



**Environmental Policy Research Centre • Forschungsstelle für Umweltpolitik**

Freie Universität Berlin

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Otto-Suhr-Institute for Political Science

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**Environmental Policy  
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## **Instruments for Policy Integration**

**Intermediate Report  
of the RIW Project POINT**

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## Abstract

During the last thirty years, many western industrialised countries have witnessed efforts to integrate environmental concerns into sectoral policies such as agriculture, energy or industry. The principle of Environmental Policy Integration (EPI) has become an important objective on the political agenda by now, mainly forced by the Rio Convention, the Treaty of Amsterdam and different requirements on the national level. In recent years, a range of new strategies, institutions and instruments have been developed, among these Cardiff-type sectoral strategies, strategic environmental assessments or green cabinets etc. These often rely on processes of governmental self-regulation.

However, current efforts show only limited improvements in the implementation of

the EPI-principle. Against the recognition of the importance of a better knowledge base as a condition for integrated policy making, EPI largely remains to be question of political power and relationships within government. The report develops a systematic typology of the different strategies and instruments that have been implemented in the OECD countries and evaluates their use for contributing to the overall strategic objectives of EPI. By critically assessing the success conditions of the different approaches based on a cross-country comparison, we conclude with a rather sceptical estimation, whether governmental self-regulation is an strategic approach that runs alone. The report is part of the BMBF-funded research project POINT3D that develops a software for an integrated appraisal of new policies.



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# 1 POINT3D - a Software Based Tool for the Ex Ante Assessment of Policies

The aim of the research project POINT3D is to develop an administrative instrument for the integration of sustainability concerns in the different sectoral fields of policy making. This instrument will be an electronic checklist that allows for an assessment of the potential effects of planned policy initiatives on the environment, the economy and the objectives of the respective administration. Thus, potential conflicts between different objectives as well as win-win constellations can be identified already at the earliest stage of decision making. The checklist will be a standardised tool that (1) enables decision makers to conduct at least a rough assessment regarding the wide range of possible side effects of a planned policy, (2) to compare different options and (3) to communicate the criteria for decision making at an early stage of the policy process with the target group and potential stakeholders.

For this purposes, a wide range of possible aspects and objectives of sustainability have to be considered. There are a considerable number of policy objectives and related indicators regarding sustainability concerns. The different approaches are far from being homogenous, often contradicting each other, with frequently poor conceptualisation of sustainability and often with omissions. It is an important part of the project to screen and to merge the different systems of sustainability indicators regarding their usability for the planned electronic checklist. To achieve the objective of on the one hand

allowing to check a broad range of aspects, but on the other hand to confront the user with the least number of questions as possible, the questions regarding the different aspects, objectives and indicators are organised hierarchically. Questions are put on the screen only if aspects have been identified as relevant in a previous scoping phase. The questions regarding the environmental aspects are grouped in assessing the planned policy for emissions, physical invasions to the environment, utilisation of resources and, based on this, aspects of efficiency and intensity. For the economic dimension, questions are grouped regarding employment, influence on the economic structure, economic stability, economic efficiency and competitiveness, effects on innovation and research. The latter indicators are mainly based on the Lisbon indicators of the European Union, as there is a lack of consensus on the theoretical concept of sustainability in the economic literature. Furthermore, for the agricultural sector, which will be the first application of POINT, specific indicators were derived and integrated from the concepts of the OECD and EEA. To keep the tool flexible, to allow for an adaptation to new developments and to achieve a high acceptance it is necessary to include additional indicators and questions by advanced users.

The tool will be developed in close cooperation with the German Ministry for Consumer Protection, Food and Agriculture.

Thereby, user requirements, administrative procedures and possible restrictions for the implementation can be considered already during the development.

However, a user friendly tool will not be sufficient for an actual change of policies. The application depends on both the political will for a policy integration, as well as an integration into the legal framework of the administrative procedures. Therefore, in the course of the project, an analysis of best practices in policy integration has been conducted, as well as a legal analysis of current requirements of policy integration.

The legal analysis comprises requirements from international law, European law and national norms, both in the constitutional law as well as in special acts. The analysis confirms once again, that the integration of environmental concerns is most advanced and it is better institutionalised compared to the more broad issue of sustainability. The most important focus is given on the consideration of the environment in planning procedures, mainly regarding infrastructure projects. The results of the study will be published in a separate paper.

The study of best practices in European and national efforts for policy integration is based on a comprehensive literature study as well as on an international workshop with experts and practitioners that was held in December 2002 in Wuppertal. The workshop confirmed the difficulties of institutionalising policy integration. It became clear that there are significant differences between the countries, with e.g. European or British efforts that are more far-reaching than e.g. current Austrian or German

mechanisms for policy integration. According to the presentation of the representative of the German Environmental Ministry, the German strategy focuses mainly on the development and implementation of a national sustainability strategy, thereby abandoning a more horizontal approach of policy integration that leaves the responsibility in the different sectors. However, the process of policy integration has gained more momentum also in Germany. From the international level it is mainly the OECD and the European Union, that remain the main driving forces for the renewed efforts in policy integration. It became obvious, that there are several, largely uncoordinated processes of policy integration on the European level and that there is the risk, that the Cardiff process becomes orphaned. Furthermore, it is not yet clear, if the far reaching constitutional requirements with Article 6 as the most prominent example will be part of the forthcoming European constitution. Additional momentum for policy integration is however gained from the efforts for improving governance in Europe as it is laid down among others in the communication on the planned Impact Assessment. It is yet an open question if sustainability concerns and in particular environmental requirements will be adequately considered in these assessments. The OECD has a major focus on developing recommendations based on research on best practices in its member countries. The results of these research are taken into account in the following report on instruments for policy integration.

The analysis of instruments for policy integration provides an overview on typical

opportunities and impediments for a successful policy integration. It is based on a review of theoretical literature, comparative studies and the historical analysis of instruments and strategies for policy integration. It confirms our expectation that an instrument such as POINT has to be integrated into an overall strategy for policy integration. Several other appraisal tools have been developed, but actually never been applied, because of the lack of political guidance for their implementation. To prevent POINT

## 2 EPI – The Policy problem

The establishment of modern environmental policy in all western industrialised countries in the last thirty years can be considered a remarkable success concerning the speed and range of policy development. But on the opposite, the environmental situation still is deteriorating in many areas (OECD, 2001a). This record is due to two reasons: The first is the overall poor implementation of environmental policy. The second is the relatively unchanged continuity of environmental harmful policies of other departments such as energy, transport, agriculture, spatial development, or economics that counteract protection efforts by environmental policy. The need for an effective Environmental Policy Integration (EPI) has been recognised since the 1970s. But the results are mainly disappointing. Up to now, the intervention of environmental policy demands came up when basic decisions on policies were already decided. Environmental policies still follow largely the “End of Pipe”-approach (OECD, 2001b). Current govern-

from this miserable fate, the tool has to be integrated and tuned to other mechanisms for policy integration, some of which are currently in development such as sectoral and national strategies for a sustainable development, the development of indicators, or the implementation of a Strategic Environmental Assessment. Other instruments and strategies that are actually applied successfully in other countries may be additional complementaries for the appraisal tool under development.

ance models seem not well suited to carry out the necessary policy shifts that EPI implies. Governmental agencies are highly specialised, they accumulated specific knowledge to govern their particular policy field, they build up a network with their target groups and they are path dependent regarding their goals and instruments. Thus, the modern state pursues contradictory policy targets easily. EPI contradicts this way of sectoral policy formulation and implementation. That’s why it faces strong barriers, although an early consideration of the environment in the decision making process bears the potential of 1) to be more effective, because environmental friendly alternatives may be considered, and 2) more efficient, because environmental deterioration is minimised from the beginning and additional, possibly expensive add on measures can be avoided.

The need for a more effective EPI is constituted by international obligations, such as the Rio declaration (in particular chapter

8), or Article 6 of the Amsterdam Treaty. In recent years, most industrialised countries witnessed a renewal of activities, to establish and promote effective EPI mechanisms. The so called Cardiff Process of the European Union is a prominent example for this. Other to be mentioned are the establishment of Environmental Policy Plans, the development of Sustainability Strategies, mechanisms to assess the environmental impacts of policies such as the Strategic Environmental Impact Assessment, institutional mechanisms, such as Green Cabinets or the merging of MoEs with other government departments, or green budgeting.

This paper aims to develop a taxonomy of the different instruments that have been developed to improve the integration of environmental concerns in the routines of decision making in other policy fields. We are particularly concerned with the question, in

### 3 Definitions of EPI

Most definitions of policy integration refer to a continuum regarding either the degree of integration or coherence of *policy outcomes* (objectives or practices) between different domains of policy making *or* the *process* of integrating policies. A general definition for integrated policies focusing on policy outcomes is given by Underdal (1992): “A policy is integrated when the consequences for that policy are recognized as decision premises, aggregated into an overall evaluation and incorporated at all policy levels and into all government agencies involved in its execution” (in: Weale and Williams 1992, 46). That is, as Lafferty (2001) pointed out, an

how far these instruments are able to foster learning in the targeted policy sectors and in how far learning is a sufficient condition for the success in EPI.

The paper proceeds as follows: We start with a rather narrow definition of EPI, focusing on institutions to shape the *process* rather than the output of policy making. On this basis, we develop a taxonomy of measures to improve decision making. In the following, we briefly discuss the identified measures, describing their main features and shortcomings, where there have been introduced first, and if a diffusion to other countries has happened or can be expected. Based on evaluation studies on EPI in different countries and sectors we identify a number of factors that influence the success of EPI measures. Concluding, we analyse in how far the described measures do fulfil the identified conditions.

attribute of any good governmental practice and not an specific feature of good environmental governance. While this definition focuses on the minimisation of contradictions between different policies, another focus can be set on the integration of different instruments to tackle a specific problem (s.a. Liberatore 1997, 111). This can be understood as coherence of policies.

The OECD (1996) has developed a frequently quoted scale for different levels of policy co-ordination with “independent decision making” as one corner mark and integrated policy as the other. For an empirical investigation of the co-operation between

R&D policy and environmental policy, Conrad (2000) developed a similar continuum. These typologies mix actors like departments or central bodies, institutions like systems of arbitration or channels for communication and preferences like hidden differences or seeking for consensus. By this, the sequence of the different levels is arguable, depending on which of the elements are to be placed first. However, this work provides insights on the wide range of possibilities for government practices.

Focusing on the environmental dimension, Jordan and Lenschow (2000, 111) define policies as environmentally integrated “when policy makers in ‘non’-environmental sectors recognize the environmental repercussions of their decisions *and* adjust them by appropriate amounts when they undermine sustainable development” (Jordan and Lenschow 2000, 111).

Another possibility is to analyse the *process* of policy integration: The European Environmental Agency (EEA) understands EPI as a process of adjusting the focus of environmental policy away from environmental problems themselves to their causes and from ‘end-of-pipe’ ministries to ‘driving force’ sector ministries’ (EEA, 1998, p. 283 quoted by Jordan and Lenschow 2000, 111).

Both the scope and the instruments for policy integration vary fundamentally according to the definition that is applied. If policy integration is understood as integrating environmental needs in policy outputs of

non-environmental sectors, *any* policy instrument can be conceived to bring forward the case of EPI. Following this focus, EPI is frequently understood as an *internalisation* of the environmental effects of a sector (e.g. Hey 1998, 2002). To evaluate the progress of this output oriented view, the main focus is on policy outcomes and impacts. From this perspective, EPI implies a substantial policy change in the different domains of government.

The second perspective on the process of EPI focuses on strategies and instruments to change government routines. It is interested in the potentials and limits of *self-regulation* of government to optimise the process of decision making. The evaluation of the process starts with the question which strategies and instruments are adopted to modify the process of policy formulation and implementation in sectors other than the environment? Of course, changes in the decision making process are meant to change policies as well, but this perspective on the policy process may reveal opportunities and barriers for a “toolbox” of EPI.

In this paper we zoom into the process perspective of EPI. We identify and categorise typical instruments— then describe their potentials and limits, based on a comprehensive survey of the evaluation literature on EPI. By this we not only aim at identifying the merits and shortcomings of the different measures, but furthermore at estimating the possibilities for a cross-country adoption.

## 4 A toolbox for EPI

A review of the efforts to establish and implement EPI in the western industrialised countries reveals a considerable number of strategies and instruments (see e.g. Lafferty and Meadowcraft, 2000, Müller, 1986; Pehle, 1998; Wilkinson, 1998; Lenschow, 2002). In Germany, for example, administrative measures were developed such as a green cabinet, that was supported by an inter-departmental working group of high ranking civil servants (established in 1971), or an obligation for each ministry to consult the then responsible ministry of the interior in the case of legislative proposals likely to affect the environment (introduced in 1975). Also, preparations were undertaken to develop a systematic assessment of bills and programmes regarding their environmental effects. But this project was stopped due to lack of personnel available for its realisation (Müller 2002). These attempts for an integrated policy design lost their relevance when the momentum of the reform period of the early environmental policy died away in consequence of the oil price shocks and the world-wide economic downturn. Similar observations can be made for most of the other industrialised countries (Jänicke et al.

2002, Marsden 1998, Jänicke and Weidner 1997).

In the late 1980s and the beginning of the 1990s, the integration approach was re-discovered and recalled to life with several innovations in several European countries, as well as on the level of European policy-making (Lieverink and Andersen, 1997, OECD, 2001b).

The following table gives an overview on typical measures that have been adopted in the recent past. We distinguish these measures with regard to their scope (encompassing strategies vs. instruments) and their domain of application (centralised vs. decentralised). A strategy comprises ideally objectives, action plans (including the allocation of resources), mechanisms for monitoring and obligations for reporting. Instruments are means or devices to implement policies.

In the following a short description of each of the different measures for EPI will be given, describing their main features, their first time of application, their target groups and related requirements, but also the experiences that have been gathered in practice.

<b>Measures for Environmental Policy integration</b>		
	<b>Political Strategies</b>	<b>Administrative Instruments</b>
<b>Centralised Mechanisms</b>	National Planning for Environment / Sustainability Strategies Constitutional Provisions for EPI	Extension of the competences of the Environmental Ministry <ul style="list-style-type: none"> <li>• Consultations procedures</li> <li>• Veto power</li> <li>• Initiative rights</li> </ul> Independent institutions for advising and evaluation Amalgamation of departments Green Budgeting Consultative procedures <ul style="list-style-type: none"> <li>• Green Cabinet</li> <li>• Interdepartmental working groups</li> </ul> Reporting obligations to new institutions Strategic Environmental Assessment
<b>Decentralised Mechanisms</b>	Sectoral Strategies	Environmental departments in the different sectors / Environmental Correspondents Sectoral Conferences Appraisal of policy initiatives

## 5 Strategies to improve EPI

### **National Environmental Policy Planning / Sustainability Strategies**

National Environmental Planning means the development of a comprehensive strategy concept, that defines priorities and objectives of environmental policy in a long-time perspective, names relevant target groups and related measures and proposes indicators for monitoring and evaluation. Such plans are often drawn up with wide societal participation. As the SRU has pointed out, they are especially characterised by a consensus of opinion on the objectives which are derived from the principle of sustainability, by an integration and participation approach and by the obligation to report on improvements and shortcoming regarding the implementation of objectives (SRU,

2000). Furthermore, they are often integrated in an overall reform of the public sector, are paralleled by an ecological tax reform and accompanied by strong orientation towards technology- and research funding as also ecologically motivated investment programs.

The first plans were introduced in the Netherlands, Canada, UK, Denmark, Sweden and Norway towards the End of the 1980s. In the 1990s, a fast diffusion of the instrument could be observed (Busch and Jörgens 2002). The most prominent example is the National Environmental Policy Plan of the Netherlands (NEPP). This plan not only embodies the target-oriented policy approach best, containing over 200 quantitative objectives, but also the strict orientation of environmental policy towards its tar-

get groups (Bressers and Plettenburg, 1997). At present, about 80% of all industrialised countries have adopted different varieties of this approach. The requirement of Agenda 21 to develop such Plans or Strategies thereby proved as a catalyst (Jänicke and Joergens, 2000).

Environmental Planning furthers the case of EPI in several ways. Usually, the role of the MoE is strengthened in the process of the plan development. The attention is shifted from contested instruments to problems and their need for adequate solutions. In the best case, the result is the internalisation of problem responsibility within the relevant sector and its target groups which might also trigger learning processes in a long-term perspective. But most of the adopted plans are characterised by some serious shortcomings so far: The objectives are often vaguely formulated only and they frequently don't impose binding implementation requirements. The plans are often restricted to conventional environmental objectives and tend to ignore unsolved, persistent problems. Also the institutionalisation of the whole planning process is, with a few exceptions, weak and objectives are not taken sufficiently into account by decision-makers in other relevant departments (e.g. SRU, 2000, Dalal-Clayton, 1996).

National Sustainable Development Strategies have to be distinguished from Environmental Planning. They usually have a much broader focus on economic, social and environmental policy, but also education and research policy or other policy areas. In this respect they only contain few, highly aggregated environmental objectives and

indicators. EPI is not the central aim, rather the deployment of a multi-dimensional set of policy objectives. From the late 1990s, Sustainable Development Strategies were adopted world-wide (Busch and Jörgens 2002). They are either newly adopted as in the German case or they replace or complement existing national environmental policy planning such as in the Netherlands or Austria. The relationship between the more sectoral approach environmental planning approach and the overall arching approach of the Sustainable Development Strategies is far from clear yet: complement as also competition is possible.

### ***Constitutional Provisions for EPI***

Many countries adopted constitutional provisions to protect the environment. The clearest focus on the integration of environmental needs is formulated in the treaties of the European Union. While the environment was not mentioned in the founding treaty of Rome, in all of the more recent treaties requirements of the environment were incorporated.

For the first time, the Single European Act (SEA) of 1987 established in its article 130 r(2) the principle, that 'environmental protection requirements shall be a component of the community's other policies'. In 1993 the Maastricht Treaty amended the article 2 of the Treaty of Rome by replacing the objective of 'continuous expansion' with the objective of sustainable and non-inflationary growth respecting the environment'. Furthermore the integration principle was strengthened by making it imperative (environmental requirements *must* be inte-



grated into definition and implementation of other policies) (Wilkinson, 1998, 114 f.). For the time being this process of institutionalising the EPI principle was continued with the

article 6 of the Amsterdam Treaty, which makes integration of the environment as a guiding principle of the Union.

## 6 Administrative Instruments

### ***Extension of the Competences of the MoEs***

Successful EPI is a question of power: The relative strength of the involved actors has been identified as a crucial variable to explain substantial policy change in environmental relevant policy sectors. Therefore, the expansion of the competences of MoEs has been proposed as a veritable tool by scholars of Policy Integration. It is, however, difficult to define precise criteria for the strengths of MoEs in relation to other departments. Liberatore (1997) stresses this point in her study on the DG Environment of the European Commission: Its staff and budget is neglectable compared to other DGs, but its regulatory output has been and still is of considerable importance for other DGs .

So far, a wide range of tools has been discussed to extent the competences of the MoEs. The most extensive institution is probably the right for the MoE to veto legislative proposals by other departments. To our knowledge, such a formal veto-power-right has not been institutionalised in any country. This is no wonder given the frequent weak status of the MoE in the hierarchy of the government. But it is also questionable, whether such an instrument would be of practicable advantage to the MoE.

Pehle (1998) concludes in his comprehensive study on the German Ministry for the Environment, that at least in the political system of Germany, the theoretical advantages of a veto right of the Ministry of Environment are practically counteracted by the dominant role of the chancellor. The chancellor is able to overrule a veto in any case, and is able to dismiss a minister. Politically it would not be wise to vote against the position of the chancellor. Therefore it is not likely, that a veto, once institutionalised will be actually enforced. In Germany, a veto power is given to the ministers of finance and justice, but it hasn't been enforced yet. However, such a power may unfold effects before it is actually deployed. But it seems very unlikely, that such an instrument will diffuse widely after adoption by a pioneering country, because it simply implies too far-reaching changes in the distribution of power among the different departments.

Another, however weaker, possibility to involve the MoE in the legislation process of other departments is to oblige the latter to consult the MoE in the case of legislative proposals with likely environmental impacts. This has been introduced in Germany in 1975 in the Common Rules of Procedures of the German government and remains in force till today. However, there is nothing special about this regulation as any depart-

ment is to be consulted if its domain is affected by proposals of another department. To our knowledge, there has been no evaluation of this procedural rules. But there is good reason to assume that consultation starts at a late stage of decision making, when considerable policy changes are out of reach. It is very likely that comparable rules form standard procedures in other countries.

To overcome the shortcomings of the traditional consulting procedures, the right for the MoE to start initiatives in other departmental areas of responsibility has been brought forward to the debate. Such a provision might improve the power of the MoE in two ways. First of all, the MoE gains greater influence on the overall agenda of the government. But it also obtains a more offensive role in relation to the other departments: The responsible department has to prove the possibility of the proposal and has to justify a withdrawal with good reasons. The barrier for withdrawal can even be increased, if the MoE builds up winning coalitions in the run-up of the decision-process.

The amalgamation of departments is another way of enhancing the relative power of the MoE. An example for a useful merger in terms of policy integration has been the Danish joint energy- and environmental ministry. But this merger has been revoked by the new middle-right government recently. In the UK, the merging of the departments of transport and of the environment by the Labour government and the selection of the vice prime minister John Prescott as head of this department has also been interpreted as an improvement in EPI (Jordan 2002).

Liberatore (1997) points out, that integration understood as a two way relationship, in general could imply a dilution as well, if the two departments are of different size or power. That is particularly true for the amalgamation of ministries. The German case proves again ideal for illustration: Until 1986 the departmental responsibilities for the environment were distributed among 8 different ministries. The responsibility for nature protection was located in the ministry of agriculture, which was seen as the most important barrier for a more ambitious nature protection. Conflicts between the different departments had to be carried out inside the ministry, and the possibility to resolve conflicts on the cabinet level was missing (Pehle 1998). A diffusion of a special design of ministries to other countries is not very likely, because it would imply again a shift in the distribution of power. The design of ministries is likely to be the result of a political bargaining on national level rather than driven by a certain functionality.

### ***Consultative procedures***

Apart from formal procedures to include the MoE into the decision making process, there have been many efforts to institutionalise joint committees of environmental departments and other policy sectors. These committees have been introduced both on the cabinet level ("green cabinets") as well as on the departmental level ("interdepartmental working groups").

In the 1980s, there has been a series of joint European councils of the transport and environment council. This instrument has been taken up again by the British presi-

dency in 1997 despite the rather disappointing results of the earlier series. Hey (1998) concludes, that these joint meetings generate considerable organisational efforts, but despite of symbolic declarations, substantial efforts for an improved EPI could not be observed.

Several European countries introduced so called "Green cabinets", mainly on the level of secretary of states. In Germany such a committee was introduced as early as 1971 (Jänicke et al. 2002), but it was dissolved soon. The red-green coalition tied on this tradition. A Green Cabinet was constituted again in 2000, mainly to prepare the national sustainability strategy. In the UK, such a committee was introduced in 1990, being chaired by the deputy prime minister (Jordan/Lenschow 2000). Norway introduced a State Secretary Committee for Environmental Issues in 1989 (Sverdrup 1998).

Frequently, these cabinet committees are supported by working groups of high ranking civil servants (Norway: Several interministerial working groups on various issues since 1990, Germany: Introduction of a permanent working group of heads of departments in 1972, interministerial working group on CO<sub>2</sub> reduction introduced in 1990, etc.)

It is likely, that comparable institutions both on the level of the cabinet and administration exist in other countries, since such committees can be expected to be standard governmental procedures. Apart from agenda setting, it is however unlikely, that these consulting mechanisms prove to be a vehicle for sufficiently changing policy objectives in other departments. Consultation

is likely to improve the efficiency of implementation, but a policy change has to be decided upon on a higher level of policy making.

### **Strategic Environmental Assessment**

The basic idea for a strategic environmental impact assessment (SEIA) on the European level was developed back in the late 1970s by a small network of experts (Hey 1998). From the mid 1980s there have been several attempts of the Commission to implement a SEIA. In 1989 a consultation process with national EIA experts was started which led to an official proposal for a directive in 1996 which came into force in 1999. The directive requests the competent authorities to elaborate an environmental statement and to perform consultations with the environmental authorities and the general public.

It is supposed to be a procedural instrument for the evaluation of all stages of the decision-making-cycle, thereby starting from the formulation of policies (definition of strategic guidelines and objectives) via planning (assignment of resources) and ending with the development of programmes (set of projects). This is based on the assumption that the set of alternatives predetermined on the respective higher level of decision making, that are, however, not at disposition. The practical execution ranges from simple checklists to an elaborated modelling of the impacts.

Legislative EA has been introduced for the first time in the USA in 1970, but it is seldom applied and the underlying act lacks of substantial and operational goals (Andrews 1997). Canada introduced an envi-

ronmental assessment review process (EARP) back in 1973, that should assess legislative proposals regarding their environmental impacts. But this guideline was only applied to a few policies. In 1990 the procedure was reformed including a formal provision of EA for the first time. That was laid down in the so called Blue Book from 1993, which is the official guide to the assessment process (Marsden 1998, 246).

In Europe Denmark, the Netherlands, Finland, Norway and the European Union itself have enacted requirements for legislative EA. An obligatory EA can also be found in Hong-Kong (Marsden 1998). The current state of institutionalisation varies considerably: provisions for SEA are partially given by legislation (e.g. USA), by administrative orders (e.g. CDN, DK) or advisory guidelines (e.g. UK). Countries differ regarding the form and scope of public participation in SEA: The involvement of the general public is foreseen in DK and NL, while in the UK and CDN the availability of the assessment results is restricted to the cabinet. A further spread of this policy innovation is likely because in 1999 the EU adopted a directive, that requires the Member States to implement a SEA. Assessment techniques are applied also in non-environmental fields of policy making e.g. as legislative impact assessment in Germany (Böhret/Konzendorf 2000).

Although there are considerable differences in the implementation of SEA, it is most often applied across the boundaries of a department or ministry. Therefore we as-

sign it to the centralised instruments. The counterpart are appraisal tools that are applied inside the department only, without obligations for publishing the results and without a need for consulting other departments or the general public.

### **Green Budgeting**

The governments budget reflects the governments priorities beyond declarations regarding their policy objectives. Therefore, an in-depth evaluation has the potential of revealing government spending that is contradictory to environmental objectives.

Norway pioneered this policy instrument and introduced it for the first time in 1988 by adding an environmental profile to the state budget proposal. This form of Green budgeting was further elaborated in 1992 and 1996 by developing more detailed categories for spending with environmental effects. Other countries that implemented or consider such measures are Canada and the Netherlands (OECD 2002).

The dispute on budget was the core issue to integrate environmental objectives into the European Regional and Cohesion funds that can be considered as cases of relatively successful EPI (Lenschow 1997, 2002d, Wilkinson 1998). Here, EPI was legitimised and supported by the reformed constitutional law of the EU which demands a consideration of the environment within the spending procedures. It is, however, not linked to the application of government routines in favour of EPI.

## 7 Decentralised Mechanisms

The instruments described above have mostly failed in greening governmental policies. These findings led to reforms in EPI mechanisms in particular on the European level in the late 1990s. In particular the disappointing results of the 5<sup>th</sup> Environmental Action Programme (5EAP) that enclosed the integration principle as its fundamental theme by defining priority sectors and major environmental problems were a starting point for a reconsideration of EPI efforts.

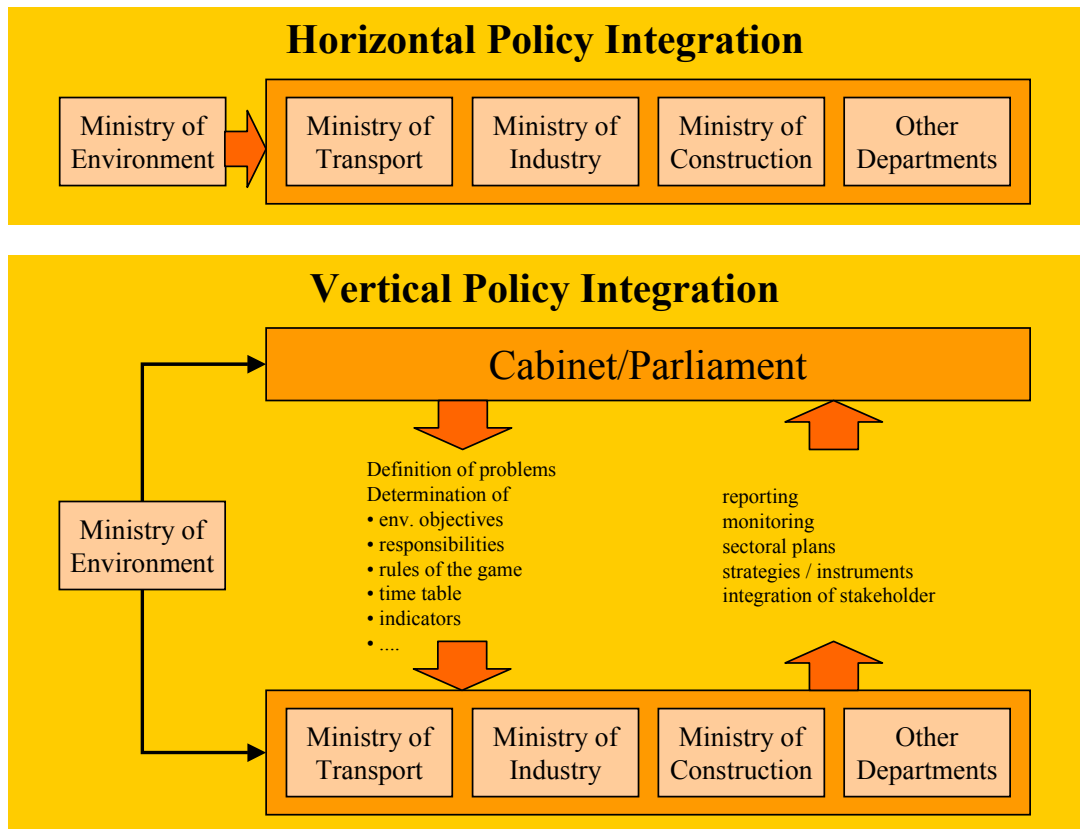
Evaluating the integration measures, that were taken to implement the Maastricht Treaty and the 5EAP, Wilkinson (1998, 122) comes to the conclusion, that the impact on the practical policy-making procedures of other DGs have been modest. Any progress made towards a better consideration of environmental concerns in the investigated policies can be ascribed to external factors (e.g. environmentalists action) rather than the integration measures.

The results were considered as unsatisfactory also by the responsible Commissioner. This critique was supported by the EEA in its so called Dobris Assessment. It was realised, that binding targets and guidelines are necessary beside the procedural innovations. Corresponding pressure was exerted by Austria, Sweden and Finland, and based on a Swedish initiative a reform of the integration project was agreed on at the 1997 Luxemburg summit. To enter into a more binding process, the leadership was shifted from the Commission DG Environ-

ment to the European Council. The following UK presidency put the EPI issue on the top of the agenda (Lenschow 2002a, 11). At the Cardiff Summit in June 1998, the Cardiff-Process of Environmental Policy Integration was started. This model of sectoral strategy development will be described briefly in the following.

The shift of responsibility for EPI away from the DG Environment to the European Council, together with the request for the development of sectoral strategies by the single Council formations can be analysed as a shift from horizontal to vertical integration (Jänicke 2000; Lafferty 2001): In case of horizontal EPI it is mainly up to the MoE to "green" the other departments. That requires a sufficient capacity to interfere in the non-environmental domains. The limits of this traditional approach towards EPI have been convincingly analysed in evaluation studies (e.g. CEC 1998, Vroomraad 1999, Müller 2002).

A vertical strategy requires a central body as parliament, cabinet, etc. to oblige the sectors to develop sectoral strategies and action plans and to monitor and report the progress to a competent authority. In case of vertical EPI the roles of the MoE changes: Instead of imposing measures to the other departments, its main task is to facilitate the development of sectoral strategies, e.g. by providing advice and by developing indicators.



Source: Jänicke (2000)

### **Sectoral Strategies**

Before the Cardiff Process was initiated on the European level, several countries had already introduced this approach. In Canada the "Guide to Green Government" was published in 1995, that committed a large number of ministries and agencies to develop a report on their environmental policy, to develop sectoral strategies until 1997 and to update this strategies in a three years term. For a review of the strategies, the Commissioner of the Environment and Sustainable Development was established as a part of the General Accounting Office (SRU 2000).

In Denmark several ministries developed by own initiative or by request strategies to implement a sustainable development in their respective domain following the

Brundtland Report of 1987. That was pioneered by the ministry of agriculture and soon followed by the energy ministry and the transport ministry. Since then, Denmark has developed many sectoral action plans rather than an all-embracing National Plan as e.g. the Netherlands (Andersen 1997).

The European Union adopted this strategy as a result of the Cardiff summit in 1997: In the run-up to the Cardiff-Summit the Commission delivered a strategy paper describing headlines for EPI. The European Summit in Cardiff then requested all relevant Council formations to develop sectoral strategies containing objectives, timetables and task assignment, but also to constantly monitor improvements and shortcomings. The Councils for Agriculture, Energy and

Transport started the process in June 1998. They were joined in a second round by the Councils for Development, for Internal Market and for Industry in December 1998. The setting was completed in a third round by the Councils for General Affairs, for Economical and Fiscal Affairs and for Fisheries (Kraemer, 2000, Schepelmann, 2000). The development of the strategies usually followed a two-tiered procedure, beginning with the presentation of a working report and its transformation in a strategy proposal then, both to be accepted by the European Council. The European Council of Helsinki in June 1999 undertook a first comprehensive evaluation of all delivered reports and strategies and came to a rather disappointing assessment concerning content and binding character of the proposals. All council formations were asked to finalise their work with a view to the forthcoming European Council in Gotenborg in June 2001. The whole process should then be shifted to the implementation phase (Fergusson et al., 2001). But the European Council in Gotenborg revealed serious shortcomings of the

received strategies concerning vague objectives, missing timetables and indicators and unclear task responsibilities. The whole process was postponed to the next Spring Summit in Barcelona in 2002. But also in Barcelona an sufficient progress could not be ascertained. At present, the future course of the Cardiff-Process is nebulous (see Kraemer et al., 2002).

Up to now, no council has published a strategy with concrete objectives, timetables and indicators. The political significance of the strategies remains unclear. There is a lack of an overall co-ordination and steering body and overall clear procedural and rules for the development of the strategies as also with regard to their content.

Therefore, the single strategies differ considerably concerning the understanding of EPI, the needs for problem analysis but also the work on objectives and indicators (SRU, 2002). But the Cardiff-Process clearly is an important institutional innovation, nonetheless because it proves rich ground for learning about barriers to EPI and requests for effective policy steering.

## 8 Decentralised Administrative Instruments

### *Appraisal of policy initiatives*

In several countries instruments have been developed that gain at the assessment of possible impacts of legislative proposals by the competent authorities themselves. These mechanisms are closely related to Strategic Environmental Assessments as described above and there is a continuum between appraisal methodology and the

more formal SEA procedures. The main difference is, that the general public or other departments are not involved. An appraisal system was developed in the UK in 1991 as a guide for civil servants, called *Policy Appraisal and the Environment* (Jordan/Lenschow 2000). This appraisal was rarely conducted, which was criticised among others by environmental groups. Only when the

guide was reformulated in later years, the application became more frequent.

In the Netherlands the need for an impact assessment regarding the environment for new legislation was recognised in the NEPP of 1989. From 1992 on preparations were undertaken to establish such an assessment. Additional momentum for the introduction came in 1994 from the Quality of Legislation initiative which aimed at a tighter evaluation of proposed legislation. Here, the underlying goal was to stimulate a more productive economy and an effective administration. This deregulation initiative aimed primarily at an evaluation of the economic costs and benefits of regulation. However, it was realized that environmental costs and benefits should be taken into account, too. While the economic evaluation was formalised in the so called Business Effects Test (BET), the environmental test was developed by a ministerial Commission chaired by the prime minister. This so called E-test was finally introduced in 1995. It is applied to all types of legislative proposals including drafts and amendments. As it was recommended in NEPP 2, a 'help desk', namely the Joint Support Centre for Draft Regulations, was established by the Environmental and the Economic ministries to give guidance for the procedures. By this, the coordination between BET and E-Test is assured also institutionally (Marsden, 1999).

The E-Test procedure encompasses mainly four different phases: 1) Screening/Scoping Phase: An interdepartmental working group selects proposals for which an E-Test should be carried out and lists environmental aspects that should be

evaluated. 2) Adoption Phase: The list of proposal is adopted by the Council of Ministers. 3) Documentation/Assessment Phase: The selected aspects are addressed by the responsible ministry, supported by the help-desk; results are documented and added to the draft legislation. 4) Reviewing Phase: Joint Support Centre and the Ministry of Justice reviews the quality of information and checks if the draft can be send to the Council of Ministers.

In 1993, the DG Environment of the European Commission developed an appraisal system (so called 'green star') to evaluate the effects of policy proposals with significant effects to the environment in order to implement the 5EAP. The Manual of Operational Procedures lists a step-by-step procedure for the undertaking of the appraisal. Those legislation that are selected for appraisals are marked by an asterisk in the Commission's legislative programme. However, due to a lack of an appropriate methodology, these appraisals were never conducted (Wilkinson 1998, 120).

Other appraisal tools have been developed for the DG Industry (IAPlus, Hemmelskamp/Leone s.a. <http://www.jrc.es/projects/-iaplus/>) or are currently under development (e.g. Rodmell 2002, DEFRA 2002, POINT3D). Recent developments focus on the different dimensions of Sustainability, or aim to integrate different appraisal methods.

### ***Environmental Correspondents***

The establishment of mirroring units in other departments is another standard procedure in governments practices. Environmental correspondents have been established in



Germany from 1986, when the Ministry of the Environment was founded. The European Commission introduced this instrument in 1993, in order to implement the 5EAP (Wilkinson 1998, 120). This environmental correspondents have not been willing or able to influence the policies of their respective departments. In case of an environmental orientation that is in contrast to the objectives of their hosting department, they might have jeopardised their own career (Kraack et al. 2001).

Furthermore, the DG Environment (XI) did not give a guidance on the role of the environmental correspondents. Therefore, the implementation and understanding of their role varied considerably: In several DGs that had already units or policies which are concerned with the environment, this duty was given to officials with preexisting environmental responsibilities. Wilkinson

(1998, 121) gives a range of possible functions for the environmental correspondents:

- spy: informing DG XI of developments in the respective DG,
- postman: passing information on environmental legislation,
- policemen: vetoing policy proposals,
- technician: guidance for e.g. appraisal methods
- facilitator: negotiating between the respective DG and DG XI
- ambassador: modifying DG XI policies to fit with own DG

In particular in those DGs where an attention for environmental concerns had been already established, the integration principle was regarded as a two way process, requiring the environmental department to integrate also the objectives of the non-environmental departments. Therefore role-models like 'spy' or policeman' necessarily failed.

## 9 Opportunities and Impediments for EPI

Recent evaluation studies on the introduction of EPI measures and on EPI in different policy sectors identified a broad range of different factors that influence success or failure of integration measures. Lenschow (2002a, b) expects three dimensions to be relevant for an explanation of patterns of EPI:

- Actors: Their preferences, relative strength and position in the political structure, variation in the commitment to environmental issues, pressure by top level political commitment and/or by environmentalists or other non-state actors. A

sufficient regulatory capacity and a balance of power with environmental stakeholders is suggested as prerequisites for EPI also by Hey (2002).

- Ideas: On the one hand, the framing paradigms of environmental policy, i.e. the concept of sustainable development, or the expectation of win-win solutions is decisive for the success of EPI. On the other hand the implementation of EPI is determined by the 'policy mission' in the sectoral policy and its compability with environmental concerns. The focus on 'win-win' risks that EPI fails if there are losers.

In the long run, a policy aiming at a sustainable development, has to compensate or to enable those actors for a restructuring their activities (Lenschow 2002c, 231).

- Policy traditions and institutions: In how far the concept of EPI fits into the given structures and practices is a determinant success factor. A fragmented institutional setting is difficult to reform. Usually, it requires a crisis to open a window of opportunity for institutional change (Lenschow 2002c, 229).

Lafferty (2002), as well as the OECD (2002) enumerates the following factors as decisive for the success of EPI: Common understanding of sustainable development, clear commitment and leadership, specific institutional mechanisms to steer integration, effective stakeholder involvement, and efficient knowledge management.

Hertin and Berkhout (2002) identify four core functions that EPI has to fulfil in order to be successful: sectoral agenda setting, horizontal communication, sectoral capacity building and policy learning.

It is common to this studies, that on the one hand the importance of learning in the different policy sectors, the utilisation of knowledge, a shared vision and a common

understanding of problems is stressed. But on the other hand, these studies point to the prevailing importance of political will and leadership as also to the relative strengths of actors or their capacity to act.

Our brief discussion of the different measures for EPI revealed considerable differences in how far these prerequisites are fulfilled. There is no single instrument that is able to fulfil all of the different functions. The following table gives an overview on the different features of the discussed measures. For the development of POINT as a comprehensive tool for assessing the impacts of policies on different objectives the analysis of recent efforts points to the need of integrating and tuning instruments for policy appraisal to other strategies that are providing the case of EPI with the necessary political resources for a successful implementation.

The appraisal of policies will not be implemented if there is a lack of political will and power, if overall objectives are missing or if relevant actors are not committed to substantial adjustments in policy. Policy appraisal is, however, a useful and promising tool in actually implementing the objective of policy integration.

	Changes relative strengths of existing Actors	Shaping of New Actors	Inclusion of Environmental Actors / Opening of Networks	Improvement of Leadership	Dissemination of Vision	Improves utilisation of knowledge	Agenda Setting	EPI in policy implementation
<b>Strategic Approaches</b>								
National Environmental / Sustainability Planning	Possible		✓	✓	✓		✓	
Sectoral Strategies				✓	✓	Possible	✓	
Constitutional Provisions	Possible				Possible		Possible	
<b>Instruments</b>								
Consultation procedures	Possible							✓
Veto power	✓							
Initiative rights	✓				✓		✓	
Amalgamation of departments	Possible			Possible	Possible		Possible	Possible
Independent institutions for advising and evaluation		✓	Possible		Possible	Possible	Possible	Possible
Green Budgeting					✓		✓	✓
Green Cabinet				✓	✓		✓	
Interdepartmental working groups								✓
Strategic Environmental Assessment			✓			✓		✓
Environmental departments in the different sectors / Environmental Correspondents		✓				Possible		✓
Sectoral Conferences			Possible		✓	Possible	✓	Possible
Appraisal of policy initiatives						✓		✓

## References

- Andersen, Mikael Skou. (1997). "Denmark". In: Jänicke, Martin and Helmut Weidner (eds.), *National Environmental Policies. A Comparative Study of Capacity Building*. Berlin: Springer.
- Andrews, Richard N.L. (1997). "United States". In: Jänicke, Martin and Helmut Weidner (eds.): *National Environmental Policies. A Comparative Study of Capacity Building*. Berlin u.a., Springer. Pp. 25-43.
- Bressers, Hans T.A. and Plettenburg, Loret A. (1997). "The Netherlands". In: Jänicke, Martin and Weidner, Helmut (1997): *National Environmental Capacities. A Comparative Study of Capacity Building. Berlin*. Berlin: Springer.
- Dalal-Clayton, Brian. (1996). *Getting to Grips with Green Plans: National Level Experience in Industrialised Countries*. London: Earthscan.
- Department of Environment, Food and Rural Affairs (DEFRA). (2002). *Defra's sustainable development strategy: Foundations for our future*. Download <http://www.defra.gov.uk/corporate/sdstrategy/> (11/22/02).
- European Environmental Agency (EEA). (2003). *Europe's Environment: The third assessment. Environmental assessment report No. 10*. Copenhagen: European Environmental Agency.
- Fergusson, Malcolm et al. (2001). *The Effectiveness of EU Council Integration Strategies and options for carrying forwards the Cardiff Process*. London: Institute for European Environmental Policy.
- Hertin, Julia and Frans Berkhout. (2002). "Practical experiences on policy integration and recommendations for future initiatives on EU and national level". *Paper for the 3<sup>rd</sup> Blueprint workshop: 'Instruments for Integrating Environmental and Innovation Policy'*. Brussels (26-27 Sept. 2002.).
- Hey, Christian. (2002). "Why does Environmental Policy Integration Fail? The Case of Environmental Taxation for Heavy Good Vehicles". In: Lenschow, Andrea. (Ed.). *Environmental Policy Integration. Greening Sectoral Policies in Europe*. London: Earthscan.
- Hey, Christian. (1998). *Nachhaltige Mobilität in Europa. Akteure, Institutionen und politische Strategien*. Opladen and Wiesbaden: Westdeutscher Verlag.
- Hey, Christian and Rainer Röder. (1998). "Güterverkehrs- und Umweltpolitik in Europa. Ein internationaler Vergleich". *Zeitschrift für Angewandte Umweltforschung*, 11 (1), 115-124.
- Jänicke, Martin. (2000). "Environmental plans: role and conditions for success". *Presentation at the seminar of the Economic and Social Committee "Towards a sixth EU Environmental Action Programme: Viewpoints from the academic community"*. Download: [http://www.esc.eu.int/en/acs/events/20\\_06/proceed\\_envi\\_200600\\_e.doc](http://www.esc.eu.int/en/acs/events/20_06/proceed_envi_200600_e.doc) (6/20/2000).
- Jänicke, Martin, et al. (2002). "Governance for Sustainable Development in Germany: Institutions and Policy-Making". in: Organisation for Economic Co-operation and Development. (ed.). *Governance for Sustainability. Five Case Studies*. Paris: OECD.
- Jänicke, Martin and Helge Joergens. (eds) (2000). *Umweltplanung im internationalen Vergleich: Strategien der Nachhaltigkeit*. Berlin: Springer.
- Jordan, Andrew and Andrea Lenschow. (2000). "'Greening' the European Union: What can be Learned from the 'Leaders' of EU Environmental Policy?". *European Environment*, 10, 109-120.

- Jordan, Andrew. (2002). "Efficient Hardware and Light Green Software: Environmental Policy Integration in the UK". In: Lenschow, Andrea. (Ed.): *Environmental Policy Integration. Greening Sectoral Policies in Europe*. London: Earthscan.
- Kraack, Michael, Pehle, Heinrich, and Petra Zimmermann-Steinhart. (2001). *Umweltintegration in der Europäischen Union. Das umweltpolitische Profil der EU im Politikfeldvergleich*. Baden-Baden: Nomos Verlag.
- Kraemer, R. Andreas. (2000). "Results of the "Cardiff Process". Assessing the State of Development and Charting the way ahead". *Report to the German Federal Ministry for Environment, Nature Conservation and Nuclear Safety*. Berlin: Ecologic.
- Kraemer, R. Andreas, et al. (2002). *EU Environmental Governance. A Benchmark of Policy Instruments. With a Focus on Agriculture, Energy and Transport*. Berlin, London: Ecologic and Institute for European Environmental Policy.
- Lafferty, William B. (2001). "Adapting Government Practice to the Goals of Sustainable Development". *Paper presented at the OECD/PUMA Seminar on Improving Governance for Sustainable Development*. Paris (2001-11-22).
- Lafferty, William B. and James Meadowcroft. (ed.) (2000). *Implementing Sustainable Development: Strategies and Initiatives in High-Consumption Societies*. Oxford: Oxford University Press.
- Lenschow, Andrea. (1997). "Variation in EC environmental policy integration: agency push within complex institutional structures." *Journal of European Public Policy*, 4 (1), 109-127.
- Lenschow, Andrea. (2002a): "Greening the European Union: An Introduction". In: Lenschow, Andrea. (Ed.). *Environmental Policy Integration. Greening Sectoral Policies in Europe*. London: Earthscan.
- Lenschow, Andrea. (2002c). "Conclusion: What are the Bottlenecks and Where are the Opportunities for Greening the EU?". In: Lenschow, Andrea. (Ed.). *Environmental Policy Integration. Greening Sectoral Policies in Europe*. London: Earthscan.
- Liberatore, Angela. (1997). "The integration of sustainable development objectives into EU policy-making. Barriers and prospects". In: Baker, Susan, et al. (eds.). *The Politics of Sustainable Development. Theory, policy and practice within the European Union*. London and New York: Routledge.
- Liefferink, Duncan and Mikael Skou Anderson. (eds.) (1997): *European Environmental Policy. The Pioneers*. Manchester: Manchester University Press.
- Marsden, Simon. (1999). "Legislative EA in the Netherlands: The E-Test as a Strategic and Integrative Instrument". *European Environment*, 9, 90-100.
- Marsden, Simon. (1998). "Why is Legislative EA in Canada Ineffective, and how can it be enhanced?". *Environmental Impact Assessment Review*, 18, 241-265.
- Müller, Edda. (2002). "Environmental Policy Integration as a Political Principle: The German Case and the Implications of European Policy". In: Lenschow, Andrea. (Ed.). *Environmental Policy Integration. Greening Sectoral Policies in Europe*. London: Earthscan.
- Organisation for Economic Cooperation and Development (OECD). (2002a): *Sustainable Development. Critical Issues*. Paris: Organisation for Economic Cooperation and Development.
- Organisation for Economic Cooperation and Development (OECD). (2002b). *Policies to enhance Sustainable Development*. Paris: Organisation for Economic Cooperation and Development.

- Organisation for Economic Cooperation and Development (OECD). (2001a). *Environmental Outlook*. Paris: Organisation for Economic Cooperation and Development.
- Organisation for Economic Cooperation and Development (OECD). (2001b). *Environmental Performance Reviews. Achievements in OECD Countries*. Paris: Organisation for Economic Cooperation and Development.
- Organisation for Economic Cooperation and Development (OECD). (1996). *Globalisation: What Challenges and What Opportunities for Government?* Discussion Paper, OECD/GD (96) 64,. Paris: Organisation for Economic Cooperation and Development.
- Pehle, Heinrich. (1998). *Das Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit: Ausgegrenzt statt integriert*. Wiesbaden: Deutscher Universitätsverlag.
- Rodmell, Mark. (2002). "Integrated Policy Appraisal". Presentation at the IEEP-Seminar 'Sustainability Impact Assessment'. Brussels (04/23/02). Download [http://www.ieep.org.uk/Integrated\\_Policy\\_Appraisal.PDF](http://www.ieep.org.uk/Integrated_Policy_Appraisal.PDF) (11/22/02).
- Schepelmann, Philipp. (2000). *Von Helsinki nach Göteborg. Evaluierung der Umweltintegration in der Europäischen Union*. Wien: Sustainable Europe Research Institute.
- Der Rat von Sachverständigen für Umweltfragen (SRU). (2000). *Umweltgutachten 2000. Schritte ins nächste Jahrtausend*. Stuttgart: Metzler-Poeschel.
- Der Rat von Sachverständigen für Umweltfragen (SRU). (2002). *Umweltgutachten 2002. Für eine neue Vorreiterrolle*. Stuttgart: Metzler-Poeschel.
- Sverdrup, Liv Astrid. (1998). "The Norwegian Experience of the Transition to Sustainability". In: O'Riordan, Tim and Heather Voisey. (Eds.). *The Transition to Sustainability: The Politics of Agenda 21 in Europe*. London: Earthscan.
- UNEP – United Nations Environment Programme. (2002): *Global Environmental Outlook 3*. London: Earthscan.
- Weale, Albert and Andrea Williams. (1992). "Between Economy and Ecology? The Single Market and the Integration of Environmental Policy". *Environmental Politics*, 1 (4). 45-64.
- Wilkinson, David. (1998). "Steps Towards Integrating the Environment into other EU Policy Sectors". In: O'Riordan, Tim and Heather Voisey. (eds.). *The Transition to Sustainability: The Politics of Agenda 21 in Europe*. London: Earthscan.