MONIT

monitoring and implementing horizontal innovation policy

Development of the Entire Country Regional and Innovation Policy Coordination in Norway

Åge Mariussen and Morten Fraas

WORKING PAPER

MONIT is a collaborative project in the context of OECD to explore national capabilities in innovation policy and governance in the innovation driven economy

For more information, see www.step.no/monit/

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1. Foreword

The MONIT project was endorsed by the TIP working party in December 2002. Building on the results of the TIP NIS project, its main objective is to generate knowledge on how to improve innovation policy governance and create a more coherent and comprehensive innovation policy. The focus is on how to achieve a more horizontal innovation policy through co-ordination with non-core policy areas, vertical integration and coherence, and new forms of governance and policy making processes. More specifically it studies the foundations for innovation policy governance by highlighting issues such as political leadership, building effective co-ordination mechanisms, socio-political foundations for information exchange and policy learning, cultural factors in policy systems and related sources for coherent policy making.

The MONIT network consists of 13 countries, all devoted to generate knowledge to be shared by the others. The MONIT project is organized in 3 work packages (WP):

- WP1 consists of a broad analysis and assessment of the national policy profiles and challenges, as well as of key governance issues;
- WP2 includes policy case studies in the areas of information society, sustainable development and transport, and regional policy;
- WP3 will synthesize the results from WP1 and WP2 and draw the policy implications.

STEP is in MONIT studying the Norwegian innovation policy system through several inter-linked 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 covered in the project.

Norway is the lead country in this network, while Austria, Finland and Netherlands are co-leads. The Norwegian part of the project is commissioned by the Research Council of Norway (RCN), and funded by this council and the ministries of Science and Education, Trade and Industry and Regional Affairs. The project also consists of a learning arena organized by the users through which results and perspectives generated by MONIT is disseminated and discussed.

Svend Otto Remøe

Project responsible

2. Contents

3. Introduction

Internationally the term *innovation policies* first appeared in the 1970s. However, policies promoting knowledge to enhance economic development is not a new phenomenon. They emerged within a broader context of the experiences from the technological competition during the two World Wars, as well as the "human capital" policy of the 1960s, later to be followed by various forms of policies of education, research, sometimes also technology policy (Mariussen & al. 2001). In the Norwegian context, the post world war period was characterized by a state led thrust towards technological development and modernization. In the 1980s, this was developed further, in the direction of regional policies promoting industrial restructuring, as well as R&D policies inspired by the international trend called "technology policy".

Whereas technology policy during the 1990s was followed up with innovation policy as a specific policy sector in many European countries, this did not happen in Norway. Hence, in the beginning of the new millennium, it appeared as if Norway had missed many of the opportunities which had been exploited in several other countries, relating to the "new economy" thrust of developing ICT, and other innovation policy success stories told at the time. During 2001 – 2004 a sustained effort was made towards developing a "horizontal" or "holistic" innovation policy in Norway.

This effort was to a large extent driven by central government politicians.

As a part of this process, the Norwegian *Government* developed its own innovation policy. The entire government has been participating in this undertaking, and the Prime Minister has been personally engaged. The responsibility for innovation policy is divided between several ministries, with the Ministry of Trade and Industry as the leading partner.

However, the Ministry for Education and Research, and the Ministry for Local Government and Regional Development, and several other ministries, are also important actors in this process. When it comes to regional policy, the leading partner is the Ministry for Local Government and Regional Development.

The focus of this study of regional policy and innovation policy in Norway is the process of coordination, where, as it were, the idea of a "horizontal" or "holistic" innovation policy is reinterpreted and applied within an existing national policy system. This system, it goes without saying, has its own unique institutions, history, and structure.

Following up the central OECD design for reports like this, we focus on three questions:

1. What is the coherence between regional policy and innovation policy objectives, measures and outputs?

2. To what extent does innovation policy transform regional policy – and to what extent is the regional policy sector path dependent?
3. What are the implications that may be drawn, in terms of the innovation system of the regional policy sector?

The method has been studies of existing policy documents, and interviews with actors. The conceptual and theoretical understanding of the process has been inspired by the Monit Joint Conceptual Paper, as well as theories of policy coordination (Kaufman, Majone, Ostrom and Wirth, 1986).

Coordination may be seen as rational actors negotiating, making deals, struggling for their interests, and playing games with each other. In a rational actor perspective, results of games like that may be seen as similar to a contract, a deal made between core actors, determining how the policy field should be operated. Assuming actors are rational – one might easily jump to the conclusion that coordination processes ought to be successful? However, within a game-theoretical - perspective, it is often explained how actors playing together for structural reasons may end up in sub-optimal solutions. In this report, focussing on coordinating in an emerging, new policy field, innovation policy, we will emphasize the "deeper" or institutional aspects of coordination. Processes of institutionalization may be seen as composed of four dimensions:

The "meaning" of the policy field of innovation.
This refers to the cognitive understanding of the field, as shared – or disputed - by actors involved. Institutionalization of a new policy field – like innovation policy - often takes place through the creation, diffusion and application of a dominating perspective or form of understanding as to what "innovation policy" is all about. This shared understanding refers to questions such as: What is innovation? Why is innovation important to the economy? Why is innovation policy necessary – and what are the relation between innovation policy – innovation, and other policies in other sectors?

The operational definition of the policy problem
Once the "meaning" of the field have been sorted out, the shared understanding may be made more operational, through a more specific definition of the policy problem, and the way to solve it. A more operational approach for instance, may take as a point of departure a common idea of how a "typical" innovation process looks like. Is innovation generated by new ideas created in research laboratories and exploited by some business entrepreneur to set up a new fast-growing firm – or is innovation on the contrary a new design product based on old technologies? Should innovation policy emphasize R&D – or focus on assisting entrepreneurs putting up new firms? Operational questions like this fall back to the basic understanding of the subject matter.

Roles, positions and networks
Once the field is made more operational, it is also possible to discuss in a meaningful way the roles, positions and networks needed to get the policy system going. Given that we know what is to be done and why, we may identify the actors. What can they deliver, how can they do it? With whom should they cooperate – and on what issues? These

coordination issues – importantly - are seen *within* the broader cognitive and operational context, defined through the shared understanding – and the way this shared understanding is made operational.

In practice, of course – this also goes the other way around, as specific stakeholders may promote their understanding of what the field should look like. An actor with a symbolic power enabling him to dominate the *definition* of the field – will also be likely to have the upper hand when it comes to who is going to have the centre stage in the process of coordination. In this way, the debate on the cognitive issues – how should we understand this field – get mixed up with the discussion on roles, positions, and networks. The actors who defines how the problem should be understood, is in charge of the field, and are most likely to control the budgetary goodies which comes with it.

In this process, there is also the question of how the new policy field fits into the over all context of the pre-existing policy system.

Values, norms and rules of interaction

Within any existing policy system, the creation of a new field of policy takes place within a pre-existing system of sectors, with a certain division of responsibilities, combined with their own understanding of what is going on, their own operational models of what they are doing, etc. What is more, policies are embedded in values, norms, and rules of interaction. These pre-existing parameters determine the context within which the new policy field is born, as new policies reflecting values at odds with existing ones, may be rejected.

This dynamic of local embedding of a new policy field makes it unlikely to expect that two countries may copy each other completely. A new policy sector cannot simply be "imported from abroad", it has to be reinterpretation and adjusted to fit into the context of the values, rules and interests of the existing system.

The structure of this report is the following:

Summary, Conclusions, and Main Findings (section 4) presents the main findings from the study, and our answer to the three OECD questions above. At the end of this section, you will find a diagram indicating the main actors and the relations between these actors which we discuss.

Norwegian regional policy, history, objectives and core actors (section 5) discuss the background and institutionalisation of the main dilemma of Norwegian regional policy, between industrial development and spatial redistribution, in favour of lagging regions. The section gives an overview of the development of regional policy objectives, and it briefly describes what we call the "core actors", the Ministry of Local Government and Regional Development, the regional institutional level, the "fylke" or County, and the municipality. We return to these actors in the final section 7.

The context and background of central level inter-sector coordination (section 6) gives an overview of the main actors at the regional level involved with regional innovation policy, as well as some of the main mechanisms of inter – sector coordination at the central level. This provides a background for the next section.

The central policy process (section 7) gives an overview and analysis of the evolution of regional innovation policy in Norway at the central level of government, ministries, and agencies, including main aspects of reorganization of agencies.

Regional coordination (section 8) goes back to the core regional policy actors, and discusses their coordination of the wider system of regionalized innovation policy in Norway.

4. Summary, Conclusions, and Main Findings

Following up the central OECD design for reports like this, we focus on three questions:

1. What is the coherence between regional policy and innovation policy objectives, measures and outputs (4.1)?
2. To what extent does innovation policy transform regional policy – and to what extent is the regional policy sector path dependent (4.2)?
3. What are the implications that may be drawn, in terms of the innovation system of the regional policy sector (4.3)?

4.1 What is the coherence between regional policy and innovation policy objectives, measures and outputs?

Through a central level policy coordination process between September 2001 (the Sem founding declaration of the Bondevik II Government) and February 10th 2004 (The Government Conference on innovation policy), Norwegian innovation policy was transformed from a marginalized activity for a small groups of experts, policy-makers and implementers within certain sectors, like regional policy, industrial policy, and R&D policy, into a main-stream policy context for industrial and regional policy. In addition, innovation policy has impacts within other policy sectors, such as R&D policies, rural policies, and transportation. Innovation policy has a high-profile central government attention.

One of the perhaps somewhat surprising aspects of this rapid diffusion and up-grading of innovation policy is what may be called a *convergence* or *integration* of innovation policy, regional policy and industrial policy *at the level of policy objectives*. This integration was possible through a radical, new *definition* of innovation policy. At the same time, it implied a partial dis-embedding from the point of departure, R&D policy. This redefinition was an achievement of the government itself.

Norwegian national innovation policy, as presented by the Prime Minister in his speech on the 10th of February 2004 has a focus on bottoms up, local and regional development and spatial *distribution*, to the extent that one might speak of *integration* of innovation policy *into* the over-all *context* of *regional and industrial policy*.

The implementation of these over all policies moves in the direction of a regionalization of the innovation policy system. A core element in this regionalization is a re-contextualization and restructuring of central level *policy agencies* of the three core ministries (The Norwegian Research Council (NFR), which is a core agency of the Ministry of Education and Research, and SND, the agency of regional and industrial policy, which now is reorganized and called Innovation Norway.

The reorganization and renaming of these agencies are the link from the central level into the operative end of the new chain of regional and innovation policy implementation and action, which are *regional development partnerships, development coalitions, industrial actors and entrepreneurs*. Through budgetary changes, the institution responsible for regional development partnerships, the "fylkeskommune" or County Council has a greater responsibility, and is now defined as an important actor in the implementation of the Norwegian *national* innovation policy, along with the local "commune" (municipal) institution.

This process must be seen in context with the over-all economic policies in Norway, and the lack of integration between innovation policy and economic policy. Norwegian economic and financial policies under the current government are aiming at enhancing global competitiveness for Norwegian industries through reducing costs. Important measures in this respect are reduced public spending, enabling tax reductions. For these reasons, money allocated to innovation policy instruments has been cut – at the same time as innovation has a higher policy profile. The solution to this contradiction is an emphasis on cost efficient innovation policies, which are found in linking up innovation and regional policy instruments.

Within the over-all framework of Norwegian innovation policy, there still is a place for development of research and technology driven innovation systems serving the core national clusters. However, the major thrust today seems to be in the direction of short-term job creation, rather than handling the strategic challenges facing the *national innovation system*, such as the need for science driven new path creation.

At the same time, the conflict of objectives of Norwegian regional and industrial policy, between on one hand growth (regional development) - on the other hand spatial distribution and cohesion "all across the country", has now been imported into the core of innovation policy, which now emerge as the opposite mirror image of the Finnish second generation technology policy driven innovation policy of the 1990s, which was focusing on technology driven growth in larger cities.

Finding an appropriate *combination* of the two objectives of Norwegian national innovation policy - enhanced long term global competitiveness of the Norwegian economy - and spatial distribution - now seem to be a core question. This combination must be found in the agencies of R&D and industrial policy which are now redefined and redesigned into tools for innovation policy. These tools are now intimately being linked into local and regional partnerships.

Coherence of Policy measures through re-contextualizing agencies?

The evolution of the new mainframe of a regionalized national innovation policy has resulted in a re-contextualization of the directorate level policy *agencies* of regional policy, industrial policy and R&D policy sectors. This move must be seen in a broader context. During the last decade, this agency level has become more important, as policy agencies increasingly are used as *central level inter-sector coordinating mechanisms*. This has resulted in the development of agencies into large and complex organizations.

They are multi-purpose policy tools, with built-in mechanisms for inter – sector coordination – serving a wide range of objectives with a broad variety of policy measures, and instruments. So far, the process of horizontal innovation policy has lead to an initial top down "redressing" – and reorganization - of these agencies. What seems to be emerging through these changes is a regionalized policy support system for innovation. More emphasis is placed on its regional offices, and they are more densely linked into the regional level partnership organized by the "fylke" (County Council) institution than before.

The Norwegian R&D sector is dominated by a concentration of resources into one *single* agency, the Norwegian Research Council. This is now reorganized, into three divisions:

- Innovations
- Central Strategies (innovation strategies for the core national clusters)
- Basic research

In this process, the Innovation division has also established regional offices, linking into regional level partnerships. The Innovation division of the NRC and the new Innovation Norway institution are cooperating closely, both at the national and regional levels, to enhance bottom up mobilization for innovation. The still open question is weather we can see an emerging differentiation between on one hand R&D policy and on the other hand innovation policy, perceived as industrial and regional policy? Interestingly, what have so far not been put on the table of regionalization in the new innovation policy field are the deeper layers of the R&D policy sector, such as R&D funding, institutions of technological research, and University policy.

Does top-down reorganization really change the agencies?

Top down reorganization frequently results in a process where existing practices and modes of operation are reproducing themselves on a bottom up basis, leaving new objectives, directives and organizational structures as empty rhetorical shells. This reproduction of existing practices may draw upon both the institutionalized strengths of the forms of knowledge which are embedded in these organizations, their personnel, as well as the inter-organizational fields linking agencies and their external partners. The pace of organizational change of the agencies has been high, and these changes, in terms of structure, are so far leaving a lasting mark. It remains to be seen to what extent the new policy mainframe will actually interpenetrate and redirect the *operative instruments of policy implementation*, in a way which influence the *innovative activity in the economy*. Clearly, if horizontal innovation policy becomes *everything*, it will dissolve into *nothing*, i. a. rhetoric.

The challenge of *reintegrating* the expanding field of innovation policy remains.

Are agencies and regional partnerships able to co-ordinate measures?

The experience with central level agencies as sector coordination mechanisms is mixed. As an example, the creation of a single agency of research, through a merger of five sector specific research councils into one single research council in 1993, was motivated by a need to solve the problems of coordination between five previous sector specific research councils. The evaluation of the first phase of the Norwegian Research Council,

reflecting upon the period 1993 – 2001, concluded that this attempt had failed, as inter-sector coordination problems re-emerged within the single council. During its first phase of existence, SND had a complex agency-internal governance system for sector coordination, combined with a clear-cut national organizational structure, with a national main office with clear guidance mechanisms in relation to the regional offices. The interaction between SND and NFR however, resulted in a frustrating fragmentation of policy instruments. The explanation is simple: The complex systems of agency-internal inter sector coordination has reduced the ability of agencies to coordinate *between* themselves. This paralysis at the *institutional* level of the agencies was often solved through middle – level managers in ministries and agencies who tried to relate to each others through initiating new programs, targeting the regional level with new policy instrument. These entrepreneurial achievements often have put a stress on the regional level, where projects from different sectors often were experienced as competing, and not in line with the direction of the regional partnership.

In the regional level partnerships, the vertical coordination mechanisms of the agencies, motivated by their complex internal inter-sector governance systems, has lead to a "hollowing out" of regional development strategies and programs. A frequent criticism of these programs in the past has been that they are just rhetorical maneuvers, where the regional offices of various agencies are informing each other about their activities. The current drive towards regionalization of these agencies reflects the ambition to enable more scope for regional level integration into coherent strategies. Successful regional level coordination requires a larger autonomy on the part of the regional operators of central level agencies.

This is achieved through:

- A push towards regionalization of Innovation Norway, including a transfer of the funding mechanisms of the regional offices to the fylke (County) institution.
- The Norwegian Research Council now also will be present with offices regionally, to participate in the regional partnership strategy development, and to make closer links with local firms and industries.

The new expectations to deliver are directed to the regional level. Here, we find

- Regional development partnerships, their programs and partnership agreements, which includes regional offices of state agencies, the regional fylke (county) democratically elected institutions, as well as representatives of unions, employer organizations, and other actors of civil society.
- Regional development coalitions, who are bottom up networks of small and medium sized firms, as well as local and regional clusters.

Taking into consideration that future policy coherence seems to critically depend upon this level – the interaction and achievements of the agencies and their regional level partnerships clearly deserves attention in the future.

4.2 To what extent does innovation policy transform regional policy?

The convergence of regional and innovation policy through the government statement of February 10th goes a way back. During the last decade, innovation policy was seen as one of several activities *within* regional policy, competing with other objectives and priorities. The "innovation policy influence" on regional policy emerged through different sources:

- The industrial policy sector. The diffusion of ideas into the regional development sector from the industrial policy sector during the 1980s did lead to an increased focus on regional development issues, primarily through the program for regional industrial restructuring initiated in 1982, where the two sectors cooperated closely in solving problems of decaying industrial towns. Later, specific regional innovation programs were initiated by SND, such as the Innovation Pilots.
- The R&D sector, through specific programs initiating work on regional innovation systems (REGIN) and regional development coalitions (BU2000, VS2010). These programs were initiated within the Norwegian Research Council, drawing support from several sectors through the Council.
- EU Structural Fund policies. This influence started with the "Free County" experiment, and continued with influence from various EU Structural Fund policies during the 1990s. From 1989 and on-words this was reflected in references in regional policy documents for knowledge based regional development strategies, as well as strategies of local bottom up development.

More recently, the White Papers from the Labor Government in 2000, as well as Bondevik II in 2002, emphasized "favorable environments for innovation" as regional policy objectives. The over all priorities within regional policy are to secure population, value creation and sustainable communities all over the country, in other words, both growth and distribution. The Parliamentary Bill no. 1 of 2003-2004 emphasize a priority towards

- Regions and centers which display a growth potential
- Measures which may strengthen innovation and entrepreneurship in all parts of the country, as well as
- Increased delegation and decentralization of responsibility to the regional and local levels.

These regional policies are converging with the new mainframe national innovation policy of the Bondevik II Government, where innovation policy is submitted to regional policy.

4.3 Policy coordination mechanisms: development through transformation

The case study illustrates an expansion of the field of innovation policy into a new horizontal mainframe for several sectors, including regional policy. This expansion also entailed a process of redefinition. The main phases of this process was

1. A high-profile, top level initiation of the process, through the expressed ambitions of reaching the OECD GERD average, as well as the ambition of defining a "holistic" or horizontal innovation policy through a *plan*. This initiated
2. A central-level cross sector *administrative* process of coordination, to define the implications of a "holistic" innovation policy in a plan.
3. Not surprisingly, this initiated several inter-sector conflicts as to how innovation policy should be defined.
4. In an attempt to solve these conflicts, the *plan* redefined innovation policy in the direction of industrial policy, closely coordinated with regional and educational policies, and with some implications for R&D policies. The lines of conflict with basic research interests within R&D policy as well as contradictions between regional development v.s. regional distribution were defined and taken on board the planning document.
5. Regional and industrial policy agencies, as well as regional institutions were renamed and reorganized into innovation policy instruments.
6. This administrative solution – defined in the plan – was again transformed through a government conference (10 February 2004) where innovation policy was finally defined as regional policy, with an emphasis on bottom up mobilization.
7. During the entire period 2001-2004, the implications of not integrating innovation policy and economic policy has became obvious, as the budgets of the new innovation policy instruments are being cut.

The outcome of this process is that the Norwegian government has defined its own, unique vision of innovation policy, which is different from the definition provided by the planning document developed by the governments own, central level administration.

What is not surprising, is the level of inter sector conflicts and debates on the new policy field. As one may have suspected, the conflicts of perception, operational definitions and institutional interests were vitalised. However, *these conflicts did not stop the process*. The major achievement throughout this period may be seen as keeping the process alive, despite the resistance. Given the characteristics of the Norwegian policy-administrative system, where these opponents, as a point of departure, are formidable, this outcome is surprising. The explanation is

Long – term central government organization and attention.
The central level innovation policy makers were able to organize a central (government) level network of interlocking ad hoc committees of *central level actors (politicians and administrators)*. This *continued* central level organization enabled the push and guidance which was needed to keep the process going, and on the table of the government. In this way, the inherent weakness of the Norwegian policy-administrative system when it comes to central (government) level coordination, the weak position of the ministers within the ministries, and the strong position of public officials defending sectors, was successfully overcome. The manifestation of this success was the Government Conference February 10th 2004, where several ministers gave their own, personal interpretation of what innovation policy was to them, and their sectors.

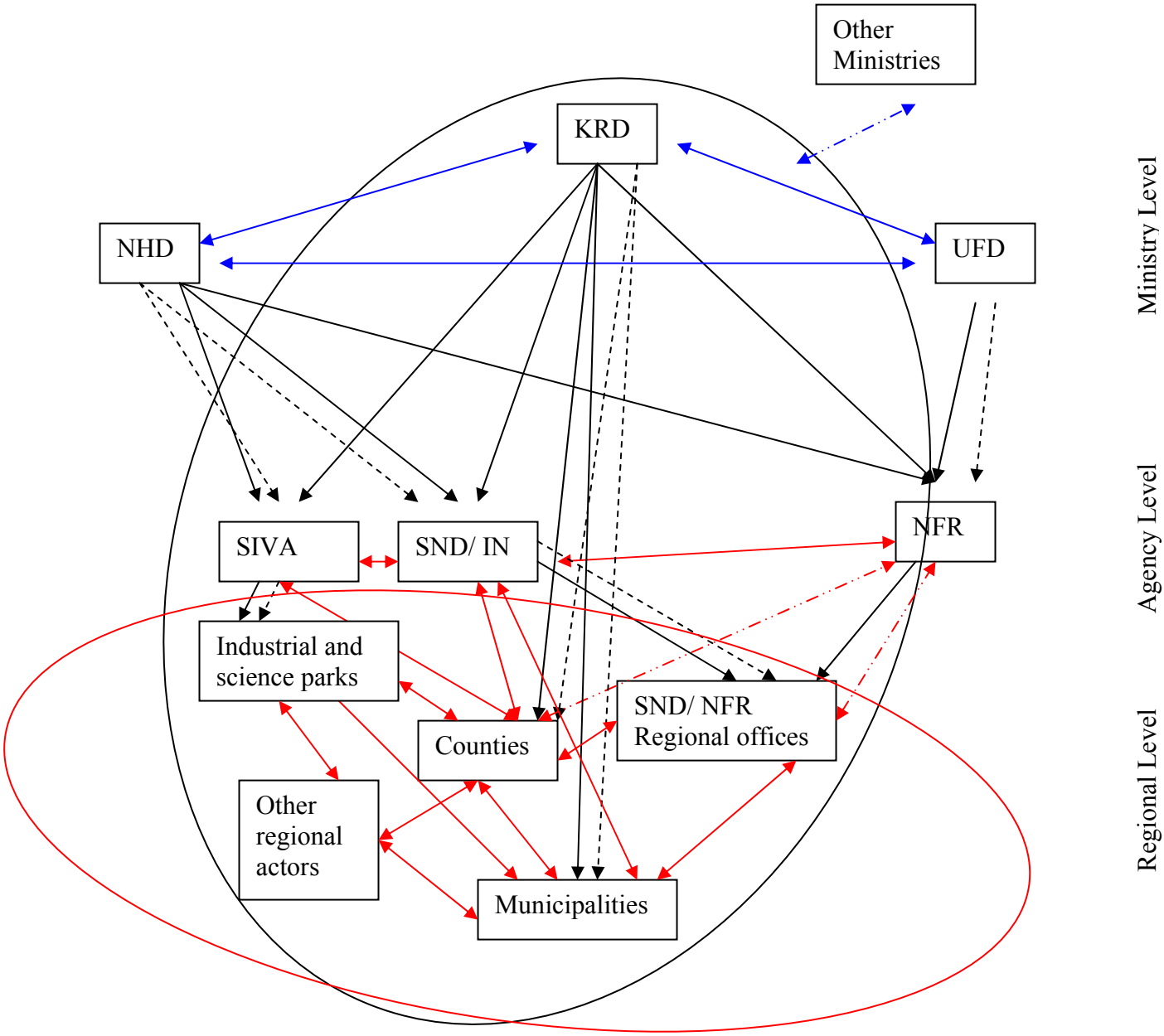
Diffusion, reorganization, and transformation of innovation policy.
This sustained organization *at the central level*, enabled innovation policy diffusion into several sectors, which laid the basis for a strong, simultaneous push within several sectors for a re-contextualization and reorganization of the *agencies* which shapes the context of regional development partnerships. This diffusion and main-framing was only possible through a redefinition of the core of innovation policy.

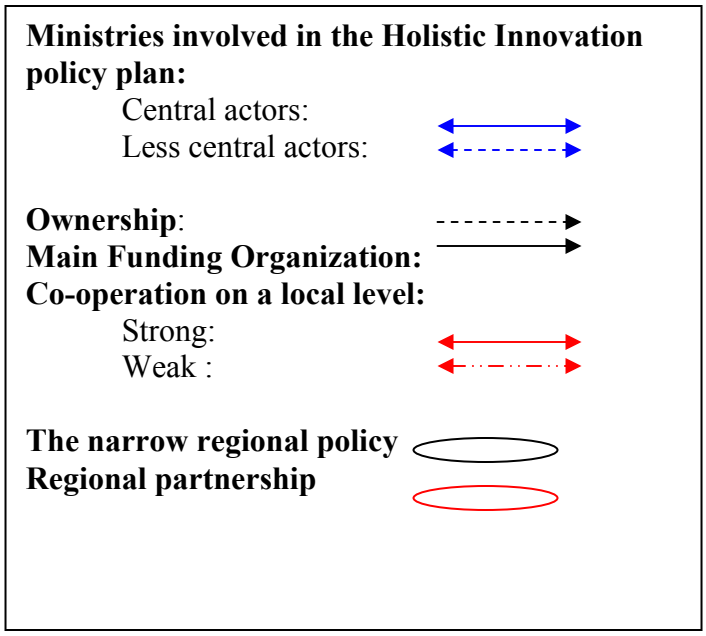
The critical question for the future is weather this successful transformation and rapid diffusion also carries with it the *disintegration* of innovation policy, into a thin air of rhetoric, where everything, hence anything, may become innovation policy.

There is an urgent need to *reintegrate* this new and fast-expanding field. This might be done through some form of strategic policy level guidance and indicator system, aiming at learning at the central level, through a monitoring of innovative actions generated by the new policies at the level of regional partnerships, firms and entrepreneurs.

The integrated regional, industrial and innovation policy system is illustrated in figure 4-1 below.

Figure 4-1: Actors involved in implementation of the regional innovation policy, ownership, cooperation and funding.




Ministries involved in the Holistic Innovation policy plan:
Central actors:
Less central actors:
Ownership:
Main Funding Organization:
Co-operation on a local level:
Strong:
Weak :
The narrow regional policy
Regional partnership

5. Norwegian regional policy: History, Objectives, Core Actors

The current focus within Norwegian innovation policy on development and spatial distribution - or development of the entire country - is a deep institution in the Norwegian policy system. It goes a long way back.

5.1 Geography

Norway can be characterised as a vast sparsely-populated area which has harsh climates, distant from the main European population centres and other international markets. In some rural areas where agriculture is important, population is scattered, in other areas, population may be concentrated in small villages, and towns, often divided by vast uninhabitable territories (mountains, glaciers, rivers, islands, and fjords). The location of these population pockets often is determined by historical advantages of natural resources, like fishing grounds or sub-sea oil fields at sea, water falls making local sources of energy, mines, etc. The rugged topography creates barriers of transportation.

This peculiar geography has in many areas prevented, in other areas heavily modified, the development of a hierarchical "Crystallerian" regional centre structure, where the market all by itself may supply rural areas with services, through a system of cities. This lack of a hierarchical city system with "natural" regional centres, created by the market, throws the idea of "region" into doubt in Norway. One might ask weather Norway actually *has* regions, or weather the country just consists of a collection of localities, towns, and minor cities, interconnected through a complex, far-reaching, and expensive transportation system.

5.2 Local and regional institution building

In Norway, as well as in the other Nordic countries, there is an ancient tradition for local autonomy and democracy. Locally elected committees had a right to collect taxes, and set up policies within their specific borders. This local democracy, the "commune" or municipality was regulated by law in 1836. In the 19th Century, these democratic institutions were important in two closely interrelated ways, as a basis of a national level movement for democracy, against the power of the Swedish King, who ruled Norway, as well as the closely related struggle for national Norwegian independence from Sweden. Municipalities are today a delivery system for welfare services (basic education, social welfare and health care etc), they have a right to collect taxes, a budget of their own, an administration, and are responsible for *land use* in their area. Municipalities are governed by small scale, local policy making assemblies, even though some of them may be quite large spatially. As the borders of current municipalities broadly follow the limits of

functional regions of the 19th Century, it may take several municipalities to make up a modern functional region.

Since 1972, Norway also has a parallel set of regional institutions, "county councils" or "fylkes kommune". As their smaller cousins, the fylke has elected regional parliaments or "ting". As should be expected from the above, the fylke level is not a functional regional level, in a Crystellerian sense. Hence, the fylke" policy debate has strong leanings towards localism, and fylke policy in many respects becomes arenas of debates over *spatial distribution* of public institutions and other budgetary goodies between different localities and smaller functional regions. The traditional fylke competencies have been in the areas of welfare provision, secondary education, health, and also to a certain extent industrial development.

Because both fylke and local municipalities are autonomous policy making institutions, they are not confined within strict sector definitions of responsibility. Instead, they may, and they indeed are expected to, develop comprehensive policies, cutting across sector borders.

Cohesion through distribution

An important point of departure for Norwegian regional policy was policies of *national security*, in particular, securing national control of disputed, remote areas in the extreme north – on the borders to Russia and Finland. Here, the ethnicity, nationality, and language of the population were mixed, and national borders were determined at a late stage. In this context, access to public services was a part of nation building. The state established military fortifications, administrative towns, and supplied the areas with national schools (teaching the "right" language), national churches, post offices, tax collection offices, police, as well as national systems of telecommunication, electricity, harbours, roads and other modern public infrastructures. The nation building aspect of regional policy to a large degree also came to imply an emphasis on national state level *distribution*, to compensate for disadvantages of peripheriality and give all parts of the nation the same socio-economic status. In this way, nation building slipped very easily into *welfare state policies*, which found the municipal level as an ideal local supply system, where national standards were to be implemented in a uniform way, according to the welfare state ideal of equal access for all, and at the same time administered in a way which made local and regional adaptations possible, utilizing the legitimacy of the local level assemblies. Thus, the welfare state development boosted municipal and regional institutions, and gave peripheral areas a strong developmental incentive. Like other national redistribution efforts within the "broad" regional policy, this regional development effect was to a large extent an unintended consequence of national policies, not legitimised with reference to regional policy, but rather to national welfare state policies. Never the less, the welfare state logic initiated a development of *redistribution* which was important in reducing migration to national centra for several decades, and it was important in the modernisation of peripheral areas, where the municipal systems supported the development of a segment of the rural population with relatively high formal skills and qualifications.

Recently, the discussion of the "broad regional policy" opens up for a new emphasis on *central level coordination*, as it builds on an implicit assumption of a "just" spatial distribution of state resources, as well as a renewed consideration of the population pattern.

Industrial development policies
Another point of departure was the significance of industries located far from major cities and towns to the national economy. The northern peripheries, with their natural resources of minerals, hydroelectric power and fish, were, for a long historical period, broadly the period from 1850 to 1950, a major "frontier", and source of national industrial development and growth. To exploit and control the resources of peripheral areas, various national sector policies were designed and implemented. These policies, which were designed to protect industrial development from foreign intervention and exploitation, also came to imply industrial development in peripheral areas. Examples of this was bottom up- based institutions regulating fish markets, securing small scale fishermen rights to minimum prices and access to fish harbours, institutions protecting the rights of municipalities to waterfalls, securing small local municipalities considerable incomes. Another example is support to small scale farming, and national regulations of the food market.

This policy approach derives from the country's distinctive system of economic development planning arising in the immediate post-war period. Special attention was given to the development priorities of the northern areas, where the damage to economic and social infrastructure had been most severe.

Consequently, regional policy was closely linked to national economic planning. Initially, regional development policy advanced piecemeal through separate local schemes. In 1951, the North Norway Plan was set up with the aim of accelerating the process of restructuring in the northern area through targeted production investments in heavy manufacturing industries. During the 1950s, other regions developed similar schemes, which eventually led to the establishment of a central institution to coordinate all regional development investments in 1961 – the DU (or Distriktenes Utbyggingsfond) under the administration of the Ministry of Local Government and Labour. The DU was responsible for the operation of the chief regional financial support measures in Norway until it was subsumed into the SND (or Statens Nærings – og Distrikstsutviklingsfond) in 1993. One important redistribution effort in the industrial development segment of regional policy was the state defined *development zone strategy*, according to which specially designated areas were to have special tax and other benefits, as well as specific arrangements for development support.

5.3 The objectives of regional policy

The declared aim of the state regional policy has always been to secure the development of employment and production inn all parts of the country in order to uphold main

structures of the settlement pattern. The policy instruments are to day much more selectively directed to those regions lying in the designated areas.

Regional policy was until the late 1970 dominated by a *distribution* strategy. Policy efforts were directed towards the redistribution of capital and employment opportunities from central areas experiencing growth to regions that were characterized by dwindling primary industries.[1] The main objective was to prevent de-population of rural areas and secure existing jobs.

At the beginning of the 1980 there was a shift in the regional policies from the previous orientation towards regional redistribution to a policy focus more upon the determinants and drivers for regional and local economic development. This is evident from the white paper published on "regional planning and regional policy" from 1985[2]. Where the most important working strategy for the regional policy was to develop and establish new local companies based on local resources. The competence and use of information and communication technology was stressed as an important factor for to the local companies to be able recondition and improve the local range of products. The background conditions for emphasising knowledge as an important factor for regional local economic development was the acknowledgement that innovation was a vital driving force in the economic development of the society. A consequent of this was among other things the establishment of the regional research institutes and colleges[3].

The increased focus upon local innovation and value creation as the central means for obtaining settlement and growth in the regions was further followed up in the White Paper on regional policies published in 1989.[4] The paper also postulated the appearance of a knowledge society.

This new emphasis on regional innovation policy – rather than the traditional regional distribution, was upheld in the 1990s. This is evident i.a. from the explicit consideration of "regional policies for metropolitan areas", with a White Paper launched in 1991.[5] With 1993 and 1997 White Papers on regional policy these aspects were integrated into a perspective that highlighted the policy need of considering the "broad" and the "narrow" regional policy. By "broad" policy was meant all policies that indirectly affect development in the regions, whereas "narrow" policy referred to policies targeted specifically towards this goal.[6] The distinction was used to argue that to make regional policy in the narrow sense efficient, an explicit assessment and regulation of the broad

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[1] Isaksen, Arne, "Mot en regional innovasjonspolitikk", in Isaksen, Arne (ed.), *Innovasjoner, næringsutvikling og regionalpolitikk*, Kristiansand: Høyskoleforlaget, 1997, p. 211

[2] White Paper No 67 (1984-85), *Regional planning and regional policy (Regional planlegging og distriktspolitikk)*

[3] Isaksen, Arne, "Mot en regional innovasjonspolitikk", in Isaksen, Arne (ed.), *Innovasjoner, næringsutvikling og regionalpolitikk*, Kristiansand: Høyskoleforlaget, 1997, p. 21

[4] White Paper No 29 (1988-89), *Policies for regional development* (*Politikk for regional utvikling*)

[5] White Paper No 17 (1991-92), *Norway needs its big cities* (*Norge trenger storbyene*)

[6] White Paper No 33 (1992-1993), *City and countryside side by side*. *On regional development* (*By og land hand i hand. Om regional utvikling*); White Paper No 31 (1996-97), *On district and regional policies* (*Om distrikts- og regionalpolitikken*)

regional policy was necessary. This led to reorganisations within the relevant ministry, with the responsibility for the assessment of broad regional policies being institutionalised within the ministry. The point to note here is that this involved a supervisory role from the perspective of regional innovation policies towards the regional implications of innovation policies as formulated in other ministries.

The perspective on industrial reconditioning through knowledge creation is upheld with white paper no 33 (1992-93) *City and countryside side by side.* It also stresses the cities role for knowledge diffusion and creation to the regions and the peripheral areas. This shows that the redistribution policy also was important at the beginning at the 1990s, despite that 'bottom up' strategies and local value creation was the leading principle for the regional policy and regional innovation policy in this period.

This is also underpinned by the fact that the regional innovation policy until this point in time was on the whole based and characterized on a linear innovation model before an interactive innovation model. There is no doubt that diffusion of R&D-results from national and central institutions and milieus have been important for small and medium sized companies in the regions and more peripheral areas. When the attention was drawn more towards an interactive model of innovation and one acknowledged that innovation was more frequent and apt to be more successful when innovation and learning processes were locally embedded it was also acknowledged that the regional policy had to be supported with new and other regional policy instruments.

The regional policies that we have seen emerged in the 1990s, have been carried on by recent governments. The Labour Government in office from 2000 to 2001 published a White Paper on Regional Development that stressed the need for innovative and competitive companies in the regions.[7] The recent years have also seen a strong emphasis upon regional innovation policies, and substantial changes in both the organization and contents of innovation policies in general.

This is for instance underlined very clearly in the Government's statement on regional policy from 2002[8], where one of the main statements is that '[t]he government will (promote and) create a favourable environment for innovation,…'. This is recognition that one of the most important prerequisites for the development of regional trade and industry is regional resources and innovation environments.

The Ministry of Local Government and Regional Development in the Bondevik II government has been very much involved in the development of policy instruments targeting regional policy and regional innovation policy. One new development under this Ministry has been a delegation of responsibilities from central authorities to the

[7] White Paper No 34 (2000-2001), *On district and regional policies* (*Om distrikts- og regionalpolitikken*)
[8] Statement *Growth – in all parts of the country.* Erna Solbergs statement to the Norwegian Storting, Tuesday, April 30, 2002.

county administrators, who have been given more influence over the administration and allocation of innovation policy measures and funds.[9]

In parliamentary Bill nr 1 (2003-2004) the Bondevik II Government has drawn up objectives and strategies for regional policy. The Bill emphasizes several regional policy strategies and the most important are:

- A stronger emphasis on regions and centres that display a potential for growth.
- Give priority to measures that can strengthen the capacity for innovation and enterprise in all parts of the country.
- Delegate and decentralize more responsibility for policy measures targeting regions and districts to the regional and local level.

The strategy will promote restructuring, innovation and entrepreneurship and specially pursue a policy that enables young people and women to make use of their resources. The main target group for measures focussed on the business sector is the potential entrepreneurs. The government has also attached importance to a development of regional business and innovative milieus, networks, co-operation between R&D institutions and business, to promote entrepreneurship, new business start-ups and spin-off firms. A key strategy is to create an environment for regional interaction for business and industry and their customers, suppliers, labour supply and knowledge creators. The basic idea is that regional centres will act as hubs for regional networks and innovation and those peripheral areas will be able to connect to these innovation systems. .

5.4 The core actors of regional policy

In this chapter, we will present the actors who constitute the inner core of regional policy making, the Ministry, the Fylke (county) and the municipality.

The Ministry of Local Government and Regional Development (KRD)[10]
Almost all public policy have a spatial dimension. Sector policies are seldom regionally neutral in their impact. The impact of sector policies on regional development are therefore often labelled the *broad regional policy,* while the particular efforts made to contribute to the development of regions is termed the *narrow regional policy*.

With the domain of the narrow regional policy we find the regional policy instruments administered by the Ministry of Local Government and Regional Development (KRD) and the program category 13.50.

[9] Koch, Per, *Country Report Norway, covering period: October 2002-September 2003*, *the European Trend Chart on Innovation*, 2003
[10] This is partly taken from the Ministry of Local Government and Regional developments homepage: http://odin.dep.no/krd/engelsk/dep/om_dep/index-b-n-a.html.

Table 5-1: Allocated funds for the narrow regional policy, main chapters and totally from 1990-2003, in 1000 NOK (current prices). Budget figures for 2003

Year	Municipalities/ local Business development (Chapter 550)	Regional Business development (Chapter 551)	National program for regional development (Chapter 552)	SND and the Counties (Chapter 2425)	Total for the narrow regional policy (Program 13.50)
1990	374 500	687 400	180 400	0	2 202 200
1991	407 500	831 700	203 900	0	2 512 900
1992	439 000	1 111 100	176 735	0	2 661 244
1993	458 305	0	182 000	2 223 380	2 895 121
1994	467 065	0	155 000	2 024 052	2 660 767
1995	105 000	364 455	277 529	1 134 052	1 881 036
1996	94 100	413 455	303 851	1 110 320	1 921 726
1997	94 100	414 955	274 711	929 501	1 713 267
1998	153 000	401 140	253 711	785 236	1 593 087
1999	153 000	514 000	312 500	929 000	1 908 500
2000	153 540	473 000	308 000	928 000	1 862 540
2001	111 140	506 500	285 000	893 400	1 796 040
2002	0	414 000	206 000	773 500	1 393 500
2003	0	1 116 500	297 000		1 413 500

Source: Teigen 2003, based on figures from Ministry of the Local Government and Regional Development

Table 5-1 shows the development for the allocated funds in the narrow regional policy since 1990 in Norway. As we can see there has been an overall decline in the funds from 1993 by NOK 1.4 billion. This decline reflects the efforts throughout the 1990s to limit inflation, costs of public expenditure, and reduce the interest rate, in order to enhance international competitiveness. These policies have been followed up by the current government, during 2001-2004. At the same time, money has been concentrated to the funding for regional business development, rather than local (municipal) business development. The County Municipalities has been a delegated responsibility from central authorities and have been given more influence over the administration and allocation of innovation policy measures and funds. This can be seen in column 'Regional business development' for 2003. Both chapter 2425 and 550 have been put into chapter 551 in order to give the Counties more freedom in how they want to use the funds.

Resources allocated to regional development is delegated to Innovation Norway[11], the county authorities, the municipalities, the Industrial Development Corporation of Norway (SIVA) and the Norwegian Research Council (NFR)[12].

[11] As of 1 January 2004 the new state owned company Innovation Norway has replaced the following four organisations: The Norwegian Tourist Board, the Norwegian Trade Council, the Norwegian Industrial and Regional Development Fund, SND and the Government Consultative Office for Inventors, SVO.
[12] We will describe these institutions more in detail below.

The Ministry of Local Government and Regional Development (KRD) was established in 1948.

It was originally responsible for issues involving the labour market and local government finance and administration. Over the years, however, the Ministry's sphere of activity has been expanded to embrace work in a wide range of other fields. Today it is responsible for matters as diverse as Saami issues, immigration policy, wage disputes and mediation, housing policy, regional and district development, local government and the administration of elections. The Ministry's activities reflect changing political priorities and the current problems and challenges that face our society.

The Ministry of Local Government and Regional Development is headed by the Minister and three State Secretaries. The Minister is also assisted by a Political Adviser. The most senior permanent official is the Secretary General. The job of the Secretary General is to assist and advise the Minister and to coordinate the work of the Ministry as a whole. The Ministry also includes an information division that is responsible for public relations and information regarding rights, proposals and decisions relating to matters dealt with by the Ministry. The Ministry of Local Government and Regional Development employs about 280 people who act as the Minister's extended staff.

The Ministry is divided into six Departments: The Housing and Building Department, the Regional Development Department, the Department of Local Government, the Department of Migration, the Department of Saami and Minority Affairs, and the Department of Planning and Administrative Affairs.

The most important departments within this Ministry and for this study are the Regional Development Department and the Department of Local Government and partly the Department of Planning and Administrative Affairs.

The Regional Development Department

The Regional Development Department is responsible for regional and rural development policies in Norway. The Government sees the overall regional development policy as a national effort to secure balanced social and economic development in all parts of the country. The rural policy constitutes an additional contribution to those parts of the country that must be given special attention in relation to the promotion of general growth and prosperity. The aim of the regional development policies is to maintain the central features of the population settlement pattern and to have equal living conditions throughout the country. The practical pursuit of these goals must be understood in the light of the actual regional development. Resources allocated to regional development policies are used on business investments and loan schemes, basic infrastructure investments, start-up grants, competency programs and municipal business funds. Areas with a narrow economic base that face extraordinary or major changes may receive restructuring subsidies.

The regional development department works through agencies, through funding mechanisms to Innovation Norway, the county authorities, the municipalities, the Industrial Development Corporation of Norway (SIVA) and the Norwegian Research

Council (NFR). The Regional Development Department is also responsible for coordinating regional policies with other areas that are of significance for regional development. This applies to areas like employment, transport, agriculture, fisheries, education, health, and research.

The Department of Local Government

The Department of Local Government embraces five main spheres of responsibility: Local government finance, coordination of government measures relating to county authorities and municipalities, legal matters and the interpretation of legislation concerning municipalities, municipality boundaries and administration of elections.

The Department is responsible for the development of financial management and legal framework at county and local level, for advising municipal authorities in matters of finance and for subsequent auditing. The Department oversees the distribution of revenue between local municipalities and county authorities and is responsible for the development and implementation of the revenue system through which government grants are distributed between county and local municipalities. It also has the task of drawing up the overall budgetary framework for local government in the light of the national budget. This latter aspect means that the Department must look at the local government sector as a whole in relationship to the financial resources available and, in this context, to assess whether central government measures (for example legislation, regulations, redistribution of tasks etc.) for this sector are in accordance with the general guidelines for the distribution of activities between the various administrative levels.

In addition, the Department is responsible for the drafting of local government legislation and for the interpretation of the Local Government Act, the Municipal Boundaries Act, the Public Administration Act, the Elections Act and the rules governing election to the Saami Parliament (Samediggi). The Department also deals with matters concerning the relationship between national and local government legislation and the applicability of particular legislation, for example the Public Administration Act and the Freedom of Information Act, to county and local municipalities. Other important functions of the Department are: The setting of county and local authority boundaries together with the administration of parliamentary, county council, municipal and Saami Parliament elections.

Consultation scheme between the central and local government authorities

The Department of Local Government is responsible for coordinating the participation of the various ministries in the consultation scheme between the central and local government authorities. These consultations provide a forum to discuss the framework for distribution of revenues in relation to the tasks carried out by the local government sector, including matters relating to the financial situation of local government and any needs regarding efficiency measures. The consultations encompass four meetings held each year between the ministers involved and the political leadership of the Norwegian Association of Local and Regional Authorities (Kommunenes Sentralforbund).

In addition, there are ongoing contacts between the central and local government authorities on a number of specific issues at both the administrative and the political levels.

The Department of Planning and Administrative Affairs

The Department of Planning and Administrative Affairs provides internal services and coordination of departmental activities for the purpose of ensuring that the Ministry runs smoothly and achieves its aims efficiently. The Department is responsible for ensuring that the Ministry is organised on an efficient and flexible basis, that it sets clear objectives and that it makes sensible use of its resources. Through the efficient management of information, and by means of careful planning and coordination, the Department also makes sure that a sound basis is provided for Ministry decisions. The tasks of the Department of Planning and Administrative Affairs are largely focused on the key concepts of coordination, service and development. Coordination activities include work on the National Budget, the Government's Long-Term Program, gender equality issues, legislation concerning the Labour Court, strategic planning, matters of common interest, research issues, emergency preparedness planning and internal budgeting.

The regional and local levels

Norway is divided into 435 municipalities and 19 county municipalities. Oslo, the capitol of Norway, is being both a county municipality and a municipality. The municipalities vary significantly regarding size, topography and population. More than half have less than 5 000 inhabitants; eight have more than 50 000 inhabitants. The county municipalities and municipalities have the same administrative status whilst central government has the overriding authority and supervision of county municipal and municipal administration.

The framework for the activities of the county municipalities and municipalities is laid down by the Parliament (Storting) through legislation and decisions regarding local government financing. The Parliament determines the division of functions between the different levels of government, i.e. central government, county municipalities and municipalities. The Government has established a regional commission that is to review all regional policies. The commission is to forward concrete proposals for policy reform based on regional settlement trends and industrial development[13].

13 In 1999 Norway lost a case in the EFTA court regarding the country's differentiated employer's tax (a tax paid by employers for each employee). However, later the same year, EFTAs surveillance agency ESA accepted a revised version of the same system, allowing Norway to reduce the tax in selected counties. In September 2002, the EFTA Surveillance Authority concluded that the current scheme did not comply with the State aid rules of the EEA Agreement and requested Norway to present measures to adjust the scheme. Because of doubts about the compatibility of the notified measures, the Authority opened a formal investigation procedure in July 2003.During the investigation, the Authority received comments from 10 interested parties, all from Norway. All the comments supported the proposal for a three-year transition period. On 12 November 2003 the Authority decided to close the investigation procedure that was opened in July 2003 regarding the three-year transition period for the regionally differentiated social security contributions from employers in tax zones 3 and 4, and to approve a gradual phasing out of the

Regional development
The county municipalities have a key role in regional development. They are given the responsibility of establishing a regional partnership, which should prepare four-year regional development programs (see below). These programs provide the basis for a dialogue between regional and national levels on regional development policies. Based on these programs and the dialogue the county municipalities and the Ministry will conclude an agreement on the use of the regional development resources. The programs will provide the guidelines for the work of the regional Innovation Norway offices.

Education
The county municipalities are responsible for upper secondary schools including education for pupils with special needs and adult education at the upper secondary level. The county municipalities have a number of functions as regards vocational training and thus have to ensure that apprentices doing their training receive the obligatory schooling.

Health
This task, which used to represent the largest sector for the county municipalities (fylke) is now transferred to the state.

Social services, nursing and care
The county municipalities are required to ensure that the necessary places are available in child welfare institutions and institutions for drug and alcohol abusers. They are also responsible for ensuring dental health service for its inhabitants.

Culture
The county municipalities are responsible for establishing and running public libraries. Beyond this they may to a large extent choose themselves what cultural measures they would like to implement.

Transport
The county municipalities are responsible for the building and maintenance of their own roads. Additionally they are responsible for school transport and for ensuring that public transport is available within their boundaries. Part of this is the awarding of grants to local transport companies. The county municipalities issue permits for public transport and taxi services.

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geographical differentiation until 1 January 2007. The current geographically differentiated social security scheme expires by the end of 2003. On 25 February 2004 the Authority also decided to approve a scheme for direct transport aid for enterprises in certain regions in Norway. The area comprises all of northern Norway, except for north Troms and Finnmark counties, most of Nord-Trøndelag counties, and several municipalities in Sør-Trøndelag, Møre og Romsdal and Sogn og Fjordane counties as well as the northernmost municipalities of Hedmark and Oppland counties.

The Municipalities

Education

The educational amenities provided by the municipalities cover a broad field; kindergartens/nurseries, preschool, primary and lower secondary school and adult education. According to the act regulating primary and lower secondary education the municipalities are to provide ten years of education for everyone. The education has to follow basic principles laid down in the act as well as curriculum guidelines for primary and lower secondary education. The act regulating kindergartens/nurseries makes the municipalities responsible for the building and running of day care facilities. The municipalities are not obliged to run the facilities themselves and may leave this to private organisations under municipal supervision.

Health care

The municipalities are responsible for primary health care, including preventative clinics such as mother-child clinics and school health service, treatment of diseases and care for the elderly. Thus the municipalities had to provide a variety of services; general practitioners, district and visiting nurses, 24 hour access to medical help, physiotherapy, nursing homes. The municipalities were free to organise these services in their own manner. They may employ people directly or enter agreements with practioners providing services on a private basis.

Social services

According to the social services Act the municipalities are required to provide assistance for people with special needs, financial support for people seeking welfare and special measures for drug and alcohol abusers. Through The Child Welfare Act the municipalities are responsible for children's' welfare and for implementing measures to prevent behavioural problems and parental neglect. The municipal health and social welfare systems give priority to measures for integrating people with disabilities into the local community, and for reducing institutional care by replacing it with individually oriented types of care. Additionally municipalities are responsible for housing and measures for integrating refugees and people with residence permits granted on humanitarian grounds.

Housing, commerce and industry and environmental measures

The municipalities have a number of tasks relating to the preservation and use of natural resources as well as to the environment in general. They are required to draft plans and make decisions regarding the use of agricultural land, uncultivated land, areas for outdoor

leisure activities, the use and protection of waterways and coastal waters, as well as the management of hunting and freshwater fishing. The municipalities may lay out plots of land for housing and commercial or industrial purposes. They also have responsibilities regarding the applications for purchasing and running commercial or industrial activities. According to the act regulating pollution control the municipalities monitor local pollution. The cost of preventing or limiting pollution and of treating waste is to be covered by the person responsible for the pollution in the first place. Some municipalities run commercial enterprises such as electricity companies, cinemas and parking lots.

Culture and church affairs

The municipalities are responsible for running public libraries and school libraries. They are required to finance churches and cemeteries and cover their running expenses. The municipalities are involved in a range of cultural activities which vary in their nature and extent. They are free to get involved in and to support financially activities within media, music, theatre, literature, museums, arts and crafts, sport, and voluntary associations.

Municipal planning and technical services

According to the Building and Planning Act the municipalities have to make plans for the development of public services and for the use of land and other natural resources. Land development plans show areas allocated to housing with the accompanying roads, water mains and sewage system. Most waterworks are owned by municipalities. The municipalities in general must build facilities for storing and treating refuse from sewage plants, and they are also responsible for garbage collection. Housing development plans often include the provision of child care institutions, playgrounds, sports grounds, cycling paths, foot paths and parks. The Fire Protection Act requires that municipalities ensure that the fire and chimney sweep services are manned, organised and equipped to implement fire prevention measures and to be summoned in case of fire. The municipalities are responsible for the construction and maintenance of municipal roads. The municipalities are also responsible for the construction and running of wharfs and harbour installations within their boundaries. When having a harbour a municipality is responsible for the installation and maintenance of lights and buoys within its harbour district. Harbour districts are defined by the Coast Directorate which is part of the Ministry of Fisheries.

The question now becomes, how do this core of regional policy relate to its wider context of other ministries and agencies? Before we can say something about this question, we have to go through the broader system.

6. The Context of Central level inter-sector coordination

Central level inter-sector coordination takes place horizontally and vertically at several levels

- Between sector ministries and the Ministry of Finance, in the process leading up to the national budget, which is approved by the Government and through decisions in the Parliament
- Between *ministers*, in specially appointed governmental committees, in the government, or in ad hoc working groups and other meetings between ministers.
- Between *ministries*, through contacts at various levels between public officials
- *Within* central level agencies which are funded jointly by several ministries, who follow their money with mechanisms of policy guidance and control within the agencies.

In this chapter we will briefly discuss some of the dilemmas of central level coordination, and introduce the major actors of this game, the ministries and agencies, the way they used to be, before the new game of Norwegian innovation policy making started.

6.1 Economic policy coordination

An important aspect of inter-sector coordination is the coordination which takes place through the national budget. In Norway, the Ministry of Finance combines the responsibility both for economic policy and the state budget. The over all economic policy of the government in 2001-2004 has been to strengthen the competitiveness of Norwegian industries through improving the general framework conditions. This has included

- Low inflation and a lower value of the Norwegian currency (the Krone)
- Lower taxes – through a more efficient public sector

Policy measures to lower inflation have proved to be successful. An important part of this success story is reduced taxes, achieved through substantial reductions of public spending within several sectors.

However, in the economic policy declarations where the national budget is presented, these general macroeconomic conditions are supplemented with considerations to enhance competitiveness through improved infrastructure, knowledge base, and technological development. We will return to the outcome in balancing off these opposing considerations between reduced public spending in general – and increased support for knowledge base and technological development below.

6.2 Ministers and Ministries

A striking property of the Norwegian political-administrative system is the strength of ministerial *sector* administrations, and a corresponding weak position of the *ministers* (central politicians). Mechanisms of inter-sector coordination *between ministers* often are seen as dependent upon *inter-personal relations*. In other words, this is an area where decisions may be taken, but rather in a non-institutionalized manner, subject to personal relations and orientations of the ministers themselves.

The main institutionalized mechanism at this level – beyond government conferences and meetings – is thematic *governmental committees*, defined with reference to specific tasks. In the case of innovation policy, as we will see below, the initiative was taken in the government committee for R&D – and one of the outcomes of the policy coordination process was the establishment of a new government committee for innovation.

The fluid character of this field of coordination is further strengthened by the overload, in terms of information and requests for attention which ministers face. At the level of *ministerial administrations*, the division of labor both between and within ministerial sector administrations defines a strong line of defense against attempts at inter-sector coordination. In this respect, Norway confirms to the well known finding from institutional and transaction cost theory, expressed in the thesis of "oligarchy of bureaucracy": There is a well-established and mutual understanding between central level sector bureaucrats that attempts at new divisions of labor – or new forms of coordination, which breaks with the existing order of things, is bound to initiate "wars", with potentially costly retaliation from other sectors. Typically, as indicated in the introduction, wars may span two interrelated fields of battle:

- The meaning of the field. As each policy sector tends to have its own "world view" of what problems the sector face – and how these problems may be met, development of a common understanding of a new problem across sectors may be a long and contested process.
- Domain conflicts of interest between institutional actors. Questions of meaning quite often also are mixed up with institutional interests, when it comes to who will dominate the new field symbolically, integrate it into their domain of operations, and control the budgets allocated.

New insights and new forms of understanding which does not go well with existing sector domain definitions -.and indeed may have negative impacts on some of the sector budgets – may easily be aborted through games of exhaustion, where "discursive rationality" is victimized.

A "war" which breaks out at attempts to coordinate at a lower level usually is sent to higher levels. If everything else fails, and nobody backs down, the matter will be left to the ministers to sort out between themselves. The long term interaction between these two-level forms of horizontal dynamics, between ministers and between ministries,

creates a fairly high level of *sector stability* at the central level. In the long run, when challenged, sector divisions of labor tend to reproduce themselves.

This stability is combined with certain institutionalized mechanisms of coordination. One example of this is, in the case of regional policy, that new policies in any sector which has spatial impacts must have these impacts analyzed. In this way, sector ministries have agendas and mechanisms to achieve coordination with other sectors, in terms of achieving their sector specific objectives. An operational tool in this respect is inter-ministerial projects, set up on an ad hoc basis.

A third level of coordination is the agencies.

6.3 Ministries and Agencies

The agencies, and other state-level policy implementing institutions *below* the level of the ministries are adaptive to top-down (vertical) change and reorganization. Here, generally, senior administrators have few – if any – lines of defense, if they are told from their owning ministries to reorganize, close down, or make new priorities. Accordingly, this level is often the target for central level policy initiatives leading to processes of *vertical reorganization*. This also means that the agencies often are designed as horizontal – inter-sector coordination mechanisms, as institutions may be linked to several ministries, through budget flows, which are again, linked to objectives, indicators, and others forms of *vertical* guidance and coordination mechanisms.

This has lead to the development of large agency/ directorate level institutions with broad responsibilities, like the single Norwegian Research Council, and well as a single institution SND/ Norwegian Innovation integrating a broad range of industrial and innovation policy measures. These large agencies become multi purpose tools, serving many interests. However, in this way, the agency level institutions may *internally* become arenas of inter-sector *horizontal coordination*, as they try to combine budget flows, and the policy guidance and control which comes with this money from different sectors.

This point is illustrated through the following table.

Table 6-1: Public funding through the state budget from the Ministries to the Agencies, 2002[14].

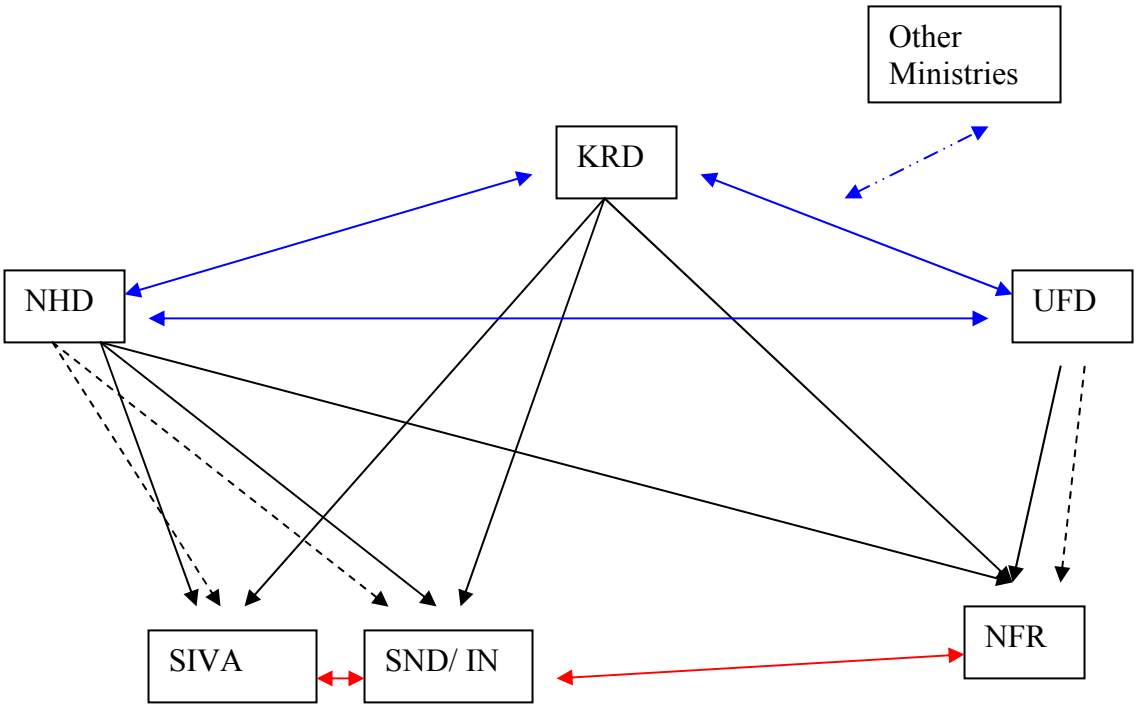
Agency	Ministry		Amount (mill. NOK)
The Norwegian Industrial and Regional Development Fund (SND)	Ministry of Trade and Industry (NHD)	189,0	1922,0
	Ministry of Trade and Industry, administrative funding.	185,5	

[14] In addition, some agencies can borrow or have warranted capital, this is not included in the figures.

	Ministry of Local Government and Regional Development (KRD)	888,5	
	Ministry of Fisheries (FID)	24,0	
	Ministry of Agriculture (LD)	645,0	
The Research Council of Norway	Ministry of Trade and Industry (NHD)	799,0	1570,7
	Ministry of Local Government and Regional Development (KRD)	63,1	
	Ministry of Fisheries (FID)	214,5	
	Ministry of Petroleum and Energy OED	244,1	
	Ministry of Agriculture (LD)	250,0	
The Industrial corporation of Norway (SIVA)	Ministry of Local Government and Regional Development (KRD)	52,0	52,0

Source: The instrument study. (http://odin.dep.no/nhd/norsk/publ/rapporter/024091-990020/dok-bn.html)

Figure 6-1: Inter sector horizontal coordination in and between Ministry- and Agency level.



Ministries involved in the Holistic Innovation policy plan:
Central actors:
Less central actors:

Ownership:
Main Funding Organisation:
Co-operation on a local level:
Strong:

A core problem in the internal governance of these large institutions has been to combine these *agency internal* inter-sector coordination mechanisms with *institutional autonomy, enabling strategic action and inter-agency coordination at the institutional level*. At this point, experiences are mixed.

In the case of the Norwegian Research Council, the evaluation argued that attempts at internal horizontal coordination lead to high internal transaction costs, and limited the achievements of the strategic level during the 1990. In the case of SND, a coherent internal structure was combined with a system of co-funding, where SND was supposed to serve several ministries and a wide variety of objectives. This problem is addressed in an assessment of industrial policy instruments which says, with reference to SND, NFR and a third agency (The Norwegian Export Council)

> *The cooperation between these institutions does not work properly, and there is not a clear division of labor between them. This is the case both on the strategic and the operative level. The firms accordingly experience a fragmented set of policy instruments* (Parliamentary Bill (St. Prp.) No. 51 2002-2003)

In looking closer at the evaluations underpinning this conclusion, it becomes obvious that one of the problems is that the large agencies tend to become paralyzed when it comes to *external* adaptation to other institutions because of their own *internal* complexity.

Below, we will briefly present the main institutions involved in the game at the point of departure.

6.4 Ministry of Education and Research

The Ministry of Education and Research (UFD) is responsible for sectors of society important to our growth and development – both as individuals and as a society. At the same time the educational institutions and the research establishments play important roles as cultural agents and purveyors of culture. Development and change must go hand in hand with conservation and transfer of tradition and values.

The work of the Ministry is aimed at ensuring that Norway has a sound and well functioning educational system and productive and creative research environments. We need these institutions if we are to meet the challenges in a world where capital and knowledge transcend boundaries, where information technology and biotechnology create new opportunities and ethical challenges, where knowledge is the most important asset.

The Ministry seeks to ensure that everyone has the opportunity to participate and influence development in the knowledge society. An important condition for achieving this goal is the existence of a knowledge sector that is able to develop, communicate and exploit new knowledge.

The Ministry of Education and Research is responsible for ensuring that Norway has a sound and well functioning educational system and productive and creative research environments. This means that the Ministry is in charge for the overall R&D policies, for funding large parts of basic science in the universities and colleges, and for coordinating sectoral R&D policies. At the same time, In terms of research funding, most ministries allot funds to R&D, the major players being:

- The Ministry of Local Government and Regional Development
- The Ministry of Education and Research
- The Ministry of Trade and Industry
- The Ministry of Health and Social Affairs
- The Ministry of the Environment
- The Ministry of Defence
- The Ministry of Fisheries
- The Ministry of Agriculture

This means that in terms of designing an innovative R&D policy, the Ministry of Education and Research depends on several other sectors. This coordination takes place through a single agency, the *Norwegian Research Council*, where all the money from the different sectors is concentrated. The "value added" from the ministry of Education and research in this process broadly consists of the procedures of organization and decision making which are specific to NFR.

6.5 The Agency: The Research Council of Norway

The Research Council of Norway (Norges forskningsråd) was established in 1993, as a merger of the former five research councils. The institution bears overall responsibility for national research strategy, and manages nearly one third of public sector research funding.

One of the principal tasks of the Research Council is to promote co-operation and co-ordination among Norwegian research institutions. The Council identifies important fields of research, allocates funds and evaluates R&D. It is also called upon to offer strategic advice to the Government on science and technology issues.

The Research Council has six relatively autonomous sub-councils (områdestyrer) taking responsibility for resource allocation in six sub-areas. These correspond to the six divisions of the Research Council:

- *The Bio-production and Processing Division*
- *The Culture and Society Division*
- *The Environment and Development Division*
- *The Industry and Energy Division*
- *The Medicine and Health Division*
- *The Science and Technology Division*

The Council draws its funds from several ministries, of which the most important are the Ministry of Education and Research and the Ministry of Industry and Trade. Business development is specified as a goal for about half of the Council's annual spending.

The Norwegian Research Council plays a vital role in developing and implementing Norway's national research strategy. NFR has also an important task in taking care of the regional perspectives in research. The Ministry of Local Government and Regional Development along with other ministries fund several programmes whose aim is to raise the competency level in small and medium-sized businesses, and to establish new links between the companies and various educational and research environments. The main programs are funded through the Ministry of Local Government and Regional Developments Chapter 552. Post 72. 'National efforts for Regional Development'. This is shown in table 6-2.

Table 6-2: Regional innovation related programs, the Norwegian Research Council.

Programme	Allocation 2003	Allocation 2004	Change in %
FORNY	15 mill. NOK	13 mill. NOK	-13,3
VS2010	10 mill. NOK	5 mill. NOK	-50
MOBI	26 mill. NOK	16 mill. NOK	-38,5
KUNI	- mill. NOK	2, 5 mill. NOK	
Amount	**46 mill. NOK**	**36, 5 mill. NOK**	**-20**

Source: Parliamentary bill (St.prp) No. 1. (2003-2004): The Ministry of Local Government and Regional Development.

KUNI is a research program on innovation.

FORNY, VS2010 and MOBI are aiming at the development of business networks, business networks with R&D institutions, and in general measures aiming at regional innovation systems. As could be expected, given the over all focus of econ omic policy, funding for these programmes is being reduced.

6.6 The Ministry of Trade and Industry

The Norwegian economy faces three major challenges: Globalization, expansion within the EU and a growing need to conceive and promote new concepts and methods to generate new value as oil and gas production decreases. The Ministry's most crucial strategic challenge is to draw up an industry policy to resolve these specific development issues.

The Ministry's primary objective is cultivating a climate to generate maximum wealth within the Norwegian economy. Norway must extract the highest value from existing resources within the economy, thereby securing reliable access to goods and services, and laying firm foundations for our welfare society.

The Ministry of Trade and Industry's work will target the following primary objectives:

Creating a flexible framework to promote competition for Norwegian industry
Cultivating conditions to stimulate growth in industry, firmly entrenched in new technology, knowledge and human resources
Optimizing Norway's impact on the EU to nurture value creation
Fostering dynamic development and encouraging enterprise adaptability.
The Ministry of Trade and Industry currently consists of around 200 employees and is divided into six departments.

Priority areas
The Ministry has identified priority areas of focus on the basis of its primary objectives, and has ranked these in order of precedence to ensure maximum impact from the Ministry's endeavours to boost value generation in Norway. The following areas of activity are key parameters in determining the Ministry's future direction with regard to skills building, resource deployment and measuring tangible results:

- To promote regulatory simplification for business
- To stimulate more competition for government-involved transactions
- To provide a more straightforward and business-friendly public sector by establishing distinct areas of responsibility and thereby influence other ministries
- To adopt an all-inclusive approach to policies on innovation and new technology
- To encourage more customer-friendly government funding instruments and institutions focusing more clearly on primary target groups
- To boost the exchange of international knowledge and technology
- To play an active role in developing international maritime safety and environmental regulations
- To create a framework for enterprise employees to help ease transition into a knowledge-based economy to bolster Norwegian industry's competitiveness
- To promote education and skills building and thereby guarantee a secure supply of critical knowledge and skills resources to industry in the future
- To adopt an all-embracing and pro-active approach to ICT policy. Work on following up and developing the eNorway Action Plan (eNorway 2005) involves extensive liaison with other government ministries within the different areas
- To execute state ownership in order to help foster positive trends and increased share prices in wholly or partly owned companies
- To deploy administrative systems and provide services to help realize the Ministry's primary objectives

6.7 The Agency: The Norwegian Industrial and Regional Development Fund (SND)

The Norwegian Industrial and Regional Development Fund (SND) was, like the Research Council, established in 1993 as a reorganisation and reorientation of several pre-existing institutions. It is now the central institution for public funding of industrial and regional development in Norway.

Its main supporters, the Ministry of Trade and Industry and the Ministry of Local Government and Regional Development, provide the general financing of SND's main instruments. These includes grants for innovation and related activities, loans for innovation oriented activities and other "change-generating" or "turnaround" activities like development and acquisitions of new capital goods, warranties that enable firms to get loans from private institutions, and a general venture fund.

SND is funding the establishment of new companies, and supporting newly created firms in the early high-risk period through a venture capital subsidiary. Support is given on the condition of significant private participation. The institution also finances innovation related re-engineering or diversification in larger, more established firms

Since its foundation in 1993, the Norwegian Industrial and Regional Development Fund (SND) has been a central player in the value creating process of Norwegian trade and industry. SND offers expertise and funding to companies in their early stages of development, and is prepared to take a greater risk than other funding institutions.

SND promotes economically viable business development all over Norway, by:

- Contributing towards development, modernizing and readjustment of Norwegian trade and industry.
- Forming a basis for product development and new establishments all over the country.
- Supporting measures that will give durable and profitable employments in rural regions.

SND is regulated through a special law modelled on state enterprises. SND is owned by the Ministry of Trade and Industry, whereas the funds for regional policy measures are granted from the budget of the Ministry of Local Government and Regional Development. The total economic framework for SND, through Chapter 552. post 72. 'National efforts for Regional Development' is shown in table 6.3.

Table 6-3: Total economic framework for the Norwegian Industrial and Regional Development Fund (SND).

Area/program	Allocation 2003	Allocation 2004	Change in %.
Entrepreneurship (incubator scholarship, entrepreneur scholarship, establishment	36 mill. NOK	36,5 mill. NOK	1,4

scholarship Svalbard, FRAM etc.)			
Commercializing (NT- and FORNY areas)	37 mill. NOK	37 mill. NOK	0
Competence (the BIT-program and Women in focus etc.)	20 mill. NOK	17 mill. NOK	-15
Innovation systems(ARENA and other national innovation systems)	28 mill. NOK	20 mill. NOK	-28,5
Regional adjustment funds	- mill. NOK	7 mill. NOK	
Svalbard	- mill. NOK	2 mill. NOK	
Amount	**121 mill. NOK**	**119,5 mill. NOK**	**-1,2**

Source: Parliamentary bill (St.prp) No. 1. (2003-2004): The Ministry of Local Government and Regional Development.

The table illustrate the somewhat paradoxical situation, that funding to innovation policy programmes are reduced.

6.8 The Industrial Development Corporation of Norway (SIVA)

SIVA, the Industrial Development Corporation of Norway (Selskapet for industrivekst) is a state owned enterprise with its head office in Trondheim, Norway. SIVA is a public enterprise, established to further the creation of business opportunities, and increased employment. Its goal is to develop strong local environments by providing investment capital, competence and networks for small and medium-sized companies. It owns and operates 40 industrial parks and is a co-owner in ten science and "knowledge" parks.

SIVA is organised as a "network" organisation, and operates within three areas: real estate, development and investment/finance. These areas often overlap. The company is owned by the state, and controlled by the Minister of Local Government and Regional Development.

SIVA's basic strategy is to develop strong regional and local industry clusters; with special attention paid to develop such clusters in rural areas. The company has developed a considerable network of innovation centres to facilitate and encourage entrepreneurship. SIVA is owned by the Ministry of Trade and Industry.

SIVA's role is the one of a catalyst or an investor who develops environments fostering sustainable innovation. It does this through extensive participation in science and research parks, incubators and industrial and business parks. A program for establishing business gardens in rural regions has high priority.

SIVA assists with expertise, network building and capital. By connecting different communities and organizations, experience and knowledge is shared broadly and important foundations for entrepreneurship, growth and development are created.

The total economic framework given to SIVA from the Ministry of Local Government and Regional Developments, Chapter 552. Post 72. 'National efforts for Regional Development', is shown in table 6-4.

Table 6-4: Total economic framework for the Industrial Development Corporation of Norway (SIVA)

Area/ program	Allocation 2003	Allocation 2004	Change in %.
Næringshager	27 mill. NOK	30 mill. NOK	11,1
Incubator program	19 mill. NOK	20 mill. NOK	5,2
Regional Innovation	9 mill. NOK	6 mill. NOK	-33,3
Amount	**55 mill. NOK**	**56 mill. NOK**	**1,8**

Source: Parliamentary bill (St.prp) No. 1. (2003-2004): The Ministry of Local Government and Regional Development.

With the narrow regional policy we refer to the regional policy instruments administered by the Ministry of Local Government and Regional Development (KRD) and the program category 13.50. This program category refers to policies targeted specifically towards regions, regional partnerships, and peripheral areas. Within the "narrow" regional policy, the ministry is supporting attempts at regional level coordination through the fylke (County Council) level. Table 6-5 shows the allocated funds for the 'narrow' regional policy, program category 13.50 for 2004.

Table 6-5: Allocated funds for the narrow policy, program category 13.50, the Ministry of Local Government and Regional Development (KRD), 2004.

Chapter	Post	Description	KRD	FK	SND	SIVA	NFR	Total
551		**Regional Development and establishment**						
	60	Subsidy for 'fylkene' for regional development		1 051 050				1 051 050
	61	Industrial development initiative, compensation for increased employers' National Insurance contributions	150 000					150 000
552		**National cooperation for regional development**						
	21	Knowledge creation and information etc.	9 000					9 000
	72	National efforts for Regional Development	67 000		119 500	56 000	36 500	279 000
Total amount regional policy instruments			**226 000**	**1 051 000**	**119 500**	**56 000**	**36 500**	**1 489 050**

Source: Parliamentary bill (St.prp) No. 1. (2003-2004): The Ministry of Local Government and Regional Development.

7. The Central Process of Coordination

In September 2001 Norway had a national election leading to a defeat of the Labour Party. The Conservatives formed a minority government together with the Christian People's Party and the Liberals. The Conservatives got the majority of the government seats, including innovation policy related ministries like Education and Research, Industry and Trade and Local Government and Regional Development. This led to a new development of the Norwegian innovation policy.

In the three party government declaration of 2001, the so-called SEM declaration, the three parties outlined the main policies of the new government. This showed ambitions towards altering innovation policy instruments. They announced also a reform in the educational system, a new division of labour between the state and the counties, and to include new policy areas into innovation policy development. Among their objectives for the policy were:

- Norwegian R&D investments are to reach at least the OECD-average within 2005. A significant part of this increase must take place in university and college basic science. Moreover, a larger part of the public financing of basic science and researcher education is to be through basic funding.
- The institutions of higher education are to decide their own internal governing structure.
- The number of researcher recruits is to be increased significantly, and financed in full by the state.
- The funding of scientific equipment is to be strengthened.
- There will be tax deductions for industrial R&D investments.
- The fund for research and innovation will be increased to 15 billion NOK (€ 1.9 billion). The allocation of the surplus will be discussed.
- The knowledge transfer between universities/colleges and industry is to be strengthened.
- The Industrial Fund (SND) is to focus its efforts on innovative capabilities and competences in companies.
- SND high risk capital should be more easily available for small and medium sized companies, and SND is to support entrepreneurs and innovative companies.
- SND is to sell its investment company (SND Invest), as the private finance market already covers its main areas.
- The new Government will consider inviting private tenders for some of the SND functions (e.g. some funding may be allocated through private savings banks)

- The new Government will also consider changing the IFU instrument (NO_01)[15] from fixed allocations to a tax deduction plan for large companies buying R&D services from smaller companies.
- Taxes will be reduced. VAT on services will be adjusted, but not abolished.

7.1 A new "holistic" innovation policy

How was a "holistic" innovation policy to be understood? Different interpretations emerged. It all started with OECD. The SEM declaration explicitly referred to the OECD policies – where the Frascati indicator called "GERD" is an important measure. GERD is a measure of public and private investments in research and technological development, as a share of gross national product. Throughout the 1990s, GERD had an important role in countries with an offensive R&D policy, like Sweden, Finland, and Korea. In these countries, *both* public and private spending on R&D is high. High public R&D spending is supporting knowledge development in new industries, where private actors are following research oriented competitive strategies – and accordingly are investing heavily in R&D. The combination of these factors results in a high over-all level of R&D spending. Throughout the 1990s, it also resulted in the development of regional clusters in university and industrial cities, where public spending on universities and basic research successfully was combined with private investments in industrial R&D, exploiting regional labour markets with lots of highly educated young people. This public – private dynamic was often supported by local and regional planning, known as regional cluster policies. It led to growth in capital and medium sized university cities, as well as high GERD levels.

In Norway, this industrial dynamic was not initiated. This was the problem referred to by the SEM declaration.

As indicated by the previous discussion, however, a high GERD level is an outcome of a specific form of interaction between public and private partners. The absence of this dynamic in the case of Norway clearly had to do, not just with public policies – lack of public investments in research, but also in the structure – and strategic orientation - of Norwegian private industries. Most private Norwegian firms – and in particular large firms in the core national clusters, petroleum, maritime and marine industries - are *not* competing to create new science driven products and industries. Instead, innovation strategies are often focussing on a higher level of efficiency in processes based on natural resources. Norway has developed sophisticated supprt industries, in machine and engineering industry, as well as highly sophisticated bio-technologies, serving the users in the petroleum industry, shipping, marine aquaculture, and fishing. These industries provide sophisticated technological products to the processing industries. An important source of funding for this sophisticated support industry is public investments in industry-

15 The main objective of the IFU programme is to increase the cooperation between SMEs and larger firms. An IFU-contract is an agreement between two companies, aimed at developing a product or a product needed by one of the companies (the customer). One of the two should be an SME. The State supports the endeavour financially. In the OFU-programme the customer is a public institution.

oriented R&D, through the Norwegian Research Council. This publicly financed R&D is feeding into advanced Norwegian supply industries.

The specialization of the Norwegian marine – maritime – petroleum cluster in the direction of *process efficiency* did not motivate these big private actors in the Norwegian industries to invest as heavily and directly in R&D as their counterparts in Swedish and Finnish ICT industries did. During the 1990s, this disjunction in the Norwegian innovation system efficiently aborted the initiation of the public – private *synergy* in promoting R&D investments which characterized the leading OECD countries. Instead of a positive spiral of public and private investments, leading to the development of new high tech industries, the Norwegian innovation system is locked into a negative spiral, where lack of private R&D investments is used as an argument to avoid public investments.

One may have thought that the structurally determined lack of firms with entrepreneurial or research driven strategies of competition could be seen as a problem. On the contrary, this somewhat reluctant attitude among the big industrial actors soon became an argument against the public sector in going in an OECD direction. If private actors are not investing in R&D, why should the public sector do it?

When the problem emerged on the agenda through the SEM declaration, it is not surprising that the initiative to move further was made by the Minister of Research and Education, and the Research Committee of the government. The Minister, Kristin Clemet (Conservative), was a former deputy director of the Confederation of Norwegian Business and Industry (NHO). As the leader of the Cabinet's Research Committee (Regjeringens forskningsutvalg) – she initiated a cross-ministerial process that may lead to a new "holistic" Norwegian innovation policy.

Given the fact that the initiative came from the science and research sector, one may have expected an understanding of innovation inspired from the OECD emphasis on new high technologies, such as ICT, biotechnology, nanotechnology, etc – and a corresponding thrust in the direction of regional clusters in university cities, copying the "OECD success story".

On the contrary, in the debate which followed, it soon became clear that the dominating perception of innovation in the core group of people working on coordination was more in the direction of innovation policy interpreted as a new form of cross-sector *industrial development* policy. It was new *job* creation, rather than new *path* creation – i. a. creation of new science based growth industries - which was the focus.

As it were, the expansion of the *scope* of innovation policy, which was implied in the reference to "holistic" policies, tended to *reduce* the significance of R&D policy. Not surprisingly, then, the responsibility for the development of a new "holistic" innovation policy was transferred to the Ministry of Trade and Industry in the summer of 2002. This move tended to draw attention in the direction of *existing industries* which are the major clients for industrial policy operators. The focus became the *commercialization* phase of

the knowledge conversion process, rather than on science based knowledge creation, and new path creation.

This focus tended to give the work on innovation policy a somewhat incremental point of departure. A Swedish consulting company was asked to make an analysis of the Norwegian innovation system. This analysis did result is some specific recommendations, which were referred to in the plan. However, the over-all point of departure for innovation policy development was not analytic, but instead administrative. Horizontal innovation policy was interpreted as an upgraded industrial policy – on a cross sector basis. This is why the major effort was driven by administrators. Needless to say, because this placed the administrators in the leading role, the policy making approach taken tended to be incremental.

The minister – level coordinating group had an administrative cross sector secretariat, a HIP committee. The objective of the HIP committee was set to make a plan. It was supplemented with thematic groups. One of these thematic groups was an inter-ministerial group on the "regional dimension" in innovation. Here, of course, the Ministry of Regional Development and Local Administration was in charge.

Most of the ministries were involved in this work. The objective was to develop a policy that encompasses more than the "traditional" innovation ministries of Trade and Industry, Education and Research and the Ministry for Local Government and Regional Development. The development of the plan was characterized by horizontal dialogues and hearings between sector ministries, where the development of the understanding and definition of the new policy was debated. Not surprisingly, this approach stirred up several conflicts of understanding and definition within and between the sectors. Conflicts of value were raised. The continuation of these conflicts obviously was a problem to progress in the work towards a coherent plan which could be implemented.

The interaction undertaken in this process was time-consuming, and sometimes frustrating, as there was resistance against the new policy initiative from several partners in the sectors. Sectors mobilised arguments against the new policy approach – to defend their objectives and modes of operation. There was also a keen interest in the process from the level of the ministers, who were personally engaged. Accordingly, the process did not prove to be extremely productive, in terms of developing an analytical basis of the new policy.

These debates lead to a document which was published in 2003, with the title "From idea to value" (Fra ide til verdi). In this document, it is emphasized that work is on-going, and that the document is just a start of a longer process.

The external threat

The perception of the external challenge to Norwegian economy as outlines in the document, is mostly long – term – and related to the widening divide between on one hand a long-tern decline of petroleum income – on the other hand, increased welfare expenditure. One may have thought that this long term challenge could have been used

to identify a structural problem to be solved, like science-based creation of new industries. This is not the case. On the contrary, the short term approach of industrial policy, new job-creation, is the dominating problem.

Innovation policy v. s. economic policy
Whereas economic policy in Norway has a focus on general framework conditions promoting entrepreneurship and industrial development, innovation policy argued for the need to make an emphasis on specific, selected industries, like the existing strong clusters – or, alternatively, new high technologies.

This stirred up a debate on "industry neutrality" from the point of departure of economy policy makers. The solution to this conflict is balanced in the stated "vision of the government" in the introduction to the document:

> *Norway should be one of the most creative countries in the world, where firms and people with courage and creativity have good opportunities to develop profitable activities. In important areas, Norway will be leading internationally when it comes to knowledge, technology, and value creation.*

The orientation towards general or "neutral" industrial policies to promote industrial development and entrepreneurship and job creation across all industrial sectors is obvious through the first sentence. The second sentence balances this approach in the direction of national specialization, without specifying what this specialization is all about.

Innovation policy v. s. R&D policy
To those who may have expected this document to be in line with the OECD approach of the SEM declaration, it came as a surprise. The document did include an argument for innovation policy, as well as a summary of the debates between and within sectors as to how innovation policy was to be understood and defined. However, to the extent that the document refers to networks of innovative firms, the text is going to great lengths is rejecting the significance of R&D policies.

> *Innovative firms are learning firms. It is firms who develop or access the new competence necessary for renewal, either from customers or suppliers, various public or private knowledge institutions, private consultancies, or from public industrial policy agencies.* (Fra Ide til Verdi, page 9)

This statement is a *factual* description of typical incremental innovation processes, going on within Norwegian industries, in line with findings from innovation research in Norway. Importantly, the document does not make a *problem* out of this state of affairs. No arguments are made for the need for increased contacts between university researchers and industry. This emphasis is made even stronger in the discussion on what innovation is

> *Innovation builds on new knowledge and new combinations of existing knowledge. New knowledge may be generated from practical experiences or through systematic research and development*. (Fra Ide til Verdi, page 9)

When it comes to measures, four priorities are mentioned:

- Educational institutions which produce and disseminate relevant knowledge on an high international level
- Better competence in natural sciences and mathematics
- Strengthen life-long learning and the capacity of firms to apply knowledge in practice
- Increase knowledge flows between industry and milieus of knowledge and competence, regionally, nationally and internationally

In this way, the emphasis is placed on knowledge diffusion and application, rather than new knowledge creation:

> *The ability to apply knowledge and competences and combine it in new ways is today decisive in any innovation process in all types of firms.* (Fra Ide til Verdi, page 22)

The section on "research, development, and commercialization" includes references to

- Work to get Norway to the OECD average in GERD within 2005
- Increased quality and internationalization in Norwegian research
- Stimulate increased research in private industries (through a tax deduction scheme)
- Stimulate commercialization of results of research
- Stimulate better interaction between knowledge institutions and private industrial actors

Again, the emphasis on knowledge diffusion and application, rather than new knowledge creation, is repeated

> *An increased emphasis on R&D to promote innovation must be accompanied with increased emphasis on commercialization of research results.* (Fra Ide til Verdi, page 27

The analysis presented on why Norway has such an over-all low level of R&D does emphasize the industrial structure. The answer to this problem is, however, incremental. There is no focus on the need to create new R&D-intensive industries. On the contrary, most of the core measures, such as a tax deduction system for private investments in R&D, and programmes to promote public R&D – private industry networking, are incremental.

In a separate section on research, several arguments in favour of basic and strategic research are presented. The need for basic research in the major cities is substantiated through contacts with international research, centres of excellence, and transfer of knowledge to industry through education is seen as important.

These considerations are balanced with an emphasis on policies which are regionally oriented.

Regional policy
The plan document does not have any specific sector on regional policy. Instead, regional policy considerations are referred to throughout the entire document. In the introduction, the threat from a science driven innovation policy towards regional policy is emphasized

> *There are significant regional differences when it comes to the industrial efforts towards development, growth, and innovation. Differences in industrial structure, differences in distances to important markets and knowledge milieus may also generate different preconditions for innovation. An increased transformation from capital- and labour intensive industries towards knowledge intensive industries may also lead to a lower level of activity in the periphery".*

This obviously is at odds with the over all objective of the government regional policy, which is

> *,,to secure population, value creation and sustainable local communities all over the country* (The SEM declaration, page 37)

Hence, throughout "Fra Ide til Verdi", several references are made to various aspects of regional policy, such as

- The new objective of the Norwegian Research Council, to support R&D all over the country, through regional offices
- The regional development role of educational institutions and regional universities

Summary: an incremental plan
The general emphasis of "Fra Ide til Verdi" is a long-term understanding of the global threat to Norwegian economy. Even though more short-term challenges are mentioned, often referred to in terms which are quite similar to general industrial development policies, it is the long term threat which is focussed.

- **No analysis of the national innovation system**. Even though several references are made throughout the document of properties of the Norwegian industry and innovation system, no comprehensive theoretically informed analysis is of the National system of innovation is presented. Instead, references are ad hoc – and related to specific problems, such as lacking private investments in R&D, explained through loose references to industrial structure. This incremental

approach may be expected, given the theoretical dispute over the field. The field of innovation policy was characterized through a conflict between on one hand innovation theorists, on the other hand neo-classical economy theorists, who were arguing against innovation policy. Given this theoretical conflict, assuming an analytical point of departure for policy development was a lost option. The other option – which was chosen, was an administrative, eclectic approach.

- **An eclectic operational approach**. The horizontal or holistic notions of innovation policy are feeding into a general discussion of the framework conditions for Norwegian industry. On this basis, long lists of measures are presented. Several of these measures are quite similar to industrial policy discussions in general.
- **The definition of innovation policy is a contested area**. In the analysis of the document, outcomes of conflicts with other sectors are referred to several times, as compromises of conflicting interests between innovation policy and other policy fields. These outcomes contribute to limiting the scope of innovation policy. They include
    - R&D policy, where the importance of basic research and knowledge dissemination through education and the labour market is emphasized.
    - Regional policy, where the potential conflict between a research driven innovation policy approach – and regional policy spatial redistribution, was emphasized
    - Economic policy, as the document did not contribute to solving the inherent conflict within Norwegian economic policy, between on one hand improving general framework conditions for industry through reducing public spending, on the other hand public investments to break the spiral reducing R&D investments in Norway, preventing new path creation.

The document specified that it was an initiation of a process which would continue. The next step came shortly after the publication, and it gave the development a more operational – and somewhat different direction. This was the Government Conference of February 10. Here, the innovation policy of the government was presented. This policy was a step further – to some extent in a new direction, as compared to plan.

As was the case with the plan, the policies presented at the 10 February conference took as a point of departure three major challenges

- Increased international competition, globalization, and technological development
- Reduced production in the core Norwegian industry, petroleum and natural gas,
- Increased costs in maintaining the national welfare and pension system.

From this point of departure, the emphasis was bottom up mobilization

"*The government recognizes clearly that innovation policy must be bottom-up.*

> *Innovation takes place in firms and markets, where people meet. Innovation may also take place in cooperation with other firms and with actors within research and education. But also local authorities are important to enable innovation. Much may be achieved through a right attitude in a municipality. (…) we also have given the county council (fylkeskommune) a new responsibility to enable industrial development*." (Prime Minister Bondevik, 10 February 2004)

In this way the government strategy was more oriented towards regional policy than the plan presented from the administration. The over all approach was followed up by the Minister of Trade and Industry, Ansgar Gabrielsen, who stated that

> "*To ensure our value creation, we must mobilize a common effort in the entire country*"

The approach of the Ministry of Trade and Industry was 9 projects:

- The petroleum and maritime cluster. This project is targeting the core national cluster
- Commercialization of research, with a focus on a leading regional cluster in the "technology capital" of Trondheim
- Northern-Norway – which is a territorially oriented project targeting job creation in peripheral areas
- The industrial cluster Kongsberg-Grenland-Vestfold (a regional cluster)
- The Interior, a territorially oriented project to develop specific industries in agriculture and forestry
- The capital city and regional centres, a project for city and regional development
- Entrepreneurship
- Innovation in services
- Aquaculture

Three projects emphasis regional clusters, two project target peripheral geographical areas (Northern Norway, and the Interior). The more general projects with no clear regional direction are entrepreneurship, innovation in services, and projects to develop the core national clusters, petroleum, shipping, and marine industries.

Through these projects – which are currently being implemented, innovation policy is evolving in a somewhat more operational direction. This development is also related to changes in the agencies.

The Research Council of Norway

At the end of 2001 Technopolis delivered its evaluation of the Research Council of Norway (RCN). This was followed up by the Ministry of Education and Research, which had commissioned the evaluation and therefore was responsible to follow this up. On

September 1 2003 the Research Council switched to the structure it has today, in accordance with the reform implemented by the Government[16].

The evaluators were in part very critical towards the activities of the institution, arguing that the RCN had not been able to coordinate Norwegian research as originally planned in 1993, when the former research councils were united in this new institution.

This was partly explained by the evaluators as a lack of funding and coordination on the ministerial level, but the Research Council itself had also found it hard to coordinate their own internal activities. The main report argued that "the experiment" with one council should continue, although with a different internal structure.

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

On May 28 2002, the Government announced that the Research Council would not be split into two or more organisations.

On September 10, the Government announced that the Council would be reorganized. The Minister of Education and Research, Kristin Clemet, 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 says.

In the October 2002 National Budget, the Ministry of Education and Research gave a more detailed presentation of the plans for reorganisation.[17] 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
- 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 outcome was the following organization chart for the Norwegian Research Council.

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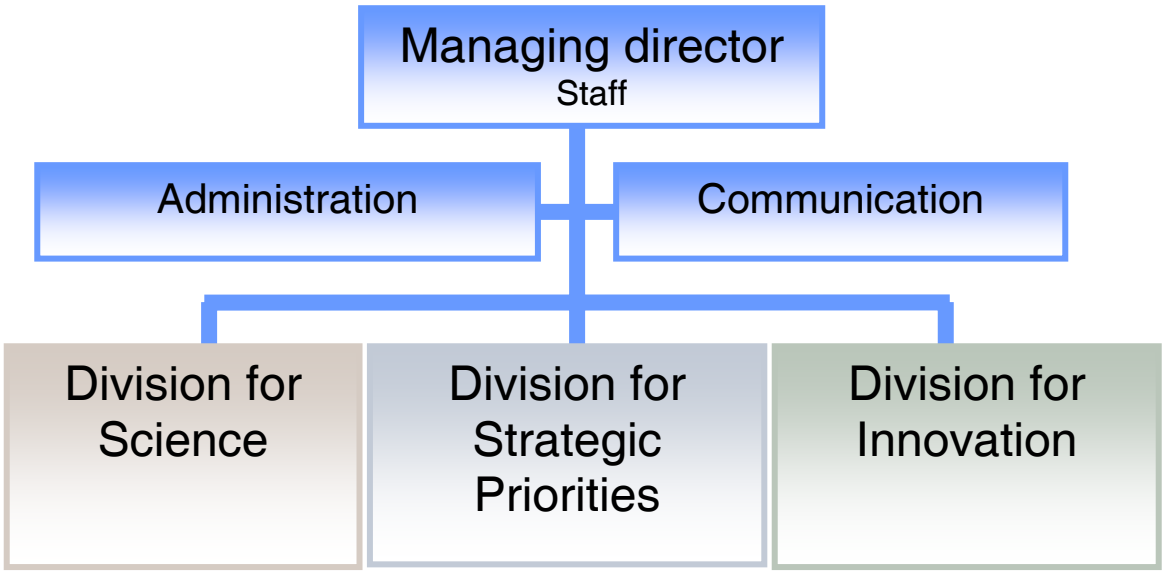
[16] See parliamentary bill nr. 1 2003 and new governing regulations for the Research Council decided by the Cabinet on December 20th 2002.
[17] St.prp. nr. 1 (2002-2003) Utdannings- og forskningsdepartementet, pp.19
http://odin.dep.no/ufd/norsk/publ/stprp/045001-030004/index-hov003-b-n-a.html



The Division of Science, which main task is to contribute to development of basic science within all disciplines as well as the development of interdisciplinary research. The division will further stimulate to recondition specialist work and work for an improvement of the external conditions for science and research. The division is divided into 5 departments:

Social Sciences
Humanities
Physical Sciences and Technology
Biology and Biomedicine
Clinical Medicine and Public Health

The Division for Strategic Priorities is to identify and prepare research needs of national importance and develop the knowledge base in priority areas. The division is responsible to put into action superior research policy priorities in collaboration with the public sector, the research institutions and the industry.

The division has a special responsibility to establish a connection between the basic and applied science. In practice this means to bring together the work from the other to divisions. This division is also responsible for the international contact, especially EU. This division is divided into 4 departments:

Future Technologies
Society and Public Policy
Environmental Issues, Energy and Sustainable Development
Marine Resources and Environment.

The Division for Innovation is to be a partner for the private and public sector in the field of research and innovation, both on a regional and national level. The main focus is

on innovation. The division will also be strategic actor for implementation of the Governments holistic innovation policy. The division is divided into 5 departments:

Promotion of R&D and Commercialisation
Manufacturing, ICT and Services
Biotechnology, Food Science and Tax Incentive Schemes
Agricultural and Maritime Research
Energy, petroleum and Maritime Research

7.2 Reorganizing industrial policy instruments

The Ministry of Trade and Industry initiated an internal evaluation of the structure of business-oriented policy instruments and institutions. Among the topics discussed was the future organisation of The Norwegian Industrial and Regional Development Fund, SND, The Industrial Development Corporation of Norway (SIVA), the Trade Council of Norway, the industry oriented parts of the Research Council of Norway, and more. The policy makers were also looking into the mix of indirect and direct policy instruments and measures.

This was a so-called open process, where the Ministry has asked various relevant public institutions, counties, companies and industrial organisations to voice their opinion on the future of the Norwegian industry policy instruments.

An inter-ministerial project group under the Ministry of Trade and Industry first published an industry policy instrument report. According to the group the overall objective should be to refocus the set of industry policy measures towards industry oriented R&D, competence building and the "idea-, development- and commercialisation phase". [18]

On March 28th 2003, the Ministry of Trade and Industry presented to Parliament a proposition entitled *Instruments for an innovative and creative industry*. In this document, the Government proposed a comprehensive reorganisation of the business oriented policy instrument system, with the aim of making the system more efficient and better suited to facilitate value creation in Norwegian industry. The proposition was based on a review of the existing innovation policy instruments (*Virkemiddelgjennomgangen*),

[18] See Virkemiddelgjennomgangen (The Instrument Study) home page: http://odin.dep.no/nhd/norsk/p30000694/index-b-n-a.html18. Government proposition No 51 (2002-2003), Instruments for an innovative and creative industry (Stortingsproposisjon nr. 51 (2002-2003), *Virkemidler for et innovativt og nyskapende næringsliv*); Parliamentary Inst.S.nr. 283 (2002-2003); Parliamentary debate concerning Inst.S.nr. 283 (2002-2003), June 18th 2003.

and was a part of the Government's initiative to introduce a new "holistic" innovation policy.

According to the document, the policy instruments should increasingly be targeted towards the same goal, which should be to promote innovation nationwide. To achieve this, the instruments are mainly to focus upon the following three areas:

- research and competence development
- the idea, development and commercialization phases
- internationalization,

and to target the following five main groups:

- entrepreneurs
- young companies
- the innovation system
- small and medium sized enterprises with ambition and potential for growth
- researchers and R&D environments in industry and the research and education sector.

On a more specific level, the reorganisation of the policy instrument system was to imply the establishment of a new organisation for innovation and internationalization by January 1st 2004.

While Parliament's reactions to the proposition all in all were positive, a few critical comments were made. For one thing, some Members of Parliament expressed "a slight surprise" by the fact that decisions regarding *policy instruments* have been made *before* the actual content of the new "holistic" innovation policy has been established, pointing out that it would have been more rational to deal with the two matters in reverse order. Also, several of the parties in opposition argued that more attention should be paid to *regional* development, and that the objective of the policy instrument system should be to promote regional industrial activities *in general*, and not only activities that are related to innovation.

As of 1 January 2004 the new state owned company, Innovation Norway, was establishment as a new organisation for innovation and internationalization. Innovation Norway has replaced the following four organisations: The Norwegian Tourist Board, the Norwegian Trade Council, the Norwegian Industrial and Regional Development Fund, SND and the Government Consultative Office for Inventors, SVO.

Innovation Norway will promote a nationwide industrial development profitable to both the business economy and Norway's national economy, and help to release the potential of different districts and regions by contributing towards innovation, internationalisation and promotion.

The organisational form of the new unit is a “Special law company” (*Særlovselskap*). The company is to own and administer the present SND-network of offices around the country. These are to provide a common “point of entrance” to the policy instruments and thus making them more easily available to their users.

The new state owned company employs more than 700 people. Innovation Norway has offices in all the Norwegian counties and in more than 30 countries world wide. The head office is situated in Oslo.

It is proposed that the new organisation is to be represented abroad as well as domestically, and that it is given the responsibility for the measures presently administered by the Norwegian Industrial and Regional Development Fund (*Statens Nærings- og Distriktsutviklingsfond, SND*), the Norwegian Government Consultative Office for Inventors (*Statens Veiledningskontor for Oppfinnere, SVO*) and the Norwegian Trade Council (*Norges Eksportråd*), as well as some of the innovation oriented policy measures administered by the Research Council of Norway.

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Innovation Norway regional offices

The Counties (fylke) are getting influence over company targeted measures that the Industrial Development Corporation of Norway (SND), earlier had control over. The counties are now free to choose with whom they want to co-operate regarding the regional innovation policy. For a transitional period the Counties have to buy services from the regional SND offices. After this period the regional SND offices have to compete on equal terms, to deliver these services, with other regional innovation actors.

The Industrial Development Corporation of Norway (SIVA)
SIVA's basic strategy is to develop strong regional and local industrial clusters throughout the country and has developed a considerable network of innovation centres to facilitate and encourage entrepreneurship.

SIVAs main activities areas at the time are:

- Real Estate, where they offer approaches for operating business premises that mitigate risk and capital needs for tenants.
- SIVA Innovation where SIVA's hold ownership interests in strategic innovation centres like science and research parks, knowledge parks, business gardens, as well as venture capital and seed financing institutions

- SIVA International, where the objective is to facilitate the internationalisation of Norwegian companies, particularly with respect to lowering the threshold for establishing small and medium sized enterprises abroad.

This shows that SIVA has several roles in the regional policy system. Considering this and that SIVA has a very special composition of measures and has a debt-financed consumption, the government wants to look closer at SIVAs activity[19]. Siva is working at the border to both the Norwegian Research Council and Innovation Norway. It is therefore much to win on co-operation and coherence concerning regional innovation policy measures.

On January 1 2002 the ownership for SIVA was transferred from the Ministry of Local Government and Regional Development to the Ministry of Trade and Industry. The background for this was to separate the ownership from the executive authority and to gather all Governmental ownerships in one Ministry. This movement of ownership has so far not had any implications for SIVA as regional policy agent. It is up to the Ministry of Trade to decide if SIVA is still going to be a part of the regional policy measure system.

8. Regional Coordination

We are now able to go back to the question of how this central process may lead to a policy system which is working properly at the level of the end users. Here, we have to return to the core actors of regional policy.

The Ministry of Local Government and Regional Development has two tasks of inter-sector coordination:

- To coordinate **regional distributional effects of different sector policies.** There are only a few sector policies that have an explicit regional *objective*, but a large number of activities have *regional effects*. Policies that indirectly affect development in the regions are, in Norway, called **the** "**broad" regional policy**. One implication of this is that this involves a supervisory role from the perspective of regional innovation policies towards the regional implications of innovation policies as formulated in other ministries.

- The "narrow" regional policy refers to policies targeted specifically towards regions, regional partnerships, and peripheral areas[20]. The distinction was and still

[19] Government Proposition No 51 (2002-2003): *Instruments for an innovative and creative industry* (Stortingsproposisjon nr. 51 (2002-2003) *Virkemidler for et innovativt og nyskapende næringsliv*)

[20] White Paper No 33 (1992-1993), *City and countryside side by side*. *On regional development* (*By og land hand i hand. Om regional utvikling*); White Paper No 31 (1996-97), *On district and regional policies* (*Om distrikts- og regionalpolitikken*)

> is used to argue that to make regional policy in the narrow sense efficient, an explicit assessment and regulation of the broad regional policy was necessary. Within the "narrow" regional policy, the ministry is supporting attempts at regional level coordination through the fylke (County Council) level.

The fylke County Council level has a formal responsibility, through a "fylke plan" system. In Norwegian policy, the regional level has been seen as a core mechanism coordinating the *implementation* of sector linked policy instruments, through regional level partnerships. Coordination within partnership took as its point of departure the tasks of *regional planning* and *regional development*. Regional spatial and societal plans were, during the 1990s, supplemented with regional industrial development programs, often with a focus on innovation.

During the 1990s the field of regional development planning experienced frustrations. A sometimes striking problem was distance between on one hand ambitions and expectations, on the other "realities", in terms of impact on the economy.

One explanation to these problems was the processes of vertical coordination within the sector policy agencies, which were the regional level partners. The argument was that inter-agency vertical coordination limited the scope of autonomous action for the regional office of the agency. This restricted the ability of these regional offices to participate in the strategies developed by the regional partnership. Another – related – problem was a certain variable ability to develop adequate analysis and policy strategies, as well as the closely related problems of implementation, evaluation and learning, which characterized many of the program based policy processes during the 1990s.

During evaluations in the 1990, frustrations were building up regarding the rhetoric character of the plans, and the achievements of regional partnerships. The outcome was a conceptualization of regional coordination as limited to mutual information, and symbolic recognition between state sectors and regional institutions.

The current initiatives may be seen as an attempt to avoid these fallacies, and revitalize the field. The Ministry of Regional and Local Affairs has implemented a plan that is giving the counties more responsibility for policy measures targeting regions and districts. This includes giving the county administrators more influence over the administration and allocation of innovation policy measures and funds. In the 2003 budget the Government proposed to decentralize parts of the regional funding to the county municipalities. 1.7 billion NOK (€ 0.22 billion), i.e. 77 per cent of the funding for regional and districts policies will go to the counties. The counties may also use parts of this funding to finance innovation policy measure, including regional activities under SND. The Government proposes a new loan instrument under SND called "Tapsfond, distriktsrettet ordning" (Loss funds, district oriented measure). The goal is to co-finance projects that are *socially* profitable. The projects may include development, modernization, reorganisation or the establishment of new activities. In 2003 the authorities may lend 500 million NOK (€ 63.5 million). There will be a loss fund of NOK 75 million (€ 9.4 million).

The county municipalities are given the responsibility of establishing a regional partnership, which should prepare *four-year* regional development programs. These programs provide the basis for a dialogue between regional and national levels on regional development policies. Based on these programs and the dialogue the county municipalities and the Ministry will conclude an agreement on the use of the regional development resources.

8.1 Regional partnerships, regional development coalitions, and their programs

The group on the regional dimension in innovation policy asked for and got input from regional authorities. The following Counties replied:

- Oslo
- Akershus
- Aust-Agder
- Rogaland
- Hordaland
- Oppland
- Nord-Trøndelag
- Møre og Romsdal
- Nordland
- Troms
- Finnmark

Typically, regional programs are the outcome of processes of decision making and program development involving several loops:

- Development programs are often based on County (fylke) Plans decided by an elected political assembly, the Council (ting).
- The County Plan lay down over all policy objectives of development. Since they are politically determined, they may vary between counties.
- In many cases, the County Plan will identify general directions of industrial and regional policy. Typical areas may be
    - Mobilization of common efforts and cooperation in the region
    - Stronger and more integrated functional regions
    - Indication of major cluster strategies or general directions for industrial and innovation policies
- The County Plan also often address certain sector policy perspectives, such as environmental policies, gender, etc
- The Development Plan is integrated within the framework of the County Plan.
- The Development Plan is developed through the regional partnership, which may include
    - The County Council

- The regional labour market office
- The regional state official
- SND – Innovation Norway
- Trade unions and employer organizations
- Other directorates or parties, such as the regional office of the national fishing directorate, etc

Since the Development Plan is integrated in the framework of the partnership, it will normally be developed through a broad set of hearings, involving municipalities, industrial representatives, major regional institutions of research and educations, and others.

The Development Plan typically combines areas such as

- Knowledge policies
- Innovation
- Regional Development
- Infrastructure

The Plan usually will direct both the activities of the policy agent partners, as well as programs and projects funded by the County Council. In this way, the planning process institutionalizes and enables joint strategies and actions between the regional offices of state agencies and the regional County Council authorities.

The current reform of the Norwegian Research Council includes the establishment of the regional office of NRC as a partner in the regional program. This is expected to lead to a stronger position of regional universities or other institutions of education and research, such as industrial parks and science parks as active partners.

The potential of these regional level partnerships and programs is to develop strategies – enhancing the strengths of the region, supporting the development of regional innovation systems, and promoting industrial development and innovation.

These strategies may in some cases have a clear focus and target specific objectives. However, if regional partnerships focus on too narrow and specific objectives, they may face criticism of "too much top down" from the "end users", local entrepreneurs, businesses, and industries. A solution to this dilemma has been to regard programs as flexible frameworks which are open for various types of bottom up initiatives. In this context, regional partnerships may be seen as local and regional *facilitators* for the implementation of *bottom up mobilization policies*.

Regional partnerships may also work as supporting institutional frameworks for regional development coalitions, which is the lowest level of regional networking.

8.2 Regional development coalitions

Below this coordinating institutional level of the regional partnership and its programs, we find regional development coalitions. Regional development coalitions consist of bottom up networks of firms and other partners. They come in two types

- Action research driven bottom up mobilisation of firms, unions, employer organizations and others in industrial networks, aiming at knowledge development through organizational development of existing industries. In some Norwegian regions, these networks have reached a high level of institutionalization. This main activity consists in promoting knowledge enhancement, learning, and process and product innovations. It is financed through regional programs sponsored through NFR (VS2010)
- Industry – driven networks aiming at organization of clusters and industries sharing collective business strategies and objectives. This type of networks typically is sponsored by Innovation Norway.

9. List of interviews:

Name	Position	Company	Date
Anne-Lise Hilmen	Director	Division for innovation, The Research council of Norway	16.10.2003
Kjerstin Spjøtvoll	Under Director	Ministry of Trade and Industry	08.09.2003
Åge Sund Kåre Movold Kari-Mette Lulau	Advisor Under Director Advisor	Ministry of local Government and Regional Development	04.09.2003
Helle Hammer	State secretary	Ministry of Trade and Industry	21.10.2003
Erik Skaug	Senior Advisor	Division for innovation, Research council of Norway	23.09.2003
Fredrik Tennøe Andersen	Consultant	Ministry of Education and Research	25.09.2003
Carl Huitfeldt	Senior Advisor	Ministry of Trade and Industry	02.11.2003
Pål Hugnes	Strategy Director	The Norwegian Industrial and Regional Development Fund (SND)	17.10.2003

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Prime Minister Kjell Magne Bondevik Nasjonal Innovasjonskonferanse Folkets Hus, Oslo 10. februar 2004 (www.odin.no)

Nærings- og handelsminister Ansgar Gabrielsen Innovasjon 2010 Nasjonal innovasjonskonferanse, Folkets Hus i Oslo, 10. februar 2004 (www.odin.no)

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