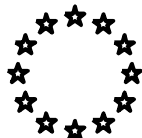


2001

**EXTERNAL MONITORING REPORT
ON THE
SPECIFIC PROGRAMME
FOR
RESEARCH AND TECHNOLOGICAL
DEVELOPMENT**



**IN THE FIELD OF
ENVIRONMENT AND SUSTAINABLE
DEVELOPMENT**

This is part of the series of the external annual monitoring reports prepared for the EC Framework Programme and the Euratom Framework Programme, and their constituent Specific Programmes and also – as a novelty – covers also the implementation of the European research Area related activities (ERA)

The Commission has over the years been placing increasing emphasis on the evaluation of Community RTD activities. With the overall Reform of the Commission, evaluation activities are more and more placed in the heart of the decision process. In line with this continuous effort for improvement, a revised programme monitoring scheme has been introduced in 2001, based on the system launched in 1995 which involved, independent external experts in the monitoring activities. The new mechanism launched this year, has been built in order to better involve the experts monitoring the implementation of ERA and specific programmes, by representing them in the Framework Programme Panel. The timely response by the Programme management to the recommendations produced by the experts will be enhanced, providing the basis for a quick response mechanism to programme developments, as the follow up of expert recommendations will be receiving still more attention

This report is the third covering the Fifth Framework Programme: the report also highlights progress in relation to implementation of ERA and results and impact of previous Framework Programmes. The report should help reinforce establishments of best practices and identify the scope for further improvements in programme implementation.

The report consists of two parts:

Part A: *External monitoring report prepared by the following independent external experts:*

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Part B: *Responses of the Programme management to the external monitoring report.*

PART A:

Report of the external Monitoring Panel

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1. EXECUTIVE SUMMARY

The requirements placed on the Panel differed from those of its predecessors because it was necessary to consider progress made with ESD during 2001 and how this related to the proposals for FP6 and contributed to the ERA.. Further the Chairmen of the Specific Programme Panels, such as ESD, have been members of the Main Framework Panel, aiding integration across all the research areas.

Sustainable development is a prime objective of the European Community, not only in terms of the prudent management of its own resources, but also globally. It is appropriate therefore that ESD issues have been a major element of FP5 and will continue to be a priority theme in FP6. Good progress has been made in 2001 in implementing the final stages of FP5. There were 12 calls for proposals and the 2001 budget of 275.917 MEURO was fully utilised. For the first time there were two dedicated calls for proposals addressing newly emerging science issues. This showed the Directorate I's willingness and ability to respond flexibly. There was a strong emphasis on measures to facilitate participation of NAS including two dedicated calls for them and a number of targeted events. The overall success rate of 1 in 4 for funded projects may be compared favourably with the rate of 1 in 8 in 2000 but for proposals involving a candidate country or NAS the success rate was only 1 in 5.

The larger Integrated Projects and Networks of Excellence featuring in FP6 have encouraged the Directorate to establish clusters of FP5 projects and more extensive Thematic Networks. Directorate staff found the larger projects less difficult to manage than anticipated. Many examples of existing ESD projects and clusters yield important results, particularly in relation to European and International policy formulation and implementation. The Directorate has taken a pro-active role in adapting as far as feasible to the forthcoming FP6 and the philosophy of ERA. It has made important strategic inputs to a number of EU policy documents [eg 6th Environmental Action Plan, Communication on Sustainable Development Strategy], commissioned a benchmarking survey of research competence in MS, entered into a cooperation agreement with USA National Science Foundation and established a strategic Policy Unit.

The Directorate's reports synthesising research results from the FPs, MS programmes and more widely are particularly valuable in raising the profile of FP research throughout Europe and internationally, however they are too few in number and lack a systematic arrangement for their production. Although the Directorate has been effective in linking into some of the international science programmes eg IGBP, collaboration with such programmes coordinated by UN agencies eg UNESCO, WMO, UNEP etc. needs improvement. Stress is laid in FP6 on the need for research helping to formulate community policies. A formal document listing priority areas for research required to support each scientific and technical Directive should be prepared jointly by Directorate I and the relevant Policy Directorates. ESD sectors in FP4 provide many examples demonstrating research impacts on policy and industrial innovation but there has been no systematic impact study of ESD projects overall. Directorate I intends to start this work in 2002 but must draw on the experience gained from such assessments made in other research Directorates.

Although the increase participation of NAS has been a high priority over the last few years involvement in the ESD SP is still unsatisfactory. This is due to difficulties in interpretation of documentation, lack of experience in proposal writing, under developed networking arrangements and limited ability to find appropriate MS partners. Positive steps to address all these issues are needed from the Directorate and the Commission.

Much of the ESD SP is concerned with policy rather than commercial/industrial research. Nevertheless, specific initiatives for environmental technologies developed through CRAFT

projects and innovation activities have been launched by Directorate I. Understandably SME involvement has been relatively low in some sectors, however it now stands at about 10% overall and the Directorate is developing a policy to draw SMEs into research areas more concerned with 'the public good'.

A working group to address gender in science has been established, much more statistical information is now collected and policies are changing practices and attitudes. 25% of scientists in the Directorate are women but there are no women Heads of Unit. 50% of EAG and Monitoring Panel members appointed by the Directorate, but only 24% of Evaluators, are women. Means need to be found to increase women's involvement in proposal evaluation.

Directorate I has managed the SP well but the many changes introduced/imposed have placed an excessive workload on staff who nevertheless have remained effective and committed. Questionnaire responses from Project Coordinators showed that Commission staff support is both helpful and relevant during proposal development. The Directorate has accelerated contract preparation by 18% from 2000 to 2001, 50% of contracts being signed within 280 days. Activities in communicating research results have been increased but more extensive use of multi-media is needed. The Directorate's Management Information System must use more rigorous procedures for data input and be modified to meet an interim arrangement for a centralised system for DG Research.

The Commission has defined a clear role for NCPs but the latter are not providing an appropriate level of support and the situation is generally unsatisfactory given their planned future role in FP6. The 3 associated EAGs if properly used could give invaluable stakeholder advice, however under the present arrangements EAGs believe their advice is not being considered. Redefinition of their role is urgently needed.

Present management arrangements generally work well but the Directorate has insufficient staff resource to carry out all required work. This is due to an increase in the range of scientific/administrative tasks staff are asked to undertake as well as an understandable wish to be at the forefront of new initiatives. The Directorate will have to increase its staff resource possibly through the use of PTAs or external consultants and/or examine its priorities and shed some of its less urgent activities in order to continue to cope and to meet the challenges of FP6 and the ERA. The activities of the Commission officers in advancing RTD have to be transparent and accountable. The necessary administrative and financial procedures have to be followed but balance is needed and at present there is too much unnecessary bureaucracy and control. There is a widespread and recurrent demand to simplify procedures and use plain language documentation and these requirements must be addressed urgently by the Commission.

The ESD Panel's report contains 21 Recommendations, some of which are specific to Directorate I and others generic.

2. INTRODUCTION

There is an annual requirement for the European Commission to arrange for monitoring of the implementation of the Specific Programmes [SPs] of the Fifth Framework Programme [FP5] by Panels of independent qualified experts. Accordingly the Commission has established the 2001 External Monitoring Panels. The following report presents the findings of the Monitoring Panel which considered the Sub Programme for the Environment and Sustainable Development [ESD] of FP5.

The requirements placed on this Panel differ in some important respects from those of its predecessors because of the considerable progress made during the year by the European Council in establishing a European Research Area [ERA] and the Commission's proposals for the Sixth Framework Programme [FP6], which is one of the important elements within the ERA. It was therefore appropriate and timely for the Commission to require the 2001 SP Monitoring Panels to consider how progress made within the SPs during the year was contributing to the implementation of the ERA. This forward looking approach differs from previous, more restricted, monitoring activities and presents an opportunity to influence future RTD policy in the broader European and international context. Further, the work of the SP Monitoring Panels is now much better integrated with that of the Framework Panel and the Chairpersons of the SP Panels are also members of the Framework Panel.

All the SP Monitoring Panels were provided with Guidelines including the suggestion that Panels should focus on specific topics but have the freedom to examine and report on other relevant issues. The principal topics suggested are addressed in separate sections of the report.

The RTD in FP5 was required to be relevant to the European Community's industrial, commercial, economic, policy and social needs. Accordingly the ESD Sub Programme was structured into four Key Actions - Sustainable Management and Quality of Water; Global Change, Climate and Biodiversity; Sustainable Marine Ecosystems; City of Tomorrow and Cultural heritage - and additionally cross-cutting research within Generic Activities and Infrastructure. During 2001 there have been two general calls for RTD proposals and ten other calls concerned with Accompanying measures, SMEs, NAS, etc. For the first time there were two dedicated calls for proposals - one for research on endocrine disrupters and one for biodiversity information networks - demonstrating the Directorate I's willingness and ability to adopt a flexible response to newly emerging issues. Dealing with the calls, proposal evaluation and Contract negotiation as well as managing the FP4 projects and preparing for the implementation of the ERA and FP6 has imposed a heavy workload on the Directorate staff.

The 2001 budget to implement calls was 275.917 MEURO, for Key Actions 211.373 MEURO, for cross-cutting Generic Activities 36.429 MEURO and for Infrastructure 28.115 MEURO. 1.607 proposals with a total requested EU contribution of 2.532.740 MEURO (about 500% of the available funds if one takes the budget for 2002 also into account) were accepted for evaluation within ESD. Of these 515 proposals (33%) passed the evaluation process and 275.360 MEURO was allotted to support 244 projects on the budget of 2001 but 388 on total. This represents a 1 in 4 success rate for funded projects and may be compared with the success rate of 1 in 8 reached in 2000.

This document is the Final Report of the 2001 ESD Monitoring Panel. Specific issues are considered in the sections which follow and Conclusions and Recommendations are offered. Some of these are specific to ESD research and its management, others are of a more generic nature and have been taken forward into the Report of the Framework Panel

The Panel wishes to acknowledge the considerable support provided by Commission's Officers in supplying statistics and in arranging interviews. It also thanks those who provided information and opinions during the course of interviews and in replying to the questionnaires.

3. PANEL METHODOLOGY

The four external and independent Members of the ESD 2001 Monitoring Panel were appointed by the Commission in November 2001 (Annex 1).

Panel Members' diverse expertise has enabled coverage of all research areas, types of action and RTD process (from research to exploitation, diffusion and dissemination). Members were selected in order to ensure an overall balance from the point of view of gender and geographic origin.

The methodological approach, based on 'Broad Guidelines' [Doc. 2, Annex 2] provided by the Commission at the start of the exercise, consisted of:

- Collection of information through
 - Meetings - the Panel held four meetings in Brussels during the period 8th November 2001 to 20th March 2002. All Panel Members attended all meetings. These, and the interviews with staff (Annex 3), were arranged by the Commission which also provided statistical data, information and extensive documentation (Annex 2).
 - Programme Committee [PC] - Panel Members met PC Members and Observers on 27th November 2001.
 - Interviews with selected Commission staff (DG Research and others) (Annex 3).
 - Bilateral discussions with some Members and Observers of PC, External Advisory Groups [EAGs], National Contact Points [NCPs] and others.
 - Directorate I "Self Assessment Fiches" of Programme Implementation in 2001.
 - Returns from different questionnaires specifically prepared by the Panel for the following target groups:
 - Members of EAGs; Members of the PC; NCPs of selected MS and Newly Associated States, Coordinators of successful projects from calls for proposals in 2000, and unsuccessful and successful projects from calls for proposals in 2001 (Annex 4).
 - Information from WEB based tools - CORDIS; Directorate I internal information system.
 - Discussion at Panel meetings leading to the identification of key issues.
- Coordination and integration of the ESD Panel with the Framework Panel through
 - the participation of the ESD Chairperson in five meetings of the FP and two joint meetings of FP/SP Panels.
 - Observation of the Expert Evaluations of the ESD Sub-Programme, carried out during the period 26th November to 15th December 2001 by all Monitoring Panel Members.
- Analysis and recommendations through:
 - Detailed analysis and interpretation of responses to questionnaires.
 - Issues Paper of 15th February 2002.
 - ESD 2001 Monitoring Report of 20th March 2002.

Although this monitoring exercise has been completed in a relatively short time the Panel considers that it was able to obtain a good understanding of the ESD Sub Programme and associated issues.

The Panel generally welcomed the provision of the Directorate I's overview document for 2001 describing the principal issues and synthesising basic statistical data (Self - Assessment Fiches [SAFs]). However those SAFs distributed to Panel Members (first draft 28th November 2001 and second draft January 2002) did not contain information covering the whole year, many tables could not be interpreted due the wide use of acronyms and abbreviations. The Panel recommends that for future Monitoring activities these documents are completed and provided in advance of the first

Panel meeting. This will give an opportunity to gain more from the interviews and better identify information needs at the start of the process.

Due to the heavy workload of Commission staff some relevant interviews were postponed several times and some organisational duties (eg. collection of the contractors' questionnaire) were "externalised" to the Panel's rapporteur.

The deadline set for the presentation of the Final Monitoring Report should allow for all information concerning the year's activities to have been made available. However some information required by the Panel could not be provided in time.

The integration of the SP and FP Panels has been very valuable in terms of setting the work of the ESD Panel into a wider context, particularly with regard to the ERA and FP6.

4. ANALYSIS AND FINDINGS

4.1 STRATEGY AND OBJECTIVES

4.1.1 Progress in ERA and programme implementation

Directorate I has been particularly effective in managing the ESD Sub-Programme given the heavy workload, available human resources and the bureaucratic exigencies. It has also addressed a number of policy issues from an EU and global perspective. Good progress has been made in 2001 in implementing the final stages of the FP5 ESD Sub-Programme where there was a strong emphasis on measures to facilitate the participation of the NAS [Newly Associated States]. There were 12 calls for proposals during 2001 (Annex 5) and the 2001 budget was fully committed.

The Directorate has taken a pro-active role in adapting as far as was feasible to the forthcoming FP6 and the philosophy of ERA. Directorate has made important strategic inputs to recent EC documents such as the 6th Environmental Action Plan [Doc. 25] and the Communication on Sustainable Development Strategy [Doc. 21]. The integration of a number of INCO projects into the ESD Sub-Programme has strengthened the international position of the Directorate and its ability to build international networks. Major international environmental issues, however, are in some cases different from major EU issues, eg population growth.

In line with the move towards the larger Integrated Projects and Networks of Excellence which will be features of FP6 and of ERA, Directorate I has encouraged the establishment of clusters of FP4 and FP5 projects and of more extensive Thematic Networks. Moreover the trend towards larger projects has persisted from previous years and the average cost per project is now 1.9 MEURO compared with 0.6 MEURO 4 years ago. The Directorate staff has found that large projects turned out to be less difficult to manage than anticipated. The Directorate has managed a 7% shift in funding from Key Actions to Infrastructure and Generic Activities. Infrastructure developments are an important element of the ERA and it is significant that Infrastructure spending increased to 10% of the total for the Sub-Programme. However there has been no net adjustment to the Sub Programme budget as set by the Council Decision.

Directorate I commissioned a survey to measure research competence across Member States and NAS [i.e. a benchmarking exercise] so as to understand better how complementarity may be established between national and EU research programmes. It is recognised that greater mobility of researchers is needed within the ERA and Directorate I has addressed this through an enlargement of the Ph.D. fellowship programmes. However, problems with mobility of senior researchers still remain and major actions by MS and the EC are needed to resolve these.

Directorate I has recognised the growing importance of research for policy requirements and in particular the importance of addressing sustainability issues within the environmental and wider

context. It has put in place a Policy Unit that has made a sound contribution to inter-Directorate strategy particularly in relation to sustainable development. Sustainability is an essential feature of FP6 and the ERA and Directorate I, through its new Policy Unit, is well positioned to provide advice and support across the full gamut of FP6.

The Directorate recognizes that in the ERA and in moving towards FP6 greater cooperation between Policy Directorates (eg ENV, TREN, etc.) on the one hand and the innovators in commerce and industry on the other is needed. The effect of this is likely to make major changes in the skills base needed by Commission staff. They will be required to become strategic thinkers and managers rather than active scientists. The Panel accepts the need for change in this strategic direction but would not wish the scientific skill base completely eroded. An appropriate balance has to be retained in the Directorate.

4.1.2 Significant Results in the European and International Context

Many of the existing ESD projects and clusters are yielding important results, particularly in relation to European and international policy formulation and implementation. For example the results from a number of projects have contributed directly to the implementation of the Water Framework Directive. A noteworthy initiative, following a workshop involving many of the best hydrological modelling groups in Europe, has been the development of the CATCHMOD cluster. This is concerned with integrated catchment modelling of water quantity and quality, and soil. It is leading to management tools for water system impacts resulting from climate or land use change across all of Europe and is fully in line with one of the FP6 objectives. Similarly the substantial involvement of city and regional authorities in projects within the 'City of Tomorrow & Cultural Heritage' Key Action places research at the heart of communities. The results from one cluster of projects concerned with urban waste management is supporting EC Directives on Packaging and Landfill. Another cluster is determining the danger threshold levels of atmospheric contaminants to prevent damage to monuments and buildings with a high cultural value. The socio-economic research (Generic Activities) has produced quantitative tools and ex-ante impact assessment of policies, economic instruments and environmental technologies which are used for the definition of environment and sustainable development policies at regional, national, European and world levels.

The international dimension of the ERA and FP6 will be stronger and more focussed than in FP5. The Programmes in FP5, other than INCO, are somewhat Eurocentric. A major element of EU environmental policy is concerned with implementing legally binding international commitments on issues such as climate change, biodiversity, ozone depletion, waste, environmental security etc. DG ENV takes the lead on such policy matters and there is recognition that policy must be based on sound science. It is encouraging that the Directorate SOs are working in collaboration with DG Environment on the implementation of the Kyoto Protocol and the Convention on Biological Diversity and that the research results from both FP4 and 5 are now being used effectively. However many uncertainties still remain with respect to climate impact assessments because to date these have generally relied on low resolution models. A major recent project 'Prediction of Regional Scenarios and Uncertainties for defining European Climate Change Risks and Effects' [PRUDENCE] will provide high resolution schemes to establish soundly based European policies for adapting to or mitigating climate change.

A few valuable reports synthesising research results from the FPs, national Programmes and more widely have been prepared by the Directorate. These documents are particularly important in that they raise the profile of FP research throughout Europe and internationally. However they are too few in number and there appears to be no systematic arrangement for their production. The Panel recommends that the Directorate prepares a priority list of topics for synthesis, undertakes the necessary work and arranges for publication and dissemination.

The Directorate needs to consider the opportunities available for improved collaboration with appropriate international science programmes co-ordinated by UN agencies e.g UNESCO, WMO, UNEP etc. For example the UNESCO International Hydrology Programme [IHP] and Man & the Biosphere programme [MAB] have extensive areas of relevance to the ESD. These programmes have widespread European and international project networks in place. A study is needed to identify those elements of UN research where collaboration would be readily achievable and most effective in terms of the ERA and European international policy. The Directorate I has been much more effective in its involvement with the international Geosphere/Biosphere Programme [IGBP] e.g the ELOISE cluster is an official EU contribution to the LOICZ core project of IGBP. LOICZ is thought to be the world's largest project in coastal zone science. ELOISE in FP4 & 5 contains 51 clustered projects and is developing new tools to support the implementation of the Directives on Urban Waste Water Treatment and on Nitrate Discharge.

The establishment of an agreement on environmental research between the National Science Foundation [USA] and the Commission is very welcome. Progress with this initiative should be examined during the next Monitoring exercise.

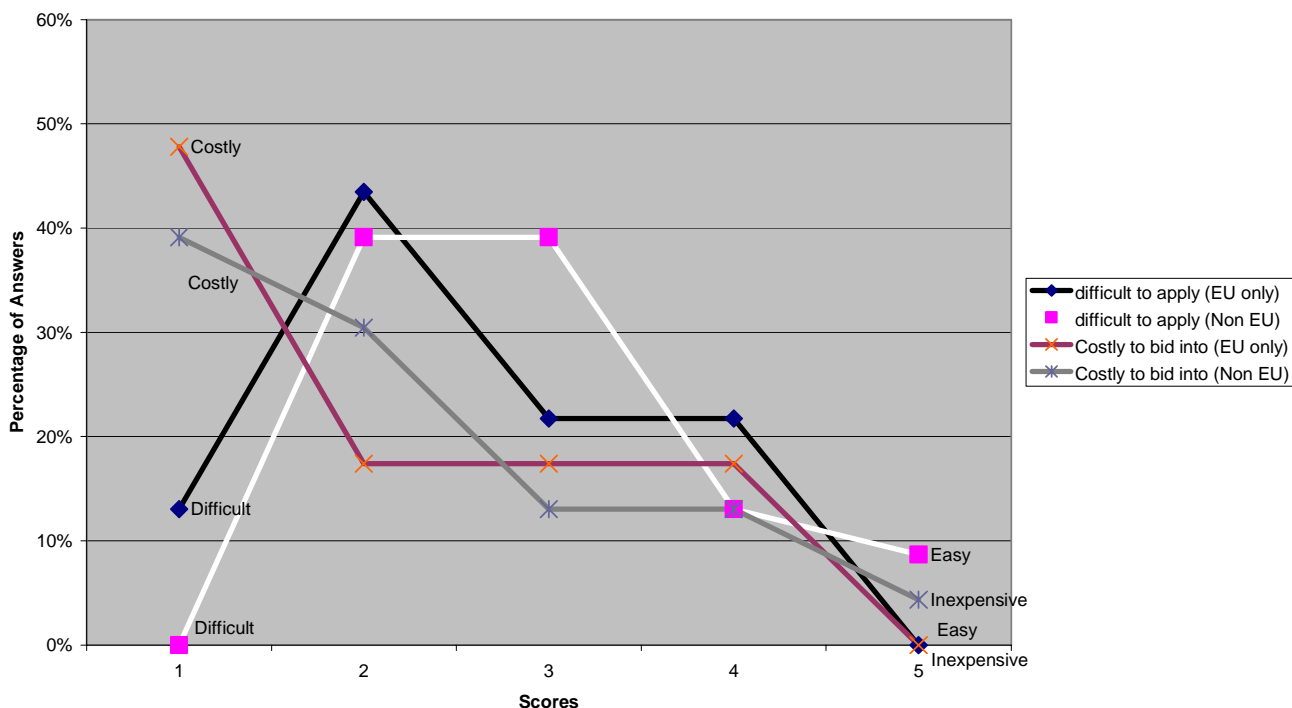
4.1.3 Participation of Newly Associated States [NAS]

The increased participation of NAS in the EU RTD programmes has been a high priority over the last few years. In 2001 Directorate I has worked to increase the participation of these countries by supporting two dedicated calls to NAS, contributing to events organized in these countries (visits and information days) and organizing a meeting of the NCPs (17-18 September 2001, Brussels) largely devoted to the specific issues of NAS and their integration into the ERA. Nevertheless, the underlying causes for problems in the NAS' participation in RTD activities will take time to resolve and their involvement in the ESD Sub-Programme is still unsatisfactory. There has, however, been an increase in NAS participation in ESD in 2001 compared to 2000. The number of partners from these States in funded proposals and the number of funded proposals have increased. The success rate for NAS in FP5 (four general calls) has been on average 15% compared to the 20% for the MS. The success rate varies quite widely from one NAS to another and from year to year.

Some of the reasons for poorer performance of the NAS compared with the MS appear to be as follows:

- difficulties in interpretation of complex wording in the Commission's documents combined with lack of enough experience in writing proposals. The vast majority of proposers from both MS and NAS found the process of submitting a proposal difficult and costly (see Fig. 1)
- under-developed networking arrangements and lack of relevant research infrastructure (basic environmental infrastructure research needs in the NAS are not specifically addressed in the FPs but the Structural Funds should have a role here [see 4.1.6]);
- limited ability to find partners from MS as a pre-requisite for success of the project proposals (the German initiative to establish a web page to encourage German partnerships for the dedicated NAS calls is welcomed);
- prohibitive travel costs to and subsistence costs in Brussels for experts from NAS to participate in meetings, conferences, etc.

Fig. 1: EC procedure characteristics for making an application for research funding for ESD(2001)



The responses to questionnaires and discussions with members of the PC, EAGs and NCPs suggest that full use has not been made of the existing scientific potential in the NAS. Further the return from the direct investments of these countries in FP5 has not been realised. Government policy on ESD RTD in each country is different eg in Bulgaria and Slovakia, a systematic approach and support from governmental bodies has been generally insufficient or lacking.

To increase the participation of NAS in FP6 and the ERA it is recommended that the Commission should:

- consider further opening up the pre-accession funds to establish new and enhance existing RTD infrastructure and to support mobility and training of scientists;
- carry out in 2002 an overall analysis of the content of the draft workprogrammes for FP6 in relation to their relevance to NAS ESD priorities and examine the Rules for participation to ensure there are no barriers to NAS involvement;
- have procedures in place to safeguard against NAS being excluded from the large Integrated Projects and Networks of Excellence proposed for FP6.

4.1.4 Participation of SMEs

Much of the ESD Sub Programme is concerned with policy rather than commercial/industrial research. It is therefore understandable why SME involvement has been relatively low in the past. However this has increased and is now at about 10%. The level of participation varies markedly between different Key Actions. The Water Key Action, due to its strong technical orientation, has attracted some 15% SME involvement, whereas in Global Change it stands at 4%.

During 2001 there have been 3 calls for SME Specific Measures in ESD. There was a particularly strong increase [100%] in the Cooperative Research [CRAFT] SME proposals. 113 CRAFT and Exploratory Award submissions were received, of which 38 were funded; a success rate of 1 in 3. This is much higher than the success rate for proposals lying outside these Specific Measures. The SME Specific Measures [Exploratory Awards and Cooperative Research], the identification of exploitation or innovation opportunities arising from the Technology Implementation Plans [TIP],

the regional support given by the Innovation Relay Centres [IRC] and the environment oriented Community Initiatives of DG REGIO [such as URBAN, INTERREG and LEADER] all provide opportunities either to increase SME participation in the Framework Programmes or to aid in the exploitation of SME related research projects.

The level of support that SMEs are receiving from NCPs is noteworthy. It appears to be much more active and focussed than that generally directed towards academic and public research organisations [see section 4.2.5]. 15 SME NCPs have collaborated in a project 'Transnational Training and Accreditation' [TRANSTRACC]. One of its activities has been the production of a best practice guide to support SMEs in FP6 and the ERA. Such initiatives are very welcome. With respect to the ERA however there is concern that the large integrated projects could lead to lower participation of SMEs than at present in all sectors.

Collaboration between SMEs and the universities and public sector research groups is one of the important components of innovation. However within some research bodies a shift in attitudes towards recognition of the importance of IPR and patents so as to encourage SME participation in joint research programmes.

The Policy Unit of Directorate I recognises the importance of expanding ESD science into industry and commerce and considers that there are particular opportunities in technology, mathematical economic modelling, database development etc. The Panel fully supports this and recommends that the Directorate should develop an action plan for implementation of these opportunities within FP6.

4.1.5 Women and Sciences

While there was no reference to 'Gender in Science' in FP4 the issue has attracted attention in FP5. Statistical information is now being collected and policies are being directed to change practices and attitudes. The EC aimed to promote women in FP5 so as to increase significantly the number of women involved in research. The target is to have at least a 40% representation for women in the Marie Curie Scholarships, advisory groups and assessment/monitoring panels [Doc. 51]. Directorate I has established a working group to forward the collection of statistical information on this issue and a staff member has specific responsibility for 'Gender in Science' matters. The results from such activities can be summarised as follows:

- the final report of an EC sponsored study 'Gender in Research' for the ESD Sub Programme has been published and distributed
- a session of the international conference on gender [November 2001, Brussels] was devoted to examining the ESD sector
- efforts have been directed to increase the participation of women in all ESD activities, in particular in the selection of candidates for staff posts to implement and manage the research programmes

Within the Directorate I there are no women as Head of Unit. The percentage of women scientists varies between Units from 9 to 43%, with an average for the Directorate of 25 %.

The number of women participating in the ESD research programme varies quite widely from year to year and call to call. For the ESD contracts in place in March 2001 35% of participants are women. The age distribution in March 2001 is interesting in that there is a much higher percentage [46%] of younger women [under 35 years] participants than older women [32%]. This may be encouraging statistics. However, in the previous year only 15% of the proposals submitted in October 2001 call were signed by women, probably representing women in senior financial and management positions. It would have been useful to have information on the number of women project - coordinators. This data needs to be collected.

In 2001 there were, on average, 40% women members in the three EAGs for which the Directorate I is responsible. In this respect the Directorate compares very favourably with the female representation across all the FP's EAGs, which only stands at about 28%. The Directorate record is similarly creditable in the appointment of its Monitoring Panel members of which 50% are women. The comparable figure for DG Research overall is about 26%. However the number of women evaluators appointed by Directorate I is low at 24%. There is a clear need to increase the number of women evaluators. The Commission has to explore means of encouraging women to apply. This may involve approaching women experts directly and encouraging their application. It would also help if working conditions, fees, communications etc. could be improved. The provision of child care facilities should be considered too.

4.1.6 Towards new FP: State of play

The Sixth Framework Programme proposals advanced quickly during 2001 and there is now a high level of convergence between the Commission and the European Parliament as to FP's final form and content. Of the seven priority themes for research, the sixth 'Sustainable Development and Global Change' is the one most closely allied with the research activities in the ESD Sub Programme of FP5. Sustainable development is a prime objective of the European community, not only in terms of the prudent management of its own natural resources but also globally. The Community recognises that a major contribution to international efforts which mitigate or reverse environmental degradation is needed through FP6 and the ERA. It is appropriate therefore that environment and sustainable development issues should ramify through most of the priority themes in FP6. However fragmentation and consequent loss of focus is a potential problem for sustainable development and environmental research and it is unclear how these dispersed activities will be managed using the existing Directorate structure and how coherence will be maintained. It is recommended that the inter Directorate management arrangements to handle these topics which cross Thematic Priorities boundaries are carefully planned and introduced in a timely way so that hasty *ad hoc* solutions leading to fragmentation are avoided.

Stress is laid in FP6 on the need for research which helps in the formulation and implementation of Community policies. Much of the ESD research in FP4 and 5 is addressing 'public good' issues and is policy oriented. Links between the Directorate I and the relevant policy Directorates were not particularly strong in the past but have improved over the last 2 years. The Group of Directors arrangement has been helpful in this respect. However such working procedures must be enhanced if the results of research from FP6 are to be maximised in a policy context. Clear links between research and Commission directives at both formulation and implementation stages need to be established. The Panel recommends that a formal document, listing the priority areas for research required to support each technical and scientific Directive, should be prepared jointly by the Directorate I and the relevant policy Directorates. The approach suggested above of forming this direct link between research and policy through the Directives could be applied across FP6 as a whole.

FP5 has a somewhat prescriptive structure and the introduction of large and significant new areas of research has proved difficult. However the Directorate I cooperated with the "Quality of Life" Directorate F to develop and launch 2 calls - one on Endocrine Disrupters and the other to establish a European Network for Biodiversity Information [ENBI]. These research Directorates have thus demonstrated their willingness and ability to be pro-active in advancing new issues. The arrangements to operate in a much more flexible way and to re-distribute activities within FP6 will be welcome.

A feature of FP6 will be a move towards Integrated Projects and Networks of Excellence. Projects will be large enough to generate a critical mass of research activity which will have an impact at a sectoral level. Within the FP5 ESD Sub Programme there are a number of large projects composed

of modules and many examples of clustering of complementary projects. Limited use was made of Thematic Networks and Concerted Actions in the early calls of FP5 but these instruments have been given prominence in later calls. Under FP6 Directorate I should endeavour to incorporate some of the FP5 clusters and networks within the new Integrated Projects and Networks of Excellence. While the FP6 rationale, in terms of impact for larger projects and networks, is accepted, some concern has been expressed by the science community that this approach could lead to the exclusion of smaller organisations from environmental research in FP6 and a reduced participation of smaller MS and NAS. The larger/stronger organisations would predominate to the detriment of smaller bodies. The Panel recommends that the Commission develops its procedures for selection and management of these large proposals in full as soon as possible so that potential difficulties can be identified and exclusion barriers avoided.

One important component of FP6 which will help to consolidate the ERA is to remove some of the obstacles to mobility of researchers particularly at the intermediate and senior level. While there has been an ESD open call for Marie Curie Fellowships during 2001 the mobility issue regrettably does not have a sufficiently high profile in the Directorate. The Panel recommends that the Directorate I demonstrates an increased level of activity here and in particular in respect to NAS. Further it would wish the Commission to consider whether mobility opportunities can be incorporated within some of the FP6 projects.

Some of the available Structural Funds may be used to support research, infrastructure and innovation within Less Favourite European Regions. The Directorate I has developed a successful Research Infrastructure Programme within FP5 but detailed interactions and collaboration with DG REGIO are very limited. This situation must be improved in FP6 where an integrated approach to research within the regions and coherence with the Structural Funds policy are needed.

4.2 MANAGEMENT AND PROCESSES

4.2.1 Main Management issues

Directorate I has managed the Sub-Programme well, notwithstanding the many changes that have been introduced/imposed. The year was characterised by the preparation of FP6 and the continuing implementation of the ESD Sub-Programme [3 minor revisions of the Work Programme and better integration of NAS]. There was also the restructuring of DG Research [policy directorates, thematic directorates and Policy, Administration and Finance units at Thematic Directorate level, delegation of contract negotiation to the SOs, introduction of the ICS17 procedure etc.]. This has all resulted in an excessive workload for the Directorate I's 111 staff.

The new organisational arrangements retained the four Thematic Units [with each Head of Unit having a specific responsibility for a well-defined element of the ESD Sub-Programme] and introduced a new unit for Policy and a new unit for Administration and Finance. This organisational structure seems to work efficiently. The ESD Work Programme has been well covered, the clustering and the first steps towards integrated projects have been made. The Commission staff is both committed and efficient in managing its work. The results of a Panel questionnaire to the project coordinators showed that they found Commission staff support both helpful and relevant during proposal development and in the management of successful projects [see section 4.2.5, Fig. 2].

The Directorate has accelerated the contract preparation process. The first 90% of signed contracts in 2001 were completed in 310 days compared to 410 days in 2000. The first 50% of contracts were signed in 280 days compared to 320 days in 2000. A new arrangement was introduced in the Commission in November 2001 which delegated the decision to fund projects to the Director General. These arrangements should result in a further time saving of 2 to 4 weeks.

The delegation of the contract negotiations to the SOs, should lead to a strong interaction between the Administration and Finance and the Thematic Units but these arrangements do not appear to be working well. The existence of a “cultural gap” between Thematic Units and the Administration and Finance Unit and the need for training in contract negotiation may have affected the efficiency of the Directorate during this transitional period. Because the organisation structure is relatively new a future monitoring panel should examine the effectiveness of these relationships.

The Policy Unit ensures the appropriate links to the Policy Directorates and external organisations. It is also responsible for a number of operational activities in the area of socio-economic research, sustainable development and ERA. The main difficulty it encountered during 2001 was in collecting the key information it needed for its strategic assessments from the Thematic Units. An inadequate information system together with the lack of priority in updating the data bases is an urgent problem [see section 4.2.2].

Directorate I is well in advance of the other Directorates in implementing the ICS 17 Internal Control System. [see section 4.2.3] . The cost of management and administration of the ESD Sub Programme stands at 13.088.957 EURO of the Sub Programme budget. It is fully recognised that the activities of the Commission officers in advancing RTD have to be transparent and accountable. The necessary administrative and financial procedures have to be followed but balance is needed and at present there is too much unnecessary bureaucracy and control.

The present management arrangements are generally working well but the Directorate does not have enough staff to carry out all the required work properly. This is because of an increase in the range of scientific/technical/management and administrative tasks the Directorate is expected to undertake, as well as an understandable wish to be at the forefront of new initiatives. In order to continue to cope the Directorate will have to increase its staff resource [possibly through the use of PTAs or external consultants] and/or examine its priorities and shed some of the less urgent activities. Given the shift in skills required by the Commission staff, appropriate training is essential. Directorate I has recognized this. In practice, however, due to their heavy workload some staff have been unable and/or did not get permission to take up the opportunities for training available to them. Procedures should be simple. The Panel saw to its consternation that seven signatures were required for a staff member to undertake a one-day computing course. Appropriate training programmes for all staff are essential for satisfactory performance and should be given a high priority.

There are a number of other management issues which will be addressed in the following sections:

- improved links with and support to NCPs [see section 4.2.5];
- the quality of decisions taken by evaluators in assessing research proposals [see section 4.2.3];
- impact of FP4 and 5 [see section 4.2.4];
- interactions with other research and policy Directorates [see section 4.2.4] etc..

4.2.2 Communication and information dissemination

Over the past year, Directorate I has increased its activities in communicating research results to both policy makers and the general public. Extensive use is being made of CORDIS, which has greatly improved in recent years, although it is still taking too long for up to date information on projects to be included. Information on and dissemination of ESD research results to the general public through the use of TV, video, etc. has been very limited. This represents a missed opportunity for dissemination to a wider audience. The Directorate should explore possibilities for making greater use of the wide range of media communication pathways. Similarly, the use of e-mail for distributing information on new developments to a select, informed, scientific and technical audience should be investigated (creating and using e-lists, specialised networks, etc.).

The Directorate I staff have played an essential role in representing the EU at high level international conferences and meetings, such as the COP7 meeting of the UNFCCC (November 2001, Marrakesh, Morocco). The Directorate has organized many scientific/technical meetings and workshops and a number of high profile press conferences, e.g. "Protecting the Europe's Cultural Heritage: the contribution of European research" (9 October 2001, Venice, Italy). However, the Directorate's staff resource available for these important communication and dissemination activities is very small. The quality of materials produced is good, for example strategic reports on Climate Change, but much greater levels of output and a more targeted approach to end users is needed. This cannot be accomplished internally with the present staff resource and the Panel recommends that unless additional staff resource can be secured these important communication and dissemination activities should be externalised.

Directorate I has developed its own Management Information System [MIS]. The continued development of MIS instead of buying a system 'off the shelf' is questionable. The arrangements for data input and output for both internal and external use appear less than satisfactory causing delays in providing timely statistics both within the Directorate, to DG Research and other DGs. Several members of the ESD' PC expressed concern that the MS are not able to access information on ESD research projects at the time and in the format they require. It is recommended that the Directorate should place a much higher priority on the use of more rigorous procedures for input of current project data to its own system. In addition it must give its full support to the establishment of an interim arrangement for the provision of a centralised system for DG Research. The lack of an adequate central MIS is a major embarrassment to the EU in aspiring to become 'the most dynamic knowledge-based economy in the world'.

There remains a widespread and recurrent demand for simple procedures and plain language documentation. The ESD Panel's questionnaires to Project Coordinators generated an almost universal appeal for simplification of documentation/forms and procedures.

4.2.3 Evaluation and Monitoring Methodology, including indicators

The Evaluation and Monitoring procedures have evolved over a long period of time. Most of these are adequate but some merit a closer look.

Currently a system for internal procedure control is being implemented in Directorate I. The White Paper on Commission Reform specifies 24 Internal Control Standards [ICS]. Directorate I was one of the first to introduce a system of guidelines and checklists to ensure that administrative and financial procedures are followed satisfactorily [ICS 17]. This proved to be the case. However the whole procedure is time consuming for staff already struggling with a high workload. The implementation of the 24 ICS allows roles and responsibilities to be clarified and decisions to be delegated to the appropriate level. The Panel recognizes the inevitability of such a control system but would like to stress the importance of procedure flexibility and simplification.

In November/December 2001 members of the ESD Panel acted as Observers to the Evaluation process when the last major FP5 call were being considered. The general conclusion of the Panel was that there had been a steady improvement in the evaluation process from FP4 to FP5 and that the procedures now in place and used for the final call of FP5 were generally satisfactory [Doc.50]. However, some concerns remain over :

- the selection and quality of the Evaluators, particularly for very specialised and multi-disciplinary projects. Two types of experts are required, some need to be specialists in the science being evaluated and others to have a broader based scientific/commercial background. The formal EC procedure does not always recruit the best of both types. However the more *ad-hoc* procedures the Commission staff use generally manages to assemble an appropriate

evaluation team. The performance of the evaluators appeared to be satisfactory but a confidential re-evaluation study of a sample of randomly selected proposals should be considered as it would provide an additional check. Another concern expressed over the selection of Evaluators for FP6 is that most of the EU top experts are likely to be involved in mega-project proposals themselves and therefore unavailable.

- Out of scope proposals. The opportunity for transfer of proposals between Key Actions or to other Programmes has been very limited. Proposals that lie at the interface between science sectors may be rejected without undergoing a rigorous evaluation procedure.
- The evaluation of Infrastructure proposals needs to consider the sustainability of the infrastructure and proof of the accessibility of the essential data/facilities should be required. A closer look into Infrastructure proposals resembling miniature versions of envisaged FP6-style proposals and their evaluation suggests that appreciable changes in the evaluation methodology presently in use, especially for the envisaged integrated and multidisciplinary activities, is needed. The Panel noted that ESD HoUs are already considering new approaches in evaluating large integrated projects of the type likely to be prevalent in FP6.
- European Added Value [EAV]. Under the present evaluation procedures an EAV rating is required for each proposal. Many evaluators do not have a clear perception of EAV and are therefore unable to assign a suitable rating to a proposal. The Panel considers that in future evaluators should be given a better guidance on the criteria to be used in making their judgement on EAV.

If the Framework Programmes are to maximise their impact, synthesis and dissemination of the programme and project results are essential as soon as they become available. However the Commission SOs find it difficult to track progress on FP5 projects, let alone those of FP4 which are still running, and to disseminate the outcomes of completed FP4 projects. It would be helpful if a procedure was available to utilise immediately results with a high policy, commercial or social importance as they emerge during the course of a project. Technological Implementation Plans (TIPs) may be helpful here for some projects but TIPs are not particularly useful for projects directed towards policy outcomes. A special format is needed for such projects.

The 2001 Monitoring Panel debated whether an external monitoring procedure with a full Panel is needed every year. It thought that the research Directorates may be suffering from monitoring fatigue and offering less well considered responses than were required. For example the SAFs are considered by the Monitoring Panel to be a very important source of basic information but regrettably the ESD SAFs were not available to them at their first meeting and data were still being finalized at the Panel's last meeting. The Panel concluded that Monitoring was likely to be an inherent part of the new annual management cycle but that a less detailed assessment could be carried out every other year. The timing of the monitoring activity in relation to the availability of the basic annual statistical and other data should also be examined. A delay of two months could be advantageous.

4.2.4 Follow up on impact of previous research FPs and SPs

Under ideal circumstances research impact and exploitation should be the last link in the chain that started with a policy need and/or an important scientific or technological question. However at present the incentives within the Directorate to exploit research results from previous FPs are not high. Staff, participants and other stakeholders are attracted to the exciting prospect of the next FP rather than focussing on results from the present, let alone the previous, FP. Nevertheless efforts to address the impact of previous research are essential and must be pursued vigorously. It would be helpful to start with the dissemination and exploitation of project results as soon as they become known (see section 4.2.3) i.e. well before the end of the project/programme.

Over the last two years Directorate I has been concentrating on the ERA, the forthcoming FP, international and internal policy requirements, organizational change and, of course, proposal evaluation and its aftermath. Due to the limited amount staff resource the exploitation of project results and impact of previous research has been given a low priority. The Directorate has now recognized this problem and is proposing to use PTAs [Project Technical Assistance] to improve the situation in line with ERA vision that puts great emphasis on the utilization of research results.. The Panel considers that more should be done, possibly using NCPs, and that at least one permanent staff member from each of the Directorate's Units should be a focal point for exploitation and impact issues.

Some FP5 areas of science are fragmented or do not seem to have a very clear counterpart in FP6 eg City of Tomorrow & Cultural Heritage. If staff are moved to other duties it is difficult to see how the management and impact assessment of such projects will be followed through effectively. Transitional procedures with clear lines of responsibility need to be established so that impact studies and exploitation of research results from FP4 and 5 projects can be continued.

Some research results are of direct relevance to the formulation and operation of EC Directives. The Commission's Inter-service activities are needed to ensure that policy is based on best available in-house scientific expertise and that specific research results are "translated" into policy terms as they become available. It is therefore important for the Directorate General Research and most of its Directorates to maintain a strong science capability and for policy DGs/Directorates to have staff able to interact effectively with research managers and scientists. It was pleasing to note that DG Environment has recognised this need and has a staff member with responsibility for this activity. It would be beneficial to both the science programmes and in terms of research-policy communication to have internal Commission documents identifying the research needs for all EC Directives concerned with science and technology issues [see section 4.1.6].

Policy needs will become a more important factor in establishing EC research priorities. However, a too prominent position for policy issues in defining the research programme could, in the longer term, weaken its scientific excellence. Longer term, strategic and more speculative research must also be included in the ESD Programmes.

4.2.5 Other relevant aspects

The Commission has defined a clear role for the NCPs [Doc. 48] but they are appointed by the Member States. The NCPs, if requested by a Contractor, advise academic, public research, commercial and industrial organisations in preparing proposals for submission to FPs and provide procedural support to Contractors during the lifetime of the project. Some MS fully recognise the important role that NCPs can play and provide an appropriate level of committed staff resource. Other MS nominate an NCP to a Programme area but often these duties are an addendum to other major responsibilities and consequently receive a low priority. A PC member may also be appointed as an NCP even though the two roles and responsibilities are very different. In some MS, particularly the smaller ones, the importance of NCPs is recognised, appropriate resources are available and there is an excellent rapport through informal meetings between NCPs, contractors, EAGs, PC members and Commission staff. Such informal arrangements should be encouraged in MS and NAS by the Commission.

There has been a particular demand on NCPs to support SMEs and there have been some useful joint initiatives eg TRANSTRACC has led to the development of SME guidelines for participation in bidding. However, in most cases NCPs are not providing an appropriate level of support. This has been demonstrated by the questionnaires returned from research contractors in which 75% judged the NCPs to be neutral or unhelpful [Fig 3]. The paucity of help provided by the NCPs to the coordinators has been contrasted with that being provided at Commission level where around 65%

of the proposers judged the Commission Officers' input to be helpful [Fig 2]. This situation with NCPs is unsatisfactory given the important role foreseen for them in FP6 and in advancing the ERA aspirations [Doc. 44].

The Directorate I initiative in arranging meetings with NCPs in Brussels and in some NAS is welcomed but a questionnaire to a selection of NCPs found that most considered an annual briefing from the Commission to be insufficient and that there should be meetings with their Commission counterparts at least 4 times a year. Most NCPs recognise that their role is in the provision of information, as advisers and as ambassadors for the Commission at a national level and that this differs from the executive/strategic responsibilities of PC members.

Fig.2: Commission Officers' support- Successful Projects Projects With Non EU Countries and Projects With Only EU Countries - All (year 2000)

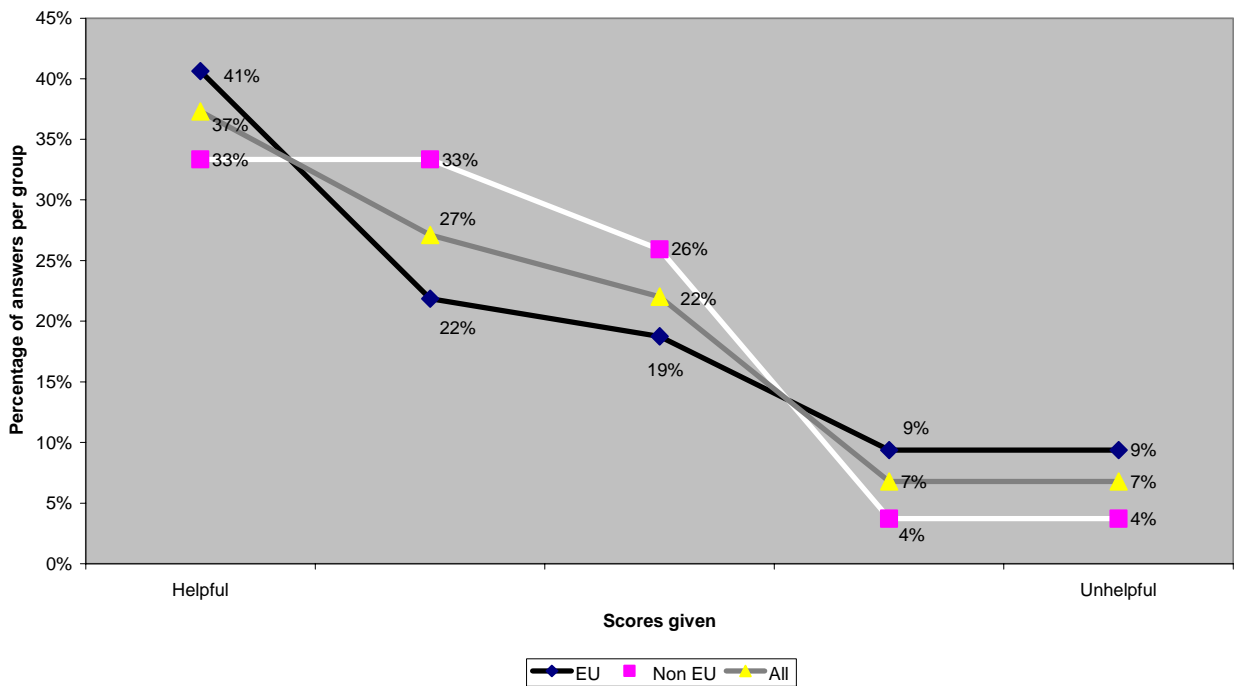
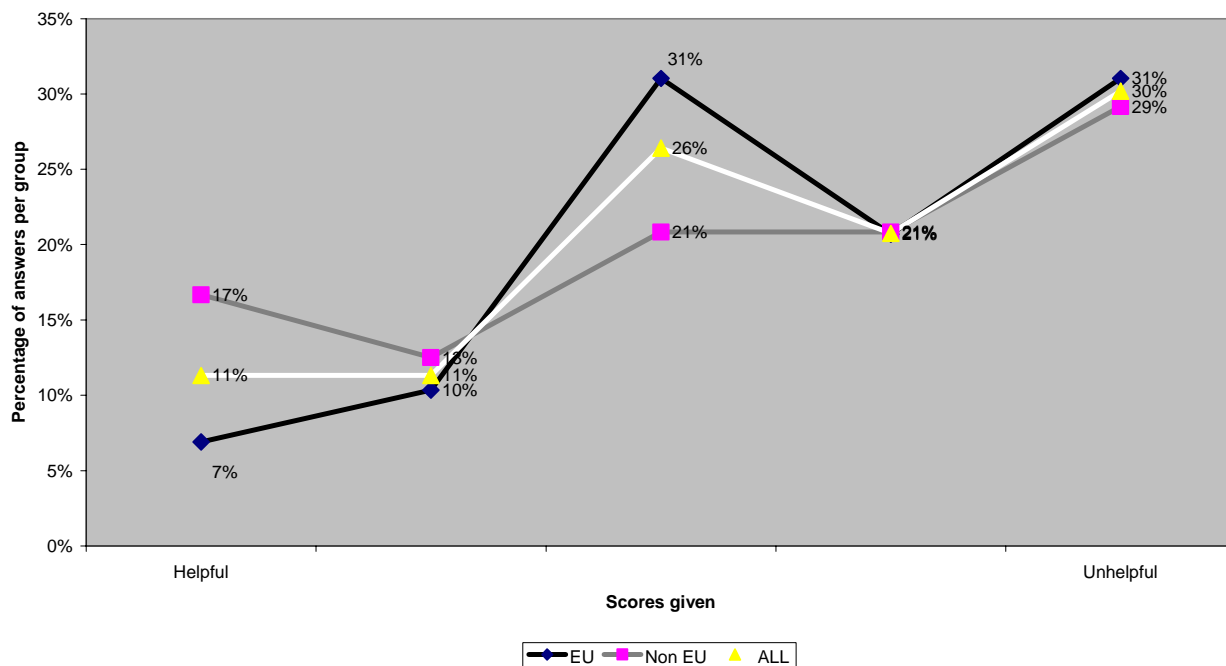


Fig. 3: National Delegates'support - Successful Projects: Projects With Non EU Countries and Projects With Only EU Countries, All (year 2000)



The Panel received detailed replies to their questionnaires from two of the three ESD EAGs . The EAGs have only been required by the Commission to address FP5 issues [eg Work Programme revisions] but believe they could also contribute to the strategic thinking of the Commission. They have not been encouraged to do so. Many EAG members are disenchanted and the attendance at meetings is low and decreasing. Properly used EAGs could give invaluable 'stakeholder' advice to the Commission. If arrangements are left as at present the EAGs will wither and die and a group of very distinguished scientists will voice their concerns and frustrations to their scientific peers. This will be to the detriment of the Directorate, ERA and FP6. There is an urgent need to consider the EAGs future role in FP6 and the ERA developments.

PC arrangements have worked well in FP5 but many PC members and NAS observers expressed their disappointment that the Commission required them to be simply 'passive listeners' with respect to FP6. PC members also felt that they should have been given more information on results and impacts from FP4. Their "Terms of Reference" focus on the current research Programme and do not encourage a backward glance to previous FPs or a forward look. This is an unsatisfactory situation and a broader brief for the PCs should be included by the Commission in any future arrangements. At the time of writing the Panel has been given no insight as to what will happen to CREST, the PCs or the EAGs once FP6 starts. The Panel is therefore unable to offer comments and recommendations on the suitability or otherwise of future arrangements.

4.3 IMPACT OF PREVIOUS RESEARCH

There are many examples from the environment and sustainable development sectors in FP4 and in those in FP5 which are now in progress which show that the programmes have had an impact on policy and an input to industrial innovation. The research has made a particularly important contribution to the scientific understanding of global environmental issues such as climate change and loss of biodiversity and has been crucial in the development of sound European policies relating to international agreements. Such achievements fully justify the inclusion of global change as a Priority Theme in FP6.

The ESD Sub Programme in both FP4 and 5 has focussed more on environmental research than on sustainable development. This shortcoming has been recognised and the ESD Policy Unit has made a major input to the Communications from the Commission “Towards a global partnership for sustainable development” [Doc. 19] and “A sustainable Europe for a better world” [Doc. 21]. Sustainable development should be, and is, a central objective of European policy. It is excellent that FP6 and the ERA give it the high priority it deserves.

It is impossible to identify the many significant scientific advances and the commercial and industrial impacts of FP4 here. However it is worthwhile noting just a few examples. These have been taken from Marine research but could equally have been drawn from other sectors of ESD. The Mediterranean Targeted Project II - Mass Transfer and Ecosystem Response [MATER] has for the first time quantified the triggering and control processes of mass and energy transfer between the different compartments and contrasting environments of the Mediterranean at basin and sub basin, meso and sub meso scales. It has also investigated the ecosystem response to these transfers in the short term and through seasonal and inter-annual periods, as recorded in the water masses and in the biological communities in the sediment. Another project, European Radar Ocean Sensing [EUROROSE] has developed a tool for use by shipping service operators and harbour and coastal managers to monitor and predict, with a high time/spatial resolution, significant meteorological/ocean conditions in areas of dense and sensitive marine operations. A number of such systems are now being installed along European coastlines.

Although important impacts from some projects can be readily demonstrated there has been no full and systematic impact assessment study of the ESD projects in FP4. Some impact assessment studies have been undertaken for the GROWTH, IST, Energy and INCO Programmes. These produced valuable insights although the methodology used was different for each study. These different approaches make comparison of the effectiveness of impacts between sectors difficult to judge. It may not be possible, due to the differing nature of the Programmes, to use exactly the same procedure in every case but there should be a core methodology developed centrally within DG Research. The Panel understands that it is the intention of the Directorate I to undertake an impact assessment for FP4 during the coming year. The Panel welcomes this but would recommend that the Directorate first considers carefully the approaches that have been used previously by other Directorates. Full discussion with the relevant central services on the methodology to be adopted should then lead to the development of more standardised impact assessment procedures for DG Research.

4.4 FOLLOW UP OF PREVIOUS MONITORING AND FIVE YEAR ASSESSMENT RECOMMENDATIONS

The recommendations from the 5 Year Assessment which had not been adequately addressed by the Commission were carried forward into the 2000 Monitoring Panel's Report. As a consequence only the recommendations from the 2000 Panel need to be considered here.

The Panel's comments on the Commission's responses are given in Annex 7.

In general the responses are satisfactory but the Panel has the impression that the Recommendations from the 2000 Panel have not been given sufficient attention during the course of the year by the Directorate I. It would be better to have a two stage process in which, within a month of receiving the monitoring report, the Directorate indicated how it would respond to the Monitoring Panel's comments and then report on the degree to which its intentions had been fulfilled immediately prior to the next monitoring activity.

5. CONCLUSIONS AND RECOMMENDATIONS

In the Panel's view Recommendations often flow from Conclusions, therefore in order to save repetition the two have been linked in the following text. The recommendations are shown in bold text. This is subdivided into issues which have significance to the:

- ESD Sub Programme;
- ESD Sub Programme in a wider context;
- FPs and the ERA;
- evaluation and monitoring methodology.

5.1 ESD SUB PROGRAMME.

The Directorate I has been particularly effective in managing the FP5 ESD Sub Programme given the heavy workload, available staff resource and the administrative and financial constraints within the system. It has also placed a strong emphasis on measures to facilitate the participation of NAS and has demonstrated a willingness and ability to adopt a flexible response to newly emerging scientific and technical issues and to accommodate these within FP5. A pro-active role has been taken as far as possible in adapting FP5 activities to meet the foreseeable needs of FP6 and the ERA. At the same time the Directorate has expanded its strategic approach, particularly in relation to issues of sustainable development and environmental policy in both the European and international context.

A few reports prepared by the Directorate synthesise research results from the FPs, national programmes and from other sources. These raise the profile of FP research throughout Europe and internationally but they are too few in number and there appears to be no systematic arrangement for their production. **It is recommended that the Directorate prepares a priority list of topics for synthesis, undertakes the necessary work and arranges for publication and dissemination.**

The Directorate staff, participants and other stakeholders are attracted to the exciting prospect of the next FP rather than focussing on results from the present, let alone the previous, FP. Nevertheless efforts to address the impact of previous research are essential and must be pursued vigorously. Due to the limited staff resource, the exploitation of project results and impact of previous research has been given a relatively low priority. The Directorate has now recognized this deficiency and is proposing to use PTAs to improve the situation. **The Panel considers that more should be done, possibly using NCPs to disseminate results and assess impacts, and that at least one permanent staff member in each of the Directorate's Units should be a focal point for exploitation and impact issues. An assessment of the impact of FP4 should be made as soon as possible by the Directorate taking full account of the impact methodology already in use elsewhere in DG Research.**

The priority theme 'Sustainable Development and Global Change' in FP6 is most closely allied to the ESD Sub Programme in FP5. Sustainable development and environmental gain are prime objectives for the Commission both within Europe and globally. It is therefore appropriate that environmental and sustainable development issues should ramify through most of the priority themes in FP6. However dispersion of the research effort in these sectors is a potential problem and it is unclear how coherence will be maintained. **It is therefore recommended that the inter-Directorate management arrangements to handle these cross - Thematic topics are carefully planned and introduced in a timely way so that hasty *ad hoc* solutions leading to fragmentation and loss of quality are avoided.**

Much of the ESD Sub Programme is concerned with policy rather than with commercial/industrial research. It is therefore understandable why SME involvement has been relatively low in the past. However this has increased and is now at about 10%. **The Policy Unit of Directorate I recognises the importance of expanding ESD science into industry and commerce and considers that there are particular opportunities in technology, mathematical economic modelling, database development etc. The Panel fully supports this and recommends that the Directorate should develop an action plan for implementation within FP6.**

The skills and experience of members of the three ESD EAGs have not been fully utilised by the Directorate. EAG members are frustrated and the Commission should be concerned that the EAG members may voice disenchantment to their scientific peers. **If the EAGs are to continue it is recommended that their role in FP6 and the ERA should be urgently formulated.**

A change in the administrative arrangements has meant that the Directorate's SOs now have to negotiate contracts and are moving towards becoming science managers rather than active scientists. The Panel accepts the need for such changes but recognises the importance of retaining the scientific skill base. **It is recommended that the Directorate develops a plan to ensure that an appropriate balance is established between the management aspects and the scientific skill base, the latter must not be completely eroded.**

The present management arrangements are generally working well but Directorate I does not have enough staff to carry out all the required work properly. This is because of an increase in the range of scientific/technical/management and administrative tasks the Directorate is expected to undertake, as well as an understandable wish to be at the forefront of new initiatives. **In order to continue to cope it is recommended that the Directorate increases its staff resource [possibly through the use of PTAs or external consultants] whilst examining its priorities with the aim of shedding some of the less urgent activities.**

Directorate I has developed its own MIS but arrangements for input and output of data are causing delays in providing timely statistics within the Commission and to Member States. The lack of an adequate central MIS is a major embarrassment to the EU in aspiring to become 'the most dynamic knowledge-based economy in the world'. **It is recommended that the Directorate should place a much higher priority on the use of more rigorous procedures for input of current project data to its own system. In addition it must give its full support to the establishment of an interim arrangement for the provision of a centralised system for DG Research.**

5.2 ESD SUB PROGRAMME IN A WIDER CONTEXT

The Directorate needs to consider the wider opportunities available for improved collaboration with appropriate international science programmes, particularly those coordinated by UN agencies. **It is recommended that a study be undertaken to identify those elements of UN and other international research where collaboration would be readily achievable and most effective in terms of the ERA and European international policy.**

Increased mobility of researchers, particularly at the intermediate and senior level, will help to consolidate the ERA. While there has been an ESD open call for Marie Curie Fellowships during 2001 the mobility issue does not have a sufficiently high profile in the Directorate. **The Panel recommends that the Directorate demonstrates an increased level of activity here and in particular in respect to NAS. Further it would wish the Commission to consider whether mobility opportunities can be incorporated within some of the FP6 projects.**

The increased participation of NAS in the FPs has been given a high priority over the last few years. In FP5 the Directorate has worked to increase the involvement of these countries by supporting two

dedicated calls to the NAS and organising a series of events. However the NAS level of involvement is still too low in ESD and the underlying problems will take time to resolve. **It is recommended that the Commission should - consider opening up the pre accession funds to establish new and enhance existing infrastructure, mobility and training, - check the FP6 draft workprogrammes in relation to NAS research needs and participation barriers, - have procedures in place to safeguard against NAS exclusion from the larger Integrated Projects and Networks of Excellence proposed for FP6.**

Although the Directorate has increased its activities in communicating research results to both policy makers and the general public the staff resource devoted to this has been very small. The use of TV, video etc for this purpose has also been very limited and represents a missed opportunity. **The Directorate should explore possibilities for making greater use of the wide range of media communication pathways. Similarly, the use of e-mail for distributing information on new developments to a select, informed, scientific and technical audience should be investigated. Unless additional staff resources can be secured, these important communication and dissemination activities should be externalised.**

The activities of the Commission officers in advancing RTD have to be transparent and accountable. The necessary administrative and financial procedures have to be followed but balance is needed and at present there is too much unnecessary bureaucracy and control. **There is a widespread and recurrent demand to simplify procedures and use plain language documentation and these requirements must be addressed urgently by the Commission.**

5.3 FPS AND THE ERA

If the Framework Programmes are to maximise their impact, synthesis and dissemination of the programme and project results are essential as soon as they become available. **A procedure should be established by the Research Directorates to utilise immediately results with a high policy, commercial or social importance as they emerge during the course of a project.**

Stress is placed in FP5 and 6 on research that helps in the formulation and implementation of Community policies. In recent years the links between Directorate I and the relevant Policy Directorates have improved but could still be closer. **Important bridges could be established by having a formal document listing the priority areas for research required to support each technical and scientific Directive and it is recommended that this should be prepared jointly by Directorate I and the relevant Policy Directorates. This recommendation should also be applied in the wider FP context.**

FP6 will have larger projects and networks but some concern has been expressed by the science community that this approach could lead to decreased participation of smaller organisations, smaller Member States and Newly Associated States. **The Panel recommends that the Commission urgently develops its procedures for selection and management of very large proposals and projects so that potential difficulties can be identified and exclusion barriers avoided.**

Some FP5 areas of science are fragmented or do not seem to have a very clear counterpart in FP6. If staff are moved to other duties it is difficult to see how the management and impact assessment of such projects will be followed through effectively. **It is recommended that transitional procedures with clear lines of responsibility need to be established so that FP5 projects continue to be effectively managed and impact studies and exploitation of research results from FP4 and 5 projects can be continued.**

The number of women participating in the ESD Sub Programme and employed in the Directorate falls short of the Commission's target of 40%. There is particular concern over the low number of

women evaluators. **The Commission should explore means of encouraging women to apply as evaluators. This may involve direct approaches to known women experts and improvement of working conditions, fees, communication arrangements and provision for child care.**

Some Member States recognise the important role that NCPs play in advancing the FPs and provide appropriate resources for this activity, but this is the exception rather than the rule. The Panel's questionnaire to contractors showed that NCPs were judged to be neutral or unhelpful in the provision of advice and support during and after bidding. In view of the important role foreseen for NCPs through the provision of information and advice, and acting as ambassadors for the Commission at a national level in FP6 and in advancing the ERA, this is a most unsatisfactory situation. **The Panel recommends that the Commission reviews the NCP arrangements with MS and NAS and establishes a more effective interaction with NCPs than at present.**

5.4 EVALUATION & MONITORING METHODOLOGY

The procedural arrangements put in place by the Commission for the Monitoring Panel have worked well. The strong interactions between the FP and the SP Panels have enabled the ESD SP Panel to set its work into a broader context, particularly with regard to the ERA and FP6. For the first time the Directorate prepared a self-assessment document to assist the Panel's work. This was helpful but it did not contain statistics covering the whole year and the wide use of acronyms and abbreviations made parts of the document incomprehensible. **It is recommended that for future monitoring activities the 'self-assessments' contain the most recent statistics and that they are completed and provided to the Panel in advance of its first meeting. The Commission should examine re-scheduling the start of the Panels' work (possibly by two months).**

Although the Monitoring/Assessment procedures for the implementation of the FPs has been improved, there is concern that the research Directorates may be suffering from monitoring fatigue and are offering less well considered responses than are required by the Panels. **The annual and 5 year monitoring are necessary but the Panel considers that the Commission should consider holding a less intensive exercise every other year.**

The ESD Panel acted as Observers to the Evaluation process when the last major FP5 calls were being considered. There had been a steady improvement in the evaluation process from FP4 to FP5 and the procedures now in place and used for the final call of FP5 are generally satisfactory. The performance of the evaluators appears to be satisfactory as observed by the Panel. However a number of contractors and others have conveyed to the Panel their view that the expertise of evaluators may sometimes be inappropriate. **In view of these concerns and as an additional check it is recommended that a confidential re-evaluation study of a sample of randomly selected proposals should be undertaken.**

6. ANNEXES

6.1 ANNEX 1. PANEL MEMBERS LIST

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Rapporteur	1.1.1.1.1 Paola PERINI (PP)	Via delle Belle Arti 47 IT - 40126 Bologna Tel.: 39. 349.0079137 Fax: 39 051. 227861 E-mail: paola.perini@libero.it
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6.2 ANNEX 2. LIST OF DOCUMENTS

Doc no.	Title	Subject ¹
1	Presentation of the revised 2001 Monitoring system	MNTR
2	Broad Guidelines 2001	MNTR
3	Communication of the Commission on strengthening the evaluation system SEC (2000) 1051/3 of 27 July 2000	MNTR
4	Call for applications 99/C 120 a/02 published in OJ c 120 A. 1.5.1999	MNTR
5	Monitoring reports 2000 of FP monitored by the Expert Group. May 2001	MNTR
6	Monitoring reports 2000 of SP monitored by the Expert Group	MNTR
7	Five year assessment report of FP monitored by the Expert Group 1995 –1999. July 2000	MNTR
8	Five year assessment report of SP monitored by the Expert Group 1995 –1999. June 2000	MNTR
9	2001 Monitoring of the IST Programme. Guide for interviewing IST key action directors plus the head of Future and Emerging Technologies (FET)	MNTR
10	Decision concerning the SP monitored by the Expert Group (Annex I "Indicative breakdown of the amount deemed necessary" and in Annex III "general outlines, S&T objectives and priorities": "Introduction" and "Strategic objectives"	ESD
11	Minutes of the meeting of the EAG "Global change, climate and biodiversity" Brussels 30.05.2001 . DG1-2 RVS/aH 514982	ESD
12	Draft minutes of the informal meeting of EAG "Global change climate& Biodiversity" Brussels 29 January 2001	ESD
13	Energy, environment and sustainable development work programme for . PART A Environment and sustainable development, updating 13.08.2001 replaces the march 1999 C(2001) 2653	ESD
14	Council decision of 25 January 1999. Adopting specific programme for research, technological development and demonstration on energy, environment and sustainable development (1998 to 2002) 1999/170/E OJ L 64 12.03.1999 pag. 58	ESD
15	Joint call for proposal for indirect RTD actions under the specific programmes for research, technological development and demonstration. Support for the integration of NAS in European Research Area. Call identifier Qol/Growth/EESD 2001 INTEGR OJ C 264 20.09.2001 pag. 5 (2001/C 264/5)	ESD
16	Self-assessment fiches specific to the SP monitored by the Expert Group	ESD
17	Slide Information and Communication (I&C) activities by ESD in the period 1999 – 2001: State of play in November 2001	ESD
18	Internal Control Standard (ICS) 17: Supervision. Summary of implementation status in Directorate I	ESD
19	Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the regions “Towards a global partnership for sustainable development “COM (2002) 82 final, 13.02.2002	ESD
20	Presidency conclusions “Göteborg European council 15 and 16 June 2001”	ESD
21	Communication from the Commission “A sustainable Europe for a better world: A European Union strategy for sustainable development” COM (2001) 264 final	ESD
22	Global change, climate and biodiversity, natural and technological hazards and earth observation technologies. Brochure	ESD

¹ LEGENDA: MNTR (Monitoring issues); ESD (Environment and Sustainable Development issues); FP5 (Framework programme 5); FP6/ERA (Framework Programme 6 – European Research Area)

Doc no.	Title	Subject ^f
23	Joint call for proposals for RTD actions on the Health and environmental implications of endocrine disrupters under the specific programmes for research, technological development and demonstration on “Quality of life and management of living resources” (1998 to 2002) and “Energy, environment and sustainable development” (1998 to 2002). Call identifier : QoL/ENV – 2001 – ENDO, OJ 2001/C 158/12 , 31.05.2001	ESD
24	Joint call for proposal for RTD actions on the establishment of the European network of biodiversity information (ENBI) under the specific programmes for research, technological development and demonstration on “Quality of life and management of living resources” (1998 to 2002) and “Energy, environment and sustainable development” (1998 to 2002) Call identifier . QoL/ENV – 2001 – ENBI (2001/C 158/09)	ESD
25	Commission proposes new action programme for the environment IP/01/102, 24 January 2001	ESD
26	Bridging the Gap – Sustainability research and sectoral integration	ESD
27	Decision n. 182/1999/EC of the European Parliament and of the Council of 22 December 1998 concerning the fifth framework programme of the European Community for research, technological Development and Demonstration activities (1998 to 2002). OJ L 26/1- 31 of 01.02.1999	FP5
28	Council Decision 1999/65/EC of 22 December 1998 oj L 26, 1.2.1999, p.46	FP5
29	Council Decision 1998/66/Euratom of 22 December 198, OJ L 26, 1.2.1999, p 56	FP5
30	Council Decision of 22 december 1998 concerning the rules for the participation of undertakings, research centres and universities and for the dissemination of research results for the implementation of the fifth framework programme of the European Community (1998 – 2002), 1999/65/EC OJ 26/46-48 of 01.02.1999	FP5
31	Rules for the participation of undertakings, research centres and universities. Chapter II OJ 26/49 –55 of 01.02.1999	FP5
32	Commission regulation (EC) No. 996/1999 of 11 may 1999 on the implementation of Council Decision 1999/65/EC concerning the rules for the participation of undertakings, research centres and universities and for the dissemination of research results for the implementation of the European community (1998 – 2002). OJ 122/9 –23 of 12.05.1999	FP5
33	The mobility of academic researchers. A joint JRC/IPTS - ESTO study. Report EUR 19905. June 2001	FP5
34	Proposals for the Framework Programme (2002 - 2006)	FP6/ERA
35	Communication "Towards a European Research area" (COM (2000) 6 final 18.01.2000 (see in particular from p. 4 to 7 "Situation and objectives" and 10 to 21 "a European Research Area"	FP6/ERA
36	European Parliament Resolution of 18 May 2000, PE 290.465, p. 48 (ERA) see p. 40 to 44	FP6/ERA
37	European Parliament Resolution of 15 February 2001 (ERA) see p. 48 to 55	FP6/ERA
38	Council Resolution of 15 June 2000, OJ C 205, 19.07.2000, p. 1 (ERA)	FP6/ERA
39	Council Resolution of 16 November 2000, OJ C 374, 22.12.2000, p. 1 (ERA)	FP6/ERA
40	Economic and Social Committee Opinion 24 May 2000, Oj C 204, 18.07.2000, p. 70 ERA	FP6/ERA
41	Committee of Regions Opinion of 12 April 2000, OJ C 226, 8.8.2000, p. 18 (ERA)	FP6/ERA
42	Communication "The regional dimension of European Research Area". COM (2001) 549 final of 03.10.2001	FP6/ERA
43	Communication from the Commission to the Council and the European Parliament “A mobility strategy for the European Research Area” COM (2001) 331 final, 20.06.2001	FP6/ERA

Doc no.	Title	Subject ^f
44	Amended Proposal for Council Decisions concerning the specific programme implementing the Sixth Framework Programme of the European Community for Research, technological development and demonstration activities (2002 –2006) concerning the specific programmes implementing the Sixth Framework Programme of the European Atomic Energy Community for Research and training (2002 –2006). COM (2002) 43 final, 30.01.2002.	FP6/ERA
45	Communication from the Commission “The international dimension of the European Research Area” COM (2001) 346 final of 25.06.2001	FP6/ERA
46	Environment 2010: Our Future, Our choice A sixth Environment Action Programme of the European Community 2001 – 2010	FP6/ERA
47	Communication to the Commission on implementing activity based management in the Commission SEC (2001)1197/6&7 of 25 July 2001	MNGM
48	Guiding principles for setting up information and assistance networks. 30 th October 1998	MNGM
49	Observations of the Experts Evaluations of the Environment and Sustainable Development Sub-programme under the Programme “Energy and Environment & Sustainable Development” - 12 March to 7 April 2001	MNGM
50	Observations of the Experts Evaluations of the Environment and Sustainable Development Sub-programme under the Programme “Energy and Environment & Sustainable Development” – 26 November to 15 December 2001	MNGM
51	Commission staff working paper “Women and Science: the gender dimension as a leverage for reforming science” SEC(2001) 771, 15.05.2001	WMSC
52	“Gender in Research. Gender Impact of the specific programmes of the Fifth Framework Programme – Environment and Sustainable Development” Final Report EUR 20019 (2001)	WMSC
53	Gender and science in the EU. Science & public Affairs – February 2002	WMSC

6.3 ANNEX 3. LIST OF INTERVIEWS

Meeting	Interview made to	Position
08 – 09 Nov 2001	D. Miles (as stand-in for C. Patermann)	Directorate I - Head of Unit 5
	M: Bohle Carbonell	Administration and Finance – DI - Head of Unit 6
	M. Weydert (as stand-in for P. Vallette)	Policy Aspects - Deputy to the DI - Head of Unit 1
	H. Barth (as stand-in for A. Tilche)	Management and Quality of water- DI - Unit 3
	A: Ghazi	Biodiversity and Global Change – DI - Head of Unit 2
	P. Mathy	Marin ecosystems and infrastructures – DI - Head of Unit 4
	D. Miles	City of tomorrow and Cultural heritage – DI - Head of Unit 5
28 – 29 Nov 2001	K. G. Barthel	ICS 17 – Unit DI
	E. Lipiatou	Policy Aspects – DI - Unit 1 – Women and Science
	C. Patermann	Directorate I - Director
	P. Mathy	Marin ecosystems and infrastructures – DI - Head of Unit 4
	A. Baubin	DI -Administration and Finance – Activity Centre of Mangement of Technical resources – Coordination of the management of the resources
	ESD Programme Committee	
16 –17 Jan 2002	P. Valette	Policy Aspects – DI -Head of Unit 1
	P. Migliorini	DG Environment
	A. Tilche	Management and Quality of water – DI - Head of Unit 3
	J. Loquemant	Interservice Unit
Bilateral contacts at various dates	M. Bahn	PC Member (DK)
	E. Balck Sorensen	ESD NCP (DK)
	A. Bijlsma	PC Member (Netherlands)
	C. G. Delgado	ESD NCP - PC Member (SP – Centro Para Desarrollo Tecnologico CDTI)
	R. Fletcher	ESD NCP (UK - Betatechnology Ltd)
	D.J. von H. Gronbaeck	ESD NCP (DK)
	L. Haekkinen	ESD NCP (SF)
	L. Heyde	PC Member (DK)
	E. Hes	ESD NCP (NL)
	G. Hiebaum	ESD NCP (Bulgaria)
	P. Iivonen	PC Member (SF)
	M. Kerney	ESD NCP (Ireland - FORFAS)
	C. Jackson	MEP (Chair EP Environment Committee)
	C. North	CREST Member (UK – Director Office os Science and Technology DTI)
	R. Sparacio	PC Member (IT – Università Federico II)
	R. Thoenissen	PC Member (Netherlands)
A. Vulcano	ESD NCP (IT – MURST)	
C. West	PC Member (UK – Natural Environment Research Council)	

6.4 ANNEX 4. QUESTIONNAIRES

6.4.1 Questionnaires to EAGs

1. Programme Objectives of FP 5

1.1 Have you been satisfied with the content of the ESD Sub Programme from a (a) European, (b) regional, (c) national perspective?

1.2 Are there any newly emerging issues which should be included in FP 6?

1.3 Do members of the EAG consider they can influence Programme content effectively?

1.4 Have members of the EAG been well briefed on any changes to the Sub Programme?

1.5 The aim is for Europe to be 'the most dynamic knowledge - based economy in the world'. Will the FP5 - ESD Sub Programme contribute to this aspiration?

2. Progress of FP4 & FP5

2.1 Has the EAG been informed of the progress and impacts of FP4 & FP5 ? If not, should it have been ?

3. Accession Countries

3.1 Is the Sub Programme content relevant to Accession Countries' RTD needs? If not, what is missing?

3.2 Are Accession Countries given enough encouragement and support from the Commission to participate in the Framework Programmes ?

3.3 What efforts, if any, should be made to address the above issues?

4. Outputs/Impacts of FP 4 and FP5

4.1 Are the outputs of FP4 and FP5 having an impact on:

- EU policy/strategy/standardization/problems?
- co-operation and combination of complementary expertise and resources across Europe?
- National research programmes?
- International research/conventions?

4.2 How could the impact of the RTD be improved?

4.3 In your specific area of interest are there any particularly noteworthy outputs from FP4 and FP3 ie exceptional achievements?

5. European Research Area [ERA]

5.1 Are you aware of any changes in the ESD Sub Programme in FP5 to enable it to contribute to the ERA concept? What are these?

5.2 How important do you see each of the following in contributing to the ERA concept?

- Networking
- infrastructure development/rationalization
- mobility of researchers
- development of a European view/position in relation to international issues
- promotion of European identity
- other

6. External Advisory Groups [EAGs] and Programme Committee [PC]

6.1 Does your EAG have any formal or informal links with the PC or its members ? If not, should it?

6.2 Do you consider your EAG to have a well-defined and effective role in advising the EC on progress and strategy for research in ESD?

6.3 Are there any changes in the functioning of the EAG you would recommend?

6.4.2 Questionnaire to PC Members and Observers

1. Programme Objectives of FP 5

1.1 Have you been satisfied with the content of the ESD Sub Programme from a (a) European, (b) regional, (c) national perspective?

1.2 Are there any newly emerging issues, which should be included in FP 6?

1.3 Do members of the Programme Committee(PC) consider they can influence Programme content effectively?

1.4 Have members of the PC been well briefed on any changes to the Sub Programme?

1.5 The aim is for Europe to be the most dynamic knowledge - based economy in the world. Will FP5 - ESD Sub Prog. contribute to this aspiration?

2 Programme Management

2.1 Does the PC have a role in monitoring progress and impacts of FP4? If not, should it?

2.2 Are the FP4 projects being effectively followed up by the Programme Officers in terms of :
on going projects?
implementation/dissemination of results of completed projects and scientific synthesis in relation to policy ?

2.3 Is the FP5 Sub Programme well managed and followed-up by the Programme officers in general?

2.4 Are staff resources appropriate i.e. too few/too many/just right?

2.5 Are there any sectors of Sub Programme management which could be improved e.g. evaluation procedure, shortening time scales, relationships with contractors, external support services (e.g. PTA), in-service consultation etc?

3. Accession Countries

3.1 Is the Sub Programme content relevant to accession countries RTD needs? If not, what is missing?

3.2 Are accession countries given enough support by Programme Officers in bid preparation?

3.3 In previous bidding rounds some accession countries appear to have been much less successful than others. What are the reasons for this?

3.4 Should efforts be made to address the above issue? What could/should be done?

4. Outputs/Impacts of FP 4 and FP5

4.1 Are the outputs of FP4 and FP5 having an impact on :

- EU policy/strategy/standardization/problems?
- co-operation and combination of complementary expertise and resources across Europe?
- National research programmes?
- International research/conventions?

4.2 How could the impact of the RTD be improved?

4.3 In your specific area of interest are there any particularly noteworthy outputs from FP4 and FP3? ie exceptional achievements?

5. European Research Area [ERA]

5.1 Are you aware of any changes in the ESD Sub Programme in FP5 to enable it to contribute to the ERA concept? What are these?

5.2 Are your national research programs/strategies developed against a background of European research?

5.3 How important do you see each of the following in contributing to the ERA concept?

- Networking
- infrastructure development/rationalization
- mobility of researchers
- development of a European view/position in relation to international issues
- promotion of European identity
- other

6. 2000 Monitoring Panel

6.1 Have you seen the 2000 Monitoring report and the EC response? If so, have you any comments?

6.2 Do you find the EC response generally satisfactory/unsatisfactory? [*please give specific reasons*]

7. External Advisory Groups [EAG]

7.1 Does the PC have any formal or informal links with the EAG? if not, should it?

8. Other Issues

8.1 Are there any other issues in relation to the implementation of the FP5 [ESD Sub Programme] you wish to draw to the attention of the 2001 Monitoring Panel?

8.2 Are there any views from a PC or individual perspective you wish to give in relation to (a) women in science, (b) role of SMEs in the Sub Prog.?

6.4.3 Questionnaire to NCPs

1. Programme Objectives of FP 5

1.1 Are you fully conversant with the content of the ESD Sub Programme ? If so how well does it meet (a) European, (b) regional, (c) national needs ?

1.2 Are there any newly emerging issues which should be included in FP 6?

1.3. Have the NCPs been well briefed on any changes to the Sub Programme?

1.4 The aim is for Europe to be the most dynamic knowledge - based economy in the world. Will the FP5 - ESD Sub Programme contribute to this aspiration?

2. Role of National Contact Points

2.1 Do the NCPs receive a clear brief from the Commission Officers which enables them to assist potential contractors in submitting research proposals to the FPs ?

2.2 What level of contact do the NCPs have with the research community during the bidding process and subsequently?

2.3 What role do/should the NCPs have in relation to:

- on going projects?
- implementation/dissemination of results of completed projects ?
- contract negotiations ?

3. Accession Countries

3.1 If you are an NCP in an Accession Country, is the Sub Programme content relevant to Accession Countries' RTD needs ? If not, what is missing?

3.2 Are Accession Countries given enough support by the Commission's Programme Officers in bid preparation ?

3.3 In previous bidding rounds some Accession Countries appear to have been much less successful than others. What are the reasons for this?

3.4 What actions should be taken to address the above issue?

4. Outputs/Impacts of FP 4 and FP5

4.1 Are the outputs of FP4 and FP5 having an impact on:

- EU policy/strategy/standardization/problems?
- Co-operation and combination of complementary expertise and resources across Europe?
- National research programmes?
- International research/conventions?

4.2 How could the impact of the RTD be improved?

4.3 In your specific area of interest are there any particularly noteworthy outputs from FP4 and FP3 ? ie exceptional achievements ?

5. European Research Area [ERA]

5.1 Are you aware of any changes in the ESD Sub Programme in FP5 which enable it to contribute to the ERA concept? What are these?

5.2 Are your national research programmes/strategies developed against a background of European research?

5.3 How important do you see each of the following in contributing to the ERA concept?

- networking
- infrastructure development/rationalization
- mobility of researchers
- development of a European view/position in relation to international issues
- promotion of European identity
- other

6. NCP links with Programme Committee[PC] or External Advisory Groups [EAGs]

6.1 Does the NCP have any formal or informal links with the PC or EAG? If not, should links be established?

7. Other Issues

7.1 Are there any other issues in relation to the implementation of the FP5 [ESD Sub Programme] or FP6 you wish to draw to the attention of the 2001 Monitoring Panel ?

7.2 Are there any views from an NCP perspective you wish to give in relation to:
women in science,
role of SMEs in the Sub Prog.?

7.3 As an NCP what do you see as your main achievements/problems over the past year ?

6.4.4 Questionnaire to Project Coordinators (2000's calls)

ESD Monitoring 2001
Questionnaire to Coordinators (2000)
FP5 Projects

Please complete the questionnaire in the following way: put 1 on the right reply and leave 0 if the reply is wrong. For example: Were you successful in your bid or not? If you succeeded Yes=1 and No=0. If you didn't succeed Yes=0 and No=1. Or in the case of multiple choices, put 1 in the right score's column. For example: Whith respect to the European Research Area: What is your understanding of its objectives? If i is full, put 1 in the score's column 5 and leave 0 in columns 1,2,3,4.

			Score				
	Yes	No	1	2	3	4	5
0. Were you successful in your bid or not?	0	0					
1. Please provide the following information in relation to your FP5 project [whether you were successful with your bid or not]							
(a) Key Action (KA1 or KA2 or KA3 or KA4)							
shared cost	0	0					
concerted action	0	0					
thematic action	0	0					
Action.....	0	0					
Infrastructure	0	0					
CRAFT	0	0					
(b) Number of participants							
sought.....euros							
participating.....							
participating.....							
(f) Are you from an EU member state	0	0					
Other	0	0					
2. Was input from Commission officers							
During the life of your project (from helpful =1 to 5 = unhelpful)			0	0	0	0	0
3. Was the input from National Delegates							
During the life of your project (from helpful =1 to 5 = unhelpful)			0	0	0	0	0
4. Were the Commission's administrative procedures for							
Project payments (from unsatisfactory = 1 to very satisfactory = 5)			0	0	0	0	0
Project reporting (from unsatisfactory = 1 to very satisfactory = 5)			0	0	0	0	0
5. Do you have a clear idea as to the Commission's requirements for disseminating research results of your project once they are available?							
From No = 1 to Yes = 5			0	0	0	0	0
6. With respect to the European Research Area							
(a) What is your understanding of its objectives? (from Limited =1 to 5 = Full)			0	0	0	0	0
b) What is your project's contribution to the ERA objectives? (from Limited =1 to 5 = Full)			0	0	0	0	0
7. Please add below, any comments you would like to make with respect to:							
(a) relationships between Commission officers and contractors or national Contact Points							
comments							
(b) means of improving EC or national procedures;							
comments							
(c) other.							
comments							

6.4.5 Questionnaire to Project Coordinators (2001's calls –15/10/2001 deadline excluded)

ESD Monitoring 2001
Questionnaire to Coordinators (2001)
FP5 Projects

Please complete the questionnaire in the following way: put 1 on the right reply and leave 0 if the reply is wrong. For example: Were you successful in your bid or not? If you succeeded Yes=1 and No=0. If you didn't succeed Yes=0 and No=1. Or in the case of multiple choices, put 1 in the right score's column. For example: With respect to the European Research Area: What is your understanding of its objectives? If it is full, put 1 in the score's column 5 and leave 0 in columns 1,2,3,4.

			Score				
	Yes	No	1	2	3	4	5
0. Were you successful in your bid or not?	0	0					
1. Please provide the following information in relation to your FP5 project [whether you were successful with your bid or not]							
(a) Key Action (KA1 or KA2 or KA3 or KA4)							
shared cost	0	0					
concerted action	0	0					
thematic action	0	0					
Action.....	0	0					
Infrastructure	0	0					
CRAFT	0	0					
(b) Number of participants							
sought.....euros							
participating.....							
participating.....							
(f) Are you from an EU member state	0	0					
Other	0	0					
2. Is this the first occasion on which you have been involved in an EC project If No – how many years have you been involved with EC projects?							
	0	0					
3. In relation to the EC procedure for making an application for research funding for FP5 could you please complete the following:							
<i>From Difficult to follow = 1 to 5 = Easy to follow</i>			0	0	0	0	0
<i>From Inadequate/complex = 1 to 5 = Clear - documentation</i>			0	0	0	0	0
<i>From Slow = 1 to 5 = Quick</i>			0	0	0	0	0
<i>From Costly to bid into = 1 to 5 = Inexpensive</i>			0	0	0	0	0
4. If your project was unsuccessful did you receive a clear explanation for its rejection? <i>From No = 1 to 5 = Yes</i>							
			0	0	0	0	0
5. Was input from Commission officers							
Prior to submitting your proposal (<i>from helpful =1 to 5 = unhelpful</i>)			0	0	0	0	0
During project selection/negotiation (<i>from helpful =1 to 5= unhelpful</i>)			0	0	0	0	0
6. Was the input from National Delegates							
Prior to submitting your proposal (<i>from helpful =1 to 5 = unhelpful</i>)			0	0	0	0	0
During project selection/negotiation (<i>from helpful =1 to 5 = unhelpful</i>)			0	0	0	0	0
7. With respect to the European Research Area							
(a) What is your understanding of its objectives? (<i>from Limited =1 to 5 = Full</i>)			0	0	0	0	0
b) What is your project's contribution to the ERA objectives? (<i>from Limited =1 to 5 = Full</i>)			0	0	0	0	0
8 Please add below, any comments you would like to make with respect to:							
(a) relationships between Commission officers and contractors or national Contact Points							
comments							

6.5 ANNEX 5. MAIN MANAGEMENT ISSUES OF 2001

	Call for proposal	Closing date	Proposal evaluation	Contract production	Contract Management
FP 5	2 general calls for RTD projects	15.02.2001 15.10.2001	1.525 proposals received	195 negotiated contracts	
	3 calls for accompanying measures (15.02.2001 15.06.2001 19.09.2001			
	1 call for advanced study courses	15.03.2001			
	3 calls for SMEs specific measures	17.01.2001 18.04.2001 19.09.2001	113 proposals received	6 CRAFTnegotiated contracts	
	1 call for fellowship	21.03.2001	77	31negotiated contracts	
	1 call for Endocrine disrupters	14.09.2001	1	0	
	1 call for ENBI (European Network of Biodiversity information)	28.09.2001	1 proposal received		
	1 Joint call (LIFE, GROWTH, EESD) to support the integration of NAS in the ERA	31.01.2002			
	1 call to support GMES ²³ Action Plan	28.02.2002			
	Contract of calls of 1999 and 2000				
FP 4	MAST III and Environment and Climate				532
INC O					86

² GMES: Global Monitoring for Environment and Security

³

6.6 ANNEX 6. LIST OF ABBREVIATIONS

EAG	External Advisory Group
EAV	European Added Value
ENBI	European Network for Biodiversity Information
ERA	European Research Area
ESD	Environment and Sustainable Development
EUROROSE	European Radar Ocean Sensing
FP	Framework Programme
HoU	Head of Unit
ICS	Internal Control Standards
IGBP	International Geosphere/Biosphere Programme
IHP	International Hydrology Programme
INCO	International Cooperation
MAB	Man & the Biosphere programme
MATER	Mass Transfer and Ecosystem Response
MIS	Management Information System
MS	Member State
NAS	Newly Associated State: Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia
NCP	National Contact Point
PC	Programme Committee
PTA	Project Technical Assistant
RTD	Research and Technology Development
SAF	Self Assessment Fiches
SME	Small and Medium Enterprises
SO	Scientific Officers
SP	Specific Programme
TIP	Technology Implementation Plan
TRANSTRACC	Transnational Training and Accreditation

**6.7 ANNEX 7. FOLLOW-UP OF THE RECOMMENDATIONS OF THE 2000 SP
MONITORING PANEL**

No.	Recommendation	Follow-up Comments from the 2001 Panel in bold italic
1	The Panel recommends that a document giving basic statistical data and analysis and describing the principal issues facing the Directorate in developing and managing the research should be made available to future Panels at the start of their work.	The directorate has made statistical and other background data available to the panel with the fiches of the self assessment. However, in the Commission's view the panel can easily start its work without all the statistics since these constitute only one input and the Heads of Unit and the Director present the most important activities to the panel at the first 2 meetings. The self assessment fiches are a valuable contribution to the monitoring process but the completed assessment, together with statistical data, are needed at the start of the Monitoring process so that interviews can be well structured and the Panel's work effectively planned.
2	The Panel recommends that a rapid response procedure should be established by the Directorate to accommodate new scientific issues as necessary.	In the 5 th Framework Programme, it was rather difficult to accommodate new scientific issues in the work programme because of the nature of the Specific Programme. The Commission's proposals for the Next Framework Programme and the associated specific programmes allow for greater flexibility and a faster response to emerging needs, especially under "Anticipating the EU's scientific and technological needs". The Panel accepts the Commission's response noting the restrictions on flexibility within FP5. The Directorate's proactive approach with dedicated calls for Endocrine Disrupters and Biodiversity Networks is welcomed. There will be opportunities to accommodate new scientific issues in FP6.
3	The Panel recommends that the Directorate encourages PC Members to use the PC forum for the exchange of information on research initiatives in Member States.	On the average only one meeting per year is devoted to the presentation and discussion of the results of a call for proposals. Opinions on batches of projects are normally asked for in writing. This has already allowed the Commission to discuss more strategic issues with the Programme Committee, often after consultation of the Expert Advisory Groups. In addition, the Programme Committee has met as CREST ad-hoc group for coordination through cooperation (see also the ENVOT study). Acceptable response
4.	The Panel recommends that the Directorate defines the EAG role more clearly and establishes a means for more effective interchange of information between EAGs and the PC.	The recommendations to strengthen the strategic role of both the EAGs and the Programme Committee as well as the interaction between these bodies are of particular interest for the future. The role of the EAGs can, however, not go beyond that of an advisory body, while that of the programme committees is defined by a Council No further changes will be made at this moment. <i>The response with respect to the EAGs is unacceptable. Many EAG members are disenchanted with the Directorate in that they do not think their advice is being properly considered.</i>

No.	Recommendation	Follow-up Comments from the 2001 Panel in bold italic
5	The Panel recommends that the Commission gives special support to national contact points in ACs both to increase their efficiency in informing scientists in their countries about RTD-programmes and during the proposal phase. Incentives should be given to include ACs in RTD networks funded by the EU as a means to make the scientific communities more familiar with each others capabilities and thus ensuring that the most appropriate research groups are involved in research project proposals.	The Commission services also agree that the National Contact Points in accession countries should receive additional, properly tailored support. Therefore several activities have been undertaken: there has been a tow-day meeting of the NCPs, NCP Newsletter has been created to help NCPs to disseminate relevant information rapidly and requests by NCPs to assist to meeting in NAS are generally given a positive reply <i>Acceptable response but more attention still needs to be directed to the NCP, particularly in an FP6 and ERA context.</i>
6	The Panel recommends that the Commission establish a clear set of guideline criteria for EAV with some urgency.	The Commission services will keep the recommendation for clearer guidelines for evaluation criteria like EAV in mind for the Next Framework Programme, the last call for FP-V being closed. Acceptable response
7	The Panel recommends that the Directorate should use the PC forum to support the ERA and in particular establish a process so that PC Members and Commission Officers can work together to form much stronger links between EU projects and national programmes. The Panel also recommends that the Directorate should place greater emphasis on measures to increase the mobility of scientists between organisations participating in the Programme.	In the case of ESD the Commission has always searched for strong links between the EU, international and national programmes. In addition, a study (ENVOT) to determine where and how synergy and coordination can be increased has recently been completed. In the Next Framework Programme numerous actions are foreseen to increase links, complementarity and coordination between national programmes and national and EU programmes. Mobility will also be a major issue in the Next Framework Programme. However, it should be noted that many of the obstacles to increased mobility are outside of the control of DG Research (transfer of pension rights, insurances, language skills, employment of spouses and schools for children). Mobility is a major issue and does not appear to have been given a high priority by ESD Directorate. An active plan for 'mobility' is needed and some targets should be set.
8	The Panel recommends that the Directorate should aim to (a) improve its interaction with the policy Directorates (b) enhance research cooperation with non European states and international science programmes and (c) secure opportunities within the ESD Sub Programme for an element of curiosity driven research.	A number of actions have already been implemented like teams of colleagues from different DGs working together (Director and staff levels). Another example is the involvement of DG Environment in the briefings of evaluators on policy issues. Also 2 dedicated calls to address important topics have been prepared with other directorates, one on endocrine disrupters and one on a Biodiversity facility. Generally acceptable response but no reference was made to 'curiosity driven' research
9	The Panel considers that many of the research results are not being effectively utilised and recommends that the Directorate should make available substantial resources to establish a policy for the analysis and synthesis of	The Commission has already implemented the Technology (or better: Results) Implementation Plan which gives an overview of the results and the intended use of these. This should allow a better follow-up in the future. The first of these TIPs of FP-V projects are expected to be submitted in 2002. The possibility to have

No.	Recommendation	Follow-up Comments from the 2001 Panel in bold italic
	research results and their dissemination. In an associated activity the Directorate should undertake a systematic study of the impact of the research results from FP3 and FP4.	several staff members follow these in detail will depend on the staff resources available. The issue of impact assessment for FP4 is addressed in the 2001 Monitoring Panel Report.
10	The Panel recommends that the 2001 Monitoring Panel examines the effectiveness of these new management arrangements	No comment (a recommendation for the 2001 panel) Acceptable response
11	The Panel recommends that the Directorate investigates the reasons for the apparent differences in the level of support provided by the Units to the coordinators at the proposal presentation and submission stages.	The proposers are invited to address their questions to the Helpdesk. This allows the directorate to give the same answer on administrative, financial and legal issues to all potential proposers. If questions are directly addressed to staff, there will inevitably be differences in treatment. For the NAS calls, questions can be addressed either to the help desk or to the coordinating staff member ensuring thus also identical replies and treatment. Acceptable response
12	The Panel recommends that the effectiveness of the PTAs and other external support to the Directorate and its Scientific Officers be assessed by the 2001 Monitoring Panel.	No comment (a recommendation for the 2001 monitoring panel) Impossible for the 2001 Monitoring Panel to assess the impact of PTA as appointments have only recently been made due to bureaucratic delays.
13	The Panel recommends that the Directorate through seminars/workshops/visits etc ensures the full participation of the national contact points in FP5 activities.	The directorate organises seminars for NCPs. The same is done by the unit responsible for SMEs. The staff member responsible for the NCPs is also in regular contact with the NCPs via email. This activity has been substantially increased although not all NCPs are equally active. The 2001 Panel has contacted a numbers of NCPs, most of whom wish to have more support from the Commission.
14	The Panel recommends that the Directorate (a) continues the trend towards making the application process more 'user friendly' and (b)analyses the scientific capability and reputation of the evaluators [1999-2000] in relation to the wider ESD scientific community	Especially the formalities for the inclusion of candidates in the list of potential evaluators have been simplified and the long form has been abolished. There should therefore be no barriers for the inclusion of very busy high level experts on these lists. The issue of assessing the quality of evaluators has not been addressed by the ESD Directorate. This is something to be considered for FP6.

PART B:

**Responses of the Programme Management to the
external Monitoring Report**

ESD Monitoring Report 2001 —Response of the Programme Management

	<i>Recommendation</i>	<i>Response</i>	Explicit Commission Services' commitments (if any)
1	<p>It is recommended that the Directorate prepares a priority list of topics for synthesis, undertakes the necessary work and arranges for publication and dissemination.</p>	<ul style="list-style-type: none"> • The objective of the Commission is to publish the summaries and main results of all projects. The Information and Communication Unit, in conjunction with SPs, draws up a project-centred publications policy consistent with its own more general policy. This sub-policy could include the provision for an annual plan of synthesis and analysis reports and publications to be undertaken. Dissemination is already actively sought using the web and through the organisation of conferences. Most project co-ordinators usually set up a web site dedicated to the project and present results at a project dedicated workshop and at conferences. On the Commission side, hyperlinks permit the access to project websites from CORDIS 	<p>A wider publication policy is being put into place, the first action of which being the selection of 50 projects most relevant for the Sustainable Development Strategy. A similar exercise will be done for the Action Plan relative to "Clean Technologies" and for the "Sustainability Impact Assessment" tools.</p>
2	<p>The Panel considers that more should be done, possibly using NCPs to disseminate results and assess impacts, and that at least one permanent staff member in each of the Directorate's Units should be a focal point for exploitation and impact issues. An assessment of the impact of FP4 should be made as soon as possible by the Directorate taking full account of the impact methodology already in use elsewhere in DG Research.</p>	<p>There are three types of impact which are under consideration:</p> <ol style="list-style-type: none"> 1. Impact of past FPs on the research community and the advancement in research knowledge. A set of indicators such as number of publications, number of patents, number of international partners of research institutes, etc. has to be completed. 2. Impact assessment of ESD research on economic, environmental and social aspects. In the future with FP6 the role of impact assessment will be strengthened. 3. The ex-post assessment at the project level but also at cluster, Key Action and programme levels. <p>Further, under FP-VI, proposers of integrated projects could be required to make impact assessments.. This would be helpful for the assessments of ex post and ex ante policies and programmes currently "pushed" by the Commission</p>	None

ESD Monitoring Report 2001 —Response of the Programme Management

	<i>Recommendation</i>	<i>Response</i>	Explicit Commission Services' commitments (if any)
3	Coherence of management of Sustainable Development issues in FP-VI: It is recommended that the inter-Directorate management arrangements to handle these cross - thematic topics are carefully planned and introduced in a timely way so that hasty <i>ad hoc</i> solutions leading to fragmentation and loss of quality are avoided.	This question is a central point both for each priority and horizontally to all the priorities. One of the units of the directorate has already been mandated to “supervise” the aspects linked to SD in the different FP-VI activities. Links have been established and specific measures will be taken to ensure coherence throughout FP6.	
4.	The Policy Unit of Directorate I recognises the importance of expanding ESD science into industry and commerce and considers that there are particular opportunities in technology, mathematical modelling, database development etc. The Panel fully supports this and recommends that the Directorate should develop an action plan for implementation within FP6.	A strong orientation into this direction has already been given these last two years during which the elaboration of tools and technology assessment became more important compared to the past. The orientation is already partially operational and useful for the Sustainability Impact Assessment, Climate Change Strategy and 3% GDP for research	
5	If the EAGs are to continue it is recommended that their role in FP6 and the ERA should be urgently formulated.	The mandate and the composition of the EAGs are subject of revision for the FPVI. The new structure is expected to be in place in time for the launch of the Programme.	There will be a new advisory structure for Priority 6 of FP-VI.

ESD Monitoring Report 2001 —Response of the Programme Management

	<i>Recommendation</i>	<i>Response</i>	Explicit Commission Services' commitments (if any)
6	It is recommended that the Directorate develops a plan to ensure that an appropriate balance is established between the management aspects and the scientific skill base (of the personnel), the latter must not be completely eroded.	First it has to be noted that the SOs are not active scientists, but more "programme managers". Their scientific skills will have to be maintained in order to maintain an "authority" for the scientific areas. The role of the Unit" Administration and Finance" is crucial in order to simplify and to keep the time dedicated by SOs to the negotiations of management and financial aspects of the contracts to a minimum.	
7	In order to continue to cope it is recommended that the Directorate increases its staff resource [possibly through the use of PTAs or external consultants] whilst examining its priorities with the aim of shedding some of the less urgent activities.	The staff resources for the Research staff are defined by Council and Parliament. An increase is therefore not easy and the director and the heads of unit have to continuously monitor the activities of the directorate according to the priorities.	Several PTAs (experts) will be engaged to assist the Scientific Officers in a number of tasks (e.g. project monitoring and dissemination of results)
8	It is recommended that the Directorate should place a much higher priority on the use of more rigorous procedures for input of current project data to its own system. In addition it must give its full support to the establishment of an interim arrangement for the provision of a centralised system for DG Research.	Since the development of the MIS in 1999, the data quality has substantially improved although there are still some difficulties, notably with regard to completeness and real-time updating. An operational plan for the development, launch and initial migration to a new FP6 web-based informatics system to be used by all Research DGs was established in October 2001. At the same time an interservice FP6 IT Project Office was created to oversee its execution.	

ESD Monitoring Report 2001 —Response of the Programme Management

	<i>Recommendation</i>	<i>Response</i>	Explicit Commission Services' commitments (if any)
9	<p>It is recommended that a study be undertaken to identify those elements of UN and other international research where collaboration would be readily achievable and most effective in terms of the ERA and European international policy.</p>	<p>Cooperation in science and research already exists with a number of international organisations. <i>Further, the Summits like in Johannesburg or international conventions organised in tight cooperation with the U.N. (and South Africa) are certainly an opportunity for exchanges and common actions</i></p>	
10	<p>Mobility of researchers in the ERA: The Panel recommends that the Directorate demonstrates an increased level of activity here and in particular in respect to NAS. Further it would wish the Commission to consider whether mobility opportunities can be incorporated within some of the FP6 projects.</p>	<p>These different points have already been deeply examined by the High Level Group on Improving Mobility of Researchers and national contributions are detailed in the HLG final report of April 2001. Furthermore, the Communication of the Commission "A mobility strategy for the ERA"(June 2001) is based on the conclusions of the HLG report and proposes a series of concrete actions to remove these obstacles to mobility.. Moreover, a steering group, with representatives from the Member states and Candidate Countries, has been set up to support the process. It should be noted that the Integrated Projects and the Networks of Excellence of the FP6 programme will permit, and encourage, the incorporation of training and mobility actions within the context of the action.</p>	

ESD Monitoring Report 2001 —Response of the Programme Management

	<i>Recommendation</i>	<i>Response</i>	Explicit Commission Services' commitments (if any)
11	<p>It is recommended that the Commission should - consider opening up the pre accession funds to establish new and enhance existing infrastructure, mobility and training, - check the FP6 draft workprogrammes in relation to NAS research needs and participation barriers, - have procedures in place to safeguard against NAS exclusion from the larger Integrated Projects and Networks of Excellence proposed for FP6.</p>	<p>Although the Commission cannot discriminate between countries, a number of actions to encourage and to ease the integration of the Candidate Countries have been undertaken.</p> <p>Thus the general rules like call contents, evaluation criteria or contractual arrangements cannot not differ for the candidate countries, but additional specific measures can be undertaken to encourage their participation in the FP-VI and in the new instruments.</p> <p><i>Already in 2001</i>, substantial efforts have been provided to increase the participation of NAS both in the INCO specific programme and in the thematic programmes:</p> <ul style="list-style-type: none"> a) Programmes concerning the participation of END and stagiaires in Commission activities have been ongoing for the last years. b) The lists of experts are open for candidate countries as for Member States. The importance of taking advantage of this possibility is underlined by the Commission in all the meetings with candidate countries were participation in FP is discussed. c) Candidate countries are encouraged to provide Cordis with the addresses of their information web pages, where all information is available. d) During FP5 "Awareness and Training" actions were supported in all the NAS, some are still on-going. Specific supporting actions for organisations from CCs are foreseen in FP6. e) During the FP5, Information Relay Centres were selected and supported in each candidate country and linked to the IRCs in the Member States. 	

ESD Monitoring Report 2001 —Response of the Programme Management

	<i>Recommendation</i>	<i>Response</i>	Explicit Commission Services' commitments (if any)
12	<p>The Directorate should explore possibilities for making greater use of the wide range of media communication pathways. Similarly, the use of e-mail for distributing information on new developments to a select, informed, scientific and technical audience should be investigated. Unless additional staff resources can be secured, these important communication and dissemination activities should be externalised.</p>	<p>Since the launch of the ERA concept in 2000 there has been an extensive information campaign involving not only official communications but also more publicity oriented documentation. A web site has been established: http://europa.eu.int/comm/research enabling dialogue and comments to be made. All this has strengthened the conceptual background. The Commission's main contribution towards ERA is through FP6 (the Sixth Framework Programme) and here again a series of initiatives is continuous and ongoing with all major developments announced through the website identified above (http://europe.eu.int/comm/research/nfp/networks-ip.html). In the framework of the action plan for Science and Society, a special action is foreseen to establish a better interaction between the scientific community and the media. With regard to the communication of research results to a large public, all coordinators (and participants) of projects generally have their own web sites which the Commission is always happy to "hyperlink" to CORDIS. Some projects appear in various media, including on TV.</p>	
13	<p>There is a widespread and recurrent demand to simplify procedures and use plain language documentation and these requirements must be addressed urgently by the Commission</p>	<p>The services responsible for the implementation of the FPs are in favour of simplifying the procedures where this is possible. But, under no circumstances may the Commission jeopardize its accountability to the European Parliament and the taxpayer.</p>	

ESD Monitoring Report 2001 —Response of the Programme Management

	<i>Recommendation</i>	<i>Response</i>	Explicit Commission Services' commitments (if any)
14	A procedure should be established by the Research Directorates to utilise immediately results with a high policy, commercial or social importance as they emerge during the course of a project.	In the case of ESD, this has already been done (to some extent at least). The Group of Directors at which there is also a Director from DG Environment is informed of all projects before contract negotiations start. Hence, those which are potentially of interest for Environmental or SD policies can be followed easily. Similar procedures apply for other programmes.	
15	Important bridges could be established by having a formal document listing the priority areas for research required to support each technical and scientific Directive and it is recommended that this should be prepared jointly by Directorate I and the relevant Policy Directorates. This recommendation should also be applied in the wider FP context.	The institution of Policy Units had this purpose and at present the Policy Unit of Directorate I is contributing to a number of legislative processes, such as the preparation of an Inter-service Communication on Impact Assessment, the elaboration of an Action Plan for environmental Technologies (DG ENV) and the organisation of the events of Rio +10 at Johannesburg (Secretariat General). On the other side the research needs for the 6 th Environmental Action Programme have been formulated in that Programme and have been integrated from the outset in to the Commission's proposal for FP-VI.	
16	The Panel recommends that the Commission urgently develops its procedures for selection and management of very large proposals and projects so that potential difficulties can be identified and exclusion barriers avoided.	Obviously the Commission will adapt its procedures to the new Framework Programme. With regard to barriers to the new instruments, the Commission has undertaken a number of steps to avoid exclusion from Integrated Projects and from Networks of Excellence. This is also partly ensured by the Stairways of Excellence instrument and by the 15% of the budget of FP6 which will be devoted to SMEs. But also, no indications of exclusions barriers are visible in the Expressions of Interest received for the new instruments.	
17	It is recommended that transitional procedures with clear lines of	Follow-up of on-going projects will be ensured (as it has always	

ESD Monitoring Report 2001 —Response of the Programme Management

	<i>Recommendation</i>	<i>Response</i>	Explicit Commission Services' commitments (if any)
	<p>procedures with clear lines of responsibility need to be established so that FP5 projects continue to be effectively managed and impact studies and exploitation of research results from FP4 and 5 projects can be continued.</p>	<p>been the case when moving from one framework programme to the next). As already pointed out under point No. 2, this is also needed in view of the commitment taken by the Directorate to carry out an ex-post assessment of past programmes.</p>	
18	<p>The Commission should explore means of encouraging women to apply as evaluators. This may involve direct approaches to known women experts and improvement of working conditions, fees, communication arrangements and provision for child care.</p>	<p>The Commission agrees that progress needs to be made in this direction.</p> <p>In the preparations for FP-VI, some measures are envisaged which could help increase the participation of women in the evaluation process, e.g. the increased use of remote evaluation for the individual reading and assessment of proposals.</p> <p>Strong encouragement through personal contact and other means (continuous publicity) is being given to attract more female scientists, technologists and industrialists to evaluation.</p> <p>Unfortunately, although particular efforts are already being done when recruiting experts, it has to be pointed out that the limited number of women involved in the field of research makes the accomplishment of this recommendation difficult. This is likely to take some time to change in view of the low number of female students in some of the relevant disciplines (sometimes only 20%) and the directorate can only support the panel's statement "girls into science" aiming at developing the interest into science at the lowest possible age.</p>	

ESD Monitoring Report 2001 —Response of the Programme Management

	<i>Recommendation</i>	<i>Response</i>	Explicit Commission Services' commitments (if any)
19	<p>The Panel recommends that the Commission reviews the NCP arrangements with MS and NAS and establishes a more effective interaction with NCPs than at present.</p>	<p>DG Research agrees with this recommendation since it is a clear priority for DG Research to be able to count on a very high-level network being able to inform and assist potential participants and contractors in Community RTD projects.</p> <p>The Commission has initiated a discussion process with MS and AS to agree on revised guiding principles for establishing improved NCP systems for FP6. The Commission emphasises that national governments are responsible for establishing, performance monitoring and quality assurance of their NCPs.</p> <p>Moreover, DG Research intends to use the transition period between FP V and FP VI to present the new FP and to train the new NCP network in order to ensure the most efficient help to potential participants (in particular SMEs) under the new FP.</p> <p>The Commission will provide more frequent training and permanent exchange of information on all aspects of FP6 to NCPs nominated by MS and AS.</p>	<p>The Commission will provide more frequent training and permanent exchange of information on all aspects of FP6 to NCPs nominated by MS and AS.</p>
20	<p>It is recommended that for future monitoring activities the 'self-assessments' contain the most recent statistics and that they are completed and provided to the Panel in advance of its first meeting. The Commission should examine re-scheduling the start of the Panels' work (possibly by two months).</p>	<p>The statistics are always the most recent available. If the monitoring starts in October, reliable statistics are obviously only available up to the summer. Statistics covering the full year are only available early the following year.</p>	

ESD Monitoring Report 2001 —Response of the Programme Management

	<i>Recommendation</i>	<i>Response</i>	Explicit Commission Services' commitments (if any)
21	The annual and 5 year monitoring are necessary but the Panel considers that the Commission should consider holding a less intensive exercise every other year.	The Commission plans to make every other year a lighter monitoring, starting with the 2002 monitoring.	
22	Consistency of evaluations of proposals: In view of these concerns and as an additional check it is recommended that a confidential re-evaluation study of a sample of randomly selected proposals should be undertaken.	With the advent of FP-VI, the evaluation procedures will be reviewed.	N/A