# Agency level governance - a study of the Research Council of Norway

A contribution to the study on monitoring and assessing innovation policies (MONIT)

Ву

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#### 1 Introduction

MONIT – Monitoring and implementing horizontal innovation policy – is a cross-national and comparative OECD-project aimed at strengthening the knowledge for development of and implementing of a horizontal innovation policy. MONIT is focused on studies of coordination, coherence and policy learning within and between institutional arrangements for innovation policy, directed at generating knowledge for the OECD countries on how to improve innovation policy governance and create a more coherent innovation policy. In addition to Norway, 12 other countries participate in the MONIT network.

STEP is in MONIT studying the Norwegian innovation policy system through several interlinked studies. A main focus is to better understand the underlying logic of the Norwegian system, its roots in terms of cultural traditions and the main priorities coming out of it. Both mapping studies and more detailed studies of parts of the innovation policy system are therefore needed.

This is a study of the Research Council of Norway (*Norges Forskningsråd*). The Research Council of Norway (RCN) is interesting to study in MONIT because of its central position in the Norwegian innovation policy system. RCN bears overall responsibility for national research strategy, and manages nearly one third of public sector research funding. The Council identifies important fields of research, allocates funds and evaluates R&D, and one of the principal tasks is to promote cooperation and coordination among Norwegian research institutions. It is also called upon to offer strategic advice to the Government on science and technology issues.

Moreover, RCN has just been reorganized, and it is therefore useful to take into consideration what these changes in the institutional arrangements might mean for the innovation policy in Norway. In MONIT we are particularly interested in whether the "old" organisation model of RCN had co-ordination failures that this new institutional arrangement might solve.

The main focus of our study has therefore been to gather information on how the "old" model functioned, and thereafter to make some considerations of what the new institutional arrangement of RCN might mean for the innovation policy in Norway.

This study is to a great extent based on existing documentation on RCN, for example the evaluation of the RCN done by the Technopolis in 2001 published in the main report: *A Singular Council, Evaluation of the Research Council of Norway* and its 16 background reports. In addition we have built on the experiences and work done by STEP in the EU-Trendchart project<sup>1</sup>, GoodNip-project<sup>2</sup> and other relevant studies on the innovation policy system, as well as interviews.

<sup>1</sup> http://www.trendchart.org

<sup>&</sup>lt;sup>2</sup> http://www.step.no/goodnip/

#### 2 An ambitious reform

# 2.1 A recent history of RCN<sup>3</sup>

The phenomenon of research councils; separating funding from research, first came into being immediately after the Second World War. The Norwegian Research Council for Scientific and Industrial research (NTNF), under the Ministry of Trade and Industry (NHD), and the Norwegian Research Council for Agriculture (NLVF), under the Ministry of Agriculture (LD) was established in 1946. In 1949 a council for basic research was set up: the Norwegian Research Council for Science and the Humanities (NAVF). NAVF was organized in four subcouncils: medical, natural science, social science and humanities.

The council system was lively debated in the post-war period; the tasks and roles of the existing institutions, proposals to create new research councils and the co-ordination and co-operation between the different councils. New sub-councils were established and reorganized. The universities were not content with their position under NAVF; they wanted to become more active in determining their own research policy. And, a series of committees on governmental level were put in place to advice on research policy.

In 1970 a proposal was put forward to establish a single research council, but was turned down due to its "centralist" character. However, a need for a reform in the research council structure was repeated several times during the 1980s. The need for 'strategic agencies' was emphasized, with the capacity of mediating between the political and the institutional level. The relationship was handled through the 'Langslet doctrine' in the early 1980s, bringing in the principle of distance between ministries and research. The ministries roles were to define research budgets and not buy research needed to support policy development directly.

Norwegian research had a growth period in the latter half of the 1980s. Public funds for research were originally channeled through four "growth areas" which became nine so-called 'main target areas' (*hovedinnsatsområder*)<sup>4</sup>. These were cross-disciplinary and cross-sectoral fields, which involved several ministries and research councils. A complex organisation with national committees for strategy development, co-operation and co-ordination was set up to cope with their cross-disciplinary nature.

In 1990 the Grøholt committee was set up to examine the research council structure. They reported in 1991 that there should be a single research council, organised in three strategic disciplinary councils; for life sciences, physical sciences and technology and culture and social science. The members of these Disciplinary Boards and the Executive Board should be appointed by the government, and the Ministry of education were to take over responsibility for the core funding from the other ministries. The sector principle would in that way be modified, and make room for a national research strategy. There should be a better integration of basic and applied research and a professionalized research management. Research councils should be central, neutral managers of interests, and research policy advice and

<sup>&</sup>lt;sup>3</sup> This chapter is based chapter 4 in Technopolis report: A Singular Council, Evaluation of the Research Council of Norway (2001).

<sup>&</sup>lt;sup>4</sup> The nine 'main target areas' were biotechnology, fishing and aquaculture (Havbruk), Health, environment and the quality of life (HEMIL), Information technology (IT), Culture and research on the preservation and communication of traditions (KULT), Management and organisation (LOS), Oil and gas, Material technology, Environmental technology.

implementation should be more clearly separated in a re-establishment of the research policy council (*Forskningspolitisk råd*).

There was agreement on the general lines of the Grøholt report, but conflict on the divisional organisation. In February 1992 the major research ministries had reached a compromise upon the new research council; constituting in the six sub divisions (*områdestyrer*) that became the 1993-organisationmodel:

- The Bio-production and Processing Division (BF)
- The Culture and Society Division (KS)
- The Environment and Development Division (MU)
- The Industry and Energy Division (IE)
- The Medicine and Health Division (MH)
- The Science and Technology Division (NT)

The government had some other proposals than the Grøholt committee regarding the institutional model. A white paper in June 1992 said that the Government should appoint the Executive Board, but that the Executive Board it self should appoint divisional boards. The Government was also of the opinion that the research policy council was not necessary, this should be a part of the tasks of the new research council. The White Paper emphasised in particular the unified nature of the council with the unified organisation of the council's administration. RCN was formally established on the first of January 1993.

#### 2.2. A vulnerable process: RCN comes into being

There therefore no easily traceable link between the proposal by the committee and what came out of the process as the end result. In fact, it is unclear what the committee actually proposed. This is evident from the following statement from one of the committee members:

"The basic idea in the proposal by the committee was that there should be three research councils. To be better able to distribute resources between the three councils, based on a certain degree of scientific competence, and to ensure awareness of areas falling between them, there was at the last moment proposed an umbrella organisation. The result, however, was one council, far more integrated than what the Grøholt committee had proposed. Whether this was caused by misreading of the committee proposal or simply that the political bodies had a very different view than the committee, I do not know."

More insight into this process is gained from the text in box 1, which links the proposal and the government decision with the Standing committee in Parliament. This committee felt uncertainty as to the proper policy to be chosen, and as a result became victim to this uncertainty, partly due to its own traditional lack of insight in research policy matters.

<sup>&</sup>lt;sup>5</sup> Interview with prof. Francis Sejersted, member of the Grøholt committee, Forskningspolitikk 2/2001, *Forskningsfondet: Nytenkning må til.* 

#### Box 1: RCN in the political process<sup>6</sup>

A White Paper was submitted to Parliament in May 1992. Initially, the Standing Committee on Education, Research and Church Affairs in Parliament did not see the Government proposal as an obvious road to follow. It was hesitant about discussing the White Paper at the end of a hectic spring term immediately prior to the summer recess. Actually, the Government had presented the White Paper after the normal deadline for such matters in the spring session and postponing it was not far-fetched.

The Standing Committee made a preliminary decision to postpone the matter to the autumn term. They also had in mind to study the R&D organisation in the other Nordic countries before reaching a decision. The possibility of delay led to great disappointment as much activity among the supporters of the reform inside and outside of government. They argued that the research councils should not be in limbo much longer. More importantly, they feared that the opposition to the merger might gain momentum. However, some key actors outside the Parliament managed to make the Chairman change his mind on the timing.

Most of the Committee members soon came to the conclusion that for them it was a matter of "taking or leaving" the entire reorganisation package. It was so much of a fragile compromise that it could easily fall apart if even minor changes were introduced.

The result was that the bill passed the Standing Committee without any major cleavages or changes; the entire Committee except its Progressive Party members (right wing liberalists) supported the Government proposal. However, the Committee stated that all resources to the new council should be channelled through the Ministry of Education and Research. This was a significant, but somewhat naïve point of view, given the existing financial structure, practice and ministerial attachments to he existing funding and existing research councils. For example, the Ministry of Industry channelled the greater part of its funds for R&D through NTNF; Parliament's view would have revolutionised R&D funding in Norway. The Committee also stated that all staff members in the former councils should be offered jobs in the new council. Accordingly, the new organisation started off without much new blood.

Another point made by Skoie should be added. The White Paper was drafted carefully, almost strategically, and gave room for different interpretations on important points. The text was vague, and critical considerations were left out. It was basically a compromise paper representing a commonality of the positions taken by the research councils and the relevant ministries and "attuned to parliamentary politics". Further, states Skoie, "... its supporters accepted the merger at a very abstract and general level; during the process many of the qualifications they set for accepting it *de facto* evaporated – they could not at all be met." (ibid).

A stunning fact is also that while such a reform needs "lubricants" to get off to a good start, typically with sufficient funding, the availability of financial resources declined severely over the next years, challenging both the outside legitimacy as well as the internal functioning of the council (see more below).

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<sup>&</sup>lt;sup>6</sup> From Hans Skoie: *Diversity and Identity: The Merger of Five Research Councils in Norway*. Science and Public Policy Vol. 27, no. 2 pp 83-96, April 2000.

#### 3. Governance and co-ordination

# 3.1. The policy function and the problem of political abdication from R&D policy

The research council set up from 1993 had, as mentioned, several contradictions that were mainly structural. A salient feature of RCN and the new all-encompassing model was a combination of a classic, albeit highly integrated, research council, whose main function was to implement policy through funding operations, with a policy function. In fact, the RCN was expected by the minister of Science and Education to perform a key science policy advisory role

RCN never played the role foreseen. In addition to arguing for increased budgets for R&D and providing strategic plans for its own mission (impossible), activities that should be expected anyway (Skoie 2000), no major initiative for long term policy development and prioritization was taken. Meetings were held between the council and the Standing Committee of Science and education. "However, these meetings do not seem to have been particularly successful, and the number of attending ministries has varied considerably. It is noteworthy that criticism of the lack of vigorous advice and engagement from the Council has come from the Government itself" (ibid: 91).

A wider assessment of this seems needed. First, it seems natural that a new council like RCN, meeting with demanding and multiple expectations from the environment, puts the finger on the scar left over from the start up phase: A significant reduction in funding that on the one hand led to infighting for resources and on the other hand to recurrent demands vis a vis its owners for appropriate funding. The lack of funding in the years after this reform is clearly a policy or government failure leading to years of set-backs of the overall innovation system. Second, the inability of the council in performing its policy advisory role may be linked to a vacuum of interest and capability in the political system. The Standing Committee of Science and Education in the Parliament was always an educational committee, and members had little if any competence and interest in science or research policy. Still, they were the committee to deal with the R&D budget, while R&D policy and budgets were never dealt with in the committee that had the long term interest in the area from an innovation policy point of view, namely the Standing Committee of Trade and Industry. It is therefore fair to conclude that the capability failure in the RCN to perform was and is mirrored by the lack of capability, competence and interest in the political system as well as a structural failure of attention in that system.

# 3.2. Organisational set-up on the 1993-model of RCN<sup>7</sup>

The 1993-model of RCN had three organisational levels. The Executive Board (*hovedstyre*) was effectively appointed by the government, had overall responsibility for RCN strategy and

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<sup>&</sup>lt;sup>7</sup> This section is based on a summary of the Technopolis report: A Singular Council, Evaluation of the Research Council of Norway (2001) presented in European Trend Chart on Innovation. Theme-specific Country Report: Norway, March 2002.

represented it externally. It proposed RCN's overall strategy and budgets to The Ministry of Education and Research. It looked after 'horizontal' questions such as international cooperation and large equipment procurement, set budgets and approved divisional strategies, but delegated responsibility for different disciplines and operative responsibility for research to the six divisions.

Each division had a divisional board (*områdestyre*), appointed by the Executive Board. While both researchers and users of research had to be represented, the Executive Board decided on the appropriate balance, which can vary from division to division. The divisional board was responsible for initiating, planning, funding, monitoring, evaluating and disseminating results from research in its area, within guidelines set by the Executive Board and the external funders of research. It was supposed to maintain close contact both with researchers and with the ministries, which finance the work.

The 'third steering level' in RCN comprised programme boards (*programstyrer*) with delegated power to allocate funds to projects, and advisory committees for academic disciplines and matter, which advise the division board on project priorities but do not themselves make decisions. The composition of committees at this level was determined more by user interests than by scientific criteria.

The organisation of RCN represented to a great extent a systemic contradiction. On the one hand RCN was expected to enhance policy co-ordination through merging previously independent research councils, and hence co-ordinate through integration of the agency level (a centrifugal effect). On the other hand RCN was organised with a strong divisional structure, including the divisional boards. They developed their own R&D policy agenda, even to the detrimental effect of neutralising the strategy division of RCN, one with the over all responsibility of developing a coherent strategy and provide the government with policy advise as discussed above.

# 3.3 Internal functioning of RCN

The organisational set-up implied some ambitious objectives<sup>8</sup>. The RCN was established in 1993 in order to improve the coordination between funding of basic and applied research, the coordination between the different sectors and disciplines, and to develop and coordinate national research policy. However, the formation of a unified Council in 1993 has not been accompanied by a similar rationalization within the structure of the Ministries or within the structure of the research community itself (although the sheer dominance of SINTEF, a research institute representing some 60% of the institute sectors turnover alludes to the high level of concentration in an otherwise disparate sector).

Historically, sectoral ministries channelled funds for infrastructure and research through sectoral research councils, which in turn allocated these funds to sectoral research institutes. This situation remained unchanged after the reform, except that the sectoral research councils have been turned into sectoral 'divisions' within a unified council.

<sup>&</sup>lt;sup>8</sup> *Internal functioning of RCN* by Barend van der Meulen, University of Twente and James Stroyan, Technopolis, Background report No 8 in the evaluation of the Research Council of Norway. Published byUniversity of Twente and Technopolis [online] URL:http://odin.dep.no/ufd/norsk/forskning-old/tema/014021-990023/index-dok000-b-n-a.html#Bakgrunnsrapporter

Furthermore, there remained a political will to ensure that all 'parties' within the research community are fully represented. This political imperative means that RCN must support, and be seen to be supporting, all scientific disciplines and industrial sectors. In some cases, the Council also strived to maintain an appropriate balance in terms of demographic considerations, ensuring that geographical regions, peoples and genders are adequately represented.

The evaluators noted that RCN has not been able to overcome the constraints imposed by high levels of fragmentation both upstream and downstream, and the requirement to function in a largely 'non-discriminatory' fashion. These constraints have diluted the extent to which RCN can provide a lead in terms of science policy. Moreover, they explain why RCN had difficulty translating its own divisional strategies into real actions and achievements, and why attempts at effective integration and cooperation across divisional boundaries appear weak. However, the authors added that RCN continue to strive to develop and improve the way it functions within the limitations imposed by external forces.

Certain aspects of the budgeting process, in particular the situation whereby individual research divisions 'compete' with each other on an annual basis for additional funding, has historically undermined parallel efforts to improve cooperation and coordination within RCN. The authors argued that recent moves to improve this situation – through improved 'top-down' direction as to where additional funding should be deployed coupled with explicit requests to the Research Divisions to come forward with joint proposals – appear sensible.

Earmarking of research funding for specific research fields is common practice within all research funding agencies. However, the Norwegian research funding system appears, at least in some cases, to go down to a level of specificity not witnessed elsewhere. Of more concern to these evaluators is that earmarking sometimes relates to specific institutes, geographical regions, and so on. This can create problems for research administration and cause strategic and quality considerations to be disrupted by political concerns.

Programme areas and allocations tend to follow historical, sectoral lines, and are only weakly related to the current strategies or research policies. Programme definition and implementation procedures do not vary by 'type' of programme, but rather according to the personal preferences of the responsible Research Division or programme board. Whilst there is scope for employing a range of different processes in the ways in which programmes and other categories of funding are managed, such processes should vary according to the nature of the initiative, not the personal preferences of those who operate them. The authors argue this aspect of RCN's functioning urgently requires overhaul and rationalization. Clearly defined appraisal and selection procedures, optimised according to the defining features of the programme to which they relate would help to reduce administrative complexity and improve transparency of decision-making processes.

Programme planning strategies and processes vary by Division, with little logical structure behind such differences. There is scope for improved utilization of standard programme planning tools that have good precedence in other national research councils, the reviewers say. There were several initiatives within the Council to improve strategic planning at both the divisional and Council levels. Currently, every division seems to follow its own approach, although each conducts some consultation with the other divisions. While differences in strategies are justified given the differences in the (implicit) missions of the divisions, practice implies that there is a risk of diverging strategies. The evaluators point out that this is

reinforced because the Strategic Planning Division appears not to be involved in coordinating and supporting strategy development at the divisional level.

The evaluators believe there is scope for a more coordinated approach to strategy development, involving better sharing of good practices across the organisation. Although each of the strategic processes that the divisions developed have some value they also seem to rely very much on consultation with the usual bodies and people with whom RCN interacted. So, the people that are involved in these processes are also the ones with which RCN interacted to run the procedures, especially the ministries and the programme boards.

Opening up the consultative processes to include greater input from international experts and competence centres would bring different perspectives and competencies to bear and help to strengthen RCN's strategic planning and functioning.

Evaluation practices are not well developed within RCN, according to these authors. Some positive examples exist and a sensible evaluation strategy has been developed but has not been fully implemented. Given the vital role played by evaluation in delivering systematic feedback and learning, this aspect of RCN's internal functioning needs urgently to be strengthened.

RCN now has prioritised areas - Marine, ICT, Medicine and Health, Energy and Environment - which are arguably in need of more concrete and shorter term forms of strategy making and implementation, which will require more top-down coordination.

Certain cross-divisional differences remained as the logical consequence of the different roles of the Research Divisions in their different sectors. Because of the good working relations between staff from the divisions these differences are no longer a significant obstacle for RCN to function as one organisation, the evaluators say. However, scope remains for improving organisational learning and cross-divisional coordination.

The evaluators have noted clear tensions between the six research divisions and the Strategic Planning Division. Some of the Research Divisions seek to avoid and some even undermined the request and efforts of the Strategic Planning Division. RCN need to readdress the relationship between the Research Divisions and the Strategic Planning Division, if there is to be improved coordination and cooperation between these two parties, they add.

The administrative workload carried by RCN was substantial, and it is not clear that the human resources available are sufficient (in terms of both number and capability) to carry out all of the necessary functions to a high quality. Recent efforts to control administrative load by rationalizing the number of programmes (units) to be managed and increasing the average size of projects are helpful, but cannot be carried on indefinitely. The evaluators argue that if RCN is to continue to face staff cuts, it will have to find ways to supplement its administrative resource or reduce its overall workload.

Heavy workloads created additional problems within RCN, which also need to be addressed, according to the evaluators. If people struggle to find time to perform all of their day-to-day functions, it is difficult to cause them to undertake new or additional tasks, and aspects such as training tend to suffer. If RCN is to improve its processes, increase organisational learning, and become more strategic and results driven, it will require a certain amount of (additional)

time and space in order to do this. Current workloads leave little or no time to develop and improve.

## 3.4. Lock in and representation

RCN is a typical example of an ongoing trend in reforming governance in Norway: the tendency to build monolithic structures. Such structures may or may not offer co-ordination effects. One point to highlight, however, is the lack of diversity in the system, and the possibility that innovators become too dependent on one source of funding. This is especially the case as Norway has a traditional corporatist structure with representation by interest groups on various levels in committees and boards. As we have seen, the committee structure of RCN invites representatives from user groups, usually established firms, to serve on these committees, and these in turn both formulate objectives and contents of the R&D programmes and decide on distribution of support.

The lock-in tendency is illustrated in figure 1, which shows that Norway is in a group with distinct characteristics: On the one hand the group consists of those countries that distribute disproportionally public support to large firms, even though the majority of firms in Norway are small. On the other hand this group is also consisting of countries with a high level of defence related R&D that naturally is channelled through larger defence firms. Hence, Norway finds itself in the wrong group, as the other group may be seen to distribute public R&D funds over-proportionally to smaller firms.

The political economy of this situation is evident, and is further supported by a recent study by Narula (2002). While referring to the representative committee system already described, he illustrates that established firms (larger, energy- and or capital intensive firms) are able to control the priorities of industrial R&D in the RCN, thereby confirming the tendency to exclude smaller, technology-intensive firms which then have to seek R&D funds and collaboration abroad

<sup>&</sup>lt;sup>9</sup> A recent one is also the merger of three innovation related agencies: The Norwegian Trade Council, The State's Fund for Industrial and Regional Development (SND) and the Norwegian Council for Tourism into one new "Innovation Norway".

Firms with fewer than 500 employees Firms with 500 or more employees Australia (1998) Switzerland (1996) Poland Hungary Belgium (1995) Portugal Czech Republic Spain Denmark (1998) Turkey (1996) Finland Mexico (1995) Canada (1998) Korea (1997) Italy (1998) Netherlands (1998)

Figure 1: Share of government financed business R&D, by firm size

Source: (OECD STI Scoreboard 2001, numbers from 1999)

20

40

60

80

100

#### 4. The "new" RCN

Norway (1995) Sweden

United Kingdom

Germany (1997) France (1998) United States

OECD

0

#### 4.1. Escaping "mission impossible

When discussing the achievements of benefits from the reform, the evaluators noted that the framework conditions under which RCN has operated mean that many of the more radical ambitions for the reform are simply "mission impossible" (Arnold et. al. 2001: 118 and 39):

"Given the birthday present of a large budget cut, followed by several years of apparent government indifference, the organisations locked itself into internal battles and budget struggles."

"RCN was set up in a period of very active educational reform. (...) In 1993, with the students' unions demanding better grants and the overall government budget under pressure, the government reallocated money from research to fund students grants, reducing the budget of the new council. (...) the government therefore unknowingly created conditions which would make it very difficult for the

vision of an integrated research council to be realised. This birthday present of a 10 % budget cut set divisions and ministries against each other in a struggle for resources, reinforcing the very obstacles to a more co-ordinated research policy that RCN had been created to overcome."

The evaluators noted that the public rhetoric was that of New Public Management, and that RCN had enthusiastically embraced many of these ideas including the principle of management by objectives. However, at the same time, the Ministries' interests in research are strongly sectorized, and they have a tendency to defend their sectoral interests through very detailed micro-management of their research expenditures. Neither the promised money nor the required autonomy was granted to RCN. The effectiveness of horizontal co-ordination advisory mechanisms and the level of government interest in research and innovation policy have been highly dependent upon personalities.

#### 4.2. The new model

In their conclusion the evaluators made the following comment (Arnold et. al. 2001:120):

"We see two possible conclusions for our work. One is to say that, if it takes eight years to achieve only a modest movement towards an integrated research council, it is unlikely that such a goal will ever be achieved. Our other possibility is to say that the experiment is worth doing properly, and to make some suggestions about how the next stage could develop.

Although the conclusion of the main report is that RCN should remain one council, the authors of the reviews of the Industry and Energy Division (IE)<sup>10</sup> think otherwise. They argue that the missions of the RCN should be split up into

- 1. A council for funding curiosity-driven research along with some foresight orientated strategic research. This should be principally funded by the Ministry of Research and Education but it would be appropriate to anticipate funding from the Ministry of Health and other Ministries, as long as they are prepared to delegate authority to the Research Council and to minimize the amount of earmarking they attach to their funding
- 2. A funding agency/council for applied and industry-oriented R&D, with the mission to foster economic development and wealth creation (largely made up of the current IE but which will require strong links to SND and other industry support agencies)
- 3. An independent advisory council responsible for formulating research, development and Innovation policy in Norway.

An independent and influential research-policy advisory-council could play a vital role in the development of national policy in this field, according to these evaluators. The RCN does not yet function as a strong advisory body for the development of national policy, and in the opinion of the reviewers does not have the independent position, structure or budget it would need to fulfil this mission

<sup>&</sup>lt;sup>10</sup> *RCN Divisional Reviews* (2001), by Ben Thuriaux and Erik Arnold, Technopolis. Background report No 8 in the evaluation of the Research Council of Norway. Published by University of Twente and Technopolis [online] URL:http://odin.dep.no/ufd/norsk/forskning-old/tema/014021-990023/index-dok000-b-n-a.html#Bakgrunnsrapporter

#### **Box 1: Summary of the 2001 evaluation**

The evaluators found that the expected benefits from the reform in 1993 were to:

- Provide the government with an organisation to provide research policy advice, based on a holistic, national perspective
- Increase coordination in Norwegian research by taking responsibility for all fields of research, avoiding competition and gaps.
- Improve integration between basic and applied research
- Provide a more efficient and un-bureaucratic actor at the research strategy level

#### The evaluators summarized the tasks of the RCN as follows:

- RCN shall produce useful national and sectoral research policy, based on an holistic national perspective
- RCN shall fund research to meet social and industrial needs, taking account of user's needs and promoting the uptake of results
- RCN shall fund the high-quality basic and applied research needed in the national system of knowledge production, seeking to integrate the two as far as appropriate while securing the place of basic research
- RCN is tasked with strategic responsibility for the research institute sector in Norway
- RCN is tasked with promoting the interaction in Norwegian knowledge production with the international knowledge production system
- RCN shall use appropriate and efficient processes (including evaluation) and organisational structures in performing its tasks

#### Some highlights:

- The amount and quality of policy advice RCN has been able to offer government has improved over time. However, RCN could usefully ask more dangerous questions in its advisory function, for example about the balance of effort and scale among the different actors in the research-performing system.
- RCN has a set of quality procedures in place, which aim to ensure that it funds research that has high scientific quality and that significant parts of its budget are spent on work that is socially relevant both in the short and the long term. A lot of the work it funds is fundamental, and there is probably scope to focus this activity more in areas which have strategic relevance. Better integration between applied and more fundamental research requires more policy experimentation than RCN so far has been able to undertake.
- RCN was charged with a special strategic responsibility for most of the research institute
  sector, but only to a limited extent given the resources and freedom needed to exercise that
  role. However, it has achieved increased clarity about funding principles, tidying up the
  system and setting sensible rules.
- RCN has been very active in setting up bilateral international agreements, few of which have much content, according to the evaluation team. However, it has provided financial and coaching support to bring the Norwegian research community into the EU programmes. Recently, it has started including an international dimension in many of its activities, such as PhD funding.
- RCN operates in a wide range of processes. There is probably more diversity than is actually necessary, the evaluators note, and transparency would be served by greater consistency. Especially given this diversity, RCN's administrative costs do not appear excessive. If anything, the council is under-staffed.
- Evaluation is not properly connected to the work of the council. Evaluations have too few consequences, according to the report, and are barely linked to organisational learning.
- The divisions and their boards and the Executive Boards seem somewhat to inhabit parallel universes, talking to different groups outside the council and having separate concerns inside.

The relationship between the two councils should enable strong cooperation on closely selected topics and this will require a mutual understanding of both the research and the innovation support traditions. With two well-organized bodies this could be easier to achieve, the authors argue, as with the current unified but fragmented RCN seems to be "governed by peace treaties and not by a common strategy."

The Ministry of Education and Research commissioned the evaluation and was therefore responsible for following up this work. A Project Governing Board (*Styringsgruppe*) was led by Christian Hambro.

The Government announced on the  $28^{th}$  of May 2002 that the RCN would not be split into two or more organisations.

In an article in the Norwegian newspaper Aftenposten<sup>11</sup> the Minister of Education and Research, Kristin Clemet, underlines the need for a close relationship between basic and applied science, which is much easily achieved in one organisation. Moreover, she argues that in many areas the present organisation functions well. There is for instance a better coordination of international research co-operation, and a more coherent research institute policy. She mentions several issues that will have to be improved, however. Basic science will have to be strengthened, the innovation policy functions are to be strengthened and better coordinated, and internal governance and co-ordination must be improved.<sup>12</sup>

On the 10<sup>th</sup> of September 2002 the Government announced that the RCN would be reorganized. Six divisions were to be replaced by three:

- The Division of Science, which is to contribute to the development of basic science within all disciplines as well as the development of interdisciplinary research
- The Division for Innovation is to be a partner for the private and public sector in the field of research and innovation. The main focus is on innovation.
- The Division for Strategic Priorities is to identify and prepare research needs of national importance and develop the knowledge base in priority areas.

The Minister of Education and Research said that the Government settled on a functional partition (as opposed to a disciplinary one) due to complaints from user groups, especially academic researchers and industry representatives. These groups do not face the same needs, the minister said.

In the October 2002 National Budget, the Ministry of Education and Research gave more detailed presentation of the plans for reorganisation. <sup>13</sup> The Ministry underlined that:

- The main board must be strengthened
- It may be possible for members of the divisional boards to sit in the main board

<sup>&</sup>lt;sup>11</sup> Aftenposten, May 29 2002.

<sup>12</sup> Norwegian press release at http://odin.dep.no/ufd/norsk/aktuelt/pressem/045071-070045/index-dok000-b-n-a html

<sup>&</sup>lt;sup>13</sup> St.prp. nr. 1 (2002-2003) Utdannings- og forskningsdepartementet, pp.19 http://odin.dep.no/ufd/norsk/publ/stprp/045001-030004/index-hov003-b-n-a.html

- The main board will be given the responsibility of reorganizing the institution within the framework given by the Government
- The Research Council will remain an important policy adviser for the Government. However, the Government will to a larger extent also ask other parties for advice.

The process regarding the future of the Research Council will have to be considered in relation to the development of a new innovation policy and the evaluation of industry policy institutions and instruments.

On September 1 2003 the Research Council switched to its new structure, in accordance with the reform implemented by the Government.<sup>14</sup>

## 4.3. The new model – end of governance failures?

The new **functional** organisational principle might contribute to solve this sectoral organisation problem. According to Luther Gulick<sup>15</sup> the departmentalization principle chosen is central for how the organisation is working. Everything that is to be done in the organisation must be analyzed and determined in what group it can be placed without violating the principle of homogeneity in each organisational division. Each division must either be characterized by: the major purpose it is serving, by the process it is using, by the geographical place where the service is rendered *or* by the persons or things dealt with or served. When any of the four items differ, there must be a selection among the items to determine which shall be the superior organisation principle.

However, the evaluators emphasized that it was the sectoral organisation *culture* that was the problem; in the historical research councils, in aspects of the budget process in "competing" divisions, in programme areas and allocations that tend to follow historical sectoral lines etc.

Hence, it is not the organisational model in itself that is the main problem it is argued, but the institutionalized sector-culture in the RCN. Of course, this institutionalized culture is not only a problem – this is also important knowledge bases for the RCN's activity in these different fields. But, for a holistic research strategy such a fragmented organisation culture is a problem.

There was a debate within the ministries regarding delegating the reorganisation to the RCN itself. Some argued for hands off approach, leaving the internal organisation to the people who know the needs of the RCN best - i.e. the RCN staff and boards. Others argued that the RCN leadership will find it impossible to implement any radical changes, out of the need to compromise between the various factors of the organisation. The staff and boards have invested interest in the structure, and may find it hard to give up their present positions and power. The discussion shows the contrast in an institutionalized knowledge versus an interest in a survival of the existing organisation.

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<sup>&</sup>lt;sup>14</sup> See St.prp.nr. 1 2003 and new governing regulations for the Research Council decided by the Cabinet on December 20<sup>th</sup> 2002.

<sup>15 1937</sup> 

Some has however already argued that the reorganisation is only superficial, as most of the work units remain the same, manned by the same people. Hence the old cultures live on, making it harder to get any real change.

Another topic emerging from the story of RCN is the fact that the process is one of integration rather than co-ordination. In other words, merging several research councils into one reflects institutional integration, but not necessarily policy-co-ordination. A contrast with the EU framework programme may be helpful in demonstrating this point. Over several programmes the framework system has tried to integrate various activities into more wholistic approaches. For example, the 3<sup>rd</sup> FP concentrated greatly on technology platforms, integration basic and applied research in building knowledge bases for industrial development. The 5<sup>th</sup> FP attempted another focus in using key actions in achieving a more coherent approach to R&D. The current 6<sup>th</sup> FP instigated Integrated Projects (IP) to essentially do the same as the technology platforms attempted in the 3<sup>rd</sup>. Hence, the framework system has been, albeit to variable degrees, an instrument to co-ordinate activities through programme design. RCN on the contrary has been an institutional solution of sectoral integration to what was at the outset labelled co-ordination problems. But RCN as an institution has not been able to co-ordinate various R&D activities through e.g. organising basic and applied research in dedicated programme design.

Therefore, one may rightfully ask the question of how much institutional integration is warranted to ensure proper policy or activity co-ordination? There is no straight forward answer to this, but what maximum integration leads to is a lack of capacity in the system for self-organisation and adjustment, important co-ordination mechanisms that play a role in more loosely coupled, flexible or competitive systems. To high a degree of integration may therefore lead to loss of co-ordination, but of course greater political control. There is therefore a tentative contradiction in this material, as policy makers delegated policy making functions to the research council while at the same time opting for an organisational solution that had greater control potential. In sum, we do not see significant effects in policy co-ordination from these reforms.

Institutionalized cultures are however slow to change, but not static. It is possible to transform institutionalized culture through continual processes of interpretation and adaptation<sup>16</sup>.

# 5. Conclusions: Structure, culture and contradictions

We do not aim at an evaluation of RCN in this paper. The assessment should address some key governance issues in the Norwegian innovation policy system, and RCN illustrates these rather pointedly. In this concluding section we therefore sum up and discuss these issues as they have emerged through the paper.

First, the case of RCN illuminates a political failure in the sense that the policy system is ill equipped, both in terms of attention and capabilities, to formulate and address long term R&D policy issues. The consequence thereof is two-fold: The political system abdicates from key policy challenges while leaving to the RCN to perform such a role. Next, RCN becomes the level of co-ordination, as the political level is not able to do this. RCN as an example of the

<sup>&</sup>lt;sup>16</sup> i.e. Olsen 1992

agency level in the Norwegian governance system, is then overburdened with co-ordination tasks for which it has few resources. The root of this problem, as we see it, may even lie in the deeply set sectoral system in the Norwegian public administration, a point that is dealt with elsewhere in the MONIT project.

Second, of the two explanatory factors presented for the organisational and co-ordination problems in the RCN, the structural and the cultural, we see the structural as the main problem. The inbuilt tensions in the organisation, reflecting a diverse set of expectations from a complex environment, stretched the council in many directions, giving much leeway to the divisional level. Agency level co-ordination in a world that is highly fragmented is indeed a mission impossible.

Third, the linkage with the outside world, or rather the constituency, through extensive user representation in boards and not least programme committees, may have a great number of advantages. But the history also illustrates that it may extend the conflictual interface with the user community as well as with the science community. This has in particular been the case in several conflicts relating to funding decisions, where people serving on programme committees are part of the decision making process concerning funding of projects by their own competitors. These governance dilemmas have not yet found their solution, but an independent study is being conducted with the aim to recommend new procedures.

Fourth, the policy process leading of to and beyond the reform to the current reorganisation was based on assumptions of governance that were ill-conceived. The idea of a monolithic structure being the answer to apparent co-ordination problems seems to be a political preference for control rather than diversity. Researchers and innovators in the Norwegian system may have got a one-door system to forward their applications, but have lost a diversity in which different research and innovation policies may have enriched the funding system and priority setting. We conclude at this point that the underlying logic of achieving coherence is through bureaucratic, agency-level monoliths, rather than flexible and diverse, even competing systems. An interesting implication from this is that a monolithic structure may be by far sub-optimal in achieving policy coherence and —co-ordination in an otherwise fragmented environment, while agency level flexibility and adaptability may be better of, creating the necessary diversity for innovators and researchers to exploit a system in which bounded rationalities are better distributed and represent lower risks.

Fifth, and this is a key issue, there is a need to distinguish between integration and coordination. The story of RCN is not a story about co-ordination as such, but rather sectoral integration on an institutional level. Such integration may or may not have co-ordination effects. The process, as well as the outcome, was evidently focussed more on developing a controllable institution than on achieving dedicated co-ordination impacts. Sectoral or institutional integration was more important than research activity co-ordination.

In sum, the story of RCN is one with great and well-meant ambitions, but with many weaknesses. It illustrates that the decision making process is weak, in that far more resources are deployed for ex-post evaluation of the reform than a thorough ex-ante assessment of the status quo as it was. Reforms with vast implications are carried through without a sound policy assessment, and represent often a trend in time and personal political ambitions of

ministries and other key actors. We do not know how a revised, multiple system of research councils would have looked like, but a system of more diversity would not necessarily be worse off when it comes to co-ordination and buffering the complex system of interests in the environment.

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<sup>&</sup>lt;sup>1</sup> Norwegian press release at http://odin.dep.no/ufd/norsk/aktuelt/pressem/045071-070045/index-dok000-b-n-a.html

<sup>&</sup>lt;sup>1</sup> St.prp. nr. 1 (2002-2003) Utdannings- og forskningsdepartementet, pp.19 http://odin.dep.no/ufd/norsk/publ/stprp/045001-030004/index-hov003-b-n-a.html

<sup>&</sup>lt;sup>1</sup> See St.prp.nr. 1 2003 and new governing regulations for the Research Council decided by the Cabinet on December 20<sup>th</sup> 2002.