*MON*IT

monitoring and implementing horizontal innovation policy

The Norwegian Information Society Case

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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/

Oslo, 13.08.04

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

I. CONTENT – THE NORWEGIAN INFORMATION SOCIETY CASE

Summary

The Norwegian information society
Norwegian ICT-policy has over the last 20 years or so been made on the background of relatively high scores on indicators benchmarking ICT-performance. The fact that the Norwegian society is small and has a relatively homogenous population partly explains why Norway early on and throughout history of ICT scores high on almost every indicator, in general when it comes to economic indicators and in particular when it comes to ICT-indicators. Currently, in 2004, Norway can still refer to positive technology penetration indicators. But the picture is perhaps a bit more disturbing for Norwegian policy makers. In the current context of a multitude of technological solutions, ICT in (higher) education has a good record, and patterns of private use are stronger than patterns of business use. ICT-based public service supply, public sector modernization, eCommerce and eGovernment represent areas where it is possible to excel in the near future, but results seem to be long in coming. Norway has a challenge when it comes to broadband infrastructure roll-out. Broadband is needed to provide infrastructure for the general level of broadband content and services, which is still modest but flourishing. In the area of technology suppliers, incumbents still rule. Relatively few suppliers make it meaningful to question whether there is a general lack of competition.

Historical account
During the 1980's and the early 1990's Norwegian ICT-policy was shaped as a policy area with broad effects on societal change. Despite divergent perceptions based on sector-specific interests a comprehensive public national plan that intercepted the broad effects of ICT was created based on a climate of consensus between the key actors in some ministries and avant-garde individuals in industry, research and public life. The plan shaped the basis for a multitude of sector-specific efforts in ICT diffusion and development in the Norwegian society. In the mid 1990's the portfolio of ICT was recapitulated by the IT-panel of Deputy Ministers in an attempt to coordinate by linking the sum of the separate policy schemes and initiatives to visionary aims and strategic perceptions about the future. Looking back, and with a focus on coordination and coherence, the report did probably not make much of a difference, except for the fact that the large number of small and larger policy initiatives and schemes was brought to the surface. The IT-panel of Deputy Ministers did not have the resources, the mandate or the organizational setup to coordinate the whole. The eNorway plan, launched early in 2002, represents the second attempt to give Norwegian IT-policy a visionary and coherent framework. This time it is a more impressive framework, when it comes to strategic dimensions and when it comes to target hierarchy.

eNorway and the coordinating body's activities
The Norwegian eSociety policy "eNorway2005" certainly provides positive reading. It is an action plan that establishes a framework for how Norwegian authorities shall orchestrate (prepare, organize, arrange) the emergence of the eSociety. The department of IT-policy in the Ministry of Trade and Industry is the coordinating body of eNorway. The department has less than 20 employees. A comprehensive coherent policy framework is presented, in the sense that it seems to cover most areas of importance concerning societal production, exploitation and use of information and communication technology. The core documents seem to present a coherent hierarchy of visionary targets, operative objectives within each policy area and it has dedicated responsible coordinators in each area, in addition to the top coordinating body. Each policy area is operated by means of overall targets. Concrete policy making within each area is made up by a package of measures, in which flagship (prioritized) projects are defined.

Below the nicely designed surface and fluency of eNorway's visions, strategies and targets, a multitude of policy initiatives, programmes and schemes exist. The portfolio of policy tools is a heterogeneous mix of large, comprehensive and financially independent policy programmes and smaller, more specific policy initiatives, processes and schemes. The large programmes often

have the relevant sector-specific ministry as coordinating actor. The larger programmes (for example "HØYKOM" (broadband roll-out scheme) and "IT in Norwegian Education" have subcontracted operative and coordinating organizations. The coordinating body of eNorway has not hands-on managerial or governing functions, but represents an additional coordinating level that currently seems to fulfill objectives of strategic coherence. The coordinating body has a low degree of influence on agenda setting, prioritization, implementation and policy learning in the large policy schemes. We envisage that in the case of policy learning it is an option for the coordinating body to operate stronger coordination and influence on large outsourced policy schemes in relation to overall but concrete aims in the eNorway framework.

The smaller policy initiatives, processes and schemes are typically operated and hands-on coordinated by the coordinating body. The coordination implies a multitude of interaction types and a multitude of communication forms (for example interdepartmental processes, processes of juridical change and standardization, forums and arenas for dialogue and collaboration between industry and stakeholders, etc.). Paper-based coordination and marketing activities of eNorway represent a relatively large part of the work of the coordinating body. We envisage that existing well-managed processes can prove more efficient if the coordinating body could make stronger decisions that can become important milestones, in particular on issues of technology standardization.

Dimensions and challenges of coordination
ENorway is characterized by relatively vague target formulations, a fact that opens for coordination activities in the range from no influence to strong influence (from the side of the coordinating body). The positive about this is that this type of targets is more visionary than more precise target formulations. Another positive point is that the framework is flexible in the sense that policy schemes and initiatives can be added without a radical change of overall policy aims and visions. Moreover it is simple to make rough estimates about whether the targets are reached or not. The negative side of it is that it may be difficult to use such vague targets as tools of coordination because the level of precision is low. It can be argued that it possibly has to be this way. This large information society policy system involves very different areas of effort, policy instruments and schemes, which consequently imply very different implementation settings in which actors and stakeholders take different positions and have dissimilar bargaining power and possibilities to influence the processes.

Intercepting political principles is an important task for the coordinating body. Political principles from the Government and the ministries represent a fundamental framework to which the coordination activities have to be adjusted to. The Norwegian center-conservative Government signals an increasingly evident profile. Public policy is supposed to provide framework conditions for the eSociety. Public policy may encourage and trigger existing market mechanisms that enable technology diffusion, technology acquisition, new services and the upgrading of competence that comes with it. But public policy shall not support infrastructure development directly. These political principles represent crucial conditions that shape the effect of specific policy schemes, for example in the domain of broadband roll-out.

To the overall coordination challenges belongs the way sector-specific interests are organized and financed. Sectorization in the Norwegian policy system and bureaucracy implies that strong and competent ministries and strong government agencies resist coordination and counteract the culture of interaction and consensus that is maintained in certain interministerial circles. There is a general lack of financial resources that encourage and support compromises and solutions across sector borders. The Finance Ministry plays a conservative role on these structures.

Conclusions

We started with an assumption that the eNorway policy system represents a case that includes features that have similarities with the tendency that is described in the literature. It is the tendency of increased complexity in European and national public policies, in particular technology and innovation policies. It is argued that the tendency has a negative impact on state capacities to implement policies successfully. We assumed that eNorway is a complex and comprehensive policy system that has deficiencies but potentials in its coordination mechanisms.

The Norwegian information society policy is certainly made with the degree of comprehensiveness and complexity that is referred to in the European context. Given the complexity and the state's (coordinating body's) evident challenge of fine-tuning the degree of influence and adjusting the concrete coordination process to the different policy schemes and processes, the Norwegian information society policy is certainly experiencing a strategic policy dilemma between feasible under-complex policy strategies that have turned out to be inadequate to improve industrial competitiveness in the IT sector, and more adequate comprehensive innovation policy strategies that are characterized by over-complexity and are overstraining the state's institutional capability, in particular its capacity for horizontal and vertical policy coordination.

Looking ahead, three options for policy improvement can be considered, in the process of providing a way out of the policy dilemma. The first option is the suggestion to concentrate and centralize the competencies and resources in the institutional setting of coordination. The second option pulls in the other direction by suggesting the decentralization of policy. The third option is the suggestion to adopt a policy strategy that is better suited to the institutional framework of the national state. All options are relevant in the discussion of how (coordination of) Norwegian information society policy should develop.

Chapter 1.   Introduction

1.1   European policy as reference point

The Norwegian policy towards an eSociety is organized within a framework that follows the footsteps of the European initiatives and the Europe action plans[1]. The European ambitions, initiatives and efforts concerning an eEurope were initiated in Lisbon in 2000 by the European Council, and carried on by the Barcelona European Council in 2002. The European heads of state and government formulated the rationale for the policy, and invited the European Council and Commission to develop a comprehensive and overall framework for ICT policy development within Europe. The two documents draw up:

> "…a comprehensive eEurope Action Plan…using an open network of co-ordination…based on the benchmarking of national initiatives, combined with the Commission's recent eEurope initiative as well as its Communication "Strategies for Jobs in the Information Society"."

Source: Council of the European Union. Commission of the European Communities, eEurope: An Information Society For All, Brussels, June 2000

> "the widespread availability and use of broadband networks throughout the Union by 2005 and the development of Internet protocol IPv6…. And the security of networks and information, *e*Government, *e*Learning, *e*Health and *e*Business."

Source: Council of the European Union. Commission of the European Communities, eEurope 2005: An information society for all, June 2002

From the former policy document and through to the latter the formulation of overall targets has developed from three main objectives in 2000: (1) Cheaper, faster, secure internet; (2) Investing in people and skills; (3) Stimulate the use of the internet, to a formulation of overall requirements in order to adapt to the target that eEurope 2005:

> "will try to stimulate a positive feedback between infrastructure upgrading, both broadband and multi-platform and service developments across countries in Europe."

EEurope 2005 focuses on identifiable actions. It concentrates on solutions and on what should be done, by whom and when. The plan sketches three main methods by which eEurope targets will be achieved (1) Accelerating the setting up of an appropriate legal environment, (2) Supporting new infrastructure and services across Europe, and (3) Applying the open method of coordination and benchmarking.

1.1.1   Emphasis on policy learning

Hence, in addition to the emphasis on infrastructure, skills, access and exploitation of ICTs, the eEurope core documents make strong statements about the continuous need to evaluate,

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[1] http://europa.eu.int/information_society/eeurope/2005/all_about/action_plan/index_en.htm

benchmark and develop the policy. It is stated that eEurope will facilitate the exchange of experience, of good practice, and demonstration projects, but also sharing the lessons from failures. Moreover policy measures will be monitored by benchmarking of the progress made in achieving the objectives and of the policies in support of the objectives. To MONIT as an OECD-based project it is strongly relevant for European Union policy to study how national states implement and coordinate information society policy.

In the context of the MONIT project the paragraph in the eEurope2005 document about co-ordination is important in particular. It is emphasised, and thereby it is the ambition that an overall co-ordination of existing policies will bring out synergies of the proposed actions. As part of this it is stated that there is urgent need for national level political commitment to this central initiative. The targets and objectives at the European level can only be reached if national states are able to set new priorities, to provide adequate funding and to remove obstacles to achieve the targets. In Norway the information society policy initiative is formally gathered in the eNorway action plan.

1.1.2 The erosion of state capacity in coordination of technology policies

Grande[2] makes strong arguments about how European policies have become excessively complex while the capacities to implement them have eroded. The author analyzes the impact of the globalization of markets, technologies and companies and of the Europeanization of public policies on state capacities in technology policy. On the one hand, the concepts and strategies that are guiding public policies have become more and more complex, resulting in comprehensive programs for national and European "innovation policies". On the other hand, as a result of the economic globalization as well as of changes in the internal structure of the state, Grande argues, the state capacities to implement these ambitious strategies successfully have been impaired. Consequently European and national policies have been confronted with an intensifying strategic dilemma. As Grande formulates it:

> "policy strategies which have been feasible within the existing institutional structures turned out to be under-complex and, hence, inadequate to improve industrial competitiveness in the IT sector; however, more adequate comprehensive innovation policy strategies tended to be over-complex and overstrained the state's institutional capability, in particular its capacity for horizontal and vertical policy coordination"

Source: Grande E., The erosion of state capacity and the European innovation policy dilemma. A comparison of German and EU information technology policies, Research Policy 30 (2001) p.916

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[2] Grande E., **The erosion of state capacity and the European innovation policy dilemma. A comparison of German and EU information technology policies**, Research Policy 30 (2001)

Towards the end of his article Grande looks ahead in an effort to find a way out of the policy dilemma in order to develop possibilities to improve the performance of EU technology policies. Three options emerge: First option is to concentrate and centralize the institutional setting, the second option is to decentralize the policy, and the third option is to adopt a policy strategy that is better suited to the institutional framework of EU or the national state.

It is highly relevant to reformulate the arguments of Grande into a hypothesis in this case study of the Norwegian information society policy. We have developed a working hypothesis:

> We assume that the Norwegian information society policy system represents a case that includes features that have similarities with the tendency that Grande describes. We assume that eNorway is a complex and comprehensive policy system that has deficiencies but potentials in its coordination mechanisms.

In the concluding part of this report we resume to the hypothesis and discuss the extent to which observations made by Grande shed light on our description of the Norwegian information society case. In particular we shall discuss the three options, which theoretically provide a way out of the policy dilemma, in order to reflect on the improvement potentials in the Norwegian case.

1.2 Norwegian Politics and Information Society Policy

1.2.1 Competition as policy aim, not only a means to achieve aims

Most parties present in the Norwegian Parliament are strongly engaged in ICT-policy and information society policy matters. As with the Norwegian political context in general, the information society policy debate has been consensus-oriented and not subject to very much interference or disagreement. The reason for this is among other factors the fact that the labor party has been in power most of the last 25 years, only occasionally succeeded by a central conservative government coalition alternative. Moreover, the same period of time has been characterized by minority Governments, which in fact has led to consensus-orientation. Even though commentators argue that policy change towards market based policy thinking and policy making certainly involve the last social-democratic Governments because the trend depends on globalization and deregulation that started during the 1980's and 1990's, it is a fact that the new conservative-dominated Government (new in 2001) has undertaken the role as implementer of the radical policy change more explicitly than the social-democratic Governments during the last decades of the 20th century did. It is increasingly becoming evident that the Norwegian Government is strongly in favor of letting the market rule. The "Bondevik"-Government reveals through its law proposals, budgets, policy priorities and guiding principles a strong will to a radical policy change in the direction of market orientation. Based on the comparison of new competition law proposals in EU and Norway, commentators argue that the Norwegian

Government is more liberal - willing to let the market rule – than the European Union currently is. The Norwegian Government proposes currently that competition is to be a central policy aim and principle in all public as well as private domains of society. The EU is proposing exceptions from competition laws in the health and social sector, in education and in collective transport and in the culture sector. In Norway the tendency is increasingly visible on the surface of policy making in general and of the eNorway initiative but perhaps even more evident at concrete levels of implementation. Market orientation and belief in what competition can accomplish is for example very noticeable in certain policy solutions of broadband roll-out and it is partly evident in the processes of ICT and innovation/modernization in the public sector.

1.2.2 Norwegian Information Society Policy and its link to innovation policy

Reflecting the perceived interrelation between IT policy and policy areas such as innovation policy and education policy, the department of IT policy in the Norwegian Ministry of Trade and Industry expresses in its initial formulations about IT policy:

> "Today's modern, knowledge-based information society is at the hub of the IT policy. The (IT policy) department's drive is to create a practical framework to promote reform and modernization, as well as boost value creation through effective deployment of information and communication technologies."

And,

> "The IT revolution entails innate social and economic changes; social and cultural patterns are being altered, national legislation and regulations are being contested and new products are being taken into use. The burgeoning growth of the digital society – eNorway – heralds tremendous opportunities, which command targeted work for realization. A pro-active policy is crucial here. eNorway is the Norwegian Government's IST/ICT policy."

Source: Ministry of Trade and Industry, Department of IT policy, December 2003,
http://odin.dep.no/nhd/engelsk/

Without addressing explicitly the concept of innovation policy, the eNorway policy nevertheless intrinsically captures the general objective of boosting value creation. The new innovation policy plan that was launched by the Government in October 2003 has value creation as its main target, in addition to targets concerning knowledge, technology and innovation. Moreover the innovation policy plan includes in its formulation of overall objectives exploitation of ICT in a broad sense. The link between the plans of eNorway and Norwegian innovation policy is thereby distinct.

The quotations on the front web page referred to above emphasise the IT-policy department's core tasks to be in the areas of eCommerce, IT deployment and broadband roll-out in Norway, as well as policies for electronic content, and IT security. It is the overall objective that Norway will be a pioneer at the forefront of modern expansion within our knowledge-based information society through the promotion of advanced IT development and deployment. The Government's eNorway

2005 Action Plan, launched in May 2002, provides more in-depth information on the primary objectives of the Government's IT policy.

Chapter 2.   Objectives and analytical concepts

2.1   Objectives

The overall objective of the MONIT project is to generate a new body of knowledge for OECD countries on how to improve governance and create a more coherent innovation policy (IP). In other words, the aim is to identify the origins and determinants of national capabilities in developing and governing coherent innovation policy. The project investigates the current innovation profiles in some member countries, how they have come into being, and how their political, cultural and economic sources feed into processes of policy coordination. MONIT aims at helping governments learn from national experiences on how to align science, technology and innovation (STI) policy better with the rest of the policy system, and how to better integrate IP elements in a horizontal, cross-sectoral and cross-institutional approach for a more coherent innovation policy.

Within these overall objectives of MONIT, the case studies of the focal policies in each member country aim at building up a base of competence and experience of national policy capabilities and routines. The focus will be on how focal policies are set up, organized, implemented and coordinated, and how these strategic and operative tasks are organized and founded within the overall domain of innovation policy.

The information society case in the MONIT project is an exploration of the subtleties in the distribution of responsibility between actors when it comes to formulation, co-ordination and implementation of IT-policy, and when it comes to evaluation, policy learning and reformulation of policy.

It is our explicit focus to look at the role of the coordinating body in Norwegian information society policy (eNorway). It is not our objective to analyze the extent to which targets in eNorway are reached or not. It would be the objective of an evaluation of the policy. But our analysis of the way the coordinating body is coordinating eNorway shapes the basis for reaching targets. In that relation it is possible for us to say something about the extent to which the coordinating body is able to drive the process, follow it up and ensure that targets are reached.

2.2   Terminology and analytical core concepts

Comparability is of core importance for the final stage of MONIT, which is the synthesis of the empirical material from the cases in all the member countries. A minimum of common terminology in the project is therefore a necessity. In this paragraph we highlight and define the most important concepts applied in the report.

2.2.1 The policy cycle

The national capabilities of information society policy need to be able to improve and ensure quality in the policy process across the following phases, also called the policy cycle. The policy cycle consists of:

- Agenda setting and prioritization
- Implementation
- Policy analysis and evaluation

Agenda setting and prioritization belong to the strategic dimensions of the policy cycle. Implementation concerns the operative dimension, while policy analysis and evaluation address dimensions of policy learning, which is supposed to close the loop between the three phases.

2.2.2 Coherence, coordination and horizontalization

In order to fulfill objectives of coherence the three phases highlighted above need to be approached within a horizontal perspective. In operative terms this requires coordination activity. Coherence, horizontality and coordination are core concepts within this project. Let us look a bot closer at the concepts.

Coherence is at the center of the MONIT study. It is defined as the extent to which political actions such as policies and reforms are aligned and devoid of contradictions in objectives and/or instruments. Following OECD, coherence has three dimensions:

- **Horizontal coherence** ensures that individual policies build on each other to the extent possible, and minimizes inconsistencies in the case of conflicting policy goals.

- **Vertical coherence** ensures that public outputs are consistent with the original intentions of policy makers. In other words, vertical coherence is much about the relationship between policy objectives and the delivery of outputs through implementation instruments.

- **Temporal coherence** ensures that today's policies are consistent with perceptions of future changes.

Coherence is dependent on several challenges: First, coherence challenges sectorization or departmentalization, concepts to which we resume below. Departmentalization is the sector-oriented principle of governments and the sectoral cultures that come with it. Coherence needs support from a culture that stimulates common understanding of general goals, and will be inhibited by sub-optimizing cultures that give priority to sectoral goals. Second, coherence may be ensured by political leadership creating visions and commitments. Third, coherence may be achieved by exploiting the possibilities in the policy cycle, in which priority setting is done based on a profound knowledge base. Fourth, coherence is improved through the capability to co-ordinate policies and institutions and to create effective communication and information networks.

Innovation policy is the theme within which the MONIT project addresses coherence. In more concrete terms and coming at it from the perspective of a focal policy such as a nation's information society policy, a fundamental condition for horizontal coherence is that strategic dimensions, as reported in policy documents, are adequately arranged and adjusted to innovation policy. This implies that the overall objectives of the information society policy cannot be inconsistent with overall objectives of innovation policy.

At the level of the focal policy, our focus in the case of the Norwegian information society study is more at the vertical coherence, i.e. the coordination activities that aim at making concrete policy programs and instruments work in the direction of fulfilling concrete and specific as well as strategic objectives. In order to do this the hierarchy of policy objectives from the most concrete policy scheme to the most strategic and aggregate policy objective, must have a relatively high degree of consistency. The normal case is probably not that the degree of consistency is high. Coordination must be seen as a continuous process in which policy authorities and coordinating authorities make sure that strategic dimensions of the information society policy are coherent, and that policy areas and implementation processes work in the direction of coherence.

Consistency across policy domains, as explained above, can be understood as horizontalization; the degree to which the distributive elements of policies are bound together by a strategic approach. Using the co-ordination scale in box 1 below, one can hypothesize that the higher on the co-ordination scale, the more horizontalized will the innovation policy be. This strategic approach is also linked to how and to which extent innovation policy functions are "incorporated" into given policy areas, where by incorporation is understood a strategic rationale for it.

Consequently, coordination of policy shaping coherence at the strategic level may be seen as "paper-based" in the sense that it implies that policy documents reflect coherence, but it does not necessarily imply actual coordination in the policy cycle, at the implementation level. Concrete coordination is the work of bringing implementing actors together and making them shape their activities coherently. Concrete coordination does not necessarily require paper-based coordination and coherence. It seems however reasonable to expect that paper-based coherence leads to concrete coordination if a dedicated coordinating body is set up to bring actors together.

2.2.3 Sectorization and departmentalization

As mentioned above coherency is challenged by sectorization or departmentalization (or the other way around). Sectorization refers to the extent to which sector-interests are organized, financed, arranged and communicated within a common culture and within a clearly defined structure. Sectorization in Norway is strongly linked to departmentalization, which can be defined as the extent to which the ministerial level and its government agencies in the bureaucracy exercises

power on sector-interests. The degree of sectorization and departmentalization in Norway is strong.

Box 1. The policy co-ordination scale

9. Government strategy
8. Establishing central priorities
7. Setting limits on ministerial action
6. Arbitration of policy differences
5. Search for agreement among ministries
4. Avoiding divergences among ministries
3. Consultation with other ministries (feedback)
2. Communication to other ministries
1. Independent decision-making by ministries

2.2.4 Governance and coordination

"Governance means rules, processes and behavior that affect the way in which powers are exercised, … particularly as regards openness, participation, accountability, effectiveness and coherence".[3]

This definition concentrates more on characteristics of governance. In the MONIT study the focus is more on the activities that governance consists of, in particular co-ordination, learning and managing the policy cycle:

Co-ordination refers to the explicit mechanisms that governments put in place to create a better consistency between objectives and instruments across policy domains and institutions. For example, the policy co-ordination scale illustrates practical means at disposal for governments:[4]

There may be other co-ordination mechanisms in use, and the aim of MONIT is to identify these and identify the foundations or success criteria for their use.

Learning: The concept of learning is relatively well defined in the innovation systems literature. It is linked to an evolutionary approach in which agents learn new behavior and thereby also ensure (or not) their survival. Policy learning is at the heart of MONIT, and is defined as the ways in which policy systems generate knowledge and understanding about the underpinnings of, preconditions for, and effects from their political actions (policies and initiatives). This definition points to the need to learn more about the key processes through which such learning occur. The learning concept is thus of an institutional nature and implies inherent logics of knowledge

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[3] From "The Governance of Research and Innovation: An international comparative study. Technolpolis-Group, December 2002.
[4] From "Dynamising National Innovation Systems", OECD 2002.

accumulation and institutional retention and change that represent processes of path dependency. Hence, the capability of learning is tightly linked to the political culture in a country, and the historical development of the institutional set-up, i.e. in focal policies the organization of coordinating body and its competence and influence to govern.

Managing the policy cycle: Learning is linked to the policy cycle and the way this cycle is managed. It consists as described above of three interactive phases: Agenda setting and prioritization, implementation and policy analysis and evaluation. The key aspect here is the focus on processes, that is how governments are able to manage the dynamism inherent in the cycle and create an adaptive policy environment.

All together policy coordination, policy learning and managing the policy cycle represent important aspects of the national capability of policy making and policy innovation.

2.2.5   Innovation and policy innovation

In MONIT there is a dual connotation to the concept of innovation. First, the original or narrow version of the concept refers to outcomes of innovative behaviors on the firm and industry level. This includes new products, new technologies, new processes and new organizational forms. Second and more important for the MONIT study, innovation is a broader concept and includes institutional change and innovative patterns in the policy or governance system. An underlying logic in the MONIT study is that governments may improve their capabilities to stimulate (narrow) innovation in the economy (in firms) by innovating (broadly speaking) their own policy making processes and institutions.

Chapter 3. Historical account

3.1 On how and why horizontal ICT-policy is possible in Norway

> "Governmental IT projects and initiatives have not always been success stories. Too often we have failed in planning and implementation. This has inevitably led to a certain hesitation in launching new ambitious projects and in harvesting the benefits of new solutions and new ways of working. There is still room for ambitions and visions but more than anything, there is room for better accomplishment and stronger will to harvest the benefits."

State Secretary Mr Oluf Ulseth, eSkills Summit, Copenhagen 17-18 October 2002

In the first years of the 1980's a transformation of industrial policy thinking took place in Norway. This transformation belongs to the most important processes when we look back at the initial stages of Norwegian information society thinking. The transformation implied the establishment of *innovation policy* as relevant concept at the macro level (traditional political actors and channels). And it led to the definition of *research* as central industrial policy instrument. In concrete terms the result of the transformation was the definition of main areas of policy priority for Norwegian research. The macro political level was a necessary but not sufficient factor that influenced what was going to become the most important milestone on the way to the adoption of the information society, namely the big concerted IT-plan that was launched in the second half of the 1980's.

3.1.1 Macro policy dynamics of the 1980's

The policy debate in the early 1980's was dominated by arguments about future exploitation of the telecommunication monopolist. The majority of the Norwegian parliament voted for an extended use of tenders in industrial demand and supply – a resolution that de facto started the process of splitting up the state owned telecommunication monopoly. This decision marks the start of the trend of liberalization and (re/de)regulation in telecommunications. It can be seen as a paradox that while maintaining and developing a strong will to make the best information technology policy for the nation, the politicians arguably started the process of decreasing ownership and control over their best IT- research policy tool, the national telecommunication monopolist Televerket and its huge research facilities. In an historical view it holds water to argue that the dominating policy of liberalization in telecommunications, moulded national policy conditions in which it became more and more difficult to govern and exploit publicly funded research – in other words – to politically build and exploit Televerket as locomotive in the Norwegian industrial development of an information society.

3.1.2 The IT-plan 1987-1990

The IT- plan ran from 1987 to 1990. It was a comprehensive public initiative aiming at growth in the production and application/utilisation of IT in most areas of the Norwegian economy and

society. The plan had a very broad scope. It included education at all levels, public application of IT, basic research, strategic and applied research within product development and application of IT, regional policy measures and telecommunications. Looking back this IT-plan was the predecessor of the current Norwegian policy plan - eNorway 2005.

3.1.3 The 1980's - interministerial collaboration – the foundation for horizontal policy making

Before we approach the contemporary policy scene of eNorway, let us dwell on the historical foundation for horizontal policy processes in the area of information technology. It is the cooperation and coordination between actors in the bureaucracy that is interesting. But the mentioned transformation of policy thinking at the macro level and the concerted IT-plan, could not have been realized and implemented without unifying initiatives from the micro level. In the Norwegian case the unifying initiatives feeding into a concretized innovation policy in the shape of an IT-plan, came from peripheral actors and avant-garde individuals and units in the domain of research and education, more than from the ministries. Based on the initiatives from these peripheral actors and experts, several independent initiatives emerged at the ministerial level, pointing in the direction of an IT-plan. The initiatives were partly very different, but they may be seen as an emerging actor network of ministerial interests in IT. The actor network was above all dominated by the mentioned professional experts and avant-garde individuals with specific interests in technology, often with peripheral location. It was above all the perspective of information technology as a key technology that was similar across ministerial borders. The initiatives and contributions from each ministry were naturally specified in themes that corresponded to their area of responsibility, but a green paper about "telematics" in 1983 reflects the tendency of horizontal policy thinking by suggesting concrete policy initiatives across several ministries' domains.

The committee behind the green paper put a strong emphasis on the role of the Norwegian telecommunication monopolist Televerket. It suggested strengthening the internal research activity and it suggested boosting collaboration between Televerket, industrial actors and other research institutes. Moreover emphasis was put on rapid expansion of infrastructure, and investment in services that could improve competitiveness of Norwegian industry. Televerket was to play the role of the locomotive. Worth to mention is the committee's recommendation that investment and acquisition in technological solutions not necessarily should follow commercial interests. The committee suggested that (more expensive) solutions could be preferred if socio-economic effects were assessed to be higher. Education policy related to information technology was also strongly emphasised in the green paper. On the one hand modern information technology tools and solutions were to be utilized in order to improve the efficiency of education. On the

other hand education was seen as crucial in order to be able to exploit the opportunities from R&D in the field.

In the period between the green paper on telematics in 1983 and the launch of the big IT-plan in 1986-87, two different directions of political interest were visible in the interministerial processes that led to consensus about the plan. Strong political forces pulled in the direction of emphasising IT-policy as (tool for) industrial development. This policy interest was brought forward by representatives from industry, technology and technological research, and backed up by the ministry of industry. Exploitation and acquisition of IT in existing industries was a topic for this side of the establishment, but the development of a new and emerging IT-industry was even more emphasised as the solution to Norwegian industrial challenges. In the mid 1980's this kind of political interest, a notion of industry modernization, stood against a notion of IT as a more comprehensive driving force in the information society. The political interest of industry modernization took concrete form as a committee proposal (a proposal from the so-called Kuvås-committee) that was supposed to give input to the work on a national IT-plan. The political interests that supported a broader view to diffusion and exploitation of IT existed above all in other ministries than the ministry of industry. The message from this side of the establishment was indited by an advisory board consisting of senior public servants, which was established by the government with a mandate of protecting other objectives and values than those merely related to industry and commercial life. In compliance with the mandate of the board – it was called "Datapolitisk Råd" – it commented in particular that the proposal from the Kuvås committee could be characterized more as a programme for Norwegian industry and commerce than a comprehensive national IT-programme. Rather than national objectives within economic variables and productivity Datapolitisk Råd was of the opinion that several issues were missing, and in particular;

- Competence accumulation, research and investigation in the interface between IT and social science
- Cultural and social implications of IT, consequently in particular humanistic and social scientific areas
- Competence accumulation in broader spheres of education and research, not only IT. It was mentioned law, medicine, and agricultural science.
- Competence accumulation and exploitation of IT in the public sector
- Special effort in rural Norway, in particular education and industry in the northern part of the country

In other words, the variety of ministerial efforts and suggestions, which were reflected in the committee's statement, included education at lower levels, use of IT in the public sector/administration and IT and regional policy measures.

Now, despite the diverging opinions, between the technological establishment (The industry, technical research and the Ministry of Industry) and the establishment with social and cultural concerns (Most of the other ministries), the Ministry of Industry saw it as its responsibility to gather the different interests in an effort to propose a national IT-plan that could build on consensus with the government's declared political signals and objectives. In reality this meant that the Ministry of industry understood that all expressed interests from the ministries and other stakeholders had to be taken into consideration in the proposal for a national IT-plan.

A couple of important points can be made from this brief historical lesson of Norwegian IT-policy in the making during the 1980's. It seems that:

1. the real but constructive process of balancing power between different political interests and objectives prior to the big IT action plan 1987-1990, made the contents of the plan comprehensive, nation-wide and not limited to industrial and commercial interests only.

2. It is not at all evident, but it seems that the understanding of the broader significance of how IT could be exploited and diffused in society had reached both the Government and the most important actors in IT policy making at that point of time – representatives from the most important ministries and representatives in the expert committees with mandates of developing IT-policy.

The result was that all actors could agree upon five main areas for an IT action plan:

1. Education – vocational training, universities and colleges, in-service training
2. Equipment to education and research
3. Knowledge production/accumulation – research (basic and applied) within central, specialised areas.
4. Product development – measures supporting industry, mortgage and grants to R&D and innovation
5. Acquisition/technology diffusion – demonstration projects, productivity programmes, IT in the public sector

The proposal was built on the achieved consensus and common understanding at the ministerial level that IT had broader societal effects and implications (we may call it a information society perspective), beyond potential industrial development only. However, it has been pointed out by observers that the ministerial level of policy making made the mistake to include both the information society perspective and the industrial development perspective. Looking into the 1990's, IT-policy went in the direction of detailed and comprehensive policy implementation, based on the inclusion of both these principles. Even though the lessons from this extremely wide-ranging and comprehensive policy making are mixed, it seems reasonable to see the consensus-

making efforts at the ministerial level in the 1980's as a prerequisite for the fact that hardly any interests or policy domains were excluded.

3.2   The role of the Finance ministry

Before we turn to a description of the IT-policy conditions of the 1990's, it is meaningful to comment on the role of the Finance ministry in the power balance of the 1980's. It seems clear that the Finance ministry played a consolidating role in relation to existing sector-specific budget allocations. Having less interest in the policy dimensions of IT in terms of the societal effects, and more interest in keeping the overall national budget in balance, the Finance ministry acted preservative by demanding that every new proposed policy initiative should be financed within the existing budgetary limits of each relevant ministry. In the consensus-seeking processes between the ministries, the Finance ministry can be characterized as an additional hindering factor that had to be overcome in order to realize the plans that were made. In the paragraph below we discuss the historical dynamics between ministerial consensus and departmentalization, strong ministries with specialized sector interests. We do not hold information about the role of the Finance ministry beyond the general indication that it played a conservative dimension, in the negative sense of the concept, in policy processes with a horizontal perspective.

3.3   The 1990's – detailed and comprehensive policy planning

Buland[5] emphasizes that processes of negotiation between the ministries involved in the different types of IT-policy efforts, resulted in a sufficient degree of consensus to make the IT- plan 1987-1990 come true. It seems as the framework of policy effort and the five main areas of attention that was formulated in the action plan, constructed paths for policy effort during the 1990's. But these paths of effort were much less collaborative and much more sector specific. The mentioned big national plan 1987-1990 was succeeded by other and more sector specified plans during the 1990's. But although the activity paths that were constructed seem to be adding to a coherent whole in the most profiled policy documents published during the last 15 years, it is a fact that each area of implementation was subject to ownership and control from each correspondingly responsible ministry. The fact that consensus between the involved ministries was established did not imply that there were no divergent opinions about the plan. And it did not imply that every policy area was developed with strong reference to a common and co-ordinated development path.

From the opposite perspective it can be emphasised that the inter-ministerial consensus and collaboration that led to the big action plan succeeded despite the fact that sector interests in each ministry were and still are particularly strong in Norway compared to many other countries. There

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[5] Buland, T., Den Store IT-planen, Norges Satsing på Informatsjonsteknologi 1987-1990, Report 27, Senter for Teknologi og Samfunn, NTNU, 1996

is no doubt that the patterns of strong sector interests and departmentalization in the Norwegian bureaucracy did not change in its nature just because the ministerial level managed to agree to the overall IT-plan. The big IT action plan included all ministries' own efforts and plans.

Summing up IT-policy effort during the 1990's - avoiding a too detailed description of the comprehensive policy planning and implementation – the big IT plan 1987-1990 was followed by a period characterized by far less centralized activity. Different ministries contended to be the most central "IT-ministry", and the different IT-policy efforts were carried on in relative stillness within several smaller "sectoral" plans. In some of these areas, for example when it comes to education and infrastructure, good results were made. During the first half of the 1990's this makes an example that big national efforts not necessarily are the crucial thing. It is possible to make good results out of determined work.

During the last part of the 1990's, however, the national dimension popped up again. In 1996 in a report by a panel of Deputy Ministers a new national strategy was formulated[6]. In isolated terms this was of course a positive effort. It was of significance for the whole nation. There was an evident need for an IT-policy. The problem was only that once again the strategy by and large took form as statements of intention instead of measures and action. The report that was presented in 1996 represented a range of good wishes without concrete plans that pointed out how to reach the targets. The report documented that the "revolution we live in the middle of" implies possibilities and perspectives that we have to take care of, and it implies that we have to exploit information technology for the sake of:

- growth and value creation,
- reduced proximity,
- culture and media,
- the global school,
- a simpler life for all,
- protection of privacy and vulnerability,
- the public sector and the future,
- improved organization and collaboration in the health care system

By doing that, the top policy level showed its intentions. An inter-ministerial consensus was presented, and the formulation (and implementation) of concrete action was handed over to those who knew how to do it. However, one could argue that it was disappointing that such a

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[6] **Den norske IT-veien. Bit for bit**, Rapport fra Statssekretærutvalget for IT, januar 1996

comprehensive policy document contained so little beyond the overall and airy intentions. To the extent a strategic method could be seen in this document, it seemed to be the principle of addition. The report was mainly a summary of everything that had to do with IT in the mid 1990's. Difficult choices, decisions about direction, prioritizations and contents, were basically not present. And, above all, no coordinating body with dedicated concrete responsibility was set up.

3.4   Summing up

There is a relatively clear tendency in the Norwegian near history of ICT-policy that policy making tends to repeat itself in form, if we look back 20-25 years. During the 1980's it was established a cross-ministerial consensus concerning the importance of ICT in society. Two national strategic efforts have been replaced by a range of less centralized, targeted sector efforts. The current eNorway2005 national strategic effort falls into this historical line. It is to a strong extent an overall framework listing the variety of policy measures and policy actions that have been introduced over the last years. The new about the eNorway framework is that a dedicated authority body is coordinating the policy efforts. In the next chapters we describe the eNorway action plan and we go into how the established coordinating body works.

Chapter 4.   The Norwegian Information Society Policy

In this chapter we describe the prevailing Norwegian IT-policy action plan called eNorway, and we describe parts of its policy cycle, i.e. its portfolio of policy instruments. The plan is made up of a hierarchy of overall priorities, areas of effort, sub-areas of priority, and a range of different policy programmes and policy instruments with its own specific aims. We use the policy portfolio to extract two types of policy instruments that are characteristic to the action plan as a whole.

4.1   The Action Plan: eNorway-2005

Following the advice from the European policy level the eNorway 2005 action plan is the response from the Norwegian Government. The Norwegian plan sets three main priorities and objectives;

- Creating value in industry
- Efficiency and quality in the public sector
- Involvement and identity

The involvement to achieve the main goals is divided into five areas;

- A good framework for eNorway
- Accessibility and security
- Skills for change
- Attractive contents
- A modern public sector

In the main policy document each of the five areas is described in detail. The detailed elaboration includes sub-areas of priority, to which concrete targets are connected. To each sub-area a "so-called" flagship project is assigned, the responsible institution(s) is defined, and a deadline for target achievement is defined. Below we quickly look through this hierarchical map of targets and involved actors.

4.1.1   A good framework for eNorway

A good framework is seen as having a large impact on industry's and the Government's use of information technology. Three sub-areas are emphasised within a good framework:

(1) A modified and updated set of regulations.
Target: Online government and traditional services shall be of equal standing, and the regulations shall not obstruct electronic communication unnecessarily.
Flagship project: Removal of obstacles to information exchange. It implies that obstacles to reporting and exchange of personal information between Government agencies shall be recorded. Legislation shall be reviewed where appropriate, and businesses will have the opportunity to offer personal services based on the consumer's informed consent regarding the use of personal information.

(2) A climate of value creation.
Target: A framework shall exist to promote realization of our full potential for value creation.
Flagship project: Review of Government administrative services. This is done in order to ensure that Government services are tailored to accommodate the needs of industry. It is also vital to direct the service's focus more towards areas in which private markets do not function. Both new and existing instruments will be evaluated and Government-run activities will be put out to tender.

(3) An attractive environment for electronic commerce
Target: A good framework shall encourage a rise in the use of electronic commerce in and between enterprises.
Flagship project: Framework for electronic commerce. The main work will be done by means of targeted investment in standardized data reporting, the exchange of skills and information, and simplification and standardization of Norwegian legislation and regulation.

(4) Research for innovation and value creation.
Target: IT shall be a high priority in underpinning Norwegian research, with maximum commercialization of subsequent results.
Flagship project: Participation in the European Research Area (ERA) within the information society technologies (IST)

4.1.2 Accessibility and security

(1) Access to an Electronic Communication Infrastructure.
Target: Norway shall establish a robust, efficient and publicly-accessible infrastructure for electronic communication, firmly embedded in pro-active competition. Market players shall be in charge of building the infrastructure and responsible for selecting the technology. The authorities' tasks are to put conditions in place and to promote active competition.
Flagship project: Act on electronic communication with a vast amount of modifications, replacing the existing act on telecommunications.

(2) Widespread Broadband Roll-out.
Target: Good offers for broadband shall be available on the market in all regions of Norway. During 2005 primary schools, public libraries and local authority administrative services shall be given the option of broadband connection at a competitive price.
Flagship project: Broadband in the municipalities

(3) Use of Electronic Signatures by the General Public.
Target: Conditions shall be established by the end of 2005 ensuring the public access to standard-based electronic signatures.
Flagship project: Infrastructure for the use of electronic signatures by the general public.

(4) A Culture of Security.
Target: A culture of security will be established, linked to the deployment and development of information systems and electronic communication.
Flagship project: Raising IT security awareness.

(5) Robust Infrastructure and Information Systems.
Target: Important infrastructure for electronic communication shall be robust and secure, and critical information systems shall be secured to minimize the consequences of downtime.
Flagship project: Centre for information security

4.1.3 Skills for change

(1) IT in Education and Learning.
Target: IT will contribute to reinforce the learning environment, tailoring learning to the individual and improving the quality of education.
Flagship project: IT training for teachers.

(2) Access to a Skilled Workforce.
Target: There will be sufficient access to a workforce both with expertise and basic skills within IT.
Flagship project: Capacity and quality review of IT in higher education.

(3) Business Skills
Target: Norwegian businesses will have the necessary skills to exploit every opportunity through the use of IT.
Flagship project: Follow-up of the electronic marketplace for public procurement.

(4) Skills Through Participation
Target: The population will have adequate knowledge and skills to exploit the opportunities presented by technology.
Flagship project: Tax incentives for home PCs and broadband.

4.1.4 Attractive contents

(1) Access to diverse content
Target: The achievement of widespread access to diverse electronic quality content organized for Norwegian consumption or potentially exportable.
Flagship project: Knowledge bases in Norwegian (web-gateway)

(2) A competitive content industry
Target: The Norwegian content industry shall be competitive – competition and diversity will be integral to production and dissemination of electronic content in Norway.
Flagship project: Government initiated research on the relationship between content providers and network service suppliers, aiming at cultivating conditions for long-term political decision-making and to encourage creativity and industrial development.

(3) Access and the role of the Government
Target: Content production and modernization of public sector and secure democratic participation.
Flagship project: Improved access to spatial information, ensured by obligatory co-operation between Government bodies and relevant institutions.

(4) Counteracting illegal and harmful content
Target: Information and attitude-building work will contribute to counteracting illegal and harmful content on the Internet.
Flagship project: Raising awareness about illegal and harmful content directed at children.

4.1.5 A modern public sector

(1) Better organization and effective solutions
Target: IT shall help create more efficient solutions and better structuring in the public sector.
Flagship project: Coordination of the use of IT in the public sector.

(2) User-oriented electronic services
Target: All local authorities and Government agencies shall provide tailored e-services which make life easier for users and promote democratic dialogue with the population.
Flagship project: Electronic signatures in the public sector.

(3) Simplified reporting
Target: By the end of 2004, all Government agencies will be able to receive electronic reports submitted by enterprises.
Flagship project: Simplified reporting

(4) The public sector as a customer
Target: The public sector shall act the part of a major customer in order to promote the development and use of IT-based products and services within society.
Flagship project: An electronic marketplace for public procurement.

4.2   Two types of policy instruments

The eNorway plan contains an impressive list of themes and target areas. As we see above the use of flagship projects seems to be a way to present the most important effort within each policy area. Flagship project is synonymous to *prioritized task*. Looking closer at the different types of flagship projects we notice that they include a broad range of projects. We have found it adequate to arrange the portfolio of projects in two types. On the one hand there are the large and comprehensive policy programmes. These programmes have a specified budget, external (external to the coordinating body) administrative, operative staff and often a coordinating panel. On the other hand there are the smaller and more heterogeneous range of policy initiatives and policy processes. Let us look closer at these two types of policy instruments that are both coordinated from eNorway as coordinating body.

4.2.1   Large, comprehensive policy programmes

ENorway consist of a few large, complex policy programmes that aim at specific ICT policy domains. In addition to the scheme "ICT in Norwegian education", which has been running since 1997, the HØYKOM scheme is also a typical example of a large-scale policy effort. Both these schemes have outsourced administrative and operative organizations (outside the coordinating body in the Ministry of Trade and Industry).

The scheme "ICT in Norwegian education"
The scheme "ICT in Norwegian education" is organized by highly competent, professional personnel that take care of the array of nation-wide projects, schemes and network building processes. This implementing body is located in close proximity to the University of Oslo. The project portfolio represents examples of good policy practice across the nation, and is thereby supposed to function as policy guides to potential participants. It is the aim to establish, develop and contribute to national and international, multi-disciplinary and network building research and

competence development. "ICT in Norwegian education" has an intermediate coordinating level in the Ministry of Education and Research. The ministry and the implementing body work together in most aspects that are linked to the concept of ICT in education. The ministry for example arranged an evaluation of the scheme in 2003. The Ministry of Education and Research reports to the eNorway coordinating body about the scheme's progression and status. ENorway's coordinating body participates in the most central forums where the coordinating authorities meet the implementing level, but has not accumulated any specific competence within ICT in education. The Ministry of Education and Research has on their side hired in an expert within ICT and education to take care of the specific coordination and managerial efforts required in relation to the evaluation, planning and preparation of the future of "ICT in Norwegian education".

Within the eNorway policy area of Skills for change, a part of the scheme "ICT in Norwegian education" is the flagship project, namely the part that focuses on ICT competence through in-service training of 40 000 teachers. It is the overall aim that ICT shall contribute to a stronger learning environment, individually adjusted learning and improved quality at school.

The scheme "HØYKOM"

HØYKOM is a comprehensive, complex and outsourced policy scheme and it is thereby within the same type of policy effort as "ICT in Norwegian education". HØYKOM is the scheme for stimulating broadband demand in Norway. It is a policy instrument that aims at stimulating public and semi-public enterprises to invest in and employ broadband infrastructure and applications. In the eNorway main publication the target is formulated:

> "Good offers for broadband shall be available on the market in all regions of Norway. During 2005 primary schools, public libraries and local authority administrative services shall be given the option of broadband connection at a competitive price."

By application, grants are approved to public enterprises, under the condition that at least 50% of the total investment was self-financed. The scheme has run two periods, HØYKOM I 1999-2001 and HØYKOM II 2001-2003. The first period was financed solely by the Ministry of Trade and Industry. The second period the scheme was financed by the Ministry of Trade and Industry and the Ministry of Education and Research. The latter period has focused on education institutions in particular.

In the overall eNorway publication, the HØYKOM scheme is marketed as the flagship project of the target area Accessibility and Security. It is presented as the most important part of eNorway's policy for broadband-rollout. It is a central objective to ensure a satisfactory infrastructure that shapes the basis for the high internet and network penetration, which in turn and ultimately can

give commercial applications and public services to commercial life and the people. As to whether HØYKOM has fulfilled its targets is not an explicit topic in this discussion. The evaluation report, on which parts of the subsequent discussion are based, is nuanced but critical to whether HØYKOM has had the foreseen or desired effect on broadband application and infrastructure in Norway, in particular in areas where broadband is not offered by commercial actors. It is still the case in many rural areas of Norway, despite the fact that HØYKOM has run since 1999.

4.2.2   Smaller schemes, liaison committees, policy processes and initiatives

A list of the project and activity portfolio in eNorway indicates clearly that day-to-day tasks and activities of the staff of the coordinating body are dominated by processes of network building and the operation of measures with relatively concrete aims. Across the five policy areas (A good framework for eNorway, Accessibility and security, Skills for change, Attractive contents, and A modern public sector) eNorway operates and is involved in an array of different activities aiming at establishing good conditions for the emergence of the information society. The main types of measures include the coordination of and participation in network building processes on specific issues such as common sector-specific interfaces, e-commerce, electronic signatures, IT-security and IT-research; formal initiatives and activities in relation to themes and processes such as law change, other juridical issues, re-regulation and standardization; establishment of framework conditions (strategies, action plans building common perceptions and objectives), studies and analyses of specific issues such as how e-commerce can affect transport and the localization of trade of goods and environment.

While the coordination of the large and comprehensive policy schemes is outsourced and does not (or only marginally) involve the coordinating body, the coordination of the policy initiatives and smaller schemes is done with much more hands-on management and influence from the side of the coordinating body.

4.3   What is characteristic about eNorway2005 as policy action plan

The eNorway action plan and its coordinating body is an innovative organizational experiment aiming at making ICT-policy coordinated and coherent. Compared to the historical account of ICT-policy in the Norwegian context, which indicated the lack of credible visionary perspectives and aims, the eNorway action plan provides a hierarchy of targets and objectives related to five policy domains and a corresponding set of policy schemes and initiatives. It is visionary and it is concrete in its formulation of policy tools. The policy cycle contains large, comprehensive, complex policy schemes that are outsourced (as seen from the eNorway coordinating body), and it

contains an array of policy initiatives, processes and smaller schemes that are operated by the coordinating body itself.

The coordinating body in eNorway has as its aim to be the motivator and orchestrator of the information society policy as a whole. With the exception of juridical competence and knowledge and skills related to the function of the political and bureaucratic system, the organization is not equipped with specialized competence to handle sector-specific policy domains. Therefore, the large and comprehensive type of schemes seems to live lives of its own without specific influence or coordination from eNorway. The responsible coordinating authority for the large and complex schemes, which often is the relevant sector-specific ministry, is responsible for the operation, implementation and policy learning related to this type of large schemes.

The policy initiatives and smaller schemes are by and large coordinated by the coordinating body, even though there also within this type of schemes are examples where sector-specific ministries are the most important coordinators. Coordination implies the establishment of communication platforms, physical and electronic interfaces and routines between stakeholders and the coordinating body. From the side of the coordinating body it requires the design of measures of interaction between stakeholders that make a difference to the existing, traditional systems, technologies and solutions. It implies a pedagogic effort that engages stakeholders and participants in the opening of doors to digital solutions and corresponding network requirements. The emergence of the information society meets a range of impediments in the existing structures and solutions of society. ENorway is there to coordinate the change of the conditions. In many ways one can argue that the portfolio of policy initiatives and the smaller policy schemes that depend on network building activities, all together are similar to one of the larger policy schemes that are outsourced.

Chapter 5.   The information society policy framework

5.1   Coordination and politics of eNorway

Let us start by giving an overview of the framework dimensions and patterns of collaboration in the Norwegian information society policy system. The eNorway2005 Action Plan is managed by the department of IT-policy in the Ministry of Trade and Industry (in the text called coordinating body or eNorway). The concept of management implies the coordination of the Norwegian Government's IT-policy or information society policy[7] within the borders of the Ministry of Trade and Industry and in close liaison with other government ministries within the different areas of responsibility. The close liaison between eNorway and the ministries, the communication between them, takes a variety of forms depending on the policy domain and the type of policy scheme in question. In other words, the intensity of communication and collaboration between the coordinating body in eNorway and the sector-specific ministry as coordinating body, depend on what kind of policy scheme is operated. In the following we have tried to simplify our observations and identified two types of collaboration patterns, roughly corresponding to the two types of policy schemes that we described in the former chapter.

In policy domains that are dominated by large complex schemes with separate budgets (e.g. HØYKOM and ICT in Norwegian education), which we described as mainly supervised and coordinated by sector-specific ministries, eNorway plays a defensive, relatively marginal role, at least what concerns the activities within the defined borders of the scheme. This does not mean that the coordinating body does not participate in liaison committees between the coordinating actors (eNorway, sector-specific ministries, implementing actors and stakeholders). On the contrary, in relation to policy schemes and domains that are outsourced and coordinated by sector-specific ministries, the networking functions and the exercise of influence from the side of the coordinating body are by and large done by participating in liaison committees that deal with overall relevant policy making (governance, management, reporting, evaluation, policy learning and planning of activities).

In the other policy domain, which we have characterized as consisting of networking activities, liaison committees, and more specialized policy processes and schemes (e.g. e-commerce networks, standardization processes, re-regulation, juridical processes), the coordinating body is playing a more central role, leading the processes as chairman with responsibility for calling in,

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[7] As the Norwegian political system and bureaucracy, in the text we change between applying the concepts of IT-policy, ICT-policy and information society policy. The concepts have roughly the same definitions, even though information society policy certainly is broader and IT-policy may be more specific.

setting up and the contents in the variety of liaison committees, collaboration forums and policy processes that are organized. This implies keeping an updated overview of network participants, communication with core actors and stakeholders. It implies agenda setting, responsibility for progress, for reporting and for evaluation and policy learning.

5.1.1 Patterns of interaction between coordinating body and stakeholders

The coordinating body operates a multitude of arenas and forums in the work of coordinating policy initiatives, processes and schemes. Some processes are dominated by meetings and dialogue between coordinating body and relevant ministries (for example interaction leading to propositions of juridical change). Some forums work on political and bureaucratic processes and include only higher level bureaucrats (for example in the case of the IT-panel of deputy ministers and the interdepartmental panel of e-Commerce). In the case of e-Commerce a website (www.ehandel.no) is established. The site is a market and a gateway for the initiatives in eNorway's "scheme for electronic commerce", and it is a gateway for projects and activities that promote the development of electronic commerce in the public sector and with the public sector. Again other forums are arenas for dialogue and collaboration between industry and stakeholders (for example Forum for IT-security and National PKI-forum (e-Signatures)).

The multitude of arenas of interaction requires a multitude of communication types between the staff of the coordinating body and its contact points. It implies communication across ministries and ministerial hierarchies and it implies communication with a range of different persons with different status in society. This work is easier done by telephone calls, e-mails and face-to-face contact than the typical bureaucratic mode of writing formal letters. In order to manage all the arenas between different actors, the department of IT-policy, which is the formal label of the organization that includes the eNorway coordinating body, works and performs as a rather flat organization. Although the hierarchy exists, formally speaking, this is a department that is different from many other ministerial departments in the bureaucracy.

5.1.2 Sectorization and departmentalization

Although the coordinating body certainly plays a central role in the coordination and work towards the overall coherence of the eNorway action plan, the responsibility for implementation of the five policy areas is <u>partly</u> distributed to relevant sector ministries or to constellations of ministries[8]. The concept of departmentalization – strong ministries and government agencies exercising sector interests - has strong roots in Norwegian politics and bureaucracy. We shall unavoidably and continuously resume to this aspect. It is in itself an important observation highly

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[8] In some schemes two or more ministries collaborate as responsible coordinators.

relevant to the MONIT project. The drive towards horizontal policy dimensions possibly, and at least theoretically, may meet important impediments in sectorization.

In the following we will continuously be referring to the above mentioned typological way of understanding the coordinating body's engagement and activity – on the one hand as relatively peripheral coordinator of outsourced schemes that are strongly influenced by sector-specific interests and coordinated by sector-specific ministries, on the other hand as a central actor of policy initiatives, policy processes, smaller schemes and the strategic level of eNorway.

5.2 Downstream and upstream coordination in the policy cycle

The mandate of the coordinating body is limited to political and bureaucratic processes in Norway and in relation to the EU-system, and in particular intra- and interministerial activities and relations. The coordinating body's main task is to implement, follow up and develop the action plan. As we pointed out above, the variety of policy schemes and initiatives which includes comprehensive areas that have to be covered, the coordinating body can only fulfill its objectives by actively running different types of coordinating activities.

The MONIT project and the information society case is an exploration of the subtleties in the distribution of responsibility between actors when it comes to formulation, co-ordination and implementation of policy, and when it comes to evaluation, policy learning and reformulation of policy. Linked to the characteristics of the policy cycle, i.e. the policy schemes and initiatives that have to be coordinated, two types of coordination tasks can be identified. On the one hand, the tasks include the coordination of implementing activities. It requires what can be called "downstream" policy exercise or policy execution. This corresponds roughly to what we in the conceptual chapter emphasized as agenda setting and prioritization and implementation in the policy cycle. On the other hand, the tasks include development and evaluation activities, which require what can be called "upstream" policy learning capabilities. This corresponds roughly to what we in the conceptual chapter emphasized as policy analysis and evaluation in the policy cycle. Both types of activities are necessary components in a policy system that aims at development, at staying tuned with political preferences, maintaining a long-term perspective and a flexible continuous drive towards the overall objectives.

5.2.1 A stylized table of coordination in the policy cycle

We have stylized two types of policy schemes or policy activities in eNorway, on the one hand large, complex outsourced policy schemes and on the other hand specialized policy initiatives and smaller schemes that are implemented with stronger internal control and coordinated as network processes. Moreover we have stylized the two types of coordination tasks, on the one hand the

downstream coordination that concerns policy agenda setting, prioritization and implementation and on the other hand upstream coordination that concerns policy learning capabilities, policy analysis and evaluation. With reference to an assessment of the degree of influence and therefore an assessment of the role of the coordinating body, the table below shows how we see policy activities and coordination in eNorway stylized.

On the one hand, when it comes to agenda setting, prioritization and implementation (downstream coordination), it is our assessment that the coordinating body has a low degree of influence on Type 1, the large complex, outsourced policy schemes. The exercised influence and coordination is assessed to be stronger on the other type of schemes and policy processes that are internally based.

Table 1 A stylized perspective to eNorway's influence in the information society policy cycle

Type of policy scheme **Coordination type**	**Type 1:** **Large complex, outsourced policy schemes**	**Type 2:** **Policy initiatives, smaller schemes**
"Downstream" coordination in the policy cycle 1. Agenda setting and prioritization 2. Implementation	1. Low degree of influence 2. Low degree of influence	1. High degree of influence 2. Medium degree of influence
"Upstream" coordination in the policy cycle 3. Policy analysis and evaluation	3. Strong marketing function Low degree of influence, but potentially stronger influence	3. Strong marketing function Strong influence

When it comes to what we have called upstream coordination, i.e. the influence exercised on dimensions of policy analysis and evaluation, it is our assessment that the coordinating body is an important marketing tool for large, outsourced schemes. ENorway places and links the large scale Norwegian policy measures within the wider aims of the information society policy. Moreover we have indicated a currently low but potentially stronger influence on policy learning. Our documentation of the coordinating body's ability to coordinate and influence processes of policy analysis and evaluation of the large outsourced schemes is weak, because the body's time in service is so short and there has not been more than a couple of evaluations recently. We have no information from eNorway's processes of policy learning after the evaluation of the one part of the scheme "ICT in Norwegian education" and after the evaluation of HØYKOM, the broadband roll-out scheme.

When it comes to agenda setting, prioritization and implementation and the coordinating body's degree of influence on type 2 policy schemes, it is assessed to be relatively strong, because of the fact that the coordinating body actively runs and coordinates most of these policy processes. As with the coordinating body's influence on policy learning in type 1 schemes, the marketing function for type 2 schemes is similarly strong. Moreover we assess the coordinating body to have strong influence on policy learning in type 2 schemes, based on the fact that the coordinating body is able to follow these policy processes and schemes intimately.

In the rest of this paper we shall elaborate and discuss findings that will support and weaken the stylized message in the table of the coordination exercised by eNorway. In the last chapter we then resume to some concluding remarks related to the findings in the table.

5.3   The current nature of eSociety policies

The European information society policy and the Norwegian version of it, is formulated at a general and principal policy level. It sets objectives in terms of universal concepts of human beings' and the society's access to and exploitation of ICT, independent of the stage of technological development or maturity and independent of the policy instruments chosen to achieve the objectives. This kind of formulation of universal key concepts and aims in the central policy text is crucial in the sense that it arranges for a policy process that is flexible and adjustable. It is open to change in technology, and it is open to change based on changing human preferences. Therefore, the policy framework seems adjustable to different types of political regimes and different types of policy measures. ENorway2005 seems to have the strength in the property of covering an extremely wide array of relevant policy areas and it has the property of exhaustively covering different types of implementation measures, programmes and instruments. Looking ahead, the policy framework in itself should therefore not embody obstacles to meaningful and coordinated policy innovation (policy learning) within the field. Policy innovation is certainly more dependant on political insight and vigour, and human preferences and properties in the political system.

5.4   Current Norwegian politics and eNorway2005

5.4.1   Conservative political principles

After almost three years in office the current Norwegian centre-conservative coalition Government is increasingly demonstrating that its policy represents a clear-cut alternative to what we know as Norwegian social democratic policy thinking. This is perhaps most evident in the field of tax policy and general economic policy. Evidence of the Government's intentions also has become clearer in a newly launched overall innovation policy plan. The policy tendency we are witnessing can be described as market orientation and a stronger belief that shaping of the

framework conditions is one of the most important policy mechanisms. This latter point has had a bearing historically in social democratic thinking as well, but social democrats in opposition are now criticizing the current Government's lack of will to make pro-active policy intervention and to develop knowledge based policy measures. The Government is generally more skeptical (than the opposition parties in the Parliament) to a policy that implies allocation of money to specific measures and policy programs. In the broader economic policy the Government asserts the notion that the best policy making is to shape good external conditions without allocating money directly over the budget. There can be no doubt that market orientation and a focus on external conditions is a strong policy mechanism in eNorway2005 as well, even though it is not the only mechanism in this comprehensive area of policy making.

5.5 There are many important actors in eNorway2005

The Norwegian Government and the Norwegian Parliament play evident important roles as overall driving forces in development of the information society policy. But from the perspective of policy making there is no doubt that the key actors in the information society policy area are the coordinating body and the involved ministries. The links up in the system, to the political level, are strong. The coordinating body and the ministries are strongly influenced by and carriers of policy signals, policy guidance, governance and control from Government and Parliament. Above, we have emphasized conservative political principles as the most fundamental governing policy signal from the current Norwegian Government. And the links down to the policy cycle and the implementing level are relatively strong, however not as strong as to the political level. Figure 1 sketches roughly the key players of eNorway in a hierarchical perspective.

Figure 1. A sketch of the key players in the eNorway policy system

The Norwegian Parliament	**The Norwegian Government**

The coordinating body of eNorway
in the Ministry of Trade and Industry

The ministerial level
The ministries as coordinating and implementing bodies

The implementing level
Ministries, government agencies,
outsourced agencies,
commercial and public actors and stakeholders
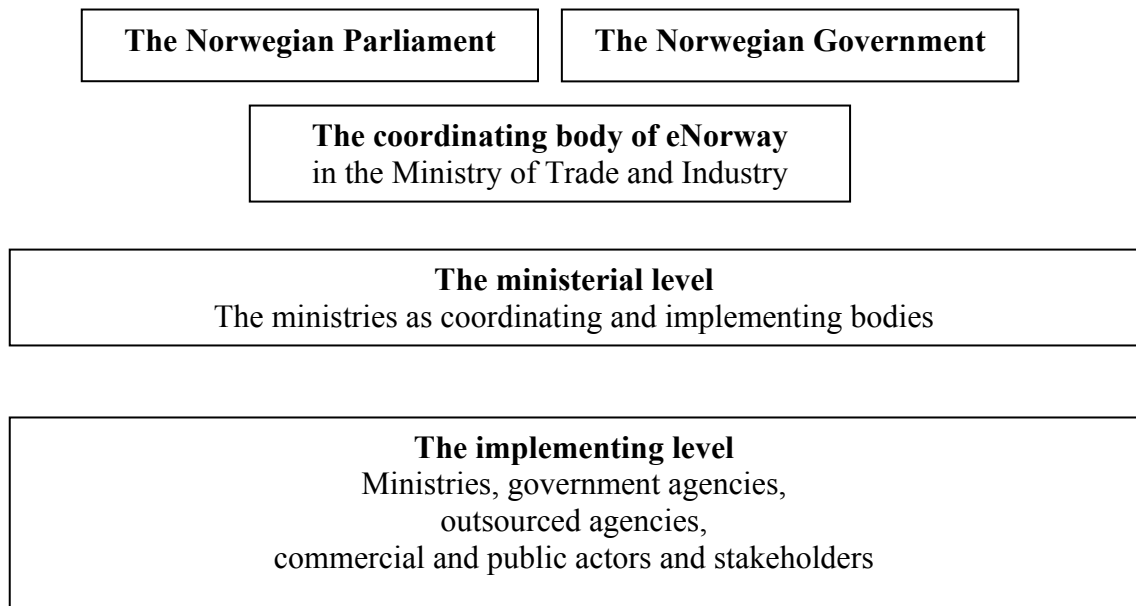
Hence, the key player at the policy level is the coordinating body in the Ministry of Trade and Industry. Moreover, the key players include the ministries that are involved as responsible participants and/or coordinating actors in specific areas of implementation of the plan. In a few cases other public institutions play key roles (the Norwegian Research Council is an important stakeholder in certain policy domains for example). In addition to the Ministry of Trade and Industry, which is active in most of the areas because of its overall responsibility as coordinator, the involved actors include these ministries with designated coordination tasks:

- The Ministry of Labour and Government Administration has designated tasks within regulation, electronic signatures, skills, and public sector policy.

- The Ministry of Justice and the Police has designated tasks within regulation policy.

- The Ministry of Education and Research and the Research Council have designated tasks within research, security and education policy.

- The Ministry of Transport and Communications has designated tasks within electronic communication policy.

- The Ministry of Finance has designated tasks within tax incentives.

- The Ministry of Culture and Church Affairs and the ministry of Children and Family affairs have designated tasks within content policy.

- And the Ministry of the Environment has specifically designated tasks concerning contents, i.e. spatial information policy.

Implementing institutions below the ministerial level also play important roles in this policy system. Implementation of policy is after all the most important task. At the end of the day the coordinating body depends crucially on the implementing institutions' ability to reach the defined eNorway objectives.

5.5.1 The Norwegian IT- committee of Deputy Ministers

Historically the committee of Deputy Ministers in the domain of IT has played an important role. The committee was established in 1995 and was the organizational result of political pressure arguing that IT-policy needed political vision and concrete coordination. Accordingly there were high expectations from the political level to what the Deputy Ministers could contribute to in the IT-policy. After a political argument between different ministries that wanted to take part, the six committee participants[9] could concentrate on producing the first report, which was a collocation of existing IT-policy schemes and initiatives, arranged in a number of visionary statements and reflections[10]. The Ministry of Trade and Industry had the head of the committee in 1995 and it still has. The report introduced a public debate about Norwegian IT-policy. Towards the millennium change and 2002 the committees' most active period implied work that fed into eNorway. The IT-committee of Deputy Ministers was actively involved in preparatory work of the launch of the eNorway action plan in 2002.

The committee is currently involved in different aspects of IT-policy and issues relevant to eNorway. The committee meets annually for a longer meeting, in which themes and schemes that are relevant to this inter-ministerial level of governance are presented and discussed. HØYKOM, the scheme for broadband rollout was a main theme around the millennium change, which went straight into the eNorway action plan. Moreover the committee has shorter workshops. The committee is supported by a forum called the eContact-group (ekontaktgruppen), which is a meeting constellation with representatives from the same ministries as the committee, but at the level of senior officials. The eContact-group has preparatory functions for the work of the committee, and has moreover tasks that it is natural to keep internal to the ministry, for example policy evaluations. A forthcoming theme and task for the IT-committee of Deputy Ministers and for the eContact-group relates to the implementation for EU-directives with relevance to IT-policy.

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[9] The Ministries of Trade and Industry, of Administration, of Transport, of Church Affairs, Education and Research, of Culture and the Ministry of Finance.
[10] **Den norske IT-veien. Bit for bit.,** Rapport fra Statssekretærutvalget for IT, 1996

The work in the IT-committee of Deputy Ministers has varying function and utility for eNorway and it has varying utility for the different ministries. The participating Deputy Ministers' engagement in the work of the committee is partly reflecting individual engagement, partly reflecting the tasks, schemes and status of each ministry's role and contribution in IT-policy and eNorway as a whole. This means that some Deputy Ministers may use the committee work to actively influence on issues and processes that turn out to be important for the interest of their ministries. Other Deputy Ministers may use the committee work to stay updated on issues of importance for their ministry's share of eNorway.

Chapter 6.   Policy analysis - sector interests versus coordination

6.1 Introduction

In the former parts of this paper we have sketched the major changes in the policy the last 20 years or so, and we have described the policy framework of eNorway2005. We now continue to investigate aspects of the coordinating body's work. The questions that are opportune to ask are related to mechanisms of interaction and organization in the system we have described, which is meant to establish and ensure coherence between the policy making and the policy implementing level. Above we have started to explore what kind of interaction exists between the policy making level, the policy coordinating level and the policy cycle (the implementing level). And we have attempted to approach how interaction between key players puts conditions for agenda setting at the policy level? How are priorities set? What are the dynamics of influence and information flow in this system? In how far do the policy level and the coordinating body have influence on and control with the extent to which the policy cycle deliver results in accordance with the objectives? Below we attempt to shed light on answers to these questions.

How do the Ministry of Trade and Industry and its coordinating body fulfill the target of being The Coordinator of eNorway – i.e an orchestrator and a motivator as expressed in the eNorway plan. We shall argue that efforts of coordination meet impediments in the way political power is structured and the way sector-interests are protected. It seems that policy coherence at a strategic level is possible, but once one goes into the more specific contexts of implementation there are indications that policy coherence in eNorway is impeded by sector interests and lack of information flow between large policy domains and the coordination body. This is not necessarily visible or may not even be negative at an aggregate policy level, looking at eNorway from outside. A central part of the coordinating body's target and mandate is to stay up to date vis-à-vis the information society policy processes in Norway, Europe and globally. At this level eNorway seems to be a success.

However, approaching the policy cycle and the day-to-day work of eNorway as coordinator, it becomes evident that the large policy areas and programmes that eNorway is supposed to coordinate, are generally controlled by programme level coordinating actors, which in turn are strongly influenced by the sector interests that once established the policy instruments. Moreover, even though there are different degrees of coordination intensity – in some policy areas the coordinating body is very actively involved, in other areas the body is not involved - the sector interests in general and the financial structure of policy implementation in particular, represent important impediments to coordination, it seems. Further below we exemplify.

We start off with a discussion of mandate and target formulations, among other factors because target formulation turns out to be an important issue for policy learning capabilities and implementation flexibility. We then focus the description and discussion around different issues of interaction and coordination between the coordinating body, the most important stakeholders and implementing actors. The discussion combines information about the coordination of the implementation of a specific policy area with general information about how the coordinating body operates. Both parts are based on information from interviews with policy actors and from policy documents. In particular we derive advantage from a recently concluded evaluation of the Norwegian broadband roll-out scheme HØYKOM, in the period 1999-2003[11]. HØYKOM is one of the main instruments for ensuring that national targets concerning infrastructure and internet access are reached through widespread broadband roll-out.

6.2   Mandate and target formulation

Even though this project does not focus on whether the specified targets of eNorway or HØYKOM are reached, a discussion of aspects of coordination in this policy domain necessarily and implicitly affects some aspects of how coordination addresses target formulation and fulfillment. It is the main objective of the Norwegian authorities to be the organizer and driver of eNorway-2005 and its results. This intention is formulated in the main policy document. It is stated that the development of eNorway is supposed to be driven by individuals' and enterprises' creative application of ICT, and the active role from the side of the authorities (www.enorge.org)[12]. Moreover, and addressing the more concrete executive role of the coordinating body, the authorities express the objective of being an orchestrator, organizer and a driving force. These formulations refer directly to the system of targets in each of the sub-areas within the five main areas of effort. We have described these in an early chapter of this document.

An interesting question related to the defined targets and the possibility of successfully coordinating the fulfillment of them has to do with wording and formulation. The wording of the overall targets as well as the sub-targets in each area of effort is what we may call relatively vague and at a general level. The positive about this is that this type of targets is more visionary than more precise target formulations. Moreover it is simple to make rough estimates about whether the targets are reached or not. The negative side of it is that it may be difficult to use such vague targets as tools of coordination because the level of precision is low. Vague targets imply more possible policy solutions to fulfill the targets. Consequently, estimates of fulfillment are difficult

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[11] SINTEF STEP- report 02-2004, **Bredt band i tynn tråd? Evaluering av HØYKOM**, Håkon Finne, Anders Ekeland og Yngve Seierstad Stokke
[12] The eNorway Action Plan, Ministry of Trade and Industry.

to quantify and may easily become politicized. A foreseeable result is that there will be political disagreement about whether targets are reached or not[13].

Within a regime of relatively vague target formulations the task of coordination implies activities in the range from no influence to strong influence (from the side of the coordinating body). Rephrased, the coordinating body may fulfill its objectives by executing coordination in any or every sense of the concept. It can be argued that it possibly has to be this way. This large information society policy system involves very different areas of effort, policy instruments and schemes, which consequently imply very different implementation settings in which actors and stakeholders take different positions and have dissimilar bargaining power and possibilities to influence the processes.

Having accepted and even been able to see vague or broad target formulations as positive at the aggregate level of eNorway, we automatically would expect more to the point formulations at the level of particular policy schemes. It is however not the case in HØYKOM. The recent evaluation report states that the formal and overall targets in HØYKOM have been complex and not stringently operationalized. Seen together with the different types of policy guidance, commands and control that have had effect during the process (for example the annual political signals of priority areas from the Government and ministerial level), the targets have changed, and they have been prioritized differently over time. To the specific case of broadband implementation, from the side of the political level the ambitions and intentions have been to obtain and enable a development in public enterprises and institutions, in the direction of a stronger focus on users need, and a stronger focus on efficiency and productivity gain in administration and service production through acquiring applications and services based on broadband technology. Thus, if the public enterprises did not have connection to a broadband network, HØYKOM was to contribute to such a connection. If there was no access to (no supply of) infrastructure to which the enterprises could attach to, demand from the enterprises should stimulate broadband infrastructure investment. The concrete supply of broadband solution and development of applications is supposed to be done by commercial actors. Moreover, it has been an important intention to support ICT-competence and industrial development related to broadband services and broadband-based services across the country, and in particular in the periphery.

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[13] The evaluation of the HØYKOM scheme contains a discussion of the wording in relation to targets in broadband roll-out in Norway. The authors make a point of the fact that "access to" is used in stead of "connection to" broadband infrastructure and services. It is an example that indicates the problem with vague or inaccurate targets. Op.cit. ref. number 8.

With its complex mandate and overall targets we understand HØYKOM as an instrument with much wider implications than what is intuitively captured by the concept of "broadband roll-out". HØYKOM can be seen as a scheme for modernization of the Norwegian public sector, for industrial development, for regional development and for upgrading competence related to broadband applications in the knowledge society. HØYKOM grew out of concrete target formulations about internet access and applications and the IT-policy around the millennium change, but as with the ICT-policy in general the scheme has developed into a multi-sector policy instrument with targets that correspond with targets in the national plan for horizontal innovation policy.

The evaluation of the HØYKOM scheme concludes that the design has been very well-functioning in some cases and less well-functioning in other cases. A range of aspects linked up to broadband acquisition and application has been addressed: infrastructure investments, competence flow, acquisition and application, development in and between institutions, production of contents, and stimulation of demand, competition and planning. Even though high national penetration rates, among the best in the world, is a declared objective within the overall eNorway framework, the main idea in the HØYKOM scheme has been to stimulate institutions that first and foremost wanted to work with their own development. As a scheme for boosting broadband penetration across the nation, it seems to be lacking mechanisms that can ensure access in the periphery. HØYKOM has worked well at the end of the market, but has had no possibility to operate efficiently where the market has not already invested in infrastructure. With a stronger influence from regional authorities (channeled through eNorway as coordinating body) HØYKOM could probably have developed into a program that first and foremost supported broadband investments and access in the periphery in areas where no connection was possible.

The fact is that HØYKOM has focused on positive results from planned and ongoing development processes in the institutions that took part. Our hypothesis is that the main political principles and signals from the Government and the ministries that finance HØYKOM limit the use of public money and engagement. The limitation implies that it is legitimate to release public money where the market mechanism has ensured access to the technology. And opposite, it is not politically accepted to let policy schemes fiddle with the market through public investment in infrastructure.

There is much more to the story of broadband implementation in the Norwegian context. The evaluation of HØYKOM indicates that the policy of letting the market, i.e. the different actors with ownership and control of infrastructure investment and coordination in the municipalities, take care of fulfilling targets of broadband penetration in rural areas, at least implies an

acceptance of not reaching the target of being among the best broadband nations within 2005. If this is right, what role does the coordinating body play in this case? It remains to be seen in the forthcoming process of policy learning.

6.3   Dimensions of interaction

6.3.1   Competence

Let us look closer at the coordinating body's internal competence. Internal competence is an asset that certainly sets conditions for interaction with other coordinating actors and with actors that have operative responsibility and tasks in processes of implementation. It is a declared task for the coordinating body to feed other ministries with support and competence in their sector-specific IT-policy areas. Considering the broad scope and open-ended nature of eNorway there is evidently need for a broad competence base in the coordinating body in order to be able to run and coordinate the different parts. But to what extent does the coordinating body have to control a deep competence base on each implementation area or each policy instrument? It is simple to argue that the coordinating body should have a staff with professional specialized competence within the relevant professions and technology areas that are included in eNorway's programmes and schemes. Realistically it is impossible.

To use the metaphor of a conductor of an orchestra playing a symphony, to orchestrate the complex piece of music "eNorway", it would certainly be required to have a minimum of insight into the properties of the different instruments and how they may work together. But in an orchestra there is no need for the conductor to be able to play all instruments. In the same manner, the coordinating body has to have a minimum of internal knowledge and competence about the different policy areas, corresponding implementation instruments and underlying technologies and the current and potential interaction between these factors. But it goes without saying that the deep competence base on each implementation area and on specific technologies, which would be required in concrete and detailed management of a specific policy instrument, is by and large not present in the coordinating body. It is probably too resource demanding. This does not mean that the coordinating body cannot become competent to control specific technology or policy areas, in order to identify incoherence between political principles that underpin policy instruments and the concrete possibility of reaching declared targets. Moreover it does not mean that the coordinating body cannot become competent to make decisions that can set a standard. This last point implies for example choosing one technology platform or solution in a technology area that is in urgent need of standardization in order to become a public good. We shall resume to this issue below, which has to do with the mandate and competence to manage versus coordinate in specific policy areas. Back to the discussion about holding a deep and specialized competence base in certain

areas, an argument is that a centralized administration of the specific policy instruments is not meaningful in an organization that is focused on keeping an overview and coordinate different policy areas into a coherent whole.

The most important tasks of the coordinating body include keeping an updated overview of the "policy portfolio" of eNorway, and identify, follow up and coordinate measures across areas with sector-specific characters. This task implies that the coordinating body has to intervene and coordinate in the different policy areas and instruments. Moreover the body has a particular responsibility to intercept political signals and it is responsible for coordinating and influencing processes of juridical change in relation to the change that eNorway actuate. The former aspect of intercepting political signals implies a considerable effort in staying up to date with political processes on different levels, because of the need for adapting eNorway to the continuous change in technology, society and political priorities. With the scarce resources of the department of IT-policy and the relatively small staff, counting less than 20 persons, this is in itself a demanding task when we consider the comprehensive scope of eNorway and all the other activity areas and tasks.

The coordinating agency of eNorway operates more or less within the borders of the metaphor of a conductor and his orchestra, however with at least one exception. Specialized juridical competence can be considered as one of the type of competence that is needed across many of the policy areas operated by eNorway. In the particular area of juridical competence the agency has two or three employees with a law degree. In general these persons take care of issues if there is need for law or regulation change in order to implement policy. They work as legal advisors in general and on specific issues, and they collaborate and take care of the required interaction with regulatory and juridical units in other parts of the Norwegian political system. This includes for example taking the initiative and following up the process of making a new law that takes into account new formal and legal aspects of e-mail, e-signatures and e-commerce. In concrete terms it implies collaboration between the coordinating body and the relevant ministries, in this case the Ministry of Culture and Church Affairs, responsible for content policy, and the Ministry of Justice.

6.3.2   Management, coordination and intercepting guiding political principles

Several interesting issues concerning management and coordination of eNorway emerge when we start to go into the details of the coordinating body's interaction with specific policy areas, and their schemes and instruments. At an overall level, guiding political principles from the political authorities influence the coordinating body strongly. The current main guiding principle from the

Norwegian political authorities is that policy making shall stay away from the selection mechanism that is supposed to work in a well-functioning market. It is our impression that political signals may prevent the coordinating body from intervening actively, selecting a technology platform or a path breaking and standardizing technological solution, for example in the case of electronic commerce and electronic signatures. Even though the coordinating body most probably has the competence to reach a conclusion in the field of electronic signatures, and through that to set a desired standard that could boost electronic commerce, it seems that ideology wins with its ideas about the market as the best selection mechanism. This is an example that it would be theoretically possible to coordinate by management in some policy areas of eNorway, but it seems that political principles hinder it. In addition to the problem of establishing a standard for electronic signatures, which possibly would boost electronic commerce, the described ideological notion is in general influencing policy domains that depend on processes of standardization.

6.3.3 Coordination in a context of strong sector interests and sector-based financial resources

The historical part of this document tells a story about an emerging collaborative culture and maintained interaction across ministerial borders concerning ICT-policy. From the beginning (around 1980) ICT-policy emerged as a multi-sector policy domain. A number of ministries were involved and affected by and therefore engaged in the development of the policy. Consequently a culture of cross-ministerial understanding was created. Even though many ministries on basis of their sector specific interests and potential have developed their own exclusive part of the ICT-policy, the joint inter-ministerial efforts during the more than 20 years with Norwegian ICT-policy ensured that ICT-policy already in 1990 was more than a narrow sector policy for the diffusion and application of ICT. The process acknowledged that ICT policy implied technology acquisition and diffusion, competence development, research and education policy, industrial policy, aspects of social policy, regional policy et cetera. The result today is the comprehensive range of ICT-policy instruments that make up eNorway. This could not have been the case without a common understanding and routines of collaboration across sector-specific borders.

The historical consensus within ICT makes it appropriate to ask whether ICT has become depoliticized in Norway during the latest 20 years. It is not easy to answer the question adequately. There is an important aspect that probably often overrules or at least impedes the potential effects of good routines and a culture of collaboration. The coordinating body's ability to govern eNorway depends on the context of specialized interests that characterize a parliamentary political system and its stakeholders. It is a common perception among political analysts that strong sector interests dominate as a distinct feature of the Norwegian system of authorities - the

ministries and the government agencies. The ministries' and the government agencies' interests, their strategies and patterns of action reflect the strong influence from their specialized stakeholders, but above all this system of strong sector interests is interwoven in a rigid system of financial allocation from the Finance ministry. The allocation of financial resources in the budgets of the ministries does normally <u>not</u> encourage or arrange for collaboration. On the contrary, the ministries' budgets reproduce the sector-specific interests in each ministry. The general possibility for coordinated action across ministerial borders is therefore not high. We believe there is a lack of financial resources, for example in earmarked cross-sectoral domains of policy such as ICT, that encourage compromises across ministerial and sector-specific interests as solutions. When it comes to the eNorway coordination body within the Ministry of Trade and Industry, the available resources cover the operation of the body and its main activities. It includes setting up organizational solutions where stakeholders and different sector interests meet. In the meetings they discuss the possibilities for running coordinated action, but the budget of the coordinating agency does not include financial means that are earmarked concrete coordinated implementation of the policy areas. Consequently each actor basically has to relate to their specific budgetary constraints when considering a common solution. Coordination in this context implies making the different sector interests meet but it does not imply giving them money to implement common and compromised solutions.

Information from the coordinating body and from other ministries that try to coordinate specific areas of implementation, indicate that it is hard work to gather actors of government agencies and other institutions that at least theoretically should have a common interest in coordinated policy implementation. Seminars and meetings that aim at harvesting from coordinated policy implementation, require specialized competence in order to be able to convince each actor that they will excel from joint processes and that they should spend money from their own budget on projects that have additional, extended value. Within the effort of modernizing the public sector by means of ICT, it is not easy to influence strong government agencies to select same technology platform when they relate to scarce resources in their own budgets. Another example can be taken from the way Norwegian local authorities' make investments within their constrained budgets in website based services to their inhabitants and customers. Decentralized solutions and the dependence on own constrained budgets and strict priorities may lead to a difference in service level from local authorities to their customers - a difference that is possibly not politically wanted.

These aspects of sector-specific interests and departmentalized financial allocations point to the Finance ministry as the culprit. We have not had the resources to study how strongly the influence

from the Finance ministry is shaping processes of common, coordinated thinking and action, and how strongly sector-specific financial allocation are conserved by the Financial Ministry. The general impression from conversations with bureaucrats in the ministries indicates that the Financial Ministry is powerful.

6.3.4   Coordination and policy schemes of different complexity
Again we depart from the historical part of this report and the point about the accumulated culture of interaction between involved ministries in the making of ICT-policy. Processes towards the end of the 1980's ensured that ICT-policy was seen as a broad policy area that included basically what we see that eNorway today contains; a policy domain that is directed at creating value in industry, efficiency and quality in the public sector, and involvement and identity. The IT-committee of Deputy Ministers may be seen as the current political institutionalization of the cross-ministerial consensus and collaboration at a high level. But the culture of being able to reach consensus concerning the overall perspective of ICT-policy has not hindered the parallel existence of strong sector-specific interests that have shaped sub-areas of ICT-policy within sector-specific domains with a life of their own. We characterize the 1990's as a decade of flourishing development of ICT-policy schemes. The committee of Deputy Minister gathered this large portfolio of ICT-policy schemes and instruments in a report in 1996[14], and the eNorway framework represents a similar portfolio presentation, this time rooted in a clearer strategic vision and arranged in five main areas of effort. Within the five areas of effort there are a number of policy schemes that can be characterized as highly complex. On the other hand, a number of policy efforts are characterized by less complexity. In the following we consider how routines of coordination seem to relate to different complexity in policy schemes.

A complex scheme is in our definition large enough to necessitate separate operative administration (it cannot be run and managed by the coordinating body for example) and it needs its own steering committee. A complex programme has a mandate and targets that cross sector-specific interests and policy areas. We have mentioned HØYKOM, the scheme for broadband roll-out. ICT in Education is another complex policy programme. It seems that complex policy programmes by and large live lives of their own, in the sense that the coordinating agency in the Minstry of Trade and Industry has no specific influence on the operation of the programme. The background for this often relates to the establishment of the programme, which often dates back to before ENorway and its coordinating body was organized. As we also has described in the historical part of the paper, the portfolio of ICT-policy schemes and programmes was initially gathered by the coordinating body into what has been put together as a coherent whole. ENorway

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[14] Den norske IT-veien. Bit for bit., report from the Norwegian IT-Committee of Secretaries of State, 1996

is by and large not the mother of the large ICT-policy programmes. It is the other way around. A number of existing, large policy programmes has given flesh on the bone and perhaps what we could call a flying start of the eNorway framework. Seen from the perspective of coordination, the coordinating body has not been actively involved in policy programmes established before eNorway was launched.

Taking HØYKOM as a concrete example, it seems that the coordination of HØYKOM by the coordinating body has not implied making use of the technical competence and technical understanding of broadband infrastructure or broadband applications. The operation of HØYKOM has been subcontracted to the Norwegian Research Council, which has experience, routines and administrative resources to operate a system of granting money based on external applications.

Results from these large policy programmes have been reported back to the coordinating body, which has marketed the effort within the complete eNorway framework. Realizing that the coordinating body cannot take on a role in the operation and concrete coordination of this type of large policy programmes, it is still our opinion that the coordinating agency should be able to monitor and influence the overall effect of a programme, with reference to how the programme fulfill targets declared under the umbrella of eNorway.

In contrast to the lack of interaction between the coordinating agency and large policy programmes, the agency often plays operative roles in what we may call more specific initiatives and policy processes in eNorway. In the portfolio of policy initiatives the coordinating agency is the leading actor in a range of cases. Typical processes in this category include sector-specific or technology specific efforts such as the diffusion and application of geographical data and information, challenges related to juridical change and standardization, adjustment and implementation of Norwegian regulation to EU directives, and a range of network processes, e.g. related to change of attitude, in eCommerce, eSecurity, eContents etc.

Chapter 7. Concluding remarks

It is the main aim of the Norwegian authorities to be the motivator and the orchestrator of the comprehensive portfolio of ICT-policy initiatives, schemes and programmes within eNorway. ICT-policy and eNorway is a means to obtain the declared fundamental political objectives: Value creation in industry, efficiency and quality in the public sector, and involvement and identity. In itself the overall objectives of eNorway and its policy instruments include policy domains such as economic policy, research and education policy, regional policy, welfare policy, et cetera. Moreover, eNorway is a profiled part of the newly launched horizontal innovation policy plan. The comprehensive portfolio of policy making for the information society is thereby in Norway intimately linked to what we can call third generation innovation policy thinking – horizontal and coordinated innovation policy.

Table 1 A stylized perspective to eNorway's influence in the information society policy cycle

Type of policy scheme Coordination type	Type 1: Large complex, outsourced policy schemes	Type 2: Policy initiatives, smaller schemes
"Downstream" coordination in the policy cycle 1. Agenda setting and prioritization 2. Implementation	1. Low degree of influence 2. Low degree of influence	1. High degree of influence 2. Medium degree of influence
"Upstream" coordination in the policy cycle 3. Policy analysis and evaluation	3. Strong marketing function Low degree of influence, but potentially stronger influence	3. Strong marketing function Strong influence

As presented in chapter 5 the table above splits the tasks of the coordinating body into two types of coordination. Agenda setting, prioritization and implementation is what we have called downstream coordination. Policy analysis and evaluation is what we have called upstream coordination. The table gives a stylized assessment on the influence and power that eNorway exercises in the policy cycle; what regards agenda setting, prioritization, and implementation, and what regards policy analysis and evaluation.

7.1 eNorway has little influence on the implementation of larger, outsourced policy schemes

The abbreviated findings sketched in the table indicate that the coordinating body in eNorway generally has a low degree of influence on large, complex, outsourced policy schemes, when it comes to downstream coordination. But the picture is complex. The point we want to make is that coordination is attained far more easily if new financial resources are introduced or responsibilities and power are advantageously redistributed. In these cases formulating demands is facilitated and strong incentives for changing behavior are provided. Having tried to explore what eNorway consists of; does the coordinating body intervene with components of eNorway in order to ensure fulfillment of overall targets? How does the coordinating body intervene to do it? The answers to these questions are anything but straightforward. First and foremost the aims of the activity in eNorway imply the identification and follow up of issues that cross sector-specific borders. The coordinating body then initiates and coordinates measures of cross-sectoral character. This implies bringing different sector-interests together (ministries, government agencies, important stakeholders like research and technology and market actors, programme level coordinating agencies, et cetera) with the objective that they shall be aware of and in the end hopefully collaborate on issues where common interests related to eNorway targets exist. We have discussed the impediments to collaborated action that exist in sector-specific interests and the fact that the choice of action for specific actors is strongly controlled by budget constraints. Within eNorway there is means to bring actors with potential common interests together, but generally there is no financial means allocated to specified implementing projects and processes that can realize collaborated action.

We have observed that the degree of coordination of specific policy schemes and programmes in eNorway is varying with the characteristics of different policy schemes and programmes. The comprehensive policy programmes by and large depend on the often programme specific coordination agencies and the interaction between the often strong sector-specific interests involved. The coordinating body of eNorway generally plays an insignificant or less important role for the day-to-day operation of the large, outsourced schemes.

7.2 eNorway has a potential of stronger influence on policy learning in outsourced policy schemes

In the table we indicate that eNorway potentially may have stronger influence on policy learning in large, complex, outsourced policy schemes. ENorway works as a marketing tool for the existing large complex policy programmes. Moreover, the coordinating body has as its task to

canalize and communicate to the operative units of programmes, issues that have cross-sectoral importance. It is a more important task for the coordinating body to monitor and revise eNorway according to evaluations and changes in the programmes, than to coordinate implementation concretely. Realizing that the coordinating body has not the qualifications to exercise concrete coordination of implementation, we are of the opinion that it is possible for the coordinating body to exercise influence on the extent to which large outsourced schemes work in accordance with the overall targets of eNorway. More than any other national actor dealing with IT-policy, the coordinating body is in the position to gather political signals, evaluation results and important stakeholders' needs. They can work with policy analysis by considering carefully and accurately the specific national targets related to each policy scheme, relate it to conditions given by political processes in EU and globally. As a result they can influence and adjust the effect and target area of the policy schemes.

7.3 eNorway has stronger influence on implementation and policy learning in policy initiatives and smaller schemes

In addition to large complex policy programmes, eNorway represents and runs a range of policy initiatives and policy schemes that are more specific. Some of them have outsourced core actors, but many policy domains are not only coordinated but governed and controlled from the coordinating body. This includes specific policy areas that are linked to regulatory, juridical, technological, and market related issues of ICT, for example to issues of digital contents, issues of standardization and property rights. In particular, the coordinating body has mandate to coordinate broadband policy, ICT-security, electronic signatures, et cetera. In the table above we indicate that the coordinating body has a high degree of influence concerning downstream coordination; agenda setting and prioritization, and a medium degree of influence concerning implementation, if we look at these policy initiatives as one type of schemes. The observation is that the coordinating body has the power to set and control the agenda by prioritization, but it is more difficult to control the whole implementation process because of the uncertainty related to strong sector-specific stakeholders' actions.

Having both ownership and control with agenda setting and prioritization in many of the policy processes, initiatives and smaller schemes in eNorway, it goes without saying that the coordinating body has the possibility the influence policy learning strongly as well. We have briefly mentioned standardization as an policy area that is very difficult to deal with under the current political principles of market as coordinating mechanism. As an example, IT-policy commentators argue that the coordinating body should be able to adjust to the need for setting a

standard for eSignatures, which in turn probably would boost eCommerce. It seems impossible within this political regime.

7.4 Discussion of the hypothesis and improvement potentials

One question emerges when we try to assess the coordinating body's role and activity within the overall mandate and targets of eNorway. In both areas of activity; in the large complex policy programmes and in the smaller, more specific and more specialized policy domains, there seem to be ongoing good processes of coordination that link important stakeholders together with interests across sector domains. But given the fact that eNorway as coordinating body is still young, there has not been much time to work with policy analysis, evaluations and policy learning. We believe that the current eNorway organization may excel and exercise more coordinating influence if the focus is put on policy learning and the overall targets of eNorway. But there is probably need for statements of political acceptance in order to be able to do it. Realizing that it is on the one hand impossible for the coordinating body to have "hands on the wheel" in the large programmes, and on the other hand to make despotic decisions about standardization of technological solutions in the specific policy domains, it should be possible to organize the routines of the coordinating agency to be more intimately linked to ensuring that overall targets of eNorway are addressed and constructively attempted to be reached in the different concrete policy initiatives, schemes and programmes. Two examples may illustrate the point. First, the coordination of the flagship project of broadband diffusion could have included signals from the coordinating agency that HØYKOM did not to a sufficient extent address broadband infrastructure in rural areas. In this case fundamental policy principles from the centre-conservative government made this impossible. We expect that policy learning processes will show that rural areas have to be favored in one way or another if targets of broadband access shall be reached. Second, in the coordination of the process towards the standardization of an electronic signature, there has been space for a relatively early statement about preferred solution from the coordinating body.

In the beginning of this report we referred to the tendency of increased complexity in European and national public policies, in particular technology and innovation policies. Grande[15] argues that the tendency has a negative impact on state capacities to implement policies successfully. He argues that an erosion of state capacities is spreading. We started with an assumption that the eNorway policy system represents a case that includes features that have similarities with the tendency that Grande describes. Moreover we assumed that eNorway is a complex and

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[15] Grande E., **The erosion of state capacity and the European innovation policy dilemma. A comparison of German and EU information technology policies**, Research Policy 30 (2001)

comprehensive policy system that has deficiencies but potentials in its coordination mechanisms. How do the observations and findings in this report shed light on these assumptions?

The Norwegian information society policy is certainly made with the degree of comprehensiveness and complexity that Grande refers to as a tendency in the European context. We have emphasized the strategic level and wording of the eNorway action plan, which certainly is broad enough to be included in the recently launched Norwegian horizontal innovation policy. Even at the level of specific policy schemes target formulations correspond to innovation policy targets as they appear in the national innovation policy. And we have emphasized that the coordinating body exercise coordination by means of a multitude of processes and arenas of dialogue and collaboration in the two types of policy schemes that appear typical; on the one hand large, complex, outsourced policy programmes, on the other hand policy initiatives, policy processes and smaller schemes.

Given the complexity and the state's (coordinating body's) evident challenge of fine-tuning the degree of influence and adjusting the concrete coordination process to the different policy schemes and processes, the Norwegian information society policy is certainly experiencing the strategic policy dilemma that Grande describes. Let us repeat it:

> "policy strategies which have been feasible within the existing institutional structures turned out to be under-complex and, hence, inadequate to improve industrial competitiveness in the IT sector; however, more adequate comprehensive innovation policy strategies tended to be over-complex and overstrained the state's institutional capability, in particular its capacity for horizontal and vertical policy coordination"

Source: Grande E., The erosion of state capacity and the European innovation policy dilemma. A comparison of German and EU information technology policies, Research Policy 30 (2001) p.916

Looking ahead, and in relation to the three issues that Grande presents as options for providing a way out of the policy dilemma, how can coordination of Norwegian information society policy improve the policy's performance? The first option is the suggestion to concentrate and centralize the competencies and resources in the institutional setting of coordination. We have described the competence profile of the Norwegian coordinating body as specialized within juridical, political and bureaucratic competence and skills. It can be argued that the Norwegian coordinating body probably is more concentrated and centralized than the case is in the other OECD-countries. An even more concentrated and centralized version of the coordinating body would require a radically larger coordinating body. It would imply a restructuring of the specialized competence that currently is located in the sector-specific ministries. And it would probably imply that competence that currently is located in (the powerful) government agencies and in subcontracted

organizations that operate specific policy schemes, would have to be moved into the coordinating body.

The second option pulls in the other direction compared to the first. It is the suggestion to decentralize policy. This may be a more promising suggestion. The current degree of decentralization in Norwegian information society policy is not strong. The large, complex policy schemes are indeed outsourced from the coordinating body, but local and regional governments are arguably not as involved and influential as they could have been as coordinating actors. Nevertheless, the degree of freedom of local governments' technology investments is strong, as described in the case of the broadband roll-out scheme HØYKOM. However, an important point is that the local and even regional level in small Norway obviously is relatively small as compared to regions in more average European countries. Local and regional governments are arguably far from the point of being able to take the role as core actor in implementation, simple because of lack of resources and competence.

The third option is the suggestion to adopt a policy strategy that is better suited to the institutional framework of the national state. In our view this is what the Norwegian information society policy may have tried to do, deliberately or not. Discussing this option, Grande distinguishes between "deliberate strategies", i.e. plans intentionally designed and implemented, and emergent strategies, i.e. an "unintended order" emerging from activities of individual actors or organizations. We have called it stakeholders. Deliberate strategies emphasize the implementation of pre-given goals. Emergent strategies emphasize processes and results as the product of a process. In a rough perspective we believe that different policy aims require one of these two strategies, and, we find that the two types of schemes we have emphasized as typical to eNorway roughly correspond to deliberate and emergent strategies, respectively as large, complex, outsourced schemes, and policy initiatives, processes and smaller schemes. The improvement potential is in this context.

Generally formulated, in our view the improvement potential in this context, which will have to be a policy learning process that the Norwegian Government and the coordinating body have to consider, implies a reallocation and reorganization of the policy tasks in the current policy cycle (policy portfolio) into one of the two types of strategies. We are of the opinion that certain policy tasks (for example standardization) that currently are run and managed as policy process/emergent strategy by the coordinating agency, could be improved by being defined as deliberate strategy. This requires stricter decision making and coordination according to the defined aim. Another example implies an improved awareness that schemes defined as deliberate strategies, i.e. with clearly specified aims, need to be implemented according to its aims. The example that we have

emphasized is the broadband roll-out scheme and the lack of effect in the most peripheral areas, when it still is the overall objective of the Government to ensure broadband infrastructure to all parts of Norway. In this case, and perhaps across policy making in domains of generic technologies, the political principle of the center-conservative Government, which can be summarized as market orientation and no will to disturb the market by means of direct public investment, represents a counteracting principle and a challenge to coordination.

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