evaluation of the Research Council of Norway
Paul Simmonds, Sarah Teather and Alina Östling, Technopolis

10. Norges Forskningsråd 1989 – 1995. En dokumentanalyse om etableringen av Norges forskningsråd.

Background report No 10 in the evaluation of the Research Council of Norway
Egil Kallerud, NIFU

11. Faithful Servant? Ministries in the governance of RCN.

Background report No 11 in the evaluation of the Research Council of Norway
Erik Arnold, Technopolis

12. RCN in the Norwegian Research and Innovation System .

Background report No 12 in the evaluation of the Research Council of Norway
Stefan Kuhlman, ISI
Erik Arnold, Technopolis

13. User oriented R&D in the Research Council of Norway.

Background report No 13 in the evaluation of the Research Council of Norway
Heidi Wiig Aslesen, Marianne Broch, Per M. Koch and Nils Henrik Solum, STEP

14. Evaluation at RCN.

Background report No 14 in the evaluation of the Research Council of Norway
Erik Arnold, Technopolis

15. RCN: Needs and Strategy.

Background report No 15 in the evaluation of the Research Council of Norway
Erik Arnold, Technopolis

16. RCN International Context.

Background report No 16 in the evaluation of the Research Council of Norway
Sarah Teather and Erik Arnold, Technopolis

RCN Needs and Strategy

Erik Arnold

1 Introduction

RCN is charged with being the government's main advisor on research policy. Reasonably enough, it connects this responsibility with its own work to develop strategy. This is done at two levels: the divisions; and centrally, in processes managed by the strategy division. The divisional and Executive boards respectively approve these strategies.

RCN's Strategy Division itself has a quite long list of tasks. It provides overall policy advice to the Executive Board, and through it to the government. It manages horizontal operational activities attached to the Executive Board, such as the creation of the new centres of excellence. It handles budgeting and annual reporting.

2 Understanding Needs

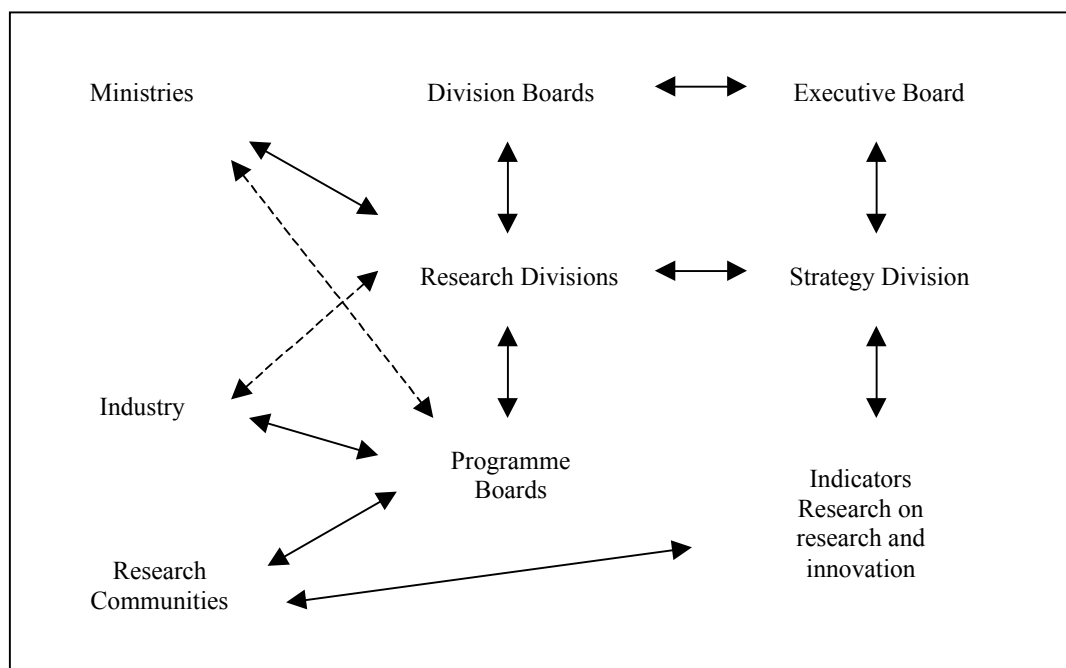
RCN has a very large 'surface area,' in contact with the authorities, various users and the research community. It is said that up to 1000 people participate in various boards, advisory groups and planning processes,¹ a number which is now probably reducing, as RCN rationalises the programmes it operates in into a smaller number of larger ones.

On a day to day basis, the research divisions handle much of the contact between RCN and the surrounding world. We describe the interactions with the ministries in background report no 11.² These are detailed discussions and instructions about what is to happen at division and programme levels. Industry and the research community have a lot of input at the programme level and some lesser influence at divisional level. Compared with these interactions with the outside, the strategy division has a more internal focus. It makes use of the research divisions' knowledge (to their occasional irritation) and reaches out into the wider set of research resources and communities relevant to higher-level research policy. Strategy exercises have hitherto been rather **internal** in character, though there have been attempts to broaden this over time. In principle, strategy is translated into policy advice to government via the Executive Board. **Exhibit 1** is a simplified illustration of the main routine information flows.

¹ In the absence of a central database, we have not been able to check this claim. However, it is noteworthy that the innovation agencies alone active in Sweden and Finland during the 1990s (NUTEK and TEKES) claim similar levels – a little more in Sweden and a little less in Finland

² Erik Arnold, *Faithful Servant? Ministries in the governance of RCN*, Background report No 11 in the evaluation of the Research Council of Norway, Brighton: Technopolis, 2001

Exhibit 1 Major Routine Information Flows Informing Strategy



NAVF built up a strong research department working on research and education (*NAVF's Utredningsinstitutt*) which now functions as an independent research institute (NIFU), receiving core funding from the Strategy Division. In combination, NIFU and the Strategy Division have built up a string set of indicators for the research system. NIFU undertakes wide-ranging and interesting research, based on this tight relationship with RCN. A newer institute, the STEP Group, also receives core funding. Its focus is research on innovation at regional and national levels. The two institutes are highly complementary, and provide a surprisingly strong policy research capability given the size of the Norwegian population, which is extensively used by the Strategy Division.

The Strategy Division took overall responsibility for the collection of Norwegian R&D statistics from 2000. This role, together with internal work and the relationship with key research institutes, provides very good access to the current state of knowledge upon which overall research strategy needs to be built.

3 Making RCN Strategy

The Strategy Division is responsible for maintaining the knowledge base for Norwegian research policy, RCN's budgeting and overall reporting. Since 1999, the Strategy Division has been organised into three departments

- Research policy – RCN strategy, research for new initiatives and evaluation
- Planning, budgeting and statistics – annual reporting, managing budget planning and implementation, research statistics

- Operations – including the EU research information service, the group for International Stipends, care funding to the research policy institutes, gender and equal opportunities issues, ethics

RCN makes strategy at the overall level and at the level of the individual divisions.

3.1 Overall Strategy

RCN has used overall strategy formulation since its early days as a way unify the council, in addition to being a basis for providing research policy advice to government. The overall strategy – *Forskning for Fremtiden* (FFF - Research for the Future) – was first published in 1995, then revised in 1996 and 1998. It is currently being revised for publication in 2002.

There is an interesting shift in rhetoric between the 1995 and 1996 versions of FFF. In 1995, the council declared that “Research is primarily undertaken with an eye to long-term social goals. The goals, priorities and goals Norway chooses as the basis of its R&D effort today is the foundation of our development over the coming 10 – 20 years.” By the following year, however, “... research has a value **in itself**. Research also has, to a considerable extent, a value in use.”

RCN’s diagnoses of problems in the Norwegian Research and Innovation Systems are very similar to our own, which are reported in the synthesis report of this evaluation. Clearly, we feel that we and the Strategy Division are looking at the same set of facts!

The priorities proposed in the strategies have successively grown in number over the years as **Exhibit 2** indicates. We have included in the Exhibit the council’s input to the preparation of the 1998-99 White Paper on research, where polar and ICT research were introduced.

Exhibit 2 Priorities proposed in Successive RCN Strategies

	FFF	FFF	FFF	Input to
Priority Areas	1995	1996	1998	White Paper
Basic research	X	X	X	X
Highly qualified personnel	X	X	X	X
International co-operation	X	X	X	X
Environment-oriented	X	X	X	X
Industrially oriented	X	X	X	X
Marine	X	X	X	X
Public sector		X	X	X
Medicine and Health			X	?
Polar research				X
ICT				X
Energy				?

Note: ? indicates an area of **potential** priority

Up to 1998, the strategies helped explain what the organisation was about, but had little real effect on priorities. The strategy development process is in each case a

drawn-out, internal affair. The main effect of the strategy was that it set the agenda for Norwegian research policy and several of the items in this FFF recurred in the government White Paper.

A new FFF is needed because RCN feels the framework conditions for the research council have changed considerably. The aim is that it is both a plan for RCN as well as a strategy of the whole Norwegian Research System, although it is unclear whether this latter objective will be accepted by other actors in the research system. The whole process will have taken 1,5 years. A preparatory phase of half a year (second half of 2000), an internal analytic phase in which the divisions are consulted as well (January-May 2001) and a strategic phase from June till December 2001.

In the preparatory phase, Strategy Department visited the Dutch research council to learn how they had developed their council strategy, checked external documents and divisional strategies to list main challenges of the council and had an external resource group to discuss these challenges. From these sources five topics were selected for further development in the analytic phase. The choice of the topics was approved by the directors meeting.

The analytical phase started with discussion notes of about 10 pages on these topics from small groups from within RCN. These notes were edited by the Strategy Department and summarised in 10 questions to the division boards. The answers of the divisions were subsequently translated in some options for RCN's strategy. E.g. on "research and policy" the divisions had been asked whether society has a mistrust in R&D and whether that is a reason for a low input in R&D. In the answers the need for good communication about the role of R&D was emphasised. A choosing point induced from that was whether RCN should take the lead in communication on science and be a key actor in the Public Understanding of Science, or not consider it as its own role but as a responsibility for the researchers and research performing organisations.

The set of choices was presented in a strategy seminar in the Main Board, which was the first time that Board worked that way. The inclusion of the boards in the internal phase is an improvement over earlier FFFs, which were completely developed within the administration of RCN. At that time, the administration feared that inclusion of the Boards would have led to chaos. Now the Strategy Division feels that it is important to include divisional staff and boards in order to create ownership of the outcomes. External groups – notably ministries and research-performing institutions – are expected to be involved only in the last stages of strategy development. The type of more open search for inputs at an earlier stage, when it is still possible for strategy ideas to be shaped, that is found in many foreign Foresight exercises is absent from this process.

A key weakness of all the strategies proposed to date is RCN's inability to move from weak to strong co-ordination in implementing the priorities. In a funding organisation, little can be done unless budgets allocate specific amounts of money to specific priorities and actions. While RCN is now starting to **report** actions against the national research priorities it helped establish, this is **description** rather than **prescription**.

3.2 Divisional Strategies

Every division has started with some strategy development, sometimes because of its specific role in the sector. BF has developed competence profiles of institutes and BF related university research, and wants to implement these profiles through allocation of the SIP funding. IE has in 1998 developed a new strategy as well, which it implements through new innovation programmes with support for user controlled research and for industrially relevant strategic research. A key change is, in line with the implications of newer innovation theory, to focus on clusters and networks to a greater extent in funding projects. In the other four divisions, the development of strategy making has been less encompassing. Medicine and Health has focused on improvement of its role as a strategic intermediary through improving the information on 'its' research sector and co-ordinating strategies of other funding bodies. The role of its director in the FUGE initiative is an example. KS has worked on the improvement of programme management through developing a manual. NT has used disciplinary evaluations to promote the development of disciplinary plans. MU has written a number of strategic documents including recently future scenarios for the environment.

Every division seems to follow its own approach, and not be bothered too much by what others have done - although everyone includes some consultation with the other divisions, and some really need this because tasks are related. An example of cross divisional learning is that, like NT, KS and MH are now also preparing disciplinary evaluations for their fields of research. A negative example is the development of future scenarios for health, marine and now environment. Although MU is aware that MH and BF created such future scenarios, it follows its own approach. The main institutional mechanism for cross-divisional learning is the weekly meeting of the division directors.

The development of these divisional strategies seems not to be managed or guided from the top level. Despite its considerable analytic capabilities, RCN's Strategy Division is not involved in the development of these divisional strategies. Although each of the strategic processes the divisions develop has some value, they also rely very much on consultation with the 'usual suspects' with whom RCN normally interacts. So the people involved are also the ones with whom RCN interacts to run the procedures, especially the ministries and the program boards. The processes seem to have little room for systematically engaging other actors in the process. Moreover, sometimes strategies in the same field are or have been developed by other actors in the research system, without much co-ordination with those of the research council. MU is working on a new strategy, but ministry is doing one for themselves internally and that will in the end determine the budget allocation. MU can only hope that ministry will be inspired by their visions and strategy. As we indicated above, a strategy for biotechnology in Norway was initiated by a committee outside RCN. Subsequently RCN started to develop its own strategy for biotechnology.

A positive counter example is are the science plans that are NT asks for in co-operation with universities/ faculties and which include actions to be taken by universities and faculties themselves (KS has similar plans, but actions are likely to refer to KS only). NT claims that universities follow these plans in their decision making on new professorships etc.

4 Achievements

On the evidence up to 2000, there is scope for further improvement in strategy formulation in RCN. (We can say little about the present process, which is not complete.) More external influence and more use of Foresight techniques is an important need, to avoid the strategies becoming self-referential and sterile. These things are also crucial for 'ownership' – almost no-one we talked with outside RCN felt that RCN's strategy had any meaning for them. More important still is to translate priorities into money. Until this can be done – and it is clear that this can not be achieved under the present framework conditions – the strategies will continue to be well-researched statements of good intent, but will lack the implementation mechanisms needed to make them have many consequences in research reality.

RCN's Strategy function has some very important achievements to its credit. One is to raise the quantity and quality of the statistical indicators available about the National Research and Innovation System, both through internal work and via long-term funding of NIFU and STEP. This not only helps raise the quality of the information available for policy making and for monitoring change, for example in the research institute sector, but also makes it possible to raise the quality of the research policy debate in Norway. This is clearly visible from the extensive use of indicators and research-based analysis in the White Paper at the end of the 1990s, and from RCN's own indicators publications. The Division has been able to publish a long series of reports and surveys about individual aspects of research policy. It has researched and proposed key aspects of cross-divisional research strategy, such as centres of excellence and internationalisation. Its work on informing researchers about EU funding opportunities is widely appreciated in the research community, and it plays an important role in creating the Norwegian position on EU issues such as the development of the Sixth Framework Programme. It plays the lead role in maintaining focus on gender issues and equality of opportunity.

Especially since the White Paper was published, the division has also been able to develop strategies for cross-council activities. These include the use of Research Fund money to set up centres of excellence in research, an internationalisation strategy (which is finally causing internationalisation to be 'mainstreamed' within the research divisions, and strategy for gender equality. The latter is an issue where the Strategy Division plays the key role of 'problem owner' within the council. These successes illustrate well the need to back strategic priorities with money.

Perhaps the most important contribution, however, has been to affect the national research priorities set out in 1998-99, and to contribute to the acceptance by government of the idea that Norwegian research expenditure is too low and needs to be increased. Here, however, it is important to recall that a message must not only be delivered but also heard, if it is to have any effect. A key factor in RCN's policy influence at the end of the 1990s was that the government was in a position to listen to good advice.