Experiences in the management of research funding programmes for environmental protection

Including recommendations for best practice

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Finnish Environment Institute (SYKE)
FOREWORD

The ERA-NET scheme, which is designed to support the networking of national research funding organisations, is among the means of the European Union to create an integrated European Research Area for innovative knowledge production. The SKEP ERA-NET aims at improving the co-ordination of environmental research, including among other things the management and assessment of research programmes. The Finnish Environment Institute (SYKE) is one of the fifteen SKEP ERA-NET partners. The report is an outcome of the SKEP ERA-NET (www.skep-era.net).

This report, which documents and analyses the practices of research programme planning and management in the EU and also highlights some of the best practices available in environment-related research, has been produced by a team of SYKE researchers. The interviews were planned by Ms Paula Kivimaa, who also took the responsibility for data analysis and writing the report. Dr Pirjo Kuuppo was responsible for the survey and managing the workshop. Ms Marja Nykänen contributed to the planning of the data collection and editing of the report. Ms Paula Väänänen took part in data management and was responsible for most of the graphs in the report. Ms Hanna Mela and Ms Päivi Korpinen carried out the interviews. Dr Eeva Furman led the project and contributed to the planning, analysis and report writing. The authors would like to thank Mr Pekka Harju-Autti and Dr Antero Honkasalo of the Ministry of the Environment of Finland for close collaboration especially during the workshop in Helsinki. Several people from SYKE contributed to the report. Apart from the authors of the report, Professor Mikael Hildén and Professor Saara Bäck contributed to the study. Mr Tuomo Alhojärvi kindly provided technical help with the graphs. The authors would like to acknowledge all those experts who either filled in the questionnaire, gave an interview or took part in the workshop. We thank the SKEP ERA-NET coordination team for fruitful collaboration and the EU for the financial support.
EXECUTIVE SUMMARY

General conclusions

This report documents and analyses the practices of research programme planning and management in the EU and highlights some of the best practices available in environment-related research. Information on the research programme management of thirty-seven case programmes of eight countries was collected through a questionnaire survey. In addition, interviews regarding research programme management in seven countries and workshop discussions among twenty-one representatives from nine countries were used to gain comprehensive insight examples.

There is a great deal of variation in countries’ experience in programme management. Based on the country experiences from the study, readers are provided with set procedures and practices for the research programme management. The variety of funding structures and governance cultures, however, requires flexibility in implementing the recommended procedures, and the recommendations of the report should be interpreted in such a way. For example, the ways to deal with stakeholders may require different mechanisms in different cultural contexts.

Certain basic elements of the management logic should nevertheless be followed. A way to find the logic is to carefully plan the management process well in advance. The report suggests that apart from objectives and goals some general policies and their action plans, including dissemination, evaluation and gender issues, should also be prepared for the programme and its management. Activities taking place in the implementation and closing phases of a programme should be planned beforehand, yet leaving space for fine tuning while the programme runs.

For the sake of continuity it is crucial that lessons learned be translated to future programmes which aim to contribute to the innovative European knowledge production. The executive summary lists the recommendations for best practice regarding research programme management that arise from the analysis of environment-related research management in the EU.

Recommendations

1. Research programme initiation: scope, funding and evaluation of proposals

Starting up a research programme – scope, funding and objectives

A research programme needs clear boundaries and scope. Programmes should be defined broadly enough to enable meaningful research projects for academics but still specifically enough to have a common perspective and to enable a successful monitoring of progress. They should have realistic and specific objectives, and clearly defined criteria that are communicated to the applicants and proposal evaluators.

Different stakeholders should be involved in scoping the programme at an early stage, for example, through stakeholder seminars or consultations. The involvement of industry is important in programmes that generate industry-relevant results or policy-relevant results. NGOs could also be included. The involvement of different stakeholders adds transparency.
Seminars and workshops are transparent and effective tools for discussing organisations’ interest and commitment to funding research, and for the scope and objectives of a programme. A pre-assessment of the research area may be beneficial in setting up the programme scope and objectives. While a comprehensive assessment generates a lot of information for the applicants, this is a fairly heavy way of setting up a programme.

The duration of the programme should be sufficiently long to generate meaningful results. Budget and time limitations should be taken into account in programme planning, and overambitious goals should be avoided.

Calls for project proposals, their evaluation processes, and criteria for evaluation
An open two-step process for inviting project proposals can be used in larger research funding programmes. The intent applications in the first round show what is being done in the research field, and enable the more promising projects to be invited to submit a full research plan.

Clearly defined criteria that are linked to the objectives of the programme and that are followed strictly and transparently in evaluating the project proposals reduce problems during the programme. Scientific quality is the most important criterion. It should, however, be balanced with other important criteria, such as policy relevance, collaboration (with other researchers, with stakeholders) and innovativeness. In addition, other useful criteria can be used, such as those related to benefits to society or to the dissemination of results.

A panel or a group of people should be used in evaluating project proposals to take into account the wider perspective and make the evaluation more diverse. The panel members should also reflect the criteria used in evaluating the proposals.

Matching programme objectives and project selection criteria
Objectives and criteria related to the relevance of the programme results to the public or society make public research programmes deliver benefits to the society. Thus, “policy relevance” and/or “applicability of results”, or at least their feasibility as objectives and criteria, should be considered in the start-up phase of each programme. For programmes intended to be policy relevant, objectives related to policy relevance should be reflected in project evaluation criteria.

A combination of science and policy relevance is important both in setting the objectives and project selection criteria. For example, a research programme on biological diversity could focus both on ecosystems and on the management side of biodiversity.

2. Research programme coordination and collaboration between projects

Programme management structure
A good research programme coordination strategy covers the scope, budget, duration, and the purpose of the programme. A key person who is supported by a core team should be selected to manage the programme. Responsibilities for management tasks can be shared between the key person and the core team members. The tasks of programme management include communication with projects and the programme board, ensuring the dissemination of information and results to different stakeholders, monitoring progress and technical quality, solving problems and balancing risks, handling finance issues and ensuring delivery according to the time schedule.
Using a programme board whose members are motivated and reflect the aims of the programme is also recommended. A programme board may consist of a variety of members including representatives of funding agencies, scientific experts, and the end-users of results, e.g. from public administrations, businesses and NGOs. A separate steering committee can be used for following up and advising the programme or individual projects. In this case ensuring the commitment of the members of the committee is important.

**Following up the progress of projects**

Progress reports should be submitted by projects to programme management periodically (e.g. every six months or annually). Programme management can use intelligent and innovative reporting formats by issuing guidelines to projects that include specific themes or questions to be addressed in the reports. The periodic progress reporting can be matched with the payment of funds, so that projects receive funds for each next period only after submitting the progress report.

The system of processing progress reports should be transparent, especially when connected to the payment of funds. The responsibility for reviewing progress reports should be specifically assigned to someone, e.g. the programme coordinator, programme board, external experts, or personnel of the funding organisation. In some cases, the funding agency can benefit from assigning the responsibility for reviewing progress reports to in-house people. This way detailed information and knowledge from the research projects is effectively transferred to the funding organisations.

Annual programme seminars and smaller seminars involving the programme board can also be used as an aid to reviewing progress. In the seminars projects can present their results in a more interactive manner.

**Promoting collaboration and information exchange between researchers**

Collaboration between researchers can provide added value on research funding programmes. Collaboration, nationally and internationally, can be encouraged through 1) project funding criteria, 2) recommendation to merge two closely related project proposals, or 3) various activities during the programme. The focus on collaboration should be in proportion to the size of the programme, and not place too heavy a burden on projects or on programme management. For instance, the main effort should only be focused on one aspect, either collaboration within projects or between projects.

During the programme, collaboration and information exchange can be encouraged through annual conferences, thematic small group seminars, joint publications, and the Internet. Informal meetings are also useful for generating true collaboration. A specific person, for instance on the core team or programme board, can be assigned to plan collaboration activities.

**Motivating researchers**

Motivation in research programmes can be related to general incentives given to researchers to do their work better and to incentives supporting doctoral training. Motivation of researchers to take part in the programme can be raised, for example, by providing possibilities for researcher training, mobility and career development.

**Managing gender issues**

Paying attention to gender issues can be one way of motivating researchers to take part in the research programme. The gender issue can be acknowledged in the overall organisation policy of the funding organisation and reflected in research programmes throughout their duration.
3. Dissemination of research results

Disseminating research results related to research funding programmes can be divided into two categories: 1) projects disseminating their specific results and 2) programmes disseminating results more generally, i.e. synthesising results from several research projects. Indispensable features related to dissemination include a communications or dissemination plan for the programme and/or for projects, information in popular and professional language in addition to scientific reporting, the reporting obligation of the management team to be continued after the programme, and a budget allocated for stakeholder communication on project and programme levels. These elements can be facilitated by allocating time for identifying relevant stakeholders, ensuring the presence of high level officials in workshops and seminars, having stakeholders present on programme boards or steering groups, and marketing the research programme and its projects in different stakeholder events and forums. It can also be useful to assign specific people to translate research results for general use. Further recommendations on dissemination will be provided by SKEP in 2008.

4. Ex post evaluation of research carried out

The ex-post evaluations often used include both self-evaluation and external evaluations of research programmes. A self-evaluation of the research programme and projects can yield important information on how to improve research programmes in the future due to the hands-on experience of the participants. External evaluations should be used to generate a wider picture of both the outputs and the functionality of the programme as a whole. An interim evaluation can also be used to improve the latter part of the programme.

Attention should be paid to the timing of the final evaluation as dissemination processes and the use of the results in policy may take time. Sufficient money and time should be allocated to programme evaluation activities. A specific evaluation protocol that defines the contents of the evaluation is useful in targeting and carrying out the evaluation as planned. Evaluation should also look at the research programme’s impacts on society as well as the elements defined in the programme objectives. Further recommendations on evaluation will be provided by SKEP in 2007.
1 Introduction

The importance of knowledge and research has been highlighted by the EU for reasons of competitiveness and sustainability, e.g. in the Lisbon strategy for economic, social and environmental renewal and in the Environmental Technologies Action Plan (European Commission, 2004, 2005). In the EU’s Sustainable Development Strategy, investments in science are emphasised on the basis that advances in knowledge and technological progress are linked to economic growth and social and environmental sustainability.

The EU has responded to the requirement to support innovative knowledge production by promoting an integrated European Research Area. Research Framework Programmes are the main tool to support the European research. The ERA-NET scheme is specifically designed to support the networking of national research funding organisations, and is an important part of the on-going sixth Framework programme.

Current research points towards increasingly internationalising systems for knowledge generation and innovation (e.g. Carlsson, 2006; Stein, 2004). For instance, the EU science and technology policy has been oriented towards leadership in growth and competitiveness in knowledge intensive economic activities by the end of the current decade (Von Tunzelman and Nassehi, 2004). However, it has also been found that despite the initiatives to internationalise research activities, public research and development programmes are still largely funded and coordinated by national bodies (Carlsson, 2006). National science and technology policies have unique features related to different research fields, organisations and countries. Common elements, however, that can be flexibly applied in other countries, can be identified so that research for environmental protection can be effectively advanced.

There are two basic types of formal institutions for research and technological development: organisations and programmes (Stein, 2004). Organisations present a fairly established structure to provide funding and carry out research. Public research subvention schemes and schemes set up for developing management of innovation at firm level act among the tools for competence-building and generation of incentives (Borrás 2004, 429). Research programmes, therefore, can have a role to play in what kind of competences and innovations are favoured and supported. It has been argued that the role that research will play in facilitating sustainable development is critically dependent on what kind of research is funded and how the public funding agencies determine priorities (Möbjörk and Linner, 2006).

Programme management as a discipline has been defined as “the integration and management of a group of related projects with the intent of achieving benefits that would not be realised if they were managed independently” (Lycett et al., 2004). Many programmes can be described as social interventions, when they have been provided to the community by government on the basis of non-market criteria, in areas such as welfare, health and education (Owen and Rogers, 1999). A public research programme can be defined as an important tool for the development of research, science policy, research funding and co-operation of different actors, which is confined in topic or by problem definition, has a fixed-period and is a directed aggregate of research projects. A programme can emerge from an internal development need in a science or research field, from a support need of a new emerging field, or from the need to produce new knowledge on a theme perceived socially important. (Oksanen et al., 2003). According to Davenport et al. (2003), the last mentioned need has become more prevalent, as the users of the research are increasingly involved.
SKEP (www.skep-era.net) is one of the EU-funded partnerships for ERA-NET. It includes fifteen governmental ministries and agencies from eleven European countries responsible for funding environmental research. It aims at improving the co-ordination of environmental research in Europe in order to enhance the cost-efficiency of research, encourage innovation through more efficient use of research funding, and to further the environmental protection capability by laying the foundations for co-ordinating research programmes (Figure 1.1).

Figure 1.1. Schematic presentation of the SKEP ERA-NET

As part of work package 3 of SKEP “Best practice in programme management and assessment”, this report examines the practices in research programme planning and management in the European Union and highlights some of the best practices available in environment-related research. The study is based on a questionnaire survey distributed in eleven Member States, interviews in seven European countries, and workshop discussions between research funding experts from nine countries and sixteen different organisations. The study was carried out in spring 2006 by the Finnish Environment Institute (SYKE) with the support of the Ministry of the Environment of Finland (FiMoE). FiMoE shares the responsibility for WP3 leadership with SYKE.

The report is divided into ten chapters. After setting the scene through introductory remarks, the SKEP partners are presented (Chapter 2). In Chapter 3, the approach is broadened from single funding bodies to the national funding structure. The text refers to Appendix I, where examples of various countries are given. In Chapter 4, a flow chart of a model research programme process is given to provide an overview of the entire life cycle of research funding programmes. Chapters 5 to 10 take us to the main study. We start with presenting the methods used (5). The outcomes are divided under two major topics: research programme initiation: scope, funding, and evaluation of the projects (6) and research programme coordination and collaboration between projects (7). Dissemination of research and its outcomes (8) and expert evaluation of the programme outcomes (9) are touched upon only to a limited degree, as the SKEP will dig deeper into the two issues in its later phases (2006–2008). The report ends with conclusions that draw together the best practices presented in Chapters 6–10.
2 SKEP ERA-NET partners

The SKEP ERA-NET has fifteen partners in eleven European countries. The partners are all linked to the funding of environmental research but their roles vary depending on their mandate (Figure 2.1). The most common role is that of ministries with responsibilities for the environment or sustainable development. As part of the government they plan, advise and make decisions, and often also support the implementation of environmental policy. In addition, they all fund policy relevant research. The Ministry of Ecology and Sustainable Development (MEDD) in France, The Ministry of the Environment (FiMoE) in Finland, the Federal Ministry for Land and Forestry, Environment, and Water Management (BMLFUW) in Austria, the Ministry of the Environment and Protection of the Territory (MATT) in Italy, and the Ministry for Housing, Spatial Planning & Environment (VROM) in the Netherlands can be counted as organisations with the above roles. Some of these organisations have a division that concentrates solely on research funding. This is the case in MEDD, MATT and, to some extent, in BMLFUW. In FiMoE and VROM research is coordinated mainly through operational units. In these organisations there is a clear objective to fund research that supports their own duties such as decision making and advising the government and the parliament.

![Figure 2.1. The roles of the SKEP member organisations](image)

Some countries have made an arrangement whereby one or more agencies have responsibilities for managing public funding for research relevant to environmental policy. These agencies also have responsibilities such as supporting the implementation of policies and carrying out development activities. Four SKEP member organisations have this kind of a role. The Swedish Environmental Protection Agency (SwEPA), the Irish Environmental Protection Agency (IEPA), the Agency of the Environment and Energy Control (ADEME) in France and to some extent the Flanders Environment Ministry (AMINAL) share this role. These organisations also have a motivation to fund research programmes that have outcomes supporting their duties.
There are three partners in SKEP which only serve as funding bodies regarding environmental issues. These include the Ministry of Scientific Research and Information Technology (MSIST) in Poland, the Research Council of Norway (RCN) and the Federal Public Planning Service Science Policy (BELSPO) in Belgium. They provide funding and have a role in research policy in their respective countries. These organisations are not able to use the research outcomes in their activities except regarding the quality and quantity of academic merits gained through their funding.

In addition to the direct funding organisations, three organisations which support environmental policy implementation and carry out development work are included in the SKEP partnership. They all have their own science programmes and they commonly take part in the planning processes of the national research funding in the field of environment. In addition, their mandate brings them into a close relationship with the government. The Environment Agency for England and Wales (EA), The Institute of Environmental Protection (IEP) in Poland and the Finnish Environment Institute (SYKE) are partners of this kind.

All the SKEP partners are presented in more detail on the SKEP website www.skep-era.net, which also includes links to the websites of these organisations.
3 National research funding in Europe

One of the objectives of SKEP is to develop synergy between countries’ existing research and innovation programmes and to strive to develop mutual openings for collaborative work areas, such as calls for funding and co-funded research work. In order to facilitate these activities it is essential not only to highlight the uniting characteristics of the national funding systems but also to acknowledge the differences and possible obstacles to joint activities. It turned out during this survey that not even the concept of a research programme was as self-evident as we assumed.

Examples from selected national public research funding structures provided by seven SKEP partners (Appendix I), demonstrate the wide variety found in the governance of research funding in Europe. This variety poses particular challenges for building shared management practices across Europe.

National research funding policy is often developed by an independent committee of experts working under the authority of the government or one or two of the ministries. The policy is usually presented in a framework document covering several years. However, the implementation of the research policy varies from one country to another. In some cases there are one or two ministries that are fairly independently responsible for distributing the major part of the funding, in other cases the implementation is channelled via various actors.
4 Research management process: a conceptual model

Research management can either be seen as a project or as a process. Funding activity through several individual research programmes is a continuous process where the programmes implement the research strategy of the funding organisation. However, each of the programmes, or temporally identified funding activities, should be seen as a single project that has a beginning and an end. This helps to make the programmes logical to the actors involved, and including various pre-defined phases for carrying out a programme and its planning is seen as indispensable. The linkage between the project and the process levels needs to be recognised. Lessons learned from one programme have to be fed into the planning and implementation of the subsequent and ongoing programmes.

Figure 4.1 illustrates a model of the process for planning and implementing a single research programme by identifying what needs to be done in the different phases and by whom. The figure is based on the outcomes of the empirical work carried out for this report. In particular, the model emphasises the recommendations given in Chapters 6–9 of the report.

Some SKEP partners have developed their own organisational management plans for projects. Elements of these could be used when moving to build an organisation’s model for programme management. The EA cradle to grave (C2G) toolbox is a useful example. The tool is placed in the EA extranet to be used by all EA employers. It includes:

- Reviewers’ guidance
- A Science Project Lifecycle Chart
- Roles and Responsibilities
- Frequently Asked Questions
- How to Manage a High-Risk Science Project
- How to Manage a Low-Risk Science Project
- How to manage a Medium-Risk Science Project
- Business Justification Template
- A Science Budget Plan in Exel
- A Form for Assessment of Impacts on Internal Operations in EA
Figure 4.1. Model of the different phases in research funding programmes
5 Methods of the study

The empirical data for this study were collected using four methods: a literature review, a questionnaire, thematic interviews, and input from representatives of research funding organisations through plenary and group discussions during a workshop organised in April 2006. This type of data triangulation provides more comprehensive data on the issue at hand. To be able to draw up recommendations for good practices from programme management, we have collected knowledge from concrete cases, from experts’ perceptions and from conceptual analyses of the effectiveness of programme management.

5.1 Questionnaires

The questionnaire (Appendix II) was sent by SYKE to all eleven SKEP partner countries. The partners then distributed the questionnaire more widely. The questionnaire was targeted at various experts who (or whose organisations) were responsible for or had taken part in a research programme, or had taken part in the organisation or evaluation of a research programme. The questionnaire covered themes from the initiation and target-setting of research programmes to their management, motivation of researchers and dissemination of the results. Each completed questionnaire was intended to deal with experiences from one specific research programme. The aim was to find out about innovative successful solutions that have taken place or that have been used in the initiation, management and evaluation of various research programmes around Europe, as well as to reveal reasons behind failures and weaknesses associated with past programmes.

Figure 5.1.
Thematic areas of research programmes covered in questionnaires (a specific programme may cover more than one thematic area)
Altogether 37 replies (Appendix III) to the questionnaire were received from eight participating countries. The thematic areas of the programme ranged from natural sciences to socio-economic research, while the majority of the programmes dealt with water, soil, biodiversity and environmental policy issues (Figure 5.1).

The majority of the programmes were multidisciplinary, interdisciplinary or transdisciplinary, consisting of several thematic areas of research. The number of projects varied from 8 to 500 (average and median 89 and 46), while the budget ranged from circa 1 million € to 200 million €. The majority of the answers concerned programmes of 3–4 years duration. However, there were also longer programmes with a lifetime of 6 to 10 years. While 27 out of 34 programmes were still ongoing, three were finished more than four years ago and four less than four years ago.

5.2 Interviews

Interviews with experts involved in the start up, funding, coordination, management and evaluation of environmentally focused research programmes were used to illustrate important elements, good practices and challenges in research management through programmes (Appendix IV). Sixteen interviews were conducted during the period March–April 2006 in seven European countries: Belgium, Finland, France, the Netherlands, Norway, Poland and the UK (Figure 5.2).

The interviews covered experiences from nine different research programmes and some general comments on research management. The programmes were selected from the cases provided through the questionnaires on the basis of their focus on biodiversity or environmental technology. New contacts were also made with organisations which had not participated in the survey. Due to the wide scope of the research programmes selected, they also covered themes related to environmental policy, human health and the environment, global change, air, water and soil (Figure 5.3).
5.3 Workshop discussions and other input from SKEP partners

A two-day workshop was organised in Helsinki, Finland, 27–28 April 2006 hosted by the Ministry of the Environment of Finland and the Finnish Environment Institute. A preliminary invitation was extended to the SKEP partners at the start-up meeting in June 2005. The workshop was further advertised when the survey questionnaire was circulated in December 2005. The invitation was open to anyone who received the questionnaire and, thus, it was not limited to the SKEP partners only. The workshop brought 21 participants to Helsinki in addition to the organisers from SYKE and the MoE Finland (Appendix V).

The workshop was structured around presentations, group discussions and plenary discussions (see programme in Appendix VI). The group sessions concentrated on two topics (A and B, see below). Two case presentations were given prior to both sessions. There were four groups in both sessions. Each group had a chair and a rapporteur to report back to the plenary session and to collect material for a subsequent analysis to be used in this report. The discussions outside the group sessions were also thoroughly reported and analysed for the same purpose.

Each group had 4–6 participants and the combination of individuals in each group was changed between the sessions. Four questions were posed at both sessions. As there were four groups, each group was asked to start with one of the questions and touch upon the others only if time allowed. In this way all the questions were covered by at least one of the groups. The participants were asked to consider separately the indispensable factors and the facilitating features, but most of the discussions did not reach this level of detail.

Figure 5.3. Thematic areas of research programmes covered in interviews (a specific programme may cover more than one thematic area)
The topics and the questions of the group discussions were the following:

A. Programme initiation: scope, funding, and evaluation of proposals:
1. How should the programme focus, scale, objectives, duration be agreed upon?
2. How should funding be negotiated and agreed upon among and within funding organisations?
3. What kind of criteria and procedures should be applied when evaluating project proposals?
4. How should collaboration be promoted in the phase of initiation within / between funding organisations, researchers and other stakeholders such as the private sector and NGOs?

B. How can programme management support collaboration between projects:
1. What are the key factors ensuring successful management / coordination of a programme (that is supported by several funders)?
2. How should the programme management / co-coordinator ensure the flow of information from the projects to the management and between projects and stakeholders?
3. How can collaboration between projects be supported by the programme?
4. How should the programme management/co-ordination ensure that the programme produces an overall policy relevant synthesis of the findings?
6 Research Programme Initiation: scope, funding and evaluation of proposals

6.1 Scope, funding and objectives of research programmes

In the countries studied, public research programmes are generally financed by ministries or national research organisations, such as the Research Council of Norway, NWO Netherlands Organisation for Scientific Research, or the Academy of Finland. National research organisations may also act as coordinators of research funding provided by the ministries.

The need for a new programme may arise from several different contexts. According to the survey, the need for a new programme is most often identified by the scientific community, governmental administration and policymakers (Fig. 6.1.1). The general public, NGOs and the media have a relatively small role in identifying the need for new research. Consulting services may or may not be used for programme planning.

A programme can be set up by one or more research organisations. Negotiations on joint funding of a research programme between several funding organisations depend largely on achieving consensus between the organisations on programme objectives and criteria. It was noted in the workshop discussions that negotiation will be difficult if the financiers do not agree on the criteria for projects to be funded. In some countries, there is only one or two research funding organisations, and negotiation plays a smaller role. According to the survey results on national research funding programmes, approximately two thirds had not experienced conflicting views on objectives (Figure 6.1.2). Issues such as national interests and willingness to fund foreign research projects play a role in international research programmes that are funded by funding organisations from different countries.
In the workshop discussions, ways to get started when several organisations are involved in the research programme planning process were suggested by the participants. These included discussions between either merely the potential funding organisations or a wider group of stakeholders:

- Get potential funding organisations together for a scoping exercise for a programme. After the first session, a smaller group of funding organisations who really want to fund the programme will make more detailed plans for funding.
- Gather together scientists, representatives from funding organisations, and other stakeholders for a round table discussion.

Programme objectives may arise from issues perceived to be politically important, such as specific questions from policymakers, or they may be set through different procedures around relevant research themes. The interviews revealed that sometimes finding a balance between the scientific goals and the practical questions – aspects that were mentioned to be most relevant for research programmes – can be difficult. In some cases, a programme board or a specific programme development committee can be responsible for setting the programme objectives. According to the interviews, the methods for objective setting include:

- pre-assessment or background reports on the issue at hand
- stakeholder seminars and consultations
- preparation committees that often include representatives from funding organisations and/or from universities.

The survey results show that seminars and consultations are the most commonly used methods to set the objectives (Fig. 6.1.3). Conflicting views on objectives appear to be more common when expert consultations are used than in seminars (Figure 6.1.4), perhaps because consensus may be easier to achieve when people meet up to discuss in a seminar or a workshop.
The objective setting procedures can be designed to include different stakeholder groups, for instance, through seminars that are open to the public or through private consultations with representatives from different stakeholder groups. The composition of the “steering group” involved in programme planning can also include representatives from different stakeholder groups. The latter was viewed in the workshop discussions as a way to promote collaboration between different actors and organisations. Example 6.1A describes how different stakeholders have been included in preparing a programme on fine particles, while Example 6.1.B tells describes the division of tasks between two groups of stakeholders in research programme planning.

Example 6.1A

**Preparing a research programme in collaboration with different stakeholders**

In preparing a research programme on technological, health and environmental issues related to fine particles, carried out during 2002–2005, an extensive preparation stage included representatives from both research organisations and industry. Researchers brought the latest information on small particle know-how and future developments, while industrial and company representatives pondered the business opportunities. The objectives were set through these discussions.

Example 6.1B

**Division of tasks between stakeholder groups in preparing a research programme**

A steering committee composed of representatives from the ministries of health, environment, transport and research, were involved in planning the main priorities and design of a research programme on health and the environment. In addition, a scientific council was used for defining the precise research questions of the programme and in evaluating the project proposals.

The importance of including scientific experts in programme planning was noted, because programme planning needs people who are skilled in translating general issues into more specific research questions to be addressed. The involvement of scientific experts in programme planning, however, may in some cases cause ethical problems. In one research programme, the programme board members were researchers or directors of research organisations, and a few of the board members...
also managed to obtain funding from the same programme for projects that they were involved in. This was handled by the programme administration by including some international experts in the programme board to bring an outside perspective on the process. Is this sufficient to guarantee the objectivity of the programme board? In the workshop discussions it was pointed out that scientists do not always know the needs of the private sector.

The workshop discussions also considered the fact that the role of NGOs could be greater in research programme planning but not in the actual research carried out. For example, in the UK, NGOs are involved in planning the scope and questions of programmes, and their involvement is perceived to be of added value in the planning phase.

The interviews revealed some general research programme objectives in addition to those related to the subject areas of the programmes. International networking, innovativeness, and benefits to the public or society were the most commonly mentioned. Support for policymaking was also frequently mentioned.

Recommendations for best practice in starting up a research programme

- A research programme should have clear boundaries and scope; it should have realistic and specific objectives, and clear criteria that are communicated to the applicants and proposal evaluators.
- Programmes should be defined broadly enough to enable meaningful research projects for academics but still precisely enough to have a common perspective and to enable successful monitoring of progress.
- Different stakeholders should be involved in scoping the programme at an early stage, for example, through stakeholder seminars or consultations. The involvement of industry is important in programmes that generate industry-relevant results or policy-relevant results. NGOs could also be included. The involvement of different stakeholders adds transparency.
- Seminars and workshops are transparent and effective tools for discussing organisations’ interest / commitment to fund research, and the scope and objectives of a programme.
- A pre-assessment of the research area can be beneficial in determining the programme scope and objectives. While a comprehensive assessment generates a lot of information for the applicants, this is a fairly heavy way of setting up a programme.
- The duration of the programme should be sufficiently long to generate meaningful results. Budgetary and time limitations should be taken into account in programme planning, and overambitious goals should be avoided.

6.2 Calls for project proposals, their evaluation processes, and criteria for evaluation

In selecting projects for a research programme, the most commonly used procedure is an open call. In some cases, a two-step system is used, in which some of the proposals are selected to a second round of evaluation based on a “letter-of-intent” phase. A two-stage evaluation procedure (letter-of-intent followed by the ‘real’ submission of proposals) has proven to be applicable in research programmes where there are many project proposals. This was viewed positively by the workshop participants. An
interviewee representing a research group that received funding from a programme also views the two-step system positively, because the intent applications show what is actually being done in the research field and by whom.

Projects can be selected and funded – although not always – as they are described in the original research project proposal. Modifications may be required by the financier before acceptance. For instance, a merger of two different proposals may be suggested if they cover similar research. Often less funding is provided compared to the amount requested. As an extreme example, one programme was only able to award approximately 10 percent of the applied research amount to some of the projects, because they had received several applications that were of high quality and relevant for the ministries. This worked against the assumption of the workshop discussions that “only the best of the best projects” should be selected and funded.

Criteria for selecting the funded research projects are usually based on meeting the objectives set for the programme. According to the survey, research group competence, national and international collaboration, scientific quality and innovativeness are the most used criteria for project selection (Figure 6.2.1). In the survey results, innovativeness of projects is often regarded the same as interdisciplinary and international collaboration. Despite their importance, NGO/public relevance and private sector relevance are rarely considered in evaluating project proposals.

**Figure 6.2.1.** Criteria used in assessing the project proposals
Several criteria that are of general relevance to project funding were mentioned by
the interviewees, listed in order of prevalence:

- **Scientific quality of the proposal and the competence of the research team:** This was
demanded crucial for the success of the projects by most interviewees.
- **International and/or national networks of researchers within projects:** This was a
criterion frequently mentioned by the interviewees.
- **Policy relevance:** According to the interviews, this is used especially in social
  science research but increasingly also in natural science focused programmes.
- **Innovativeness in terms of the research field in question:** This was used as a crite-
  rion in research programmes in three countries participating in the interviews.
  One interviewee identified new ideas in research as important.
- **Societal benefits:** This criterion was in two of the research programmes that
  the interviews covered. In addition, the importance of the results’ relevance
to public was mentioned by one interviewee.
- **The applicability of results in practice:** This was highlighted by interviewees
  from two countries.
- **Industry/business relevance or contacts:** This was included as a criterion in two
  research programmes from one country. This may also include a co-financ-
ing requirement from business to projects, as pointed out in the workshop
discussions. Private sector relevance was used by fourteen percent of research
programmes based on survey results.
- **Researcher training:** This was a criterion in one research programme.

Interdisciplinarity was mentioned as a potential criterion in the workshop discus-
sions. This was not included in the survey as an option, and none of the interviewees
identified it as a criterion for funding. According to an interviewee, interdisciplinary
programmes can create problems when the researchers do not find the programmes
interesting enough to apply for when compared to the work needed for setting up
an interdisciplinary project. Another interviewee said that it is often easier to write
a good application focused on one discipline alone. Moreover, in the workshop dis-
cussions, a participant claimed that interdisciplinarity often rates poorly in a normal
proposal evaluation even if it is good interdisciplinary research.

Gender issues were not mentioned among the criteria in the interviews. Neither
were they emphasized as a criterion for project selection in the survey. Although this
was seen as an important issue, two interviewees argued that focusing on gender may
divert the focus away from the scientific competence of the researchers involved in
the projects. However, there are other ways in which gender issues can be taken into
account in research funding programmes (see Chapter 7.5).

The criteria used should be clearly defined. For instance, according to the workshop
discussions, the use of the word “relevance” should be explained. “Dissemination”
or “a dissemination plan” was also identified as a new criterion by the workshop
participants that should be included in proposal evaluations.

A variety of methods has been used in assessing the project proposals and selecting
the funded projects based on the interview results. These include:

- In-house experts in the funding organisation assessing project proposals and/or
deciding on the funded projects
- External national and/or international experts assessing project proposal
and/or deciding on the funded projects
- A programme steering group deciding on the funded projects
- Thematic evaluation teams (3–10 people) that quantitatively and/or qualita-
tively assess how each of the proposals meets the criteria set
- A combination of a management committee and thematic subcommittees of
external experts.
According to the survey results, national and international scientific experts are most often used in reviewing the project proposals sent to the programme (Figure 6.2.2). The workshop discussions highlight that the people taking part in evaluations should correspond to the criteria. This implies that policymakers should be involved in evaluating policy relevance and scientists in evaluating scientific value or quality. Policy relevance tends to change when politics change and, thus, scientific quality should be the overriding criterion. Figure 6.2.3 shows that scientific experts are most often used in reviewing both criteria related to scientific quality and policy relevance. Moreover, policymakers are often absent from evaluating project proposals, where one of the criteria is policy relevance.
Combining two phases in an evaluation – by scientific experts and by a panel of stakeholders – can be useful but also expensive. When including many different stakeholders and end-users in evaluation panels, the risk of conflicting interests between stakeholders must be taken into account. Examples 6.2A and 6.2B below describe some practices to advance the transparency and impartiality of reviewing project proposals.

Example 6.2A

**Combination of national and international experts in selection committees**

In a research programme related to nature development, all the project proposals were evaluated by subcommittees formed by foreign experts, who evaluated the scientific quality of the proposals without the names of the researchers involved. The management committee, composed of national experts, checked the relevance of the projects to policy. Foreign experts were used to guarantee the impartiality of the project selection.

Example 6.2B

**Project selection procedure based on many evaluators and graded criteria**

A research funding programme combining a variety of environmental topics used a systematic procedure for evaluating and selecting the research projects, based on evaluation teams and grades for meeting the different criteria. A sufficiently large number of people (4-7) was used in evaluating each proposal. The evaluators gave the proposals grades for responding to each criterion, and the average scores of the proposals were used to rank them and decide on the funded projects. The measures aimed to make the process more transparent to outsiders.

**Recommendations for best practice for evaluating project proposals**

- An open two-step process for inviting project proposals can be used in larger research funding programmes. The intent applications in the first round show what is being done in the research field, and enable the more promising projects to be invited to submit a full research plan.
- Clearly defined criteria, linked to the objectives of the programme and followed strictly and transparently in evaluating the project proposals reduce problems during the programme.
- Scientific quality is the most important criterion. It should, however, be balanced with other important criteria, such as policy relevance, collaboration (with other researchers, with stakeholders) and innovativeness.
- In addition, other useful criteria can be used, such as those related to societal benefits or to dissemination of results.
- A panel or a group of people should be used for evaluating project proposals to take into account the wider context and make the evaluation more diverse. The panel members should also reflect the criteria used in evaluating the proposals.
6.3

Links between setting up programme objectives and evaluating proposals

In order to ensure a meaningful process for initiating and planning a research programme, the objectives and objective-setting procedures should be matched with corresponding elements in the criteria set for evaluating project proposals and in the procedures used.

In comparing the general objectives of the funded research programmes to the criteria used in evaluating project proposals, Figure 6.3.1 shows that project selection criteria related to policy relevance are more common in cases when policy relevance or political relevance have been the general goals of the programme. By contrast, project selection criteria related to scientific quality are the most common criteria in all cases.

Figure 6.3.1.

The use of policy relevance and scientific quality criteria in programmes with similar objectives. Scientific quality is the most used criterion in all cases. The policy relevance criterion is slightly more common in programmes with objectives for policy or political relevance.

The need for collaboration and innovativeness were also common objectives in research funding programmes. According to Figure 6.3.2 general programme objectives related to either innovation or collaboration are usually followed by similar criteria for evaluating project proposals.

If policymakers have been involved in identifying the need for a new research programme, the programme might be expected to contain policy relevance as a criterion for evaluating the project proposals. According to Figure 6.3.3, a criterion for policy relevance has been relatively most common when media and the private sector have been involved in identifying the need for a new programme. Moreover, the involvement of governmental administration or politicians has not always resulted in a criterion for policy relevance.
Figure 6.3.2.
The use of innovativeness and collaboration criteria in programmes with similar objectives. E.g. innovativeness is used as a project funding criterion in nearly all the programmes with this as an objective.

Figure 6.3.3.
The use of a policy relevance criterion based on the stakeholders identifying a need for a new research programme. A project selection criterion for policy relevance does not always occur even when politicians or those working in the administration are identifying the need for a new programme.

Figure 6.3.4 explores whether there is a connection between the procedures used in setting programme objectives and the appearance of selected project selection criteria that stress relevance for different actors and processes in society. It appears that seminars and workshops bringing together different stakeholders are the most common, but more private expert consultations have also been used in programmes having objectives stressing societal relevance. Questionnaires have been more common in programmes with a criterion related to private sector relevance. It must be noted that the overall number of those programmes that have societally relevant objectives is fairly small and only tentative conclusions can be drawn.
Benefits to society will be derived from objectives and criteria mindful of social and public relevance in research programmes. “Policy relevance” and/or “applicability of results”, or at least their feasibility as objectives and criteria, should be considered in the start-up phase of each programme. For programmes intended to be policy relevant, such policy relevance of objectives should be reflected in project evaluation criteria.

A combination of scientific and policy relevance is important in setting both the objectives and project selection criteria. For example, a research programme on biological diversity could focus on both ecosystems and the management side of biodiversity.

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**Figure 6.3.4.**
Different methods used for setting programme objectives, presented according to selected societally relevant project selection criteria.

**Recommendations for best practice in matching programme objectives and project selection criteria**

- Benefits to society will be derived from objectives and criteria mindful of social and public relevance in research programmes.
- “Policy relevance” and/or “applicability of results”, or at least their feasibility as objectives and criteria, should be considered in the start-up phase of each programme. For programmes intended to be policy relevant, such policy relevance of objectives should be reflected in project evaluation criteria.
- A combination of scientific and policy relevance is important in setting both the objectives and project selection criteria. For example, a research programme on biological diversity could focus on both ecosystems and the management side of biodiversity.
7 Research programme coordination and collaboration between projects

7.1 Programme management structure

Research programme coordination and the structure and responsibilities of the management team are extremely variable, according to the interviews. A good coordination strategy is determined by the scope, budget and duration of the programme. A research programme is usually managed by either a programme coordinator or a programme manager. This person may be either an employee of the funding organisation or an external consultant contracted to do the work. A leader was perceived to be important by many of the interviewees. According to the survey results, an employee of the funding organisation is most often used for coordinating a programme (Figure 7.1.1). The manager can be employed for the purpose by a job announcement or an open call, and should have undergone some management training. In the workshop discussions, time schedules, balancing risks, and ensuring delivery were recognised as responsibilities of the programme manager.

The independence of the programme coordinator/manager varies. The majority of the programmes have management committees or programme boards that usually consist of representatives from funding organisations, but often include scientific experts or other stakeholders, such as trade or employee organisations. According to the survey results, 88 percent of programmes have a programme board with a variety of members, for instance, representatives from the funding organisations, scientific experts, end-users, policymakers and administrators (Figure 7.1.2.). Representatives from the funding agencies, policymakers and scientific experts are the most common members. End-users of results from public administration or businesses are also often present.

Section 6.2 showed that research programmes may use a variety of criteria for selecting the research projects funded. When comparing project selection criteria and the composition of the programme board, Figure 7.1.3 shows, for instance, that private sector experts are the most common group in programmes with a criterion for private sector relevance. By contrast, in programmes with a criterion for scientific quality, the programme boards are dominated by national scientific experts and representatives of funding agencies.
Figure 7.1.2. Composition of the programme board

Figure 7.1.3. Composition of the programme board in programmes with selected project funding criteria
Steering committees or people assigned to follow up either the whole programme or specific projects are also often used in programme management. According to the interviews, a good steering committee has insights into and competence in the field covered by the programme and combines a range of impartial people to give different perspectives. In the workshop discussions, ensuring the commitment of the steering committee members was highlighted as important. In a research programme discussed in the interviews, rapid turnover of steering committee members caused some problems. The workshop discussions suggested that it might be useful to assign specific responsibilities, such as training or knowledge transfer, to the members of the steering committee to ensure better commitment.

The interviewees emphasised the importance of a core team (rather than a single person) in managing the programme. The workshop discussions defined the tasks of the core team to include communication and information dissemination, monitoring technical quality and progress, and dealing with finance. An example (7.1A) below shows how a core team handled programme coordination in a research programme, and another example (7.1.B) highlights the different tasks for which a core team is needed even when a programme board is used.

Example 7.1A

**A core team and divided responsibilities in programme management**

A programme focused on fine particles and the related environment and health issues used a variety of people to manage it. An external programme manager was hired to coordinate the programme but he had no duties related to the financial administration of the projects. Specific in-house people who were assigned to each project by the funding organisation were responsible for project follow-up and the payment of funds. The programme had a core team consisting of the programme manager, his scientific advisor, the person with main responsibility in the funding organisation, and two in-house people with the largest number of individual projects to supervise. This type of core team was found to be very effective in managing the programme.

Example 7.1.B

**Tasks of a core team for programme management**

In a research programme on nature development, the daily management of the programme was handled by a core team of two people. The tasks of the team were giving feedback to the programme board and the researchers, solving problems, and knowing the developments in the funded projects. A potential need to add more people to the core team was highlighted by the interviewee.

In some cases the decisions regarding the management of the programme influence how it is carried out, but not always. For instance, the survey results show that the way in which the programme manager is recruited does not greatly affect the way the progress of projects is reviewed. Figure 7.1.4 shows that whatever the format used to recruit programme management, periodic reports are most common to ensure progress, followed by workshops and periodic meetings.

Programme coordination and management includes important activities related to the follow-up of projects, collaboration, and information exchange, dissemination of results, and sometimes also building competences and motivating the researchers. Some of the activities overlap and, for instance, annual seminars arranged by the programme can be seen to facilitate all the above activities. The subsequent sections of the report will address each of these elements separately.
Recommendations for best practice in programme management structure

- A good research programme coordination strategy covers the scope, budget, duration and purpose of the programme.
- A key person supported by a core team should be selected to manage the programme. Responsibilities for management tasks can be shared between the key person and the core team members.
- The tasks of programme management include communication with projects and programme board, ensuring the dissemination of information and results to different stakeholders, monitoring progress and technical quality, solving problems and managing risks, handling finance issues, and ensuring delivery according to the time schedule.
- Using a programme board whose members are motivated and reflect the aims of the programme is also recommended. A programme board may consist of a variety of members including funding agencies, scientific experts, and the end-users of results, e.g. from public administration, businesses and NGOs.
- A separate steering committee can be used to follow up and advise the programme or individual projects. In this case ensuring the commitment of the committee members is important.

7.2 Reviewing project progress

Progress reports submitted by the projects to programme management at certain intervals are the most common means of following-up the progress of projects, according to the interviews. The survey results also show that periodic reporting is used in around three quarters of the programmes, while meetings and workshops are in use in around half of the programmes to ensure progress (Figure 7.2.1). The same means are also used in ensuring scientific quality and relevance of the projects, but to a lesser extent. An interviewee pointed out that researchers are not really interested in the administrative side of things. According to the workshop discussions, intelligent reporting formats can lighten the bureaucratic burden of reporting. These include specific themes or questions issued to projects as reporting guidelines.
Progress in research projects can be motivated by a system by which funding to a project is paid in instalments (e.g. every year or every six months), and the progress of the project is evaluated based on the report before each payment. An interviewee indicated that in a few cases funding to a project has been withheld, because the management saw from the reports submitted that there was no progress. This, however, was not a common occurrence.

Some of the interviewees pointed out that programme coordination should not be too resource-consuming, and the activities of programme management should be divided among several people. The survey results show that progress reports are most commonly reviewed by the programme coordinator or by the programme board, but external experts are also fairly often used (Figure 7.2.2). The use of external experts can be useful when the programme coordinator or manager is overloaded with tasks. In other cases, in-house reviewing is recommended because the programme management also benefits from knowing the details of each project.

According to the interviews, periodic programme seminars and smaller seminars targeted at the programme board, where projects present their results, can also be used to follow up the progress of projects. An example was presented in the workshop discussions where a programme had organised interactive forums at which a
selected number of projects and members of the programme board convened twice a year – either to present the progress on the projects or to discuss a common issue or problem from the viewpoint of the projects.

<table>
<thead>
<tr>
<th>Recommendations for best practice for following up the progress of projects in a research programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Progress reports should be periodically submitted by projects to programme management (e.g. every six months or annually)</td>
</tr>
<tr>
<td>■ Programme management can use intelligent and innovative reporting formats by issuing guidelines to projects that include specific themes or questions to be addressed in the reports</td>
</tr>
<tr>
<td>■ The periodic progress reporting can be linked to the payment of funds, so that projects receive funds for each period only after submitting the progress report on the preceding period</td>
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<tr>
<td>■ The system of processing progress reports should be transparent, especially when connected to the payment of funds</td>
</tr>
<tr>
<td>■ The responsibility for reviewing progress reports should be specifically assigned, e.g. to the programme coordinator, programme board, external experts, or personnel of the funding organisation</td>
</tr>
<tr>
<td>■ The funding agency can benefit from assigning the responsibility for reviewing progress reports to in-house people. This way detailed information and knowledge from the research projects is effectively transferred to the funders</td>
</tr>
<tr>
<td>■ Annual programme seminars and smaller seminars involving the programme board can also be used as an aid to the reviewing process when projects present their results</td>
</tr>
</tbody>
</table>

7.3 Promoting collaboration and information exchange between researchers

Collaboration was often perceived by the interviewees to be the added value of research programmes as opposed to funding individual projects. Collaboration in programmes can occur on many levels, including cooperation of funding organisations and collaboration between academic researchers and industry, between researchers and policymakers, and between researchers in the programme.

A programme can foster researcher collaboration within projects by making recommendations or setting criteria for it in the funding guidelines, or an ongoing programme may request or motivate cooperation between projects. A project funding criterion for collaboration or networks is frequently used in current research programmes, as shown previously in Figure 6.2.1. This was also perceived to be important in the workshop discussions. According to the survey results, international collaboration within funded projects is common in a majority of research programmes (Figure 7.3.1). According to the survey results, all the programmes with a criterion for international collaboration ended up with international collaboration at project level (Figure 7.3.2). Of those programmes without this criterion, more than a half still had international collaboration.

After project proposals have been received, a research programme can also facilitate collaboration by recommending closely related projects to merge into one. According to one interviewee, however, the projects should in that case be truly related,
otherwise conflicts erupt. A participant in the workshop discussions suggested that, in addition to the beginning, programme management could also review projects halfway through the programme and identify projects with potential for collaboration based on their progress thus far.

According to the interviews, collaboration during the programme is most often promoted by organising seminars including all the projects of the programme and/or smaller group seminars, often focusing on a specific theme. Survey results show thematic seminars to be the most used method for promoting collaboration (Figure 7.3.3). Moreover, thematic seminars were identified as useful by the interviewees and the participants of the workshop discussions. Small group seminars were perceived by the interviewees to be more beneficial in facilitating true interaction between projects than larger conferences.

Overall, face-to-face meetings were regarded as important and in the workshop discussions suggestions were made regarding the appointment of a specific person to handle collaborative activities on a programme. Yet efforts to encourage collaboration should be proportionate to the size of the programme. Cooperation or collaboration coordinated by a research programme was slightly criticised by two interviewees:
“I’m not so much in favour of heavy coordination on programmes… the level of coordination should be slim, should be small, should not require too much personnel, because the costs of coordination are also high in the end.”

“There should not be too many expectations about it [collaboration between projects], because the projects themselves are often based on cooperation.”

In the workshop discussions it was recognised that informal social interaction can also be useful in encouraging true collaboration between researchers.

Information exchange between different projects and between projects and programme management is related to project follow-up and collaboration. Exchange of information enables the project members to hear the views of the programme management and vice versa. The methods for information exchange partly overlap with those targeted at encouraging collaboration. According to the interviewees, annual seminars with participants from all the funded projects are used on nearly all the programmes. By contrast, smaller thematic seminars between groups of projects and sometimes also including external parties (foreign researchers, business representatives, policy representatives) are less commonly used despite the good experiences. Face-to-face information exchange is typically complemented with email and websites. Occasionally publications and newsletters are produced by the programme management. The survey results show that meetings and website information are most often used when programme management informs the projects (Figure 7.3.4).
Recommendations for best practice for collaboration and information exchange on research programmes

- Collaboration between researchers provides added value for research funding programmes.
- Collaboration, nationally and internationally, can be encouraged through 1) project funding criteria, 2) recommendation to merge two closely related project proposals, or 3) various activities during the programme.
- The focus on collaboration should be proportionate to the size of the programme, and not place too heavy a burden on projects or on programme management. For instance, the main effort should only be focused on one aspect, either collaboration within projects or between projects.
- During the programme, collaboration and information exchange can be encouraged through annual conferences, thematic small group seminars, joint publications, and the Internet. Informal meetings are also useful for generating true collaboration.
- A specific person, for instance on the core team or programme board, can be assigned to plan collaboration activities.

7.4 Motivating researchers

Motivation in research programmes can be related to general incentives given to researchers to do their work better and to incentives supporting doctoral training. In the interviews, the motivation of researchers (apart from the funding allocated to projects) and focus on funding doctoral students on projects was rarely acknowledged. Some funding organisations stated that they usually grant funding for PhD students within research projects.

Two interviewees stated that researchers are already motivated because of the unpaid work and time taken to make applications for programme funding. This point of view comes up implicitly in the survey results, which show that about a third of research programmes do not use any specific means for motivation (Figure 7.4.1). Educational or professional development as such is identified in another third of the responses, and ensuring sufficient funding is the most frequently used concrete way to motivate. One interviewee suggested that researchers could be motivated by acknowledging more explicitly the effects of research on society (e.g. through a project criterion for societal or public relevance). As the funding itself, salaries and building of new infrastructure provided by the programme were regarded as sufficient motivation, some programmes emphasised the possibility for training, mobility and support of the career advancement of young and female scientists.
Motivation of researchers to take part in the programme can be raised by providing opportunities for researcher training, mobility and career development.

Managing gender issues

It was stated earlier that some of the interviewees considered that a gender requirement in project funding criteria distorted the selection based on scientific quality (Section 6.2). The survey results show that a variety of ways can be used to manage gender issues in relation to a research programme (Figure 7.5.1). Approximately a third of the research programmes do not use any specific means for managing gender issues. A minimum gender quota in the programme board and allowing extensions to projects due to maternity leave are most commonly used. By contrast, none of the programmes had gender action plans, but some referred to the gender policy or plan of the funding organisation.
Paying attention to the gender issues is one way of motivating researchers to take part in the programme. The gender issue can be acknowledged in the overall organisation policy and reflected in research programmes throughout their duration.

Figure 7.5.1. Ways of managing gender issues on research programmes

Recommendations for best practice in managing gender issues in research programmes

- Paying attention to the gender issues is one way of motivating researchers to take part in the programme.
- The gender issue can be acknowledged in the overall organisation policy and reflected in research programmes throughout their duration.
8 Dissemination

Disseminating research results related to research funding programmes can be divided into two categories: 1) projects disseminating their specific results and 2) programmes disseminating results more generally, i.e. synthesising results from several research projects.

Dissemination of results to the stakeholders and the public was perceived as important by the interviewees. In the survey, most of the programmes were at too early a stage to actually implement and disseminate the results. In some funding organisations, however, an implementation and dissemination plan is mandatory for all research programmes and for all the projects funded (see Example 8A). A pre-designed dissemination plan aids the projects by providing a schedule of activities that should be carried out during the project lifetime, but it does not guarantee that the planned activities are actually carried out. Annual project reports to programme management may be required to include a section on dissemination activities accomplished in order to monitor progress (see Example 8B).

Example 8A

Requesting a comprehensive dissemination plan from projects
On a programme in biological diversity, the participating projects were requested to make a dissemination plan, not only for refereed academic papers but also for popular presentations, newspaper articles, and appearances on TV. The plans were evaluated as part of the project selection process. The follow-up of the realisation of the plans, however, was perceived to be difficult.

Example 8B

Reporting on disseminating project results
In a programme on nature development, the participants were required to report yearly on their dissemination activities. The reports covered the ways in which the projects had informed the general public and other researchers about the results. In addition to the annual reporting, a workshop was organised at the end of the programme where all the projects presented their results to stakeholders.

In disseminating programme results to stakeholders, the most commonly used means, according to the interviews, are programme websites, reports, and larger conferences during or at the end of the programme. Smaller seminars targeted at industry or other stakeholders were used for information dissemination in four out of the nine research programmes that the interviews covered. Further means included thematic reports of programme results sent to the users of the results (see Example 8C) and a database of potential users of information to whom the results are then communicated. Thematic reporting from projects to policymakers and private sectors was perceived in the workshop discussions as a key facilitating factor contributing to the successful management and coordination of research programmes.
Disseminating programme results

A programme on fine particles included measures to disseminate programme results more generally to stakeholders. In addition to a general programme report listing the achievements on individual projects, the programme management decided to create separate user-friendly reports on five key areas of the programme. The thematic reports comprised programme results and other recent information in the field and were targeted at relevant private/industrial sectors.

According to the survey results, scientific articles, seminars and reports are the most common means of communicating to the scientific community (Figure 8.1). Figure 8.1 also shows that seminars and reports are most used for disseminating results to policymakers, while the Internet is mostly used to target local administrations. Figure 8.2 shows that the Internet is also the most common method used to disseminate results to NGOs, the public and the private sector. Communicating through the media, reports and seminars is fairly common when targeting the public, while seminars and reports are also used for targeting the private sector (Figure 8.2).
greatly alter the distribution of different communication methods in use, except with respect to media communication, which is relatively more common in programmes with a dissemination plan.

A problem related to information dissemination is the conversion of scientific information generated on the projects into understandable results to the public and the policymakers. This was mentioned in both the interviews and the workshop discussions. The differing timescales of researchers and policymakers may also complicate this issue further. One research programme had used a team of experts to work on the conversion issue. An interviewee stated that a programme management board should include key people, who disseminate the results of the programme forward.
The interviews generated the following list of methods of disseminating results at programme and project levels:

- Thematic seminars, possibly inviting stakeholders from outside the programme
- Annual seminars or conferences organised by the programme
- Email news bulletins from programme management
- WWW pages
- Published programme reports
- Thematic reports targeted at users of results
- Press releases and newspaper articles
- Use of a communications team to adapt the results for public use
- Key people with responsibility for results dissemination (possibly merged with the communications team above)

Tentative recommendations for best practice in dissemination

**Indispensable features:**

- Communications or dissemination plan for the programme and/or for projects
- Information in popular and professional language in addition to scientific reporting
- The reporting obligation of the management team to be continued after the programme
- A budget allocated for stakeholder communication at project and programme levels

**Facilitating features:**

- Allocating time for identifying relevant stakeholders
- Ensuring the presence of high-level officials in workshops and seminars
- Stakeholders present on programme board or steering groups
- Marketing the research programme and its projects at different stakeholder events and forums
- Including conflicting views of stakeholders in dissemination
- People adapt to translate research results for general use

Further recommendations for dissemination will be provided by SKEP in 2008
9 Ex post evaluation of research carried out

Most of the programmes in our survey were still ongoing. Therefore no evaluations had been carried out. However, in funding organisations that continuously run research programmes, reviews by international expert panels and stakeholder interviews were regularly used as a means of programme evaluation.

The interviews indicate that there are two main types of ex post evaluation used in evaluating research programmes. The first is an evaluation form usually sent to the researchers, project supervisors, steering group members, and/or programme committee members. The form is a means of self-assessing the projects and the programme and it contains questions on the programme and project specific issues. This type of evaluation was reported to be in use on at least two programmes showed by the interviews.

Second, programmes may commission external experts, such as scientific experts or consultants to carry out an external, usually ex post, evaluation. Sometimes the external evaluation is conducted by international experts. It is regarded a good procedure if the evaluation covers both programme and project outputs and the programme concept and functionality as a whole. External final evaluation was mentioned in relation to three research programmes. Some programmes also conducted an interim evaluation by programme personnel to identify possible improvement needs.

According to the interviews, a proper evaluation was not carried out on all the programmes. Two interviewees pointed out that the problem may be a lack of resources allocated for ex post evaluation in the programme budget. Furthermore, defining the evaluation criteria was viewed as a problem by one interviewee.

Good examples used in the programmes covered by the interviews include a thematic evaluation of programmes. Thematic evaluation means that a group of e.g. socially relevant programmes are evaluated together, because their results may have combined impacts. Also, an evaluation protocol that defines the contents of the evaluation and also includes impacts on policy and society can be regarded as a desirable practice. An example of an evaluation protocol is shown below (Example 9A).

Example 9A

**Using a programme evaluation protocol**

A specific protocol for the evaluation of research programmes has been developed for standard use in the funding organisation. The evaluation will cover scientific impacts of the research projects and the overall programme, quality and quantity of the projects, outputs of research, international cooperation of the projects and the programme, impact of the research on other disciplines and universities, and social impacts of the research on politics, end-users and the general public.
Tentative recommendations for best practice in programme evaluation

- A self-evaluation of the research programme and projects can generate important information on how to improve research programmes in the future.
- External evaluations should be used to generate a wider picture of both the outputs and the functionality of the programme as a whole.
- Mid-term evaluation can be used to improve the latter part of the programme.
- Attention should be paid to the timing of the final evaluation as dissemination processes and the use of the results in policy may take time.
- Sufficient money and time should be allocated for programme evaluation activities.
- A specific evaluation protocol that defines the contents of the evaluation is useful in targeting and carrying out the evaluation as planned.
- Evaluation should also look at the research programme’s impacts on society as well as the elements defined in the programme objectives.

Further recommendations for evaluation will be provided by SKEP in 2007
10 Conclusions

This report shows that there is ample experience in running and managing research funding programmes and finding solutions for problematic issues among the SKEP partners and other European actors in environmental research. However, there is wide variation in the level of experience. Some partners have been running programmes for a long time, while others are only starting with a programme-type funding structure.

Experiences from SKEP partners and from 34 research programmes are brought together in the report. On the basis of the experiences the reader is provided with recommended practices and a coherent flowchart for carrying out the management of research programmes throughout their life cycle. The variety of funding structures and governance cultures among the SKEP partners and the European countries reminds us of the importance of flexibility in implementing the recommendations. For example, the ways of dealing with stakeholders may require different mechanisms in different cultural contexts.

Certain basic elements of the management logic should nevertheless be followed. For example, this report shows that objectives set in the beginning are not necessarily reflected in the evaluation criteria for project proposals or the composition of the steering committee. A way to find the logic is to carefully plan the management process well in advance. Activities taking place in the implementation and closing phases of a programme should be planned beforehand, yet leaving space for fine tuning while the programme runs.

The report suggests that apart from objectives and goals, some general policies and their action plans should also be prepared for the programme and its management. These include dissemination, evaluation and gender issues.

The management team has the key role in achieving the objectives of the programme and therefore the construction of the management team in a broad sense is one of the turning points of the entire programme. Resources and time are needed, but according to our results, an expensive external consultant may not always be the most effective solution. Resources for the management team should, however, be allocated for certain key functions such as communication between the management and projects and between projects themselves, as well as for ensuring effective dissemination. Evaluation is crucial for projects and programmes as well as the strategic management of funding. This leads to the final message of the report: lessons in programme management need to be learned and implemented in other ongoing and forthcoming programmes, or other forms of funding activities.
REFERENCES


Appendix 1.
Examples of National Research Funding Structures in Europe

In Italy the National Research Program (PNR) is the main tool for planning public research. This framework document is prepared at three year intervals by the Ministry for University and Research. It is prepared on the basis of economic resources foreseen in the governmental Document for Economic and Financial Planning (DPEF) with the contribution of the Experts for Policy of Research Committee (CEPR) and the Science and Technology Council (AST) comprising various National Scientific Councils (CSNs). The PNR is examined and approved by the CIPE (Interministry Committee for Economic Planning) and issued by the Government.

The Steering Committee for Research Evaluation (CIVR) is another body of the Ministry for University and Research involved in the research funding. Various ministries and a large number of scientific agencies and universities, funded and controlled by such ministries, implement the PNR by receiving and managing funds dedicated in the DPEF and/or with appropriate funds allocated from CIPE.

In Finland, the science policy is directed by the Science and Technology Policy Council of Finland. The Council is an advisory body to the government chaired by the Prime Minister and consists of seventeen members from the different ministries, research institutes, industry, universities and the employers’ and employees’ organisations. One of the main tasks of the Council is to produce science and technology policies reviews for Finland every three years.

The central research funding organisation is the Academy of Finland. Most of the research funded by the Academy is conducted within the 20 universities. The universities themselves, together with 29 polytechnics, are also important research funders. The Academy of Finland is governed by the Ministry of Education. The Finnish Funding Agency for Technology and Innovation (Tekes) is another major research funder and the main public financier of technological R&D in Finland. Tekes is subordinate to the Ministry of Trade and Industry. In addition to these two main funding organisations there are 19 State Research Institutes governed by different Ministries. For example, the Finnish Environment Institute SYKE is governed by the Ministry of the Environment and the Finnish Forest Research Institute METLA is governed by the Ministry of Agriculture and Forestry.
The Finnish National Fund for Research and Development (SITRA) is an independent public foundation under the supervision of the Parliament of Finland. Its aim is to promote the social and economic development in Finland, so it also acts as a major research funder.

Science, technology and innovation (STI) policy is distributed across all federated and federal entities of Belgium. The primary jurisdiction for STI policy is with the Regions and the Communities within their own areas of competence. As an exception to this general rule, a number of competences involving scientific research are entrusted to the Federal Government.

The Council of Ministers of the Federal Government is the executive body responsible for the major orientations of STI policy at federal level. This policy is coordinated by the Federal Minister responsible for science policy. Other ministers from the Federal Government deal with research and science matters within their own areas of competence. The administrative structure developed for the implementation of the federal science policy is called the Federal Public Planning Service (PPS) Science Policy. It is placed under the authority of the minister responsible for scientific research. The Federal PPS Science Policy prepares and implements actions coming under the Federal Government’s responsibility: programmes and activities are either developed by the federal authority autonomously, or they link with the framework of cooperation agreements with the Regions or Communities. There are other federal departments administering significant research budgets such as the Federal Public Service Economic Affairs, the Federal Public Service Health and Food Chain Safety and Environment.

The Inter-ministerial Commission on Science Policy (CIMPS-IMCWB) coordinates the preparation and execution of government decisions on federal science policy matters for which mutually agreed action by several ministerial departments is required. The Council for Science Policy is the advisory body for Science, Technology and Innovation Policy.
In addition to the Federal level of Belgium, Flanders has its own research funding structure. The Flemish Council for Science Policy formulates recommendations on science and technology policy to the Government and the Parliament of Flanders. Two other Royal Academies formulate more specific recommendations on sciences, literature and fine arts and on medical sciences.

The main funding of the Flemish science policy takes place via two ministries: the Ministry of Education and Training and the Ministry of Economy, Science and Innovation. The Ministry of Education finances the six Flemish universities and the 22 institutes of higher education. The Ministry of Economy, Science and Innovation finances two intermediary organs, the Institute for Innovation by Science and Technology in Flanders (IWT Flanders) and the Fund for Scientific Research Flanders (FWO Flanders), which distributes funds among universities and research institutes. IWT Flanders focuses on applied research and finances public as well as private research institutes, while FWO Flanders concentrates on basic, groundbreaking research. The Ministry of Economy, Science and Innovation also finances three main research institutes: the Interuniversity Micro-Electronics Centre (IMEC), the Flemish Institute for Technological Research (VITO) and the Flanders Interuniversity Institute for Biotechnology (VIB).

Other ministries, such as the Ministry of Environment, Nature and Energy and the Ministry of Welfare, Public Health and Family, finance the so-called ‘sectoral’ science policy. These ministries are competent with regard to particular basic allocations for which there are funds for science policy for their specific field of competence. There are five scientific institutes financed by these sectoral ministries, including the Research Institute for Nature and Forest (INBO) and the Institute for Agricultural and Fisheries Research (ILVO). The sectoral ministries also finance the sectoral agencies such as the public environmental agencies. These public agencies have their own funds for science policy to finance scientific research initiatives leading to knowledge in their own policy field.

In Sweden, the public-sector funding of R&D takes place both through grants paid directly to higher education institutions (HEIs), and through support for research councils and sectoral research agencies. In addition, there are a number of research foundations that administer public funds: altogether these provide research funding in excess of SEK 1.6 billion annually. The Swedish Parliament grants R&D funds within all the ministries’ spheres of responsibility. The Minister for Education and Science is responsible for the overall coordination of research policy in the Government Offices. By far the largest share of publicity funded research is carried out at Sweden’s HEIs and only a small proportion at research institutes.
The research councils mainly support basic research. The sectoral research agencies fund R&D aimed both at meeting the knowledge needs of individual sectors and at fostering the development of society. All in all, there are some 30 sectoral research agencies with resources for R&D. County councils and municipalities also fund some research, mainly in healthcare and social care.

Besides the public fund providers there are private funds, foundations and fundraising organisations. Several of these are major stakeholders in the research sphere and provide substantial grants for research in their respective fields. There are 14 universities and 25 other HEIs where research (or artistic R&D) is conducted.

Public funding for research in Ireland is mainly provided by the government through the National Development Plan (NDP). The current NDP provides for a planned approach to strategic government spending over the period 2000 to 2006 and provides for research expenditure of over €2.5 billion.

This money is channelled through a number of state bodies including those with thematic remits (e.g. Environmental Protection Agency (EPA), Marine Institute) and funding bodies with a more general remit (e.g. Science Foundation Ireland, IRCSS). In all cases, funding is awarded via open competition in response to calls for proposals. Targeted calls are issued to meet policy needs and there is generally a strong emphasis on capacity building. Successful projects are awarded funding up to 100% of eligible costs with financial models being broadly similar to the EU Framework.

The main recipient of research grants in Ireland would be the third-level sector comprising seven universities and fourteen institutes of technology. There are a number of public / not-for-profit research institutes which also compete for project grants in specific areas (e.g. Teagasc for agriculture and food research) and funding may be awarded to private sector organisations subject to EU guidelines on state aids.

In the particular case of environmental research, the key source is the Environmental RTDI Programme administrated by the EPA, although other bodies support environmental issues on a sectoral basis e.g. Research Stimulus Funding (RSF) for agriculture and environment issues. The Environmental RTDI Programme is co-financed through the NDP and also the Environment Fund raised from environmental taxes notably the landfill levy and ‘plastic bag tax’.

The administrative structure for public funding of research in the United Kingdom is composed of several layers. The Council for Science and Technology (CST) forms the key advisory body to the Cabinet and the Prime Minister and is composed of senior individuals from government, industry and academia. In conjunction with the Chief Scientific Advisor and the Treasury, the Cabinet Office liaises with those government departments responsible for research funding. These include the Department for Trade and Industry (DTI), which includes the Office of Science and Technology (OST); the Department for Education and Skills (DfES), and other relevant departments, including the Department for Environment, Food and Rural Affairs (DEFRA) and the Department of Health.

The DTI and the DfES are directly responsible for setting the budgets of universities and academic institutions within the United Kingdom. This includes funding of the teaching and research infrastructure associated with these bodies. However, specific research projects are largely funded by grants from the Research Councils and other public and private agencies.

The DTI and its subsidiary body, the OST, are also responsible for the funding of the UK Research Councils. The Biotechnology and Biological Sciences Research Council (BBSRC) includes five institutes, e.g. the Institute for Animal Health, the Institute of Arable Crop Research, the Institute of Grassland Research. The Council for the Central Laboratory of the Research Councils (CCLRC) is the national portal and centre for
key large-scale activities in support of science and engineering research. The Natural Environment Research Council aims to support and to provide sustainable solutions to environmental problems. Other councils include the Economic and Social Research Council, the Engineering and Physical Sciences Research Council, the Medical Research Council, and the Particle Physics and Astronomy Research Council.

In addition to the environmental research funding activities administered by Research Councils, DEFRA funds a significant proportion of environmental research undertaken by regulatory authorities. The Environment Agency of England and Wales and the Food Standards Agency are both DEFRA-funded agencies. Additional environmental research is also funded by the Scottish Executive, the Scottish Environment Protection Agency (SEPA), the Welsh Assembly Government and the Department of the Environment (Northern Ireland). Environmental research within Scotland and Northern Ireland is also administered by the Scotland and Northern Ireland Forum for Environmental Research (SNiFFER). The recently set-up Environmental Research Funder’s Forum is intended to facilitate the better co-ordination of environmental research funding within the United Kingdom.
The main research funding institution in **Poland** is the Ministry of Science and Higher Education. The Ministry supports financially the Polish Academy of Science (PAN), universities, academies and R&D organisations. R&D units receive 20–30% of the total budget for scientific research from the Ministry. The Ministry has a separate unit – the State Committee of Scientific Research (KBN) – which is a governmental body set up by the Polish Parliament in 1991. The Committee was established as the supreme authority on national policy in the area of science and technology, and the major central governmental source of funds for research. Scientific research in Poland is generally financed in two ways: according to the rules of National Framework Programmes e.g. through the open calls and through personal application on a fixed date, a few times during a year. There are four countries which have two of their governmental organisations as SKEP partners (Belgium, France, Finland and Poland). The figure below shows how the two Polish organisations are linked to the country’s research funding structure.
Appendix 2.
Questionnaire

**SKEP**

*Scientific Knowledge for Environmental Protection – Network of Funding Agencies*

WP 3 Best practice in research management

Task 3.1. Analysis of good practices on programme management

**Questionnaire**

Contents of the questionnaire

1. Introductory information
2. Basic description of the research programme
3. Initiation of the research programme
   3.1. Need and responsibility
   3.2. Focus and type of the programme
   3.3. Project selection
4. Organization
5. Management of the research programme
   5.1. Structure of the management
   5.2. Collaboration and public relations
   5.3. Ensuring the quality of the programme
6. Implementation and evaluation of the research programme
   6.1. Implementation of the programme
   6.2. Evaluation of the programme
7. Human resources
   7.1. Motivation of researchers
   7.2. Equality aspects
8. Success of the research programme
9. Your personal views

Additional information

**Definition:**
Research programmes are composed of a number of projects working for areas of research, which are recognized to be significant and usually dedicated to a special theme or problem. Research programmes run for a fixed period of time, and the lifetime of projects may vary within the programme. Funding of a research programme may come from a single source or several different sources.
1. **Introductory information**

1.1. Please write here information of your organization (including web pages, evaluations, etc.)

1.1.1. Name

1.1.2. Website: http://

1.1.3. Other useful material on programmes and their management (publications etc.)

1.1.4. Status in the environmental research (please tick all that apply)

- funding agency
- ministry
- research institute
- other, please specify

If your status is other than funding, please omit 1.2. and 1.3.

1.2. What is your approximate total volume of environmental research funding per year?

Meuro, % of budget turnover

1.3. What is the general approach of your institution to environmental research

- Funding is provided for individual research projects, project by project
- Funding is channeled through research programmes, with several projects

1.4. Further comments (if any)

In the following, we ask you to answer the questions concerning one specific research programme in which your organization has been deeply involved either as a responsible body, funder or user. You may omit questions that you do not find appropriate or relevant for the case you provide!

2. **Basic description of the research programme**

2.1. Name and acronym

2.2. Current phase of the programme

- under planning
- ongoing
- finalised during the last 48 months
- finalised earlier than 48 months

2.3. Location, and the web page if existing http://

2.4. Any information of the programme management (internal reports, guidance documents, etc.) available on web pages?

http://

2.5. Managing institution

2.6. Duration months

2.7. Volume of the programme

<table>
<thead>
<tr>
<th>By budget (total MEuro during the lifetime of the programme)</th>
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<tr>
<td></td>
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<tr>
<td>By the number of person-months during the lifetime of the programme</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>By the number of projects during the lifetime of the programme</td>
</tr>
</tbody>
</table>
2.8. Thematic area of the programme (please tick all that apply)

- Water
- Soil
- Air
- Biodiversity
- Global change
- Environmental hazards and risks
- Human health and the environment
- Urban environment and infrastructure
- Energy
- Environmental technology
- Environmental policy
- Other, please specify

2.9. Specific focus of research

2.10. The programme was

- disciplinary (consisting of single discipline/scientific field, e.g. limnology)
- multidisciplinary (consisting of research on several disciplines, e.g. limnology, sociology, economics)
- interdisciplinary (as previous, but the disciplines interacting)
- transdisciplinary (as previous, but various stakeholders)

2.11. Fields of research included

3. Initiation of the research programme

3.1. Need and responsibility

3.1.1. How did the need for a new research programme come up?
(please tick all that apply)

- by questions raised within the scientific community (bottom-up driven)
- by questions raised within the private sector
- by questions raised within the non-governmental organizations (NGOs)
- by questions raised within the media, etc.
- by questions raised by the politicians (top-down driven)
- by questions raised by governmental administration (strategic steering)
- other, please define

3.1.2. Did your organisation take the first step to initiate the programme

- yes
- no

3.1.2.1. If not, was the first step taken by

- the government
- ministry /governmental institution
- other financing body (academy, private foundation), please specify
- university
- scientists, please specify
- industry
- other, please specify

3.1.3. What were the criteria for funding this programme?

- relevance in political decision-making
- relevance for strategic steering and policy
- relevance to the private sector
- relevance to NGOs and the public
- scientific value
- innovativeness
- need for collaboration at national and international level
- other, please specify
3.1.4. Were there related initiatives or ongoing programmes?

☐ no
☐ yes, please specify

3.1.4.1. If yes, how was duplication eventually avoided?

3.2. Focus and type of the programme

3.2.1. How were the programme objectives1 set?

☐ objectives of the programme were not strictly defined
☐ objectives of the programme were defined by the following stakeholders/players:

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>No influence on the objectives</th>
<th>Some influence on the objectives</th>
<th>Very strong influence on the objectives</th>
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</table>

3.2.2. Which procedures were used for setting the objectives (please tick all that apply)?

☐ seminar(s) / workshops
☐ questionnaires
☐ consulting the experts
☐ letters of intent
☐ other, please define

3.2.3. Were there conflicting views on the objectives?

☐ no
☐ yes

3.2.3.1. If no, how were they avoided?

3.2.3.2. If yes, how were they solved?

3.2.4. Were there conflicting views on the time span of the programme (scientific accuracy versus urgent needs for policy making)?

☐ no
☐ yes

3.2.4.1. If yes, how were they solved?

3.2.5. Were criteria for scientific relevance developed?

☐ no
☐ yes

3.2.6. Were criteria for policy relevance developed?

☐ no
☐ yes

3.2.7. Were other criteria developed?

☐ no
☐ yes

3.2.7.1. If yes, please describe

3.2.8. Were success indicators defined?

☐ no
☐ yes

---

1 Setting programme objectives = definition of questions and goals for the programme, delineating priority areas
3.3. Project selection

3.3.1. How was the call/selection of projects organised?
- open call for applications
- letter-of-intent phase followed by a call for applications
- closed invitation for applications
- closed invitation for projects
- other, please define

3.3.2. What were the criteria for the selection of projects (please tick all that apply)?
- policy relevance
- policy relevance (primary criterion) and scientific quality (secondary criterion)
- scientific quality (primary criterion) and policy relevance (secondary criterion)
- relevance for strategic steering by the government
- relevance to the private sector
- relevance to NGOs and the public
- scientific quality
- researcher training
- quality of the project management
- competence of research group
- judged cost-effectiveness
- matching funding of research organisation
- practical applicability of results
- innovativeness
- infrastructure
- collaboration at national level
- collaboration at international level
- other, please specify

3.3.3. How was the relevance judged?

3.3.4. Were the new innovative aspects (e.g. development of new tools and technologies, frontier research, collaborative research) encouraged when selecting the projects?
- no
- yes, please specify

3.3.4.1. If yes, how were the risks involved with the innovations managed?

3.3.5. Were projects with international partners funded?
- no
- yes, but the funding was provided only for national researchers
- yes, both national researchers and researchers from abroad were funded

3.3.6. Who reviewed the projects? (tick all that apply)
- applications were reviewed by policy makers
- applications were reviewed by the funding agencies
- applications were reviewed by national scientific experts
- applications were reviewed by international scientific experts
- applications were reviewed by experts from private sector
- applications were reviewed by experts from NGOs and the public
- other, please specify

3.3.7. Who selected the reviewers?

3.3.8. After the review, by whom were the projects prioritized?
- expert panels after reports of (please give the number) referees
- the projects were compared based on reports of (please give the number) referees
- programme board
- coordinator
- funding agencies
- other, please specify
3.3.9. Were projects generally granted the sums they had applied for?
  □ yes
  □ no

3.3.9.1. If projects were not granted the sums they had applied for
  □ funding was equally cut from all projects
  □ funding was cut substantially more from some projects than from others

3.3.9.2. If funding was substantially cut, what were the criteria (please describe)?

4. Organization

4.1. How was the programme management carried out?
  □ by the permanent staff at the organization responsible for the coordination
  □ a coordinator was hired for the purpose
  □ coordination was outsourced to private professional manager(s)
  □ other, please specify

4.2. How was the programme manager selected?
  □ job announcement
  □ open call
  □ closed invitation
  □ other

4.3. How was the funding of the programme negotiated?

4.4. Funding institution(s) and distribution of their percentage of the budget.

<table>
<thead>
<tr>
<th>Name of the funding institution</th>
<th>G/P ¹</th>
<th>% of budget ²</th>
</tr>
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</table>

1 G = governmental (ministry, university, etc.) P = private (foundation, etc.)
2 The funding contributions can also be given in currency (e.g., €, etc.)

4.5. If the programme was funded by more than one institution, did conflicts arise between the funding organizations when negotiating the funding?
  □ no
  □ yes, please specify

4.5.1. If yes, how were they solved?

4.6. Was collaborative funding from the private sector and NGOs encouraged?
  □ no
  □ yes, please specify
5. Management of the research programme

5.1. Structure of the management

5.1.1. Was a programme board nominated?
- [ ] yes
- [x] no

5.1.2. What was the mandate of the programme board?

5.1.3. How many members were in the programme board?

5.1.4. Who were the members of the programme board? (please tick all that apply)
- [ ] policy makers
- [ ] funding agencies
- [ ] representatives of administration
- [ ] national scientific experts
- [ ] international scientific experts
- [ ] experts from private sector
- [ ] NGOs
- [ ] the public
- [ ] end-users
- [ ] other, please define

5.2. Collaboration and public relations

5.2.1. How were the projects regularly informed of the progress of the whole programme? (please tick all that apply)
- [ ] they were not informed
- [ ] newsletter
- [ ] website
- [ ] meetings
- [ ] other, please specify

5.2.2. Were there mechanisms to encourage researchers of various projects to collaborate?
- [ ] no
- [ ] yes

5.2.2.1. If yes, what were they? (tick all that apply)
- [ ] thematic seminars, workshops
- [ ] annual conferences
- [ ] startup and final seminar
- [ ] internet, please specify
- [ ] joint publications and other outcomes
- [ ] other, please write here innovative ideas and solutions

5.2.3. Was there international collaboration at the programme level?
- [ ] no
- [ ] yes, please specify

5.2.4. Was there international collaboration at the project level?
- [ ] no
- [ ] yes, please specify

5.2.5. Was there coordination with other national programmes dealing with related issues?
- [ ] no
- [ ] yes, please specify

5.2.6. During the programme, were programme outputs communicated directly to end users?
- [ ] no
- [ ] yes
5.2.7. After the programme, were programme outputs communicated directly to end users?

☐ no
☐ yes

*5.2.7.1. If yes, what methods were used? (please fill in the table)*

The target group can be indicated using P = policy makers, I = private sector, A = the public, N = NGOs, L = local administrators, S = scientific community

<table>
<thead>
<tr>
<th>Methods used for communication</th>
<th>During</th>
<th>At the end</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminars, workshops</td>
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<tr>
<td>Reports, guidance documents, training material, books</td>
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<tr>
<td>Questionnaires, consulting individual stakeholders</td>
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<tr>
<td>Press releases, TV, radio, etc....</td>
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<tr>
<td>Internet</td>
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<tr>
<td>Scientific articles</td>
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<td></td>
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<tr>
<td>Other</td>
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</tbody>
</table>

5.2.8. Did conflicts arise during the communication?

☐ no
☐ yes, please specify

*5.2.8.1. If yes, how were the conflicts handled?*

5.3. Ensuring the quality of the programme

5.3.1. How was the quality of the programme management ensured?

☐ there was no specific management system
☐ specific programme management system was being applied
☐ part of the responsible organization’s general quality management systems took the responsibility
☐ other, please specify

5.3.2. Did conflicts arise within the programme management?

☐ no
☐ yes, please specify

*5.3.2.1. If yes, how were the conflicts handled?*

5.3.3. Were there feedback loops from the assessment to the programme management when the programme was running?

☐ no
☐ yes, please specify

5.3.4. Was it necessary to adjust the programme objectives during the programme?

☐ no
☐ yes, please specify

*5.3.4.1. If yes, what was the reason?*

*5.3.4.2. If yes, what was the process?*

*5.3.4.3. If yes, how did you succeed?*

5.3.5. How were scientific quality (a), relevance (b) and progress (c) of the projects ensured during the programme? Please tick all that apply and feel free to specify

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
</tr>
</thead>
</table>
| ☐ | ☐ | ☐ | was not checked until the end of the programme
| ☐ | ☐ | ☐ | was not checked until the end of each project
| ☐ | ☐ | ☐ | was checked by periodic reports during the programme
| ☐ | ☐ | ☐ | was checked in periodic programme-level meetings
| ☐ | ☐ | ☐ | was checked workshops and visits to individual projects
| ☐ | ☐ | ☐ | other, please specify
5.3.6. How was the quality of the project management ensured? Please tick all that apply and feel free to specify
- it was not checked until the end of the programme
- it was not checked until the end of each project
- by periodic reports during the programme
- workshops and visits to individual projects
- other, please specify

5.3.7. Were there processes for negotiations between programme management and project leaders concerning (tick all that apply)?
- objectives
- deliverables
- time tables
- other, please specify

5.3.8. Who was responsible for analysing the progress reports?
- nobody
- co-ordinator
- programme board
- external experts
- other, please specify

5.3.9. Were there feedback loops to the projects and the researchers when the programme was running?
- no
- yes, please specify

5.3.10. What was done if there were problems with the quality, relevance and progress of project(s)?
- nothing
- project leader was notified
- consultance was offered
- funding was cut
- project was halted
- other

5.3.11. Please provide examples of the problems you have encountered.

6. Implementation and evaluation of the research programme

6.1. Implementation of the programme

6.1.1. Was an implementation plan of the results included into the programme?
- no
- yes please specify

6.1.2. How were the research outputs implemented by the users?

6.1.3. Was a dissemination plan of the results included into the programme?
- no
- yes, please specify

6.1.3.1. If yes, did the dissemination strategy aim to broaden the scope of the programme either geographically or by combining various funders during the programme?
- no
- yes, please specify
6.2. Evaluation of the programme

6.2.1. Were the overall programme outcomes evaluated in relation to the programme objectives?
☐ no
☐ yes

6.2.1.1. If yes, how was the evaluation carried out?
☐ by a standardized and formalized procedure for assessment
☐ by the programme board
☐ by stakeholders and end users
☐ peer review by independent national experts
☐ peer review by independent international experts
☐ by governmental administrative
☐ other, please specify

6.2.2. Were the programme’s impacts on development of policies evaluated?
☐ no
☐ yes

6.2.2.1. If yes, how was it carried out?
☐ by a standardized and formalized procedure for assessment
☐ by the programme board
☐ by stakeholders and end users
☐ peer review by independent national experts
☐ peer review by independent international experts
☐ other, please specify

6.2.3. Were the scientific results and products of the programme evaluated?
☐ no
☐ yes

6.2.3.1. If yes, how was it carried out?
☐ by a standardized and formalized procedure for assessment
☐ by the programme board
☐ by stakeholders and end users
☐ peer review by independent national experts
☐ peer review by independent international experts
☐ other, please specify

6.2.4. Were the socio-economic impacts of the programme evaluated?
☐ no
☐ yes

6.2.4.1. If yes, how was it carried out?
☐ by a standardized and formalized procedure for assessment
☐ by the programme board
☐ by stakeholders and end users
☐ peer review by independent national experts
☐ peer review by independent international experts
☐ other, please specify

6.2.5. Were success indicators used in the evaluation of the programme?
☐ no
☐ yes, please specify

6.2.6. Was the programme evaluation budgeted in the programme?
☐ no
☐ yes, fully
☐ yes, partly

6.2.7. Was the programme’s success compared with that of other programmes?
☐ no
☐ yes, please specify
7. Human resources

7.1. Motivation of researchers
Was the motivation of R&D workers especially paid attention to in the programme?
- no
- yes, by salaries and benefits
- yes, by career advancement
- yes, by rewards and recognition
- yes, by educational and professional development
- yes, by building new infrastructures
- yes, by ensuring sufficient and stable funding
- yes, other, please specify

7.2. Equality aspects

7.2.1. Were the issues of gender equality taken into consideration in the programme? (please tick all that apply)?
- no
- yes, by having a minimum percentage for both genders among reviewers
- yes, by having a minimum percentage for both genders in programme board
- yes, by having a minimum percentage for both genders in expert panels
- yes, by requiring a gender action plan to be included in the project management scheme
- yes, by ensuring equal recruitment of both women and men in the projects
- yes, by promoting projects that were dealing with gender related issues
- yes, by promoting projects which were led by women
- yes, by monitoring the status of women and men in individual projects
- yes, by making it possible to extend an individual researcher’s funding beyond the programme period in case of maternity leave
- yes, by creating facilities that enable researchers to combine scientific work and family responsibilities
- yes, by collecting gender disaggregated statistics on the funded projects
- yes, by ensuring equal visibility of women and men in publicity
- yes, other, please specify

8. Success of the research programme

8.1. Were the objectives on various research areas of the programme met?
- no
- yes, partially
- yes

8.2. If the programme aimed to support certain policy process, were the results available on time?
- no
- yes, partially
- yes
- not relevant

8.3. Were concrete impacts of the programme seen on the specific policy process?
- no
- yes, please specify

8.4. Did the project managers and the programme management get feedback?
- no
- yes, please specify

8.4.1. If yes, has the feedback been made available for further utilization?
8.5. Did the programme have any socio-economic or environmental consequences?
- None whatsoever
- Yes, but not immediate, please specify
- Yes, minor, please specify
- Yes, major, please specify

8.6. Did the programme affect forthcoming research or R&D programmes in your country?
- No
- Yes, please specify

8.7. What is your overall judgment of the success of the programme?
- Outstanding
- Excellent
- Good
- Moderate
- Poor

8.8. Please identify here reasons for the successes and failures in the programme

8.9. What was the added value of having a research programme compared to if the same research had been conducted by separate projects?

9. Your personal views

9.1. Here you can write on your experiences: good practices, innovative solutions, useful hints, lessons learned, and also bad procedures that should be avoided! (you are not restricted to comment only on the programme you have answered upon).

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

9.2. Would you be willing to give an interview by the project team on the initiation, management and evaluation of research programmes, if needed?
- No
- Yes

9.3. Would you be interested in participating in the SKEP workshop in April 2006, in Helsinki, Finland
- No
- Yes

9.4. Please add here your personal information
Name
Institute
Postal address
Visiting address
Telephone number(s)
Telefax number(s)
e-mail address
### Additional information

What are the (other) main sources for *environmental research* in your country

<table>
<thead>
<tr>
<th>Source/type</th>
<th>Approximate share of total funding (%)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct budgetary research funding (not educational) to universities</td>
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<td></td>
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<tr>
<td>Direct budgetary funding to governmental research institutes</td>
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<td></td>
</tr>
<tr>
<td>Competitive funding administered by research ministry or governmental research council</td>
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<td></td>
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<tr>
<td>Competitive funding administered by substance ministries/agencies</td>
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<td></td>
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<tr>
<td>R&amp;D funding by the industry</td>
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<tr>
<td>Competitive funding administered by private foundations</td>
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<td></td>
</tr>
<tr>
<td>Other, which?</td>
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Thank you very much for your collaboration!
## Appendix 3.
### Programmes described in the replies to the Questionnaire

<table>
<thead>
<tr>
<th>Name of Research Programme</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flemish Impulse Programme for Nature Development</td>
<td>Belgium</td>
</tr>
<tr>
<td>SPSD 2: Global change, ecosystems and biodiversity</td>
<td>Belgium</td>
</tr>
<tr>
<td>Baltic Sea Research Program</td>
<td>Finland</td>
</tr>
<tr>
<td>Environment and Law</td>
<td>Finland</td>
</tr>
<tr>
<td>Environmental Cluster Programme</td>
<td>Finland</td>
</tr>
<tr>
<td>Finnish Research Programme on Environmental Health</td>
<td>Finland</td>
</tr>
<tr>
<td>Research Programme on Sustainable Use of Natural Resources</td>
<td>Finland</td>
</tr>
<tr>
<td>Streams Recycling Technologies and Waste management</td>
<td>Finland</td>
</tr>
<tr>
<td>The adoption of immaterial product culture</td>
<td>Finland</td>
</tr>
<tr>
<td>Environmental &amp; Health Research Programme</td>
<td>France</td>
</tr>
<tr>
<td>Environmental economics</td>
<td>France</td>
</tr>
<tr>
<td>National Programme for Ecotoxicology</td>
<td>France</td>
</tr>
<tr>
<td>Sustainable development and Territorial policies</td>
<td>France</td>
</tr>
<tr>
<td>BIOFOREST</td>
<td>Ireland</td>
</tr>
<tr>
<td>Environmental Research, Technological Development and Innovation Programme</td>
<td>Ireland</td>
</tr>
<tr>
<td>Renewable energy research and development programme</td>
<td>Ireland</td>
</tr>
<tr>
<td>Biological Diversity - Dynamics, Threats and Management</td>
<td>Norway</td>
</tr>
<tr>
<td>Climate Change and its impacts in Norway - NORKLIMA</td>
<td>Norway</td>
</tr>
<tr>
<td>Forurensnigen: kilder, spredning, efkter og tiltak</td>
<td>Norway</td>
</tr>
<tr>
<td>Oceans and Coastal Areas</td>
<td>Norway</td>
</tr>
<tr>
<td>Towards Sustainable Development: Strategies, Opportunities and Challenges</td>
<td>Norway</td>
</tr>
<tr>
<td>Use and management of natural resources and environmental systems in Saami areas</td>
<td>Norway</td>
</tr>
<tr>
<td>GMES products and services integrating Earth Observation monitoring capabilities to support the implementation of European directives and policies related to land cover and vegetation</td>
<td>Poland</td>
</tr>
<tr>
<td>Modelling of heavy metals migration in grain porous layers and its immobilisation with the use of sorptive methods</td>
<td>Poland</td>
</tr>
<tr>
<td>National Framework Programme</td>
<td>Poland</td>
</tr>
<tr>
<td>Terre de Rivieres</td>
<td>Poland</td>
</tr>
<tr>
<td>TN - thematic network: Pathways of pollutants and mitigation strategies of their impact on the ecosystems</td>
<td>Poland</td>
</tr>
<tr>
<td>Swedish National Air Pollution and Health Effects Program</td>
<td>Sweden</td>
</tr>
<tr>
<td>Cross-Institute Programme for Sustainable Soil Function</td>
<td>UK</td>
</tr>
<tr>
<td>Environment and Human Health</td>
<td>UK</td>
</tr>
<tr>
<td>LowFlows Project</td>
<td>UK</td>
</tr>
<tr>
<td>Microbial Metagenomics</td>
<td>UK</td>
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<tr>
<td>Rapid Climate Change</td>
<td>UK</td>
</tr>
<tr>
<td>Science programme</td>
<td>UK</td>
</tr>
</tbody>
</table>
Appendix 4.
Interview Questions

A) EXPERIENCES FROM A SPECIFIC RESEARCH PROGRAMME

• Can you tell about the start up of the research programme?
  – How and why was it initiated?
  – Who was active in the beginning of the programme?
  – Who provided funding?
  – How were the objectives set?
    o Is there a difference between organising a seminar or consulting experts for setting the objectives?
    o What were the final objectives?
  – What criteria were imposed on projects?
    o Was relevance to private sector and the public included in the criteria?
    o Did the criteria well reflect the overall programme objectives?
    o How was meeting the criteria going to be measured?
  – What was good and what caused problems?
  – What could be improved for the next time?

• How were the programme coordination and contacts to different projects managed?
  – Information dissemination to project members?
  – Encouraging collaboration between projects?
    o How would you rate the importance of face-to-face meetings?
  – Handling problematic situations?
  – Researcher motivation and competence building?
  – Gender issues?
  – How were the progress of projects reviewed and evaluated?
  – The role of programme board / steering group?
  – What was good and what caused problems?
  – What could be improved for the next time?

• How were the programme outputs disseminated to others and communicated to end-users?
  – Did the outputs reach end-users?
  – What was good and what caused problems?
  – What could be improved for the next time?

• How was the programme evaluated?
  – Scientific impact? / impact on policymaking? / Socio-economic impacts?
  – How would you rate the evaluation?
  – What was good?
  – What could be improved for the next time?

• What experiences from this programme could be more widely distributed as good practice in programme management?
• What elements were adopted from the good experiences in previous programmes?
• What have you learned from the programme?
• How would rate its success?
B) GENERAL QUESTIONS ON PROGRAMME MANAGEMENT

- What, in your opinion, is the added value of programmes compared to individual projects?
- What would you say is most important in research programme management?
- In your experience, what practices in programme/research management are good and would be beneficial to apply in most programmes?
- Which things are challenging and can lead to situations where the programme objectives are not met?
- What elements in programmes/research are context specific and cannot be included in best practice guidelines?
- What experiences do you have from differing or conflicting organisational cultures?
  - What could be done about that?
- What experiences do you have from people from different ethnic cultures working together?
  - What practices can reduce conflicts?
- What specific objectives could potentially be important to all programmes?
  - Relevance to politically important issues?
  - Relevance to the needs of the public and NGOs?
  - Relevance to the users of research?
  - Innovativeness?
  - Internationalization and national benefits?
- How could programme management best handle:
  - Promotion of collaboration between projects?
  - Competence-building among the researchers?
  - Researcher motivation?
  - Combining different disciplines (multi/transdisciplinarity)?
  - Follow-up of meeting the objectives/criteria?
  - Feedback from and to projects?
  - Conflicts between programmes and projects?
  - Evaluation of projects and the programme?
  - Information dissemination to users and other stakeholders?
  - Gender issues?
### Appendix 5.
Workshop Participants

**SKEP Workshop**

**Good Practices on Programme Management**

27-28 April, 2006  
Finnish Environment Institute, Helsinki, Finland

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aarnio, Tuula</td>
<td>Academy of Finland, Finland</td>
</tr>
<tr>
<td>Bäck, Saara</td>
<td>SYKE</td>
</tr>
<tr>
<td>Colgan, Shane</td>
<td>Environmental Protection Agency, Ireland</td>
</tr>
<tr>
<td>Emanuelsson, Marie</td>
<td>Swedish EPA, Sweden</td>
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<tr>
<td>Fellenius, Erik</td>
<td>Swedish EPA, Sweden</td>
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<tr>
<td>Fenwick, Caroline</td>
<td>NERC, UK</td>
</tr>
<tr>
<td>Furman, Eeva</td>
<td>SYKE</td>
</tr>
<tr>
<td>Gardner, Simon</td>
<td>Environment Agency, UK</td>
</tr>
<tr>
<td>Harju-Autti, Pekka</td>
<td>Ministry of the Environment, Finland</td>
</tr>
<tr>
<td>Heikinheiro, Pirkko</td>
<td>Ministry of the Environment, Finland</td>
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<tr>
<td>Hilden, Mikael</td>
<td>SYKE</td>
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<tr>
<td>Holmes, John</td>
<td>University of Oxford, UK</td>
</tr>
<tr>
<td>Höijer, Laura</td>
<td>Maj and Tor Nessling Foundation, Finland</td>
</tr>
<tr>
<td>Jordan, Gretchen</td>
<td>Sandia National Laboratories, USA</td>
</tr>
<tr>
<td>Killeen, Steve</td>
<td>Environment Agency, UK</td>
</tr>
<tr>
<td>Kivimaa, Paula</td>
<td>SYKE</td>
</tr>
<tr>
<td>Korpinen, Päivi</td>
<td>SYKE</td>
</tr>
<tr>
<td>Kozera-Sucharda, Bozena</td>
<td>Institute of Environmental Protection, Poland</td>
</tr>
<tr>
<td>Kuuppo, Pirjo</td>
<td>SYKE</td>
</tr>
<tr>
<td>Kämäri, Juha</td>
<td>SYKE</td>
</tr>
<tr>
<td>Lundström, Petra</td>
<td>Fortum, Finland</td>
</tr>
<tr>
<td>Mela, Hanna</td>
<td>SYKE</td>
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<tr>
<td>Nastaseanu, Ariana</td>
<td>European Integration Counsellor for Sustainable Development, Romania</td>
</tr>
<tr>
<td>Raynaud, Nils</td>
<td>MEDD, France</td>
</tr>
<tr>
<td>Roos, Jaana</td>
<td>Academy of Finland, Finland</td>
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<tr>
<td>Rouhinen, Sauli</td>
<td>Ministry of the Environment, Finland</td>
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<td>Sedee, Aad</td>
<td>Ministry of Housing, Spatial planning and Environment, NL</td>
</tr>
<tr>
<td>Treyer, Sebastien</td>
<td>MEDD, France</td>
</tr>
<tr>
<td>van Haver, Philippe</td>
<td>AMINAL, Belgium</td>
</tr>
<tr>
<td>Viso, Anne-Catherine</td>
<td>AFSSET, France</td>
</tr>
</tbody>
</table>
Appendix 6.
Workshop Programme

**SKEP Workshop**

**Good Practices on Programme Management**

27-28 April, 2006

Finnish Environment Institute, Helsinki, Finland

<table>
<thead>
<tr>
<th>Time</th>
<th>PRESENTATION</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 - 9:30</td>
<td>Opening and welcome address, presentation of participants</td>
<td>Mikael Hildén, Finnish Environment Institute Sauli Rouhinen, Ministry of the Environment, Finland</td>
</tr>
<tr>
<td>9:45–10:15</td>
<td>SKEP: Dissemination and implementation of research (SKEP WP4)</td>
<td>Erik Fellenius, Swedish EPA, Sweden and John Holmes, Oxford University, UK</td>
</tr>
<tr>
<td>10:15–10:30</td>
<td>Coffee break</td>
<td></td>
</tr>
<tr>
<td>11:30–12:00</td>
<td>R&amp;D activity in Fortum: Present situation and prospects for development</td>
<td>Petra Lundström, Fortum energy company, Finland</td>
</tr>
<tr>
<td>12:00–12:30</td>
<td>Experience of funding research programmes</td>
<td>Marie Uhrwing, MISTRA, Sweden</td>
</tr>
<tr>
<td>12:30–13:30</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>13:30–14:00</td>
<td>Results of SKEP WP3 Questionnaire and interviews</td>
<td>Paula Kivimaa, Finnish Environment Institute</td>
</tr>
<tr>
<td>14:00–14:15</td>
<td>Outline of working group discussions and division to Working groups</td>
<td>Eeva Furman, Finnish Environment Institute</td>
</tr>
<tr>
<td>14:15</td>
<td>Tea break</td>
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<tr>
<td>14:30–16:00</td>
<td>Working group discussions: “Programme initiation: scope, funding and evaluation of proposals” with two short case presentations by Jaana Roos &amp; Bozena Kozera-Sucharda</td>
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<tr>
<td>16:00–17:00</td>
<td>Wrapping up working group discussions I</td>
<td></td>
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<tr>
<td>18:30–19:30</td>
<td>Pre-dinner ice breaking at the Ministry of the Environment. Welcoming words: Sauli Rouhinen, Environment Councellor, Ministry of the Environment, Finland</td>
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<tr>
<td>19:30–</td>
<td>Workshop dinner at restaurant Wellamo. Dinner speech: Steve Killeen, Head of Science, EA, UK</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Activity</td>
<td>Speaker(s)</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------------------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>9:00–9:10</td>
<td>Welcome and introduction to group work</td>
<td>Eeva Furman, Finnish Environment Institute</td>
</tr>
<tr>
<td>9:10–10:45</td>
<td>Working group discussions, “How can programme management support collaboration between projects?” with two short case presentations by Shane Colgan &amp; Pekka Harju-Autti</td>
<td></td>
</tr>
<tr>
<td>10:45–11:15</td>
<td>Wrapping up working group discussions II</td>
<td></td>
</tr>
<tr>
<td>11:15–11:30</td>
<td>Coffee break</td>
<td></td>
</tr>
<tr>
<td>11:30–12:00</td>
<td>Conclusions and next steps</td>
<td>Mikael Hildén, Finnish Environment Institute &amp; Pekka Harju-Autti Ministry of the Environment, Finland</td>
</tr>
<tr>
<td>12:00–12:30</td>
<td>Other issues</td>
<td></td>
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<tr>
<td>12:30</td>
<td>Closing</td>
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</table>
The ERA-NET scheme, which is designed to support the networking of national research funding organisations, is among the means of the European Union to create an integrated European Research Area for innovative knowledge production. The SKEP ERA-NET aims at improving the co-ordination of environmental research, including among other things the management and assessment of research programmes. This report documents and analyses the practices of research programme planning and management in the EU and highlights some of the best practices available in environment-related research. Information on research programme management of thirty-seven case programmes of eight countries was collected through a questionnaire survey. In addition, interviews considering research programme management in seven countries and workshop discussions among twenty-one representatives from nine countries were used to gain comprehensive insight examples.

There is a great deal of variation in countries’ experience in programme management. Based on the country experiences from the study, readers are provided with set procedures and practices for the research programme management. The variety of funding structures and governance cultures, however, requires flexibility in implementing the recommended procedures, and the recommendations of the report should be interpreted in such a way. Working with stakeholders is an example of culture-dependent practice. Careful but flexible planning is needed despite the culture and context. Therefore, the report recommends that objectives and goals should be developed on the subject of the research programme but also for more general issues such as dissemination, evaluation and gender. A core management team is seen as the crucial operational tool of programme management and should thus be carefully planned to serve the programme. Evaluation finally reveals how well the programme has succeeded, also from the management point of view. For the sake of continuity it is crucial that the lessons learned be translated to future programmes which aim to contribute to innovative European knowledge production.

<table>
<thead>
<tr>
<th>Keywords</th>
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<th>Finnish Environment Institute</th>
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Printing place and year

Vammalan Kirjapaino Oy, Helsinki 2006
**Experiences in the management of research funding programmes for environmental protection Including recommendations for best practice**


ERA-NET-programmet är planerat för att stöda uppbyggnaden av nätverk mellan nationella organisationer för finansiering av forskning och är en av Europeiska Unionens metoder för att skapa ett integrerat europeiskt forskningsområde för innovativ kunskapsproduktion. SKEP ERA-NET strävar till att förbättra koordineringen av miljöforskningen, inklusive bl.a. administration och utvärdering av forskningsprogram. Den här rapporten dokumenterar och analyserar praxis kring planering och administration av forskningsprogram i EU och lyfter fram några av de bästa verksamhetsmodellerna för miljörelaterad forskning. Information om administrationen av forskningsprogram i 37 exempel-program i 8 länder samlades in med hjälp av frågeformulär. Dessutom användes intervjuer om forskningsprogramadministrationen i 7 länder och workshop-diskussioner mellan 21 representanter från 9 länder för att få en helhetsmässig inblick.

De olika ländernas erfarenhet i administration av forskningsprogram varierar mycket. På basis av materialet från de olika länderna i undersökningen erbjuder rapporten modeller för administration av forskningsprogram. Eftersom både finansieringsstrukturen och förvaltningskulturen varierar så mycket mellan olika länder krävs flexibilitet både i tolkningen av rapportens rekommendationer och i implementeringen av de rekommenderade handlingsplanerna. Arbete med olika intressenter är ett exempel på kulturbunden verksamhet. Trots detta är noggrann men samtidigt flexibel planering nödvändig oberoende av kultur och sammanhang. Därför rekommenderar rapporten att syften och målsättningar utvecklas inte bara med tanke på forskningsprogrammets ämne utan också med tanke på mer allmänna frågor så som informationsspridning, utvärdering och jämlikhet mellan könen.

En för forskningsprogrammet ansvarig kärngrupp ses som det centralaste verktyget för programadministrationen och skall därför planeras med eftertanke för att bidra till den innovativa europeiska kunskapsproduktionen.

### Nyckelord
- Miljö
- Forskningsprogram
- Behörskning av handlingsätt
- Finansiering

### Finansiär/uppdragsgivare
- Finlands miljöcentral

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### Tryckeri/tryckningsort och -år
- Vammalan Kirjapaino Oy, Helsingfors 2006
How are environment-related research funding programmes planned and designed? What premises are funding applications handled and decided upon? What are the crucial steps in the research management process? Who can be involved in research planning and in implementing the programmes?

Different practices of research programme planning and management in the EU are documented and analysed, and some of the best practices available in environment-related research are highlighted in this report. According to research funding experiences from ten European countries, there is a great deal of variation in countries’ experience in programme management.

Based on the country experiences collected through a survey, interviews and workshop discussions as part of the SKEP ERA-NET, the readers are provided with set procedures and practices for research programme management. The information presented is useful both for experts involved in research programme design, management or evaluation and for researchers applying for funding.