

**STAGE** (Science, Technology and Governance in Europe)

**Discussion Paper 19**

**August 2004**

## **Science, Technology and Governance in Norway**

Introduction to country report for Norway

Egil Kallerud, NIFU

[egil.kallerud@nifu.no](mailto:egil.kallerud@nifu.no)

**STAGE is a thematic network under the Fifth Framework Programme (HPSE-CT2001-50003). STAGE gratefully acknowledges the support of the European Commission.**

## The relevance of Norwegian experience and approach to governance

### *Governance and 'democratic deficit'*

Key questions addressed in the STAGE project are: To what extent and in what forms are more democratic – more participatory and more public-debate-enhancing – forms of governance emerging in European countries? What experiences may be mobilized to shed light on questions about changes in policy practices and institutional structures which are taking place? What needs to be done so that a stronger emphasis in science policy on public legitimacy and accountability, participation and transparency are taken into account? How may this take place in ways which both comply with the rules and ideals of democracy and the requirements of effective decision-making?

In bringing Norwegian experiences to this debate, it may be of some relevance to note that governance issues bear strongly on the fact that Norway still remains a non-member of the EU. In both referenda (1972, 1994) in which the Norwegian public turned down the option to join the EU, governance issues were heatedly debated, predominantly in terms of the 'democratic deficit' of the governance structure of the EU. A main argument against Norwegian membership was – and still is – that cherished features of the national political culture – the proximity between governments and governed – is at stake.

### *Towards 'more restrictive' policies*

In defining the general position of Norwegian experience in the broad European context of governance in science and technology, Norway has pursued a regulatory policy concerning biotechnology in particular which has been among the most restrictive and cautious in Europe. This is in apparent conformity with a highly sceptical national public opinion on biotechnology issues. In an international comparative perspective as well as in national R&D policy debate this has defined Norway as a 'laggard' nation, lacking in determination and capability to exploit the scientific and economic opportunities of biotechnology. It is, however, also noted – at least in the national debate – that the strong emphasis in regulatory law and practice on ethics, social utility, sustainability, and the precautionary principle (Sand, 2001) that defines the restrictive and 'conservative' regulatory policy adopted by Norway, may also at the same be seen as a 'provident' policy, as these concerns have been increasingly become parts of European regulatory policy.

### *Institutional innovations for 'more democratic' governance of S&T*

Norwegian experiences with 'more democratic' modes of governance in S&T policy may be sought in the processes that during the last decade in particular have led to the establishment of an institutional structure of S&T policy by which some completely new institutions have been charged with a specific responsibility to stimulate public debate and facilitate broader public participation in processes of science and technology policy. These include the Norwegian Advisory Board for Biotechnology (*Bioteknologinemnda*) established in 1991, and the Norwegian Technology Board (*Teknologirådet*) established in 1998.

As a technology assessment agency, the latter institution is built on the 'Danish model', and in the terms of the STAGE typology of modes of governance is specifically charged with a mission to promote deliberative governance practices. One of our analyses is about the controversy over the institutional design of this agency, and is hence an analysis of how the evolvement of conflictual framings of what deliberative practices in S&T policy are, and to what general developments of S&T they should contribute.

While the promotion of deliberative practices is also part of the mission of the Biotechnology Advisory Board, it is, as a core part of the general regulatory structure of biotechnology, an agency with multiple missions and practices. Grafted on its advisory functions as a regulatory body are broad educational as well as diffusely deliberative missions, that is, to inform the public as well as to stimulate public debate. At the same time it has a distinctive corporatist character as it includes among its members a number of representatives from major stakeholders, including ‘critical’ NGOs and experts. This institutional construction has proved to be a robust amalgamation of functions and practices as summarily described in Case Study 1.

A study of these two institutions thus provides a window on the emergence and institutionalisation of new forms of governance of science and technology in agencies that are specifically assigned with a responsibility to employ both educational, deliberative and corporatist modes of governance to contribute to the production of robust policies within this domain. Case Study 1 on biotechnology in Norway in general addresses these issues in an attempt to map the dynamics and patterns of socio-political processes at a structural and institutional level that relate to biotechnology where the Biotechnology Advisory Board plays a key part. Case Study 2 on the establishment of the Technology Board looks at the political conflict that arose over the institutional framing of a stronger role for lay participation and deliberative practices in technology assessment.

#### *Increasing political centrality of S&T*

Science and technology seems to be ‘moving towards centre stage’ of general politics (Padill, 2000), primarily as a consequence of political controversies on issues of environmental policy and regulation of biotechnology. These general observations in the Norwegian context are sustained by the political importance of several science and technology related issues including two where the survival of two minority Governments has been at stake during the last few years. In the autumn of 2000, the Centre Government in office at the time resigned when defeated in the Parliamentary vote on the decision to build facilities for gas energy production that will dramatically increase the total Norwegian release of CO<sub>2</sub>. Some information on this issue is added below. The viability of two different minority Governments was similarly at stake at two different stages of the political process leading up to the contentious decision made by the Norwegian Parliament in January 2003 to adopt in national law the European regulation on biotechnological patents. Thus, a process of politicization of S&T issues has emerged that may be – in STAGE terms – described as developments by which *agonistic* framings and processes have become increasingly salient in Norwegian S&T policy. The sources of such forms of agonism are, however, in this case predominantly to be found within the political process, more so than in independent dynamics within public arenas.

#### **‘Inclusive corporatism’**

Although the processes and structures analysed in our case studies exhibit all modes of governance covered by the STAGE typology in various degrees and combinations, a recurrent feature is the pervasive presence of aspects of *corporatist* governance as befits a Scandinavian country whose post war political history is permeated by the longlasting hegemony of Social Democrat governments. At least some salient practices in the governance of science and technology in Norway exhibit characteristics which may, in STAGE terms, be described as forms of ‘inclusive corporatism’.

This term has been used (Dryzek, 1996) to characterize a strategy for including a larger number of groups in corporatist bargaining and implementation of policy than is usual in ‘normal’ forms

of corporatist governance. In these generally exclusive forms of corporatism organized labour and business are dominant social partners in corporatist negotiations, and civic interests are hierarchically organized in organizations which enjoy a (virtual) monopoly on representation within each societal domain (Schmitter, 1974). According to Dryzek (op.cit. 92), Norway has gone particularly far in including non-economic parties in non-monopolist corporatist bargaining, as specifically observed in the environmental field where 'moderate environmental groups (such as Friends of the Earth) are partially funded by the state and have a recognized place in corporatist policy-making' (ibid). By extending the framework of corporatist governance to be more inclusive in terms of participants allowed into the negotiation processes some of the core characteristics of corporatist governance are weakened or lost. However, by retaining the term 'corporatist' for such 'exceptional' and less strict forms of corporatism, these descriptions emphasize that the inclusion of civil society into the formal political process will incur costs for civil society in terms of loss of independence and oppositional force, risk of co-optation and a pressure towards more elitist organization.

The term 'inclusive corporatism' was used in the context of a debate on governance of environmental policy where Norway was held forth as a country which at an early stage and possibly more extensively than in most other countries, integrated environmental NGOs into the governmental policymaking structure. Through extensive consultative arrangements and financial support they have become parties to development and implementation of governmental environmental policies. This became a salient feature of the Norwegian environmental governance structure when an extensive collaboration was initiated in the late 1980s between the government and NGOs to prepare Norwegian participation in the 1992 Rio Conference. The general structure of collaboration that was then established became permanent, and environmental NGOs, through collaborative arrangements with the Ministries of Environment and Foreign Affairs in particular, have achieved a prominent place in the development and implementation of governmental environmental policy. This is part of a general picture characterized by the strong collaborative links in Norway between environmental NGOs and government, in particular the Ministry of Environment and its agencies (Selle, 2000). The characterization of these collaborative arrangements as a form of corporatism reflects the 'suspicion of the actively inclusive state' (Dryzek, 2000: 93), and emphasize that such corporatist inclusion into the political system not only provides opportunity to influence policy but also incurs commitments that entail loss of confrontational or agonistic capacity on the part of organised civil society. 'Life in the state is bought at the expense of relatively unrestricted democratic interplay and deliberation in the oppositional public sphere' (ibid: 97).

However, the very same practices are described by others in far more positive terms as a model for a 'collaborative management regime' that would deepen democracy if extended to more policy domains and issues, in particular in global governance of environmental issues (Lafferty et al., 1996b). Here, the description of the same collaborative arrangements and processes emphasize their pluralist and discursive character while simultaneously remaining aware of the 'corporatist' implications of assuming co-responsibility for governmental policy development and implementation, including risk of co-optation.

This ambiguity, where corporatist and deliberative governance emerge as opposites as well as overlapping categories, also reflects the distinction in neo-corporatist studies between 'societal corporatist' and 'pluralist' political systems (Schmitter, 1974). While Norway in this neo-corporatist tradition is consistently classified as among the most corporatist political systems (along with Austria and Sweden), the criteria for distinguishing the two ideal types of political systems emerge in detailed empirical research as too coarse-grained to capture key

characteristics of the Norwegian political system, at least in some periods since WWII, including the period since 1980 when a shift towards the pluralist pole has been evident (Nordby, 1996, 1999). The ambiguity is reflected in the strong national tradition of studies of the Norwegian political system which build on a concept of the Norwegian political system as 'corporatist pluralism' (Rokkan, 1966) by which the salience of pluralist aspects is emphasized. More recent studies have argued that an intermediate ideal type between (societal) corporatism and pluralism is needed to capture the key characteristics of the Norwegian political culture.

The ambiguity and even 'undecidability' of processes that are more inclusive than 'normal' corporatism in terms of stakeholders involved but yet retains core features of corporatist governance, is also inherent in our attempt to apply the STAGE typology to aspects of 'Norwegian type' governance of science and technology. For the structures and processes that in some respects may be adequately described in terms of inclusive corporatism may also be redescribed as forms of bounded or 'truncated' deliberativism. Such ambiguities should, however, not be seen in methodological terms as effects of deficient definitions of concepts; rather, they indicate some of the very *real* ambiguities and tensions involved in the politics of participatory governance which is the object of STAGE analyses.

### 'New' politics of science - innovation or normalization?

One salient feature of the 'new' politics of science is the role of institutional and procedural innovation for the development of more transparent and participatory forms of governance in S&T. It may seem that for these goals to be fulfilled, fundamental institutional and procedural changes are in fact required, since established practices and institutional structures have an inbuilt 'technocratic' bias, favouring by default technical over value framings of issues, and the hegemony of expert over lay voices.

However, if these developments appear as radically new in science and technology policy, this may be partly a consequence of the exceptionally closed nature of policy making within this domain in particular where the notion that science and technology policy is about issues that need specialized expertise available to few to be addressed competently and effectively has been pervasive. The transition that takes place in science and technology policy from closed, technocratic modes to more open and politically accountable modes may then be seen as a process of both innovation *and* normalization since innovation takes place in a field whose institutional structures and practices have developed under conditions of a form and degree of political exceptionalism that is becoming increasingly less viable. Thus, the dismantling of 'technocratic' governance structures may imply that governance in the policy domain of science and technology in many respects will become increasingly similar to that of other policy domains where issues are less 'technical' and their overt political stakes higher. Thus, the 'end of exceptionalism' in science and technology policy may be seen to imply a process of political 'normalization' as some well-established 'normal' liberal-democratic governance structures and practices are to good effect imported and more extensively used within the domain of science and technology.

### Towards more agonistic policymaking

The affluent Norwegian oil economy has exempted Norway from the crises that many other countries experienced within the last decade, including some of its Scandinavian sister countries, Finland and Sweden in particular. But this is seen by many as part of the problem, having made Norwegian society less inclined to initiate the changes necessary to adapt to the

emerging new, knowledge-intensive and more competitive global economy (Sogner, 2002). Controversies are being fought over what policies to adopt for the transition from a resource-based to a more technology-intensive economy, and a highly restrictive public opinion and an equally corresponding restrictive policy pursued within the biotechnology domain in particular are seen as barriers to effective exploitation of its industrial potential. This has, of course, affected the structure and processes of S&T policymaking, partly as a consequence of the emergence of the Research Council of Norway as an increasingly strong, pro-active innovation policy agency. Since 1999, a number of political battles have been, and are being, fought over the institutional structures and functions of these three institutions, in which strongly opposed conceptions of the core challenges of science and technology policy have been pitted against each other.

While a tendency towards more agonistic types of policy-making may be detected, the confrontations and conflictual framings seem primarily to be located and originate within the political arena (party politics, the lawmaking process in Parliament, the Advisory Board of Biotechnology etc), rather than as a consequence of autonomous dynamics in the public arena. This may seem to confirm predictions from the thesis that Norwegian governance of science and technology is predominantly and broadly corporatist in character.

Since the Norwegian economy is characterised by the dominant role of resource-based industries (e.g. oil and fish), a high proportion of SMBs, and by the fact that most of its larger companies are state-owned and/or -controlled, the political stakes of issues concerning the promotion of the 'knowledge economy' are relatively low. Thus the established, highly restrictive policy for the regulation of biotechnology remains stable, despite continually being challenged.

#### *Collaboration and conflict in environmental governance*

Conflicts between economic interests and other concerns may be a more direct cause of conflict when science and technology-related issues directly affect the vital interests of far stronger economic actors such as the national oil and gas industry. A recent analysis of Norwegian climate policy during the 1990s indicates how the collaborative structures which have provided environmental NGOs access to the governmental policy process was side-stepped when a reconsideration and re-politization of Norwegian climate policy took place in the mid-1990s. At that time the 'oil industrial complex' succeeded in reframing policies for the global reduction of climate gases so as to be compatible with accelerated exploitation of national oil and gas reserves, and – consequently – with increased national release of climate gases (Nilsen, 2001). Until the mid 1990s, a variety of 'ecological modernisation' discourses predominated in Norwegian climate policy, built on assumptions that continued economical growth could be reconciled with stabilized or decreasing national energy consumption. Ambitious political goals for levelling off and reducing CO<sub>2</sub>-emissions were set, and a tax was incurred on the release of CO<sub>2</sub> by the oil industry. During this period environmental NGOs exerted considerable influence on Norwegian energy and environmental policy. In the mid-1990s this policy was reassessed. The goal of stabilizing the national release of climate gases was given up and a new policy framework – 'unilateral joint implementation' – was put in place, which would particularly make the construction of gas energy production facilities possible without breaking overtly with prevailing global climate policy. Increased Norwegian oil and gas industrial activity in general, and the building gas energy facilities in particular, would lead to a considerable increase in national Norwegian releases. According to the doctrine of 'unilateral joint implementation', however, this would nevertheless make a reduction in the global net release of climate gases

possible, since the export of Norwegian gas energy would substitute for the even 'dirtier' coal and oil based energy of other countries, in East Europe in particular. However, the framework has failed as a basis for consensual energy/climate policy, and a politicization of the gas energy issue has ensued. Politicization peaked in March 2000 when the minority Centre government then in office resigned as a consequence of the parliamentary decision that gas energy production facilities could be built on the basis of technologies that would lead to a considerable increase in national release of CO<sub>2</sub>. Within the new policy framework, the influence of NGOs subsided and the hegemony of the 'oil industrial complex' was reinforced. This may indicate the fragility of the 'inclusive corporatism' model of Norwegian environmental politics, and its dependence on harmonistic assumptions of one variety of 'ecological modernisation' policy that has been proven untenable.

#### *Politicization overload*

The dynamics of the rising political stakes of science and technology policy issues has not only eroded the effectiveness of the resources of de-politicization that pervaded the 'old' politics of science such as the neutrality of expertise and the certainty of expert knowledge. If the stakes and conflicts of interest rise to a sufficiently high level, the same dynamics may progressively overtake any new candidate proposed to provide some 'neutral' framework, including various conceptions of technology assessment which promise access to sources (lay assessment, deliberative rationality) of 'authentic politics'. No conceptual, institutional or procedural resource can be so unambiguously specified and firmly anchored outside the process of their political implementation and use that they cannot (given a sufficiently high level of politicization) be re-questioned and re-drawn into the processes of political framing. Any procedural or institutional solution may thus have to be assessed in terms of the limits of their containment of 'politicization overload'.

## References

- Dryzek, John (1996): Strategies of ecological modernization, in: W.L. Lafferty & J. Meadowcroft: *Democracy and the Environment. Problems and Prospects*. London: Edgar Elgar (108 -123)
- Dryzek, John S (2000) *Deliberative Democracy and Beyond. Liberals, Critics and Contestations*. Oxford University Press.
- Egeberg, Morten (1978) *Stat og organisasjoner. Flertallsstyre, partsstyre og byråkrati i norsk politikk*. Oslo: Universitetsforlaget
- Hermannson, Jörgen et al (1999) *Avkorporatisering och lobbyism – konturerna till en ny politisk modell*. Demokratutredningens forskarvolym XIII, SOU, 1999:121.
- Joss, Siomon & Arthur Brownlea (1999) Considering the concept of procedural justice for public policy- and decision-making in science and technology, in: *Science ad Public Policy*, Vol. 26, Nr 5 (pp. 321 – 330)
- Kallerud, Egil (2004): The ambiguity of progress. Biotechnology in Norway, in: Marja Häyrynen-Alestalo & Egil Kallerud (eds.): *Mediating Public Concern in Biotechnology. A*

- map of sites, actors and issues in Denmark, Finland, Norway and Sweden.* Oslo: NIFU rapportserie 2/2004 (pp. 83 – 112)
- Lafferty, W.L. & J. Meadowcroft (ed) (1996a) *Democracy and the Environment. Problems and Prospects.* London: Edgar Elgar
- Lafferty, W.L. & J. Meadowcroft (1996b) Democracy and the environment: prospects for greater congruence, in: Lafferty, W.L. & J. Meadowcroft (ed): *Democracy and the Environment. Problems and Prospects.* (pp. 256-272)
- Nilsen, Yngve (2001). *En felles plattform? Norsk oljeindustri og klimadebatten i Norge fram til 1998.* PhD-thesis, University of Oslo
- Nordby, Trond (1996) Hvem styrer hvem? In: *Nytt Norsk Tidsskrift*, 3-4/1996 (pp. 281 – 294)
- Nordby, Trond (1999) Samvirket mellom organisasjoner og stat: Norge. Makt- og demokratutredningen, Rapport 4/1999.
- Padill, A & Ian Gibson (2000) Science moves to centre stage, *Nature*, January 2000, Vol. 403 (pp. 357-359)
- Rokkan, Stein (1966) Numerical democracy and corporate pluralism, in: Robert A Dahl (ed): *Political Oppositions in Western Democracies.* New Haven 1966
- Sand, Inger-Johanne (2001) The legal regulation of the environment and new technologies – in view of changing relations between law, politics and science. The case of applied genetic technology, in: *Zeitschrift für Rechtssoziologie* 22(2001), Heft 2 (pp 1-38)
- Schmitter, P.C (1974) Still the Century of Corporatism? *Review of Politics*, 36/1974
- Selle, Per (2000) Norsk miljøvern er annleis, in: *Nytt Norsk Tidsskrift*, 4/2000 (pp. 376 – 384)
- Sogner, Knut (2002) *En liten brikke i et stort spill.. Den norske IT-industrien fra krise til vekst 1975-2000.* Oslo: Fagbokforlaget