

**2002 SPECIFIC MONITORING REPORT ON THE
SPECIFIC PROGRAMME FOR
RESEARCH AND TECHNOLOGICAL
DEVELOPMENT**



**IN THE FIELD OF
IMPROVING HUMAN POTENTIAL AND THE
SOCIO ECONOMIC KNOWLEDGE BASE**

This Report is part of the series of annual reports on the EC Framework Programme and the Euratom Framework Programme, and their constituent Specific Programmes, as well as on the European Research Area (ERA) and related activities.

The Commission has over the years given increasing emphasis to the evaluation of Community RTD activities. Furthermore, with the overall Reform of the Commission, evaluation activities have been made central to the decision making process. To achieve this, a revised programme monitoring scheme was introduced in 2001 that was based on the system launched in 1995 and involved independent external experts. The new mechanism aims at a better synergy between the monitoring of ERA and specific programmes and of the Framework Programme. The Commission also calls upon the Programme management to respond rapidly to the recommendations.

This report is the fourth covering the Fifth Framework Programme and also includes the launch of the Sixth Framework

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 2002 IMPROVING HUMAN POTENTIAL AND THE SOCIO-
ECONOMIC KNOWLEDGE BASE MONITORING EXPERT GROUP**

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1. Executive summary

The Programme *Improving the Human Research Potential and the Socio-economic Knowledge Base (IHP)* covers two very different areas which are managed through a total of nine activity-lines. This diversity reflects the fact that it was created in 1999 by the fusion of two former FP4 programmes, Training and mobility of researchers (TMR) and Targeted socio-economic research (TSER). The nine activity-lines are divided between four directorates, B (1), C (2), D (3) and K (3). FP5 finished in 2002 and the panel notes that in FP6, IHP ceases to exist as an integrated programme. This should not interfere with the successful continuation of the activities since the four directorates manage their activity-lines independently from each other.

Overall the panel finds that the activity-lines are well managed and that the staff is motivated and hard working. The objectives set in the IHP working programme have largely been attained. As 2002 was the last year of the programme there were fewer calls than in 2001. Many of the contracts will of course continue well into FP6 (see 4.2.3).

There are however some areas that give rise to concern. The panel would especially like to mention:

- The lack of informatics tools suitable for handling the workflow management of large numbers of relatively small contracts. e.g. Marie Curie Fellowships, Research Training Networks. One effect of this has been on the time to contract which in general has been surprisingly long and for Research Training Networks, unacceptably long.
- The prizes. The panel feels that the optimal role for the Archimedes prize has still not been identified. Attention should also be given to the arrangements for the Descartes prize and the prize ceremony with the intention of increasing the publicity. The panel is pleased that a strategic evaluation of these prizes and the Young Scientists Contest is underway.

The panel wishes to note that it is particularly impressed by several aspects of the management. These include:

- The implementation of the Marie Curie Fellowships
- The organisation and assessment of Access to Research Infrastructures
- The preparation work for FP6 by Directorate D which involved eight working groups looking at different important aspects of implementation.

The panel is happy to note that training will be given more importance in FP6 applications e.g. HLSC. This is very much in line with the primary ERA objective; that Europe should become a magnet for excellent researchers and not just an area for European researchers. However it is also important that the research carried out remains of high quality; a balance needs to be maintained between training and quality of research output.

The activity-line Women and Science has a special role in that it keeps an eye on all other activity-lines in IHP as far as the gender issue is concerned. Much work has been done during 2002 in spite of an apparently modest budget. The staffing level is however quite high so it is important to check that this is justified throughout the latter part of FP6. The panel feels that a very pressing issue now is the encouragement of girls towards science and would like to see initiatives taken on this aspect in FP6 as part of the Raising Public Awareness activity-line.

The 2002 IHP panel has the following recommendations:

Directorate B.

Access to Research Infrastructures

- The next technical review should include panel visits and meetings at various infrastructures to allow the panel to obtain a better understanding of the issues, *particularly those outside their areas of expertise*, and to meet users.
- To spread the workload, the next technical review should take place over a longer period than at present.
- More effort should be made by facilities to use their web-sites to introduce new users to the opportunities of the Access programme. Consideration should be given to making good publicity arrangements a precondition for selection.

Directorate C.

Women and Science.

- The panel supports the present efforts made to achieve gender balance and recognises that some further work will be needed in FP6. However it believes that an even more pressing issue now is the encouragement of girls towards science and initiatives should be taken on this aspect in FP6.

Raising public awareness.

- Further effort needs to be made to integrate the Commission's activities with those of national activities in line with the recommendations of the 2001 panel.

Prizes

- The concept of the Archimedes prize needs major revision. If a successful format for the prize cannot be found the prize should be abolished. The panel notes that a strategic review of this area is being carried out by external consultants.
- Attention should also be given to the arrangements for the Descartes prize and the prize ceremony with the intention of increasing the publicity. The panel notes that a strategic review of this area is being carried out by external consultants.

Directorate D.

- An informatics system should be installed suitable for handling the workflow management of large numbers of relatively small contracts. The panel consider this to be a matter of considerable urgency.

Marie Curie Fellowships

- The web site should be developed so that potential contractors and Fellows can check their eligibility for the programme.
- If future evaluations are not going to be carried out at meetings of experts but remotely, there should still be occasional meetings to discuss the criteria used and to check how well the evaluation process is working.
- The organisation of scientific workshops at which Fellows describe their projects and overall experience to a multidisciplinary audience is seen to be of value to their training and should continue.

Research Training Networks

- Future analysis of questionnaires should be supplemented by visits of experts to the laboratories of a sample of networks.

Directorate K.

Socio-economic Research Key Action

- Further ways should be found to improve the dissemination of the results of the research to the research community of social sciences and humanities. It seems likely these would make use of the internet.
- Efforts need to be made in FP6 projects to find structures that would make KA projects 'European' from their onset. This should contribute to ERA by attempting to develop a genuine pan-European approach to KA research activity, and avoid the 'nationalisation' of projects as much as possible.
- Efforts need to be made to enhance the multidisciplinary interaction potential of KA projects. Such integrative projects are becoming more and more necessary given the complexity of the problems arising across the socio-economic domain.

2. Panel methodology

The panel has used the following approaches to collect and assess information:

- Interviewed directors, heads of units, scientific officers and a technical assistant in Directorates B, C, D and K.
- Analysed an extensive amount of documentation available on CIRCA or provided by the Commission.
- Discussed a draft report with Directors and Heads of Units or their representatives.
- Held five meetings in Brussels. Between meetings, the members exchanged views by e-mail and telephone.

Self-assessment reports of the programme's activity lines became available to the panel in the middle of November for three of the Directorates (B, D and K) and a month later for Directorate C. No analysis of IHP as a unified programme was available but the reports by Directorates C, D and K aimed at giving an integrated picture of their respective activity-lines. The Commission services quickly and efficiently provided the panel with all documents and background information asked for.

3. Introduction

The FP5 programme: Improving human potential and the socio-economic knowledge base (IHP) resulted from the integration of two FP4 programmes: Training and mobility of researchers (TMR) and Targeted socio-economic research (TSER). The general objectives of IHP are to contribute to the mobilisation of human research potential across the European Community

(including candidate nations), and to strengthen the socio-economic knowledge base. Its total budget for the period 1999-2002 was 1,280 MEuro. At the start of FP5, most of its activities were run by the former Directorate F. During 2000 the programme was restructured in line with the concepts of the European Research Area (ERA) and the activity-lines divided between four Directorates: B (Access to Research Infrastructures (ARI)), C (Raising Public Awareness and Women and Science), D (Marie Curie Fellowships (MCF), Research Training Networks (RTN) and High Level Scientific Conferences (HLSC)) and K (Key Action: Socio-economic Research (KA), Strategic Analysis for Specific Political Issues (STRATA) and the Common Basis of Science, Technology and Innovation Indicators (CBSTII)). The 2001 panel understood the reason for this restructuring, but noted that it had taken up a lot of valuable management time and led to many staff vacancies that took a good part of 2001 to fill. This year's panel could still see the remnants of these problems. These were particularly evident in Research Training Networks where 17 out of 21 positions had to be filled during 2001.

IHP ceases to exist as a programme in FP6. However, all activity-lines continue in some form, many with a substantially greater budget reflecting the importance attached to them. The 2002 panel understands the reasons for this further restructuring; IHP has never functioned as a homogenous programme. However, in spite of this "fragmentation", the different activities have largely been well managed and important results achieved.

The budgets of the different activity-lines have increased quite dramatically over the years and FPs. For example, the budget for MCF rose from 180 MEuro in FP2 to 870 MEuro in FP6, for RTN from 200 MEuro in FP3 to 504 MEuro in FP6, for HLSC from 13 MEuro in FP3 to 40 MEuro in FP6 and for Socio-economic research from 4.4 MEuro in FP1 to 355 MEuro in FP6 (this includes the research on Citizens and governance in a knowledge based society, Science and Society and Support for the coherent development of policy): a 80-fold increase. Further details of these increases and those for the other activity-lines are given in Annex 6.1.

4. Analysis and findings

4.1 Analysis and synthesis of recommendations and their follow-up from the 1999 to 2001 monitoring exercise

4.1.1 Strategy – Objectives

The 'Marie Curie' brand name. One of the recommendations of the 1999 monitoring report was that the title Marie Curie Fellow should also be given to RTN fellows. The Commission welcomed this suggestion but felt it needed further consideration. The 2002 panel is happy to note that RTN fellows will indeed be known as Marie Curie Fellows in FP6.

Increased international co-operation. The 1999 panel welcomed the fact that Networks were open to countries outside the EU but felt that additional information should be sought to obtain a more complete view of the involvement of other countries in the ARI programme. The 2000 panel recommended that RTN and possibly Fellowships should encourage the participation of candidate countries and provide some financial support to increase participation from non-European countries. The Commission said it was aware of the need to involve candidate countries and that in FP6 they will have the same rights as Member States in all activities of the programme. They also noted that promotional activities in candidate countries, including the most recent, had already taken place to encourage their wider participation in the programme and that individual users from candidate countries were already participating in the ARI programme. The

panel notes that candidate countries have actually also participated in other activities of the IHP programme.

Gender awareness. This is an issue that gave rise to three major recommendations in 2000 and one in 2001. The 2000 panel noted that action needs to be taken to raise women's participation closer to 40% in all areas of IHP; that a gender box for the scientist responsible should be added to any proposal and contract forms which do not currently include one and; that it is important to know whether there is any discrepancy between the proportion of women researchers whose work passes quality thresholds and the proportion who secure funding. The Commission has made further efforts to identify more women for Panels and Expert groups and has introduced a gender box in all application forms. The 2001 panel noted that it was still important to support the gender issue through specific measures and that this should be done in the work programme for FP6. The Commission did not respond in writing to this recommendation but the 2002 panel notes that it has been addressed in FP6.

Public awareness. All panels have expressed a certain amount of concern about the public awareness issue and the closely related issue of dissemination of results. The 2000 panel suggested that activities intended to raise public awareness in other ways needed to be linked closely to national science promotion activities and to include dissemination of the results from appropriate research projects. The 2001 panel gave strong support to the need to promote science in Europe through increased public awareness. They felt that stand-alone initiatives without strong input from Member States would remain sub-critical. They supported the idea of Science and Technology summer schools for high school students and Science Fairs for secondary school children. The Commission's view is that the annual Science Week is an important instrument for raising public awareness.

Prizes. Several suggestions concerning the organization of two of the three prizes offered by the commission have been put forward. The 2000 panel felt that the question of whether it is desirable to pursue the objective of a science award at the most prestigious international level (Descartes prize) needed to be reconsidered. They also felt that, to achieve a prize at the level of the Nobel prize, its value would need to be increased and the award procedures would need to be separated from those used to awarding grants. The Commission view however is that the key motivation for researchers to apply is the associated prestige rather than the possibility of financial gain. It also notes that the Descartes Prize, unlike the Nobel prize, places stress on collaborative international endeavour.

The format of the Archimedes prize has been severely criticized by the panels. The number of applications has been low and the 2000 panel suggested that the prize should be based on national level competitions. The Commission noted however that such competitions are not available in all countries. The 2001 panel also felt that the prize had not been successful and should be reformed. One possibility would be to open the contest to all fields of science and possibly also to students who already had a Master degree.

The Commission has responded by establishing a contract with external consultants to undertake a strategic evaluation of the present prizes: Descartes, Archimedes and the EU Young Scientist Contest. The work was carried out in the second half of 2002 and included analyses of the number of proposals received, the quality of the proposals received, media coverage and the visibility of the Prize amongst researchers.

4.1.2 Management and processes (including evaluation and monitoring)

Evaluation and funding. The 1999 and 2000 panels both recommended a move from two-round evaluations (as in Key Action Socio-Economic Research) since they felt that the decisions in the second stage were not made on transparently scientific criteria. They both recommended a change from distributing the budget among disciplines according to demand and the 2000 Panel recommended that the funding of projects should be determined by the evaluation scores given by scientific experts. The Commission did not accept these recommendations however. They are satisfied that there is no significant quality variation between proposals submitted to the different disciplines and believe it is their responsibility to draw up ranked lists of proposals from those that pass the required threshold and that they need to take into account the recommendations of the evaluation panel as well as the programme priorities.

Impact assessment. The 1999 panel recommended that stable, formal impact assessment methodologies should be developed. The Commission answered that assessment methodology had been finalised and would be applied to networks and fellowships activities. Other actions to contribute to such an impact assessment have been initiated and are still pursued e.g. the commissioning of project reviewers to establish the level of impact of individual projects of the Key action socio-economic research and the launching in 2003 of a mid-term assessment to evaluate if STRATA and CBSTII are reaching their objectives by analysing the impact of their initial results.

Structure. The 2000 Panel recommended that the STRATA and CBSTII Activities be integrated into the Socio-Economic Research Key Action with common application procedures. The Commission answered that such recommendations had been implemented, whereby the two first activities and the key action are now in a single Directorate, instead of three, and are starting to harmonise their procedures and synchronise their calls.

Dissemination. This subject has attracted many recommendations. For example the 2000 panel suggested that there be central expert support to produce press releases, organise conferences etc, that the CORDIS web pages be improved by more regular updating and better indexing and search facilities, that a separate budget for dissemination should be allocated to Socio-Economic Research Key Action, that a register of national and European research and academic professional organizations, grant-awarding bodies and non-profit associations active in relation to research should be drawn up and that the Commission should distribute information to academic organizations as well as to national contact points. The Commission answered that certain things had already been done e.g. the Key Action has continued to develop its clustering activities, making funds available to researchers to disseminate results of numerous projects and in parallel there has been a policy to allow projects greater budgets for dissemination. The Commission also increased the demands of the programme for such activities.

4.1.3 Impact of previous research FPs and SPs.

The present IHP programme is the result of 2 previous programmes, Training and mobility of researchers (TMR) and Targeted socio-economic research (TSER) which can in turn be traced back to earlier programmes in FP3, FP2 and even FP1. This is shown in detail in Annexe 6.1. The activity-lines have evidently grown considerably in size and range. For example the Access to Research Infrastructures which initially only supported access to major instruments like synchrotrons now supports a whole range of activities which include libraries, data bases, collections and most recently conservation of the European cultural heritage. A similar widening has also occurred in other activity-lines. One can also see the way in which the activity-lines have

opened up to include countries outside the EU and in FP6, many of these lines will be open to researchers from the third world to an increasing degree.

4.1.4 Other aspects proper to the specific programme.

None.

4.2 Monitoring of the implementation in 2002

4.2.1 Follow-up of 2001 recommendations

The 2001 panel made 20 recommendations of which more than half concerned Directorate D.

Directorate B.

No 2. Recommended that, in FP6, special support should be given to less favoured regions and candidate countries. The Commission responded by noting that in FP6 special support will be given to candidate countries particularly with respect to KA where it plans to establish a dedicated unit.

No 3. Recommended that the contract form (CPF) should be simplified.

The Commission noted that a number of processes will be simplified in FP6 including the CPF.

Directorate C.

Women and science.

No 15. Noted the importance of mainstreaming the gender issue but recommended that there should be specific measures for dealing with the gender issue in FP6. There was no written response from the Commission although the recommendation has been taken into account in FP6.

Raising public awareness.

No 13. Recommended that there should be more interaction with national public awareness campaigns, as well as the science and technology initiatives by other international organizations. The Commission noted that actions to increase the impact of Raising Public Awareness of Science and Technology and the Science Week activity are key features of the Science and Society Action Plan. In addition, the 4th call for Raising Public Awareness launched in January 2002 gave special attention to this aspect.

No 14 Archimedes Prize. The 2001 panel did not feel this had been very successful and suggested changes should be made to the way it was awarded either by changing the eligibility or by opening it to all fields of science. In the 2002 call six themes were selected, instead of four in 2001 and the Programme Management have also commissioned consultants to carry out an analysis of the Prizes.

Directorate D.

No 1. Recommended that, throughout the whole IHP programme, more effort should be made to define the desired outcomes and impacts envisaged for each activity and to develop assessment indicators. The Commission agreed that it needed to do more in this respect. Directorate D has set up an internal working group in order to include impact assessment indicators from the very start of the FP6 activities. An impact assessment study has been launched for the Marie Curie Fellowships at the end of 2002 and another one will be launched for the Research Training Networks in 2003.

No 2. Recommended that special attention should be given to help less-favoured regions and candidate countries in FP6. Suggestions included special training fellowships and also help in providing support staff perhaps through team fellowships (e.g. researcher-technician-manager-documentalist teams) proposed by research institutions in those regions or countries. The Commission answered that under FP6 the support of technical staff is being seriously considered as part of the eligible research costs within the Marie Curie Hosts Fellowships Transfer of Knowledge scheme and the Marie Curie Excellence grants.

No 4. Recommended that the Commission should aim to achieve closer interaction between National Contact Points (NCPs). The Commission answered that in 2002 it organised two meetings, in April and October. Two to three meetings with NCPs are normally scheduled per year. "The General principles for setting up systems of National Contact Points for FP6" will also apply to the new Human Resources and Mobility activity.

No 5. Recommended that preparation and training should be provided to support the practical implementation of FP6 in all IHP activities. The Commission answered that a series of actions are foreseen e.g. each operational unit will prepare and disseminate information tools for the various groups/activities and improvements are being made to the helpdesk for the new Human Resources and Mobility activity.

No 6. Recommended improvements to the arrangements for the Annual Monitoring exercise. This is a heavy administrative burden and the preparation of self-assessment reports clashes with end of year priorities. A less frequent rhythm within the five-year planning cycle should be found to ease this burden. Directorate D supported the establishment of a less heavy monitoring exercise and said that the Commission is currently discussing the possibility of a new system.

No 7. Recommended that a database of short CVs of young researchers with an interest in a fellowship should be added to the MCF web-site. Industrial hosts could use this to identify appropriate fellows.

Directorate D answered that it was an interesting idea which would be explored. CVs of MC fellows will be on the Circa web site for those who will give their approval. Furthermore, the web portal (developed under the mobility strategy for ERA) will have a deep link to the vacancy tool on the Cordis web site to allow the relevant information to be retrieved.

No 8. Recommended that the Fellows in Research Training Networks should actively be encouraged to move within the network from one laboratory to another in order to enrich their research experience and that joint RTN courses on generic topics such as ethical issues or research management should be organized.

Directorate D replied that mobility inside a network already exists in RTN activities. This practice is actively encouraged by the EC services and systematically addressed for example at Mid-Term Review meetings. The Commission liked the idea of courses on generic issues and would seek to develop it in FP6.

No 9. Recommended that the RTN evaluation panel meetings should be held at the same time in order to increase interaction between panels particularly in the case of multidisciplinary applications.

Directorate D explained that measures have been taken in RTN to ensure that multidisciplinary proposals were evaluated by experts with the required expertise by allocating the same proposals

to experts from different backgrounds, including experts from different panels. The EC services will investigate ways of increasing the interaction between panels; this would include the possibility of organising all panel meetings at the same time.

No 10. Recommended a new approach in terms of proposal evaluation and impact assessment for the new Industrial Host Fellowships particularly in the case of SMEs. The Commission answered that in FP6, industry participation is envisaged in host-driven activities in the Fellowships for early stage training where it can provide training opportunities for researchers. This is also envisaged within the transfer of knowledge scheme where industry, particularly SMEs, can benefit from the participation of more experienced researchers.

No 11. Recommended that all mobility proposals should be required to include clear statements of their training objectives (not only training instruments, i.e. seminars, workshops, graduate courses etc). The Commission answered that it fully agrees with this recommendation and that training objectives will be highlighted at all stages in FP6 HRM activities.

No 12. Recommended that the Commission should encourage and support courses in research management as well as courses in research. The Commission answered that it is aware of the needs for courses in research management and has included this aspect in the "Marie Curie Conferences and Training Courses" activity in FP6.

Directorate K.

No 16. Recommended that a survey of participants at KA dialogue workshops is made to assess their value. The Commission responded by saying that a short questionnaire designed to evaluate the dialogue workshops has been developed but not yet piloted.

No 17. Recommended that for KA a horizontal high-level interface between the scientific community for social sciences and humanities and the innovation policy communities should be organised at the European level. The Commission replied that the new Advisory Group for FP6 on priority 7 has now been established with high level experts in social science and humanities. New projects from the last call of FP5, aiming at assisting researchers to prepare the ERA in this field, have begun.

No 18. Recommended that for KA greater emphasis should be given to the evaluation of dissemination at the project monitoring and first result stages. The Commission should withhold part of the payments until these deliverables are provided. The Commission replied that, because of the regulations pertaining to EC contracts, the payments may not be extended beyond the duration of the project, nevertheless, a particular effort has been implemented to improve the tracking of the post project publications.

No 19. Recommended that a high-level policy user platform be established for STRATA and CBSTII. The Commission responded that a Knowledge Sharing Platform has been included in the Work Programme (under "Strengthening" and "Support for the coherent development of policies") of FP6 and preparatory work is in progress for its implementation in 2003.

No 20. Recommended that a more direct way of allocating research funding for urgent policy needs be found for STRATA and CBSTII. The Commission replied that, after careful analysis of mechanisms available, calls for tenders under preparation will be the primary mechanism used to implement the Support for Coherent Development of Policies in FP6. If urgent policy needs emerge, it is intended that they will be accommodated within the available budget and the choice of the most adequate instrument (knowledge platform, expert group, call for tender etc.)

4.2.2 The attainment of objectives in terms of implementation

One surprising obstacle to the speed at which objectives have been attained was the delay involved in labelling contracts with appropriate acronyms. The panel is relieved that this should no longer be a problem in FP6.

Directorate B.

Access to Research Infrastructures.

Relatively modest funding was available for new proposals in 2002 and 11 were selected (total cost 3.3 MEuro) compared with 80 in 2001. The major activities in 2002 were the Technical Review 1998-2002 and the preparations for FP6. The Technical Review, carried out by a panel of 43 experts, appears to have been very efficiently organised and to have been a valuable exercise. Some changes had been made from previous Reviews partly to reduce the amount of work involved. One change was to hold all the meetings in Brussels. This change addressed concerns by operators who felt that those who were visited were being treated differently and that this could affect the outcome of the review of those infrastructures.

The Monitoring Panel recognises this problem but feels that the opportunity to visit some of the infrastructures and to meet users and discuss their experiences is an essential part of the Review. It is also very desirable that non-specialists should visit infrastructures in areas outside their expertise to help normalise the Review process. This normalisation is likely to be increasingly important: networks are bringing together and strengthening research communities so that it will become harder for specialist groups from within those communities to make critical judgements affecting close colleagues.

The additional work involved in organising meetings outside Brussels and visits of non-specialists could be handled by spreading the review over a somewhat longer period.

The Monitoring Panel notes that, although this was not specifically included in the listed objectives for 2002, the programme managers made further efforts to bring new users into the programme. This is a long running concern and the Panel commends the efforts to encourage infrastructure operators to do more to advertise the programme more effectively on their Websites. The Panel encourages the managers to do even more in this respect and recommends that good arrangements for this should be made a precondition for selection.

Directorate C.

Women and Science.

This action reflects the political commitment of the Commission to promote gender equality in research. The imbalance can be seen by the fact that the percentage of women awarded IHP contracts during 2001 was less than 25%. This does not apparently arise through any gender discrimination in selection since the success rate is similar for men and women. But it demonstrates that too few women are applying for these contracts. The panel is pleased to note that the Marie Curie Fellowships activity-line is an exception to this. Women represented about 40% of the recipients of MC Fellowships in 2002 and the percentage is the same for FP5 as a whole.

Several meetings and workshops were organized in 2002 and support given to the publication of a report on national policies on women in science by the Helsinki Group. Two call for tenders were published to identify the existing networks of women scientists and to yield a system of statistics

and indicators to monitor the progress of women equality in science. Significant effort was committed to reinforce the Gender Watch System in FP6. One effect of this activity-line can be seen in the composition of the Evaluation etc panels of the Commission. Women provided 37% of the members in the 2001 IHP evaluation panels and 42% in the 2002 panels.

Raising public awareness.

The action contributes to raise the profile of science and technology among the public. Three areas have been developed under FP5:

- Dialogue with the public as a means to influencing public opinion
- The role of the media and science communicators, recognising the importance television and newspapers have in influencing the public opinion
- European Science and Technology week.

In 2002 there were 126 eligible proposals, a number bigger than the total of the last two calls, but the activity was limited to supporting the European Science and Technology Week (6 projects amounting to 1.8 MEuro), Dialogue with the Public (5 projects, 1.6 MEuro) and Media and Science communicators (3 projects, 1.1 MEuro). The last two activities started in 2001 and although it is too early to evaluate their impact, it looks like a promising approach. The total budget for this activity seems too small for it to have a major impact at a European level although good results could be obtained in the regions where the projects have been implemented and these could be the focus of further development.

The third call for project proposal was made in 2001 and the Science and Technology week took place in November 2002. The contracts of the fourth call (2002) were signed between December 2002 and January 2003.

Descartes Prize. The Descartes Prize is the European prize for outstanding research results obtained through trans-national collaboration. The prize has a double aim: (1) to give recognition to the research teams and (2) to raise awareness in the public eye. A total of 108 proposals were received in 2002 (54 in 2001) suggesting increased interest in the scientific community. The initial selection is made by six thematic panels which choose the best projects in each area, the finalists are then chosen by a panel consisting of the presidents of the thematic panels and the Grand Jury of the Descartes Prize chooses the winners from these finalists. It is encouraging that the quality of the proposals and the visibility of the prize amongst researchers both appear to be increasing. Progress is also being made to achieve greater public awareness: the number of articles on the Descartes Prize Ceremony published in European newspapers rose from 28 in 2001 to more than 100 in 2002. However it is clear that a great deal more has to be done before the Descartes Prize becomes a household name in the way that the Nobel Prize is.

Archimedes Prize. The Archimedes Prize is awarded to undergraduate students who have developed scientific or technological achievements from original scientific ideas or concepts which could be relevant to the advancement of European Science. The number of proposals received in 2002 (35) is much lower than in 2001 (54) suggesting that either the interest for the subject has decreased or the call was not sufficiently well publicised or perhaps both. There is also the strong possibility suggested by previous panels that the target group is not appropriate. An alternative could be the award of this prize to students who have recently graduated. An initial selection could be made on the basis of a thesis or project produced as part of their degree work and successful candidates could then be invited to present their work to a national committee. A final selection could be made by a European committee.

The Young Scientist Contest. The EU Young Scientist Contest, based on national contests involving more than 30,000 young science students aged 15-20, is considered as the annual showcase of the scientific achievements of secondary students. The EU Contest involves around 85 students and has now been extended to 35 countries and seems an excellent way of raising public awareness in Science and Technology.

Directorate D.

There were fewer calls for proposals in 2002 compared with 2001. Nevertheless 3,487 proposals were received and over 500 contracts were signed. The Directorate also managed the payments and the follow-up of all ongoing contracts from FP4 and FP5, and a few remaining contracts from FP3. Directorate D was also very active in preparing for the implementation of FP6. The preparation process appears to have been very effectively managed. The IHP activities within Directorate D will move in FP6 to the horizontal programme Structuring the ERA under the activity Human Resources and Mobility.

Marie Curie Fellowships.

There was one deadline in March 2002 for the Marie Curie Individual Fellowships. A total of 1,360 proposals were received. Six specialist panels evaluated 1,213 eligible proposals. The overall success rate was about 24% with 291 proposals recommended for funding. For the Marie Curie Industry Hosts Fellowships, the deadline was in October 2001 but the selection and contract procedures took place in 2002. A total of 219 proposals were received and a multidisciplinary panel evaluated 210 eligible proposals. The success rate was 36% with 75 proposals recommended for funding. The programme seems to be very effectively managed.

Research Training Networks.

The deadline for Research Training Networks was in May 2001. 604 proposals were received of which 572 were eligible. The available budget was split between seven specialist panels who met in September 2001. The success rate was 28%. A very disturbing feature however is that only 53% of the contracts for these successful proposals had been signed by the end of October 2002, nearly 18 months after they had been submitted.

The panel recognises that the completion of a Network contract involves a considerable amount of work and does not wish to attribute this unsatisfactory situation to any lack of commitment on those running the programme. It is also aware that there had been major changes of personnel in this area. It seems clear though that the management informatics tools they were using were poorly matched to the task and the panel feels this should have been recognised earlier. In summary, the time to contract in this area must be regarded, as unacceptably long and therefore damaging to scientific research. Further efforts must be put into developing proper and more efficient management informatics tools.

High Level Science Conferences.

The permanent open call for High Level Scientific Conferences was published in March 1999 with a deadline of 1st February 2002. The total number of proposals received increased from 467 in the previous round to 572 for this call. A multidisciplinary panel evaluated 516 proposals. There was a marked increase in the number of events proposed, 939 within the 516 proposals. Because of this increase and the reduced indicative budget available the selection rate was only about 16%.

Directorate K.

The Key action socio-economic research was implemented through 3 calls for proposals and the last contracts resulting from the last call were signed by the end of 2002. This process is

continuing with the follow-up of on-going contracts. In total 286 contracts were signed for 147 research projects, 38 thematic networks and 101 accompanying measures. Around 203 coordinators and 1820 partners participated in this Key action. Project reviewers have been commissioned to establish the level of impact of individual projects. The last contracts in STRATA and CBSTII were signed in 2002. In addition, a mid-term review is going to be launched in 2003 to evaluate if STRATA and CBSTII are meeting their objectives.

The monitoring and coordination of the socio-economic dimension in FP5 was implemented by the horizontal key action on “Improving the socio-economic knowledge base” and took the form of two interim reports and a final synthesis report produced by Directorate K with support from Directorates in charge of implementing the thematic programmes. These reports account the degree to which a socio-economic dimension, as well as opportunities for socio-economic research are integrated in the various specific programmes.

They provide an overview of the calls and the results in each specific programme addressing particularly how the socio-economic dimension has been considered in terms of priority and response to the calls, during evaluation including choice of experts and negotiation. Finally the reports provide a set of recommendations for a better integration and management of this dimension in the programmes and to facilitate an improved complementary between them for the future calls.

The panel is satisfied that the performance of these activity-lines has been adequate, but the impact from the various activities is somewhat unclear.

4.2.3. Transition aspects linked to the final phase of projects (contract follow-up and closure)

The closure of FP5 does of course not mean that all contracts will be closed at its end. Most of the FP5 contracts last for more than one year and their closure will be during FP6. The panel was surprised at the number of FP4 contracts which are still open.

Directorate B.

FP4 (TMR-LSF), 4 open contracts, FP5 (IHP-ARI), 253 open contracts.

Directorate C.

FP4, no open contracts, FP5, 120 open contracts

For Raising public awareness the situation is as follows:

In the 1999 call, 15 proposals were approved. 5 will be finished in 2003 and one will be finished in 2004.

In the 2000 call, 12 proposals were approved. 2 will be finished in 2003 and 2 in 2004

In the 2001 call, 13 proposals were approved. 3 were finished in 2002, 9 will be finished in 2003 and one will be finished in 2004.

In the 2002 call, 14 proposals were approved.

Directorate D.

Research Training Networks: FP4 147 open contracts of which 118 have submitted their final report (i.e. are being processed for final payment), 28 are to be terminated in 2004 and 1 in 2004
FP5: 332 open contracts (167-1=166 from 1st call and 166 from 2nd call).

Marie Curie fellowships FP4 four open contracts, FP5 2317 open contracts of which 1573 individual fellowships and 744 host fellowships.

High Level Scientific Conferences FP4 only one open contract, FP5 228 open contracts.

Directorate K.

There were 20 contracts outstanding in STRATA – 15 to close in 2003, 3 in 2004 and 2 in 2005.

There were 12 contracts outstanding in CBSTII – 6 to close in 2003, 5 in 2004 and 1 in 2005.

There were 168 contracts outstanding in the Key Action – 33 to close in 2003, 49 in 2004, 85 in 2005 and 1 in 2006.

4.2.4 Legacy aspects

Directorate B.

Access to Research Infrastructures.

The brochures describing the portfolio of infrastructures show that it is already covering a wide range of science and engineering and this is also illustrated by the recent booklet on the conservation of European heritage. The programme will continue to broaden its range of activities in FP6, and it also seems likely that efforts will be made to involve more users from SMEs and more infrastructures from key engineering areas such as sustainable energy systems.

Directorate C.

Women and Science.

The activities have provided valuable information on gender issues in all the EU activities and indicated what more needs to be done if gender equality is to be achieved. Approaching gender equality in Commission activities is a very desirable activity since it makes an important statement. However it is not clear that it will have a major effect on gender equality in research, e.g. increasing the proportion of women contract holders in research, since there is no evidence of discrimination in the selection processes.

Raising public awareness.

The high response to the 2002 call may be due to the publication of the Science and Society Action Plan in December 2001 which emphasised the areas covered under this activity.

Descartes Prize. Compared with 2001 media interest in the Descartes Prize has increased considerably. However it is still very low compared with media interest in the Nobel prizes. Throughout the year 2002 the Commission kept in contact with 10 000 members of the scientific community in Europe in order to keep them updated on the Descartes Prize and prepare the launch of the calls for proposals for 2003.

Archimedes Prize. The award ceremonies for 2001 and 2002 prizes were combined partly for administrative reasons but also to achieve a bigger impact. Media from 8 of the 15 member-states reported on the ceremony.

The Young Scientist Contest. An excellent brochure was published on the European Union Contest for Young Scientists. This included illustrated summaries of the work presented to the Contest and short biographies of the authors.

Directorate D.

Good impact data of the current activity-lines were not available but two of the activity-lines have decided to launch impact studies. For Marie Curie Fellowships a public procurement for a study to measure the impact of the Marie Curie Fellowships in FP4 and FP5 was published in September with a deadline of 22nd November 2002. The complete impact assessment is planned to be implemented in two phases:

- Phase 1 consists of a First Impact Assessment covering Fellowships that were completed prior to the start of the Impact Assessment Study, and a Second Impact Assessment covering Fellowships awarded prior to the commencement of the Impact Assessment Study but which are still running within the contract's duration.
- Phase 2 consists of the implementation of the Continuous Impact Assessment covering the Fellowships that start during the Impact Assessment Study.

The impact assessments are carried out through questionnaires (2 in Phase 1 and 4 in Phase 2) sent to the Fellows and their hosts, together with telephone interviews of a sample. Further information will be obtained at meetings of a Consultative Group of stakeholders not actively involved as participants in the Fellowship.

For Research Training Networks one of the obstacles to impact assessment has been that basic output data were not readily available. These had to be extracted from the periodic and final reports and the young researchers questionnaires and then encoded in a locally developed informatics application. This work has now been finished for FP4 contracts.

An impact study will be launched in early 2003 for projects financed under both FP4 and FP5.

The main themes under analysis will be:

- In which areas do we have RTNs and do we have a sufficiently broad coverage of the community?
- Are RTNs having a real impact on the development of research competence within Europe and contributing to the aims of the European Research Area?
- Do young researchers benefit from the training that they receive within RTNs and does it have a real impact on their careers (i.e. in terms of securing permanent positions)?
- Are RTNs effective in establishing new or reinforcing existing collaborations between research groups? Are these collaborations lasting beyond the lifetime of the project?

For High Level Scientific Conferences an integrated monitoring system has been developed. Data collection starts at the proposal stage and is carried on by standardised reports and cost statements. Since all objectives of the activity are expressed numerically, their impact may be directly monitored over time. The monitoring uses four different approaches:

- Proposal evaluation by independent experts
- Reporting by the contractor
- Evaluation by participants
- Monitoring by EC staff

Directorate K.

Three strategic directions have been developed from the experience gained in earlier FPs:

1. The recognition that European social sciences and humanities require European infrastructures for comparative research, and that major benefits can accrue from these infrastructures;
2. The importance of the European Research Area as a source of inspiration for social science and humanities as well as a key policy for increasing the effectiveness and productivity of European research in the social sciences and the humanities; and
3. The increasing emphasis attached to using the humanities as sources of knowledge of crucial importance to the understanding of phenomena that shape Europe today and its future in the world.

The creation of a European Research Area should broaden and deepen the body of knowledge that is relevant to decision-making in European Union institutions. This process includes underpinning theories and stylised facts that guide the development of disciplines in the social sciences and humanities. There are good indications that this form of internationalisation of social science and humanities research is having an effect at the level of organisation of research communities as well as in promoting social sciences and humanities within the general scientific societies and institutions. For example, in recent years there has been a rise in the European Associations in the fields of community research. The European Association for the Study of Science and Technology (EASST); the European Inter-university Association on Society, Science and Technology; the Network of European Centres in Science and Technology Studies (NECSTS); the Centre for Economic Policy Research (CEPR), the European Consortium for Political Research (ECPR), the European Educational Research Association (EERA), the European Sociological Association (ESA), the European Economic Association (EEA) are but some examples of scientific associations co-operating with the key action socio-economic research. Furthermore, a number of general scientific (and even engineering) associations at the European level have been increasingly involved with the key action, such as the European Science Foundation, All European Academies, the European University Association, Euroscience, Euro-CASE etc.

4.2.5. Preparation of the implementation of the specific programme under FP6.

The IHP programme ceases to exist in FP6. The action lines of the programme do, however, continue under different headings in FP6, i.e. (i). Enhancing Access to Research Infrastructure under the horizontal programme; Structuring the ERA, Research Infrastructures (ii). Raising public awareness and the three prizes under the horizontal programme; Structuring the ERA, Science and Society (ii). Women and Science under the horizontal programme; Structuring the ERA, Science and Society, (iv). Marie Curie activities, Research Training Networks and High Level Scientific Conferences under the horizontal programme; Structuring the ERA, Human Resources and Mobility and (v). The Key-action socio-economic research under Priority 7 "Citizens and governance in the knowledge based society" (vi). STRATA and CBSTII under priorities horizontally distributed mainly into the policy oriented research and the support for the development of coherent policies of the Integrating and Strengthening the ERA.

Directorate B.

The work to prepare the programme within FP6 was a major activity in 2002 and appears to have been carried out very efficiently. A working document was drafted in May and stakeholder input to policy development was obtained through a seminar held in June. A Strategy Forum was also set up. The new budget for Access appears to be substantially more at first sight than in FP5. However it now includes activities handled in other ways in FP5 so the net increase will be significant rather than dramatic.

Directorate C.

Raising public awareness.

In FP6, further work is planned to improve communications and dialogue between the scientific community and the public. This will emphasise the role of audio-visual media, and achieve greater synergy between national science events and the European Science Week.

An impact analysis of the effectiveness of these activities will be carried out.

Descartes Prize. The Directorate has commissioned external consultants to offer guidance on how this prize should be developed in FP6.

Archimedes Prize. The continuation of this activity-line is not foreseen in FP6.

The Young Scientist Contest. In FP6 an initiative will be established to enhance science teaching in schools, to raise the interest and motivation of boys and girls in science and technology.

Directorate D.

Directorate D has been very active and efficient in preparing for FP6. Eight internal working groups were set up covering the evaluation, legal aspects, management, informatics, road map, documentation and information, communication and the follow-up of projects. Since everyone in the directorate was actively involved in this process, a coherent process of programme development would appear to have been achieved. The objectives of these working groups were to produce concrete working documents such as the work programme, the various types of contracts, guidelines, information packs and, the establishment of the new programme committee and the External Advisory Groups. The findings of the various working groups were presented and discussed at an internal seminar held in October.

On November 11-13 a conference was held to launch FP6. Over 8,000 people registered and of those, around 3,000 expressed interest in the programme on Human Resources and Mobility. Directorate D was in charge of a stand concerning Human resources and mobility and of one of the sessions of the FP6 launching conference on Human resources and mobility. The session had 900 participants.

During FP6 an External Advisory Group (EAG) will function as the advisory structure for the activity Human Resources and Mobility (under the horizontal programme: Structuring the ERA). During FP5 the IHP-programme did not have such an advisory group. The advisory group consists of 20-25 high level experts from university and industry. The group was started in 2002 and it will meet three times a year.

In addition there is a Programme Committee for the whole horizontal programme Structuring the ERA. The Programme Committee consists of a group of about 60 people from Ministries and Research councils. The committee functions as a management board, one of its tasks being to approve the work programmes.

Directorate K.

The analysis of the integration of the socio-economic dimension in the 6th FP shows that this dimension appears in nearly all the thematic areas as a consequence of a clear and strengthened political will expressed in the Framework Programme in the section entitled: "**Integrating and**

Strengthening the European Research Area" (SP1) :*"The principle of sustainable development..., the socio-economic aspects ... of the actions to be undertaken... will be taken duly in consideration if they are relevant for the action concerned "*and in the specific programme under this same part:

"... considerations... of the research to be undertaken and its potential application, as well as socio-economic impacts of scientific and technological development and foresight, will where relevant form a part of the activities under this heading "

Therefore, socio-economic research, and innovation, together with the consideration of ethical, social, legal, regulatory and wider cultural aspects of the research, are important to all relevant parts of FP6. These cross-cutting issues, particularly in SP1, cover each of the thematic priorities and are complemented by socio-economic research carried out within the priority 7 " Citizens and governance in a knowledge based society".

Directorate K is responsible for the coordination of the socio-economic aspects of the research including Foresight in all specific programmes of FP6.

Directorate K is also responsible for the activities to be carried out in priority 7 with a budget of 225 MEuro, these activities are intended to mobilise in a coherent effort European research capacities in economic, political, social sciences and humanities that are necessary to develop an understanding of, and to address issues related to, the emergence of the knowledge-based society and new forms of relationships between its citizens, on one hand, and between its citizens and institutions, on the other. Through the implementation of this new programme, it is intended to contribute to the creation of a European Research Area in the social sciences and humanities.

Complementary activities with socio-economic concerns prevailing are also under the responsibility of Directorate K i.e. the priority action "Support for the coherent development of policies" with a budget of 50 MEuro. It contributes to the understanding of the structure and evolution of Science and Technology and innovation activities in support of the development of coherent policies.

5. Conclusions and recommendations

5.1 Conclusions

Directorate B.

Access to Research Infrastructures

The main objectives of the Access programme of providing researchers throughout the enlarged European Community with new opportunities for access to its infrastructures and of stimulating infrastructure operators and users to work together to make more effective use of these infrastructures are a major and important part of the EC's support for research. Overall the programme is very well managed and the Panel has few criticisms of the way it operated in 2002. The planning for FP6 was carried out effectively and was evidently a major task. Evaluation was carried out through a Technical Review and although this was also an effective process, the Panel did have some concerns. These are described in section 4.1.2 and recommendations are given in 5.2 as to how the process could be improved. It is very desirable that the programme should continue to attract new users and new infrastructures and while the Panel commends the managers for their efforts in this regard it would also like to see even further developments in this direction.

Directorate C.

Women and Science.

The programme made a positive contribution in 2002 to the Commission's efforts to promote gender equality in all its research activities. The statistical data obtained by the Helsinki Group on Women and Science are very eloquent and should be used for any further programming on gender equality. The Panel feels that the main aim should be to increase the number of women contract holders and suggests this requires more initiatives to encourage women to apply for contracts and, further back, to study science at University level and then to engage in research. It is hoped that further effort will be given to these areas in FP6 e.g. through the Raising public awareness activity-line.

Raising public awareness.

The importance of this activity to the quality and effectiveness of scientific activity in Europe and to the creation of a European Research Area is widely recognised. The Panel was impressed by the efforts made in 2002. The efforts will never be as effective as they could be without the close involvement of Member States and the Panel appreciates what has already been done to encourage this and supports further efforts in this direction. Some of the activities now need to be carefully assessed to see if they can be improved and the Panel was pleased to see that analysis of the Prizes has been carried out by a team of consultants. However it is clear that the vision that the Descartes prize should have very high profile has evidently not yet been achieved since most Europeans would seem to be unaware of its existence. The aims of the Archimedes prize are more modest but the Panel notes the disappointingly low number of proposals even though the number of thematic fields has been enlarged. The Panel feels though that the new initiative for the Contest of Young Scientists envisaged in FP6 to increase the attractiveness and relevance of science studies at schools is a very positive step.

Directorate D.

For Research Training Networks, Marie Curie Fellowships and High Level Scientific Conferences the FP5 IHP work programme was completed by the end of 2002. The High Level Scientific Conferences exceeded its target by supporting around 1,150 scientific events attended by more than 140,000 participants.

Much work was done on preparation and implementation of the new framework programme. The FP6 work programme was adopted at the end of the year and the first call for proposals of FP6 was published in December.

Marie Curie Fellowships

The programme seems to be very effectively managed. As a minor comment the panel notes that during FP5 small inexpensive objects such as pins and postcards were used to increase the visibility of the programme. In FP6 where Marie Curie actions will encompass an increased number of activity-lines it might be useful to reintroduce this practice to help strengthen the Marie Curie brand name.

Research Training Networks

The panel recognises that the work needed to complete a Network contract is considerable and also that there has been a major change of personnel in this area. Nevertheless it is extremely

concerned about the long time to contract in this area. The panel does not wish to attribute this to any lack of commitment on the part of those running the programme and operating the management informatic tools. But as has been noted earlier, the informatic tools are clearly not well matched to the task and the panel feels this should have been recognised sooner. It very much hopes that the time to contract can be further reduced in FP6.

High Level Science Conferences

The support provided though this programme is a valuable contribution to scientific training.

Directorate K.

Socio-economic Research Key Action

The ultimate objective of the KA during FP5 was to improve the understanding of changes taking place in European society in order to identify ways of managing change and during 2002 four themes were identified as requiring further research in the European context: societal trends and structural changes; technology, society and employment; governance and citizenship; and the fostering through new models of growth and employment.

STRATA

The STRATA activities continued in 2001 with the establishment of the high-level advisory group being a particularly important achievement. The last batch of proposals under FP5 for this activity-line was selected and the implementation of ongoing projects continued. Unit K2 organised and monitored the works of high level expert-groups on topics of significant interest for the further development of Foresight cooperation in the European Research Area. Finally, the Unit organised, co-operated with various European actors and participated in several workshops, conferences and one seminar. As noted in section 4.2.5, the panel is aware that STRATA is being diffused horizontally in FP6, a decision which reflects the extensive nature of socio-economic research but which the panel feels may lead to further co-ordination and impact assessment difficulties.

CBSTII

CBSTII activity in 2002 was initially implemented through 15 major study contracts. Most of these studies have been completed, and have successfully contributed to the development of new and improved S&T indicators and thereby to the design of Community R&D policies. Results from these studies have provided material for the 3rd European Report on S&T Indicators and the Key Figures publications. The second part of the CBSTII work programme is being implemented through seven RTD contracts that should also contribute to the development of the European Research Area. The frequent publications and CBSTII study reports appear to be highly appreciated by European S&T policy makers.

The publication in March 2003 of the 3rd European Report on Science and Technology Indicators represents the outcome of much of the work undertaken in 2002 (and in previous FP5 years). The report indicates that the development of two new composite indicators – one which measures investment in the knowledge-based economy, and one which measures performance in the knowledge-based economy, represents an important and innovative achievement of CBSTII actions.

5.2 Recommendations

Directorate B.

Access to Research Infrastructures

- The next technical review should include panel visits and meetings at various infrastructures to allow the panel to obtain a better understanding of the issues, *particularly those outside their areas of expertise*, and to meet users.
- To spread the workload, the next technical review should take place over a longer period than at present.
- More effort should be made by facilities to use their web-sites to introduce new users to the opportunities of the Access programme. Consideration should be given to making good publicity arrangements a precondition for selection.

Directorate C.

Women and Science.

- The panel supports the present efforts made to achieve gender balance and recognises that some further work will be needed in FP6. However it believes that an even more pressing issue now is the encouragement of girls towards science and initiatives should be taken on this aspect in FP6.

Raising public awareness.

- Further effort needs to be made to integrate the Commission's activities with those of national activities in line with the recommendations of the 2001 panel.

Prizes

- The concept of the Archimedes prize needs major revision. If a successful format for the prize cannot be found the prize should be abolished. The panel notes that a strategic review of this area is being carried out by external consultants.
- Attention should also be given to the arrangements for the Descartes prize and the prize ceremony with the intention of increasing the publicity. The panel notes that a strategic review of this area is being carried out by external consultants.

Directorate D.

- An informatics system should be installed suitable for handling the workflow management of large numbers of relatively small contracts. The panel consider this to be a matter of considerable urgency.

Marie Curie Fellowships

- The web site should be developed so that potential contractors and Fellows can check their eligibility for the programme.
- If future evaluations are not going to be carried out at meetings of experts but remotely, there should still be occasional meetings to discuss the criteria used and to check how well the evaluation process is working.
- The organisation of scientific workshops at which Fellows describe their projects and overall experience to a multidisciplinary audience is seen to be of value to their training and should continue.

Research Training Networks

- Future analysis of questionnaires should be supplemented by visits of experts to the laboratories of a sample of networks.

Directorate K.**Socio-economic Research Key Action**

- Further ways should be found to improve the dissemination of the results of the research to the research community of social sciences and humanities. It seems likely these would make use of the internet.
- Efforts need to be made in FP6 projects to find structures that would make KA projects 'European' from their onset. This should contribute to ERA by attempting to develop a genuine pan-European approach to KA research activity, and avoid the 'nationalisation' of projects as much as possible.
- Efforts need to be made to enhance the multidisciplinary interaction potential of KA projects as they develop within FP6. Such integrative projects are becoming more and more necessary given the complexity of the problems arising across the socio-economic domain.

6 Annexes

6.1 Budget for FPs and IHP, the development of different activities

6.1.1 The development of actions related to Research Infrastructures

Table produced by Directorate B/Unit B4, March 2003

	FP2 1987-1989	FP3 1990-1994	FP4 1995-1998	FP5 1999-2002	FP6 2003-2006
Budget MEuro	30	60	120	180 *	450 (+ 200 for Grids/Géant)
Number of Contracts (by FP)	17	76	150	254	
Number of Contracts (by type of activity):					
Transnational Access	17	70	116	187	
Concerted Actions/ Thematic Networks		APAS** : 6	10	30	
RTD Projects			24	37	
Support Schemes in FP6:					
Transnational Access					
Integrating Activities (Integrated Infra- structure Initiatives, Co-ordination Actions)					
Communication Network Develop- ment (Grids/Géant)					
Design Studies					
Construction of new Infrastructures					

* Plus another 390 Mio € for the support of infrastructures in the Thematic Priorities of FP5

**APAS: 3 Concerted Actions, 3 Accompanying Measures

6.1.2 The development of the activity-lines Scientific prizes, Raising Public Awareness and Women and Science during FP5 to FP6

Directorate C, March 2003

	FP5	FP6
Scientific prizes	7 MEuro	8.8 MEuro
Raising Public Awareness	16 MEuro (including European Science and Technology Week)	16 MEuro (12 MEuro for European Science and Technology Week, 4 MEuro for the open call Science and Society – estimation)
Women and Science	3.565 MEuro Accompanying measures ~1 MEuro Helsinki group ~0.385 MEuro S&S Action plan ~1 MEuro Publications ~073 MEuro Conferences ~0.45 MEuro	

The call for proposals 2004 was published in December 2002 with deadline 13.05 2003. Approximately 30 experts have been selected for evaluation of projects submitted. The evaluation will take place from 9-13 June 2003 at Orban/Bruxelles.

The first coordination meeting for the Science Week 2003 was held on 28.02 2003 in Bruxelles with the six selected and funded projects and three liased projects, that will take place at the same time. Project co-ordinators presented their activities for SW2003, followed by a discussion about promotional activities, e.g. usage of logo, press releases, publications and posters.

Science Week 2003 will take place 3-9 November 2003 in various cities. A description of the projects will be published on the homepage <http://www.cordis.lu/scienceweek>. Among the selected activities one will be dedicated to the co-ordination of existing national Science and Technology weeks and festivals.

An evaluation process of the Science Week will be finished early April 2003.

A French-led CREST cluster on the co-ordination of Science Weeks in Europe was established in 2002. The cluster will meet for the second time in Paris on 20 March 2003.

A Slovakian-led CREST cluster on Science education in Europe was established in 2002 and met for the first time in October. Member and Associated State interest in this group increased considerably during 2002 and on the basis of this meeting a conference is being planned for April 2003 to identify specific actions including the possibility of establishing an ERA-net.

6.1.3 The development of Marie Curie Fellowships during FP2 to FP6

Table produced by Directorate D/Unit D2, March 2003

Please note that the figures in this table on Community Research Training are only indicative

	FP2 1987-1989	FP3 1990-1994	FP4 1995-1998	FP5 * 1999-2002	FP6 ** 2003-2006
Budget (million Euro)	180	220	277	602	870
Number of fellows	2300	2352	3207	12000***	8500
Types of fellowships					
	FP2 1987-1989	FP3 1990-1994	FP4 1995-1998	FP5 * 1999-2002	FP6 ** 2003-2006
Individual	Individual fellowships	Categories: - <i>PhD</i> - <i>Postdoctoral</i> , - <i>Experienced scientists</i> - <i>Return</i>	Categories: - <i>PhD</i> - <i>Postdoctoral</i> , - <i>Experienced researcher</i> - <i>Return</i>	Categories - <i>Postdoctoral</i> , - <i>Experienced researchers</i> - <i>Return</i>	- <i>Experienced researchers</i> - <i>Return and reintegration mechanisms.</i>
Hosts	-	<i>Institutional fellowships</i>	-	- <i>Training sites (short stays for PhD)</i> , - <i>Development hosts</i> , - <i>Industry hosts</i>	- <i>Early stage training</i> - <i>Transfer of knowledge: development and industry-academia</i>

(*) including thematic programmes

(**) including international fellowships

(***) high figure due to the fact that the stays at the Training sites were short and numerous.

6.1.4 The development of the activity Research Training Networks FP3-FP6

Table produced by Directorate D/Unit D3 , March 2003

Framework Programme	FP 3 (1990-1994)	FP4 (1994-1998)
Programme Name	HCM	TMR
Total FP budget (€million)	5700	13215
Total Programme budget (€ million)	518	742
Training and Mobility actions	433	632
Budget Research Training Networks	220	335
Eligible events:	Networks	Research Networks
Eligible researchers:	Research Teams from Member and Associated States (EFTA). Researchers from member States, Associated States and from central and eastern European countries (limited contribution).	Research Teams from Member States, Candidate countries and Associated States. Teams from Central and Eastern European countries could participate with limited funding (travel and subsistence costs only).
Eligible costs:	100% of the eligible additional: - Costs related to the researchers salaries. - Networking costs for all team members (travel and subsistence) - Limited research costs (other direct costs) - overheads (max 20% of direct costs)	100% of the eligible additional costs Costs related to Young Researchers (up to and including 35 years) salaries. - Networking costs for all team members (travel and subsistence) - Limited research costs (other direct costs) - overheads (max 20% of direct costs)
Additional remarks		
Training:	No defined training programme in contract. No age limit for appointed researchers.	Emphasis on 'Training through research'. Emphasis on young Post-Doctoral researchers. Defined training programme in contract. Young Researchers (age limit)/ some older researchers from Member States or Associated States.
Financing:	No fixed rates of pay for young researchers.	No fixed rates of pay for young researchers. Two-thirds of budget to be spent on cost of Young Researchers and on Networking costs
Other:		Mid-Term Reviews introduced for all contracts over €1m.
Average contract size	€300,000	€1.2 m
Number of contracts	701	249
Average Number of partners	8	8

Framework Programme	FP 5 (1998-2002)	FP6 (2002-2006)
Programme Name	IHP	HRM
Total FP budget (million €)	14960	16270
Total Programme budget (million €)	1280	1580
Training and Mobility actions	908	1580
Budget Research Training Networks	450	(504)
Eligible events:	Research Training Networks	Marie Curie Training Networks
Eligible researchers:	Research Teams from Member and Associated States. Young Researchers (up to and including 35 years) from Member States, Associated States and from other countries if they had been resident at least five years in member State.	Research Teams from Member States, and Associated Candidate countries. Legal entities from third countries can participate but would receive EC funding only if participation essential to the project. Early stage and experienced researchers from any country may be engaged (no age limit – based on experience).
Eligible costs:	100% of the eligible additional: - Costs related to the Young Researchers salaries, installation costs - Networking costs for all team members (travel and subsistence) - Secondment of team members (travel and subsistence) - Limited research costs (other direct costs) - overheads (max 20% of eligible direct costs)	100% of the eligible additional costs Costs related to early stage/experienced researchers (comprises monthly living allowance, travel allowance, mobility allowance, career exploration allowance costs linked to networking and training) - Contribution to the cost of other researchers in the team (networking, training, secondments) - Contribution to the organisation and implementation of the project (including research costs associated with training). - Management and audit activities (max 7% of eligible direct costs) - Overheads (max 10% of eligible direct costs)
Additional remarks		
Training:	Increased emphasis on the training programme (at pre- and post-doctoral level).	Reinforcement of training aspects of the programme. Early Stage researchers/experienced researchers active outside Europe eligible (Emphasis on early stage). No age limit (experience).
Finance:	At least 60% of budget for cost of appointing Young Researchers.	At least 65% of budget for cost of appointing Young Researchers plus other costs associated with their training and networking (including secondments). Management costs now eligible.
Indicative contract size	€1.3 m	€800,000 to several €million ?
Number of contracts	328	?
Average Number of partners	8	?

The development of the Networks activity since the Third Framework Programme

Produced by Directorate D/Unit D3, December 2002

The Human Capital and Mobility (HCM) Programme (Third Framework Programme 1990-1994 (but delayed two years)) arose from the combination of a number of separate smaller scale programmes which ran in the 1980's (SCIENCE Programme (twinings, fellowships), Euroconferences and Access to Large Scale Facilities). The objectives of the programme were to contribute to "a researchers Europe" through the "Europeanisation" of their advanced training. The Research Networks activity funded groups of research institutions undertaking a joint research programme with training and mobility of young researchers. On the advice of the then expert committee (CODEST) and on the basis of the huge response to the call for proposals, the Commission chose to fund many projects but at a lower level of financing.

In the Training and Mobility of Researchers Programme (Fourth Framework Programme 1994-1998) which succeeded it, the emphasis was placed more on the "training through research" element. This was undertaken in an effort to counteract the severe criticism of the HCM Networks where the original proposals' finances were dramatically reduced during evaluation totally altering the nature of the work proposed. In HCM, there were a total of 701 Network contracts averaging approximately €300,000. In TMR, there were 249 Networks averaging €1.2million (the programme had been heavily oversubscribed, with an average success rate of 11%)

The Five-Year Assessment Panel was introduced in 1994. This gave the opportunity for the programme to be examined by independent experts in order to assess the relevance of the programme's objectives, the efficiency and effectiveness of its implementation and identify lessons learned from its implementation. The Panel whose mandate included preparing a final report on the Human Capital and Mobility Programme and to make recommendations on the new Training and Mobility of Researchers Programme studied the past and future development of the programme. They achieved this by meeting with national representatives to the TMR Programme Committee (many of whom had worked on the HCM committee) and with the programme management. They also conducted interviews throughout the member states. In addition, individual panel members interviewed industrialists, researchers and administrators in Member States and received many written submissions.

The principal findings of the Panel (issued in October 1996) was that the then current Training and Mobility of Researchers Programme was an essential element for Europe in facing the challenges of the 21st Century and that its activities should be continued under the Fifth Framework Programme. The Panel recommended that the Programme should remain bottom-up but *concentrate on training and mobility issues*, open to all fields of scientific research and with *selection based on scientific excellence. The emphasis should move from the Programme being a funder of research to a funder of training and mobility of high level researchers.* The main challenges to be addressed for Research Networks were to improve the success rate (as indicated above, in the Fourth Framework Programme this was an average of 11%) addressing the problem of oversubscription, to increase the quality of the network fellows by open, international advertisement of positions and to encourage interdisciplinary proposals, ensuring their equitable evaluation.¹

¹ From the "Five Year Assessment of the Human Capital and Mobility (HCM) and the Training and Mobility of Researchers Programmes", Report by the Assessment Panel, Chair: Professor Daniel Thomas, October 1996.

The panel noted that a major improvement to the effectiveness and efficiency as the Programme moved from HCM to TMR had been found by all actors in the evaluation process including evaluators, contractors and administrators.

In February 1997, the Five-Year Assessment of the European Community RTD Framework Programmes was issued.² The Panel concluded that the basic premise of the Training and Mobility of Researchers Programme remained correct and still relevant. Europe would be better placed to face future challenges if its scientific and technology community were ready to co-operate across discipline, across culture and across regional and national boundaries. A training and mobility programme has a substantial contribution to make in developing this co-operation.

The Programme Committee became more involved in the identification of improvements to the programme implementation and the fine-tuning of the work-programme. As such they were an important source of advice (feedback from the Member States) for the programme management.

The Fourth Framework Programme saw the introduction of Mid Term Reviews of the TMR Networks Activity as well as targets and indicators. Contract monitoring was further developed (database reports, annual summary reports). In 1996 a panel of 78 senior researchers was established to conduct the Mid-term reviews of the contracts resulting from the first call for proposals. The panel met in plenary session twice (once before the Mid Term Reviews started and once mid-way through the exercise). On the basis of discussions at the second meeting and their experience at the Mid-term Review meetings, the Chairman of the MTR Panel, Professor Alexandre Quintanilha prepared a report³ on the panel's findings. Professor Quintanilha had also acted as the independent observer at the second round of the TMR Networks evaluation panel. Among the panel's tasks was to give the Commission advice as to how the way that Research Networks are implemented and noting examples of good and bad practice. Many of these findings were used by the programme management in the formulation of the successor programme – Improving Human Potential (1998-2002) and have been communicated to new Research Training Networks participants.

The first European Conference on TMR (Training and Mobility of Researchers) Networks was organised by the Austrian Bureau for International Research and Technology Co-operation (BIT) and the Technical University Graz (TUG) in co-operation with the Training and Mobility of Researchers Programme of the European Commission⁴.

The purpose of this conference was to assess whether Research Training Networks are a worthwhile use of Community funds and how they could be improved in the Fifth Framework Programme.

The conference provided a forum where all actors involved met to exchange views. A major part of the conference was dedicated to workshops. All participants, in particular the Young Researchers, had the opportunity to discuss a wide range of interesting questions ranging from the very concrete experiences of the Young Researchers to the broader issue of the networking needs within Europe's scientific community. There was agreement that there was an obvious and increasing need for Research Training Networks across Europe and that the principle of the activity worked well. A consensus was reached on a number of necessary improvements (improvement of the success rate, efficient advertising of network posts, improvement of

² 5-Year Assessment of the European Community RTD Framework Programmes by an independent panel chaired by Viscount E. Davignon. February 1997

³ Report by the Mid-Term Review panel of the TMR-Networks Activity

⁴ TMR Networks Conference. Research Training Networks past, present and future. Technical University of Graz, Austrian Bureau for International Research and Technology Co-operation. ISBN 3-901351-26-4

employment conditions and the availability of information on employment and living conditions in the host country, reduction in the number of rules and the complexity of contracts). Many of the ideas which emerged at the conference (which was held just as the Fifth Framework Programme was adopted) were applied in the design of the new IHP Programme. Some however, had to wait until they filtered through to the concept of the European Research Area (e.g. being able to recruit researchers from anywhere in the world in order to attract the best, relaxation of the age limit, mechanisms for attracting European researchers back to Europe).

Overall though the conference confirmed that the basic idea of the Research Training Network was popular and effective and it was an opportunity for all concerned to understand the needs of the Young Researchers.

Further input to the development of the Research Training Networks Activity has come from the Young Researchers themselves in the form of questionnaires completed at the Mid Term Review. 800 of these questionnaires were analysed in 1999⁵. The analysis gave a picture of the level of satisfaction of the Young Researchers together with suggestions for possible improvements to the activity.

It is clear that efforts by the Programme management to fine tune the Network programmes have been made over the years. A variety of sources of advice were drawn upon in an effort to form a representative picture of the needs of the scientific community.

⁵ Mid Term Review of the TMR Networks Activity. Questionnaire survey.

6.1.5 The development of the activity Conferences and Training events during FP3-FP6

Table produced by Directorate D/Unit D4 , December 2002

Framework Programme	FP3 (1990-1994)	FP4 (1994-1998)
Programme Name	HCM	TMR
Total FP budget	5700	13215
Total Programme budget	518	742
Training and Mobility actions	433	632
Budget Conferences & Training events	13,07	37
Eligible events:	EuroConferences	Euroconferences Summer Schools Practical Training Courses
Eligible researchers:	Young researchers (<35 years) from MS	Young researchers (<35 years) from MS/AS Keynote speakers from MS/AS
Eligible costs:	Expenses to the benefit of the researchers: -up to 100% of travel cost -up to 100% of subsistence costs participation fees Expenses to the benefit of the host: - 10% organisational costs as overheads	Expenses to the benefit of the researchers: -up to 100% of travel cost (50% for KS) -up to 100% of subsistence costs (50% for KS) participation fees (excl KS) Expenses to the benefit of the host: - < 10% organisational costs as overheads
Additional remarks	Priority given to LFR participants Bottom-up approach	YR active outside Europe eligible Bottom-up approach Nationality balance rule Agreement with INCO to support 3 rd country nationals
Indicative budget per event		30000
Indicative contract size		75000
Number of contracts		486
Number of funded events		

The development of the activity Conferences and Training events during FP3-FP6

Table produced by Unit D4, December 2002

Framework Programme	FP5 (1998-2002)	FP6 (2002-2006)
Programme Name	IHP	HRM
Total FP budget	14960	16270
Total Programme budget	1280	1580
Training and Mobility actions	908	1580
Budget Conferences & Training events	35,5	40
Eligible events:	EuroConference, PhD Conference Summer Schools, Lab Courses Workshops, Eurotron Large Conferences	Conferences (series of events) Training Courses (series of events) Large Conferences
Eligible researchers:	Young researchers (<35 years) from MS(AS active inside MS/AS Researchers from MS/AS active outside MS/AS Keynote speakers (KS) and members of the organisation/scientific committee (any age or nationality)	Early stage researchers (<4 years experience, MS + AS + TC) More experienced researchers (4-10 years experience, MS + AS + TC) Researchers from MS/AS active outside MS/AS
Eligible costs:	Expenses to the benefit of the researchers: up to 100% of travel cost (50% for KS) up to 100% of subsistence costs (50% for KS) participation fees (excl. KS) Expenses to the benefit of the host: - fraction of organisational costs	Expenses to the benefit of the researchers: -travel costs (flat rate) -subsistence costs (flat rate) -participation fees Expenses to the benefit of the host: -fraction of organisational costs -fraction of durable equipment -management costs
Additional remarks	Bottom-up approach Nationality balance rule (1/3 rule)	Series of events: 4 events minimum Bottom-up approach Nationality balance rule (30%)
Indicative budget per event	35000 (50000)	50000
Indicative contract size		250000
Number of contracts	729	
Number of funded events	1158	

6.1.6 The development of the socio-economic research in the European Union

Directorate K, January 2003

1. KA Socio-economic research

The history of the research in social science and humanities in the European Union

The utilitarian perspective of EU social science funding goes back to the 1951 treaty of Paris establishing the European Coal and Steel Community. Article 55 of this Treaty empowered the High Authority (the Commission at the time) to provide for technical and economic research related to the production of steel and coal and occupational health in the coal and steel industries. This was the first underpinning of a tradition of policy making based on in-depth study and understanding of economic and political and (although to a lesser extent) social realities in Europe. A number of key declarations, plans and decisions, in the history of the Union stem for high quality social science work (the Colonna Report, the Padoa-Schioppa Report, the Cecchini Report, etc...). This strong but strictly utilitarian tradition in social science research began to broaden with the first Community research programmes in 1974. The first ever action to be called a research programme was "Europe + 30", a study of the feasibility of forecasting and assessment of science and technology. Although not strictly speaking "a research programme", "Europe + 30" paved the way for FAST (a programme on Forecasting and Assessment in Science and Technology) a real social science research programme which shaped the ways in which social science research was going to be organised at Community level.

FAST (FP1:1978-82) had a budget of 4.4 MECU, FAST II (FP2: 1983-1987) nearly doubled the budget of its predecessor (8.5 MECU) and the MONITOR programme (FP3: 1998-1992) which included FAST had a budget of 25 MECU (nearly 3 times the budget of its predecessor). In the 4th Framework Programme, the *TSER "Targeted Socio-Economic Research"* programme (FP4: 1994-1998) had a budget of 147 MECU, almost 6 times the budget of its predecessor. Thus, during the first 20 years of European social science research programmes, budgets have been growing by an annual average of 145%.

This period of rapid growth saw a great deal of high quality research of great relevance to policy taking place. FAST I developed research in three sub-programmes: Work and employment; Information society; and Biotechnology and bio-society. FAST II developed further the employment and work theme in relation to technology, and the information society theme in relation to the telecommunication and media sectors. It also developed research into technical change in the service sector; demand and technological innovation; the future of the food system; and natural resources. As part of the MONITOR programme, FAST developed a broad research base on the globalisation of technology and the economy; technology and socio-economic cohesion; advanced anthropocentric production systems; the future of industry in Europe; global perspectives for science and technology for 2010; biosphere and the economy; technology and health; the future of the cities; and regional scenarios.

This brief look at the themes addressed by FAST reveals how important it has been in shaping today's research agendas in social sciences. This was achieved largely thanks to a strategy of developing policy-relevant themes with the European scientific community without being tied in to the processes of developing answers to the immediate needs of the administration. FAST aside, the MONITOR programme had another two components: the SAST programme (Strategic Analysis for Science and Technology) and the SPEAR programme (Support Programme for Evaluation Activities in Research). These were more closely associated with near-term needs of the administration of Research Policy in the Commission, and thus developed a body of research around issues of science, technology and competitiveness.

The TSER programme in FP4 was the first programme that developed research with a view to address audiences outside the science and technology policy area, and set the basis for a programme of research in the social sciences that supports policy in a broad sense. The programme was founded on the idea that the fragmentation of social science research communities was a major impediment in the development of social science research of European policy relevance in three domains: "evaluation of science and technology policy options", "social integration and social exclusion" and "education and training". In practice, the TSER encompassed the thematology of MONITOR aiming specifically at RTD policy-makers, and developed two new thematic areas with specific policy audiences in mind: employment and social affairs and education. This broadening of the audiences and themes addressed by the programme was a key step in the development of a mainstream European socio-economic research programme: the key action "improving the socio-economic knowledge base", the first programme that set objectives for the social sciences as a whole. Under the argument that European social science is needed to understand European society, the key action proclaimed that *"social sciences must... be in a position to... overcome national boundaries ... and thereby support policy-making .. providing policy decision-makers with a sound knowledge of the challenges facing Europe, of their main consequences and of possible policy options to tackle them"*.

The TSER programme, financed 1206 participating teams in 205 research projects and thematic networks, some of them are still going on. Figure 1 gives the degree of participation per country.

Europeanisation of social sciences and humanities: the Key Action "Improving the socio-economic knowledge base"

Whilst the TSER expanded the research agenda to themes outside the realm of science and technology policy, and initiated the links of community research in the social sciences and humanities with other policies of the Community, its successor in the fifth Framework Programme (FP5: 1998 – 2002), *the "key action improving the socio-economic knowledge base"* with a budget of 165 MEUR set out to:

- improve the mobilisation of the European social science research community, including the relevant parts of the humanities , enhance co-operation and networking and develop European social science research infrastructures;
- Europeanise socio-economic research, by promoting research on specifically "European" socio-economic issues, and improve comparative analyses of local, regional and national data; and
- disseminate and promote utilisation of the research, including an improved dialogue between research and policy communities, and improved accessibility and user-friendliness of findings to be put at the service of European citizens.

The ultimate objective has been to improve the understanding of changes taking place in European society in order to identify ways of managing change, and involve European citizens more actively in shaping their own future. Four themes were seen as requiring European research:

1. Societal Trends and Structural Changes

Against a background of profound structural, demographic and social changes, research within this theme aimed at elucidating the complex interactions between societal trends, life chances, changes in family structures, economic changes, labour market institutions, cultural patterns and value systems, taking into account European regional diversities. The analysis

includes the phenomena of xenophobia, racism and migration. Attention is accorded on the impact on economic development, social integration, social protection and factors of social inequalities and discrimination.

2. Technology, Society and Employment

Research under this theme aims to understand better the relationship between technology and society and to contribute to an integrated approach to planning and development. While the need for integrating social, institutional and environmental concerns in the technological development process is now accepted, the possible options vary according to different kinds of technologies, the state of their development and diffusion in society. Research has been undertaken on methods of interaction between the various actors concerned - suppliers, users, advisory bodies, decision makers and public authorities. An improved understanding of the deployment and the impact of technologies in various socio-economic, territorial, institutional, political and cultural contexts in the Union, is expected to arise from this work. Research has also focussed on the role of the public sector in the innovation process and how authorities interact with other partners.

3. Governance and Citizenship

In the context of European integration, there is a need to re-assess the role of the different levels of governance in Europe (local, regional, national and supranational). The aim is to analyse the mutual articulation of responsibility and accountability at all levels and their real capacity as agents of change, whilst allowing for the development of mechanisms of dialogue, deliberation and decision-making to ensure effective co-operation between all the actors concerned. Research sets out to explain to what extent the various types of economic and social regulation in Europe are the consequences of a specific socio-institutional and cultural construction, in order to define better European integration strategies. It addresses both, regulation by public authorities as well as civil initiatives and structures such as political parties, public interest groups and social partners. The examination of the role of public authorities also covers the re-assessment of their missions, and of the concept of public service and the notion of public interest. In this framework, the analysis of the evolution of welfare systems is a key element, whilst notions of political, economic and social power will also be taken into account.

4. New development models fostering growth and employment

This prospective work seeks to explore new sustainable development models to foster growth, job creation, equal opportunities, the reduction of inequalities and the improvement of quality of life. It investigates the dynamics of creation and distribution of wealth and the role of the public sector in this context in a globalised economy where “intangible” and service factors predominate. This involves the development of indicators and methodologies for assessing the social and economic added value of the various production models, identifying competitiveness factors including human capital, and characterising the different policies best adapted to the European economic area, taking into account Europe’s regional divergences, and to the evolution of Europe in the world economic relations.

Whilst developing research in these broad themes, three sets of strategic directions have developed:

1. The recognition that European social sciences and humanities require European infrastructures for comparative research, and the enormous benefits that may accrue from such infrastructures;

2. The importance of the European Research Area as a source of inspiration for social science and humanities as well as a key policy for increasing the effectiveness and productivity of European research in the social sciences and the humanities; and
3. The increasing emphasis in the humanities as sources of knowledge which is of crucial importance for understanding phenomena that shape Europe today and its future in the world.

It is these three strategic directions that define the new visions of Europeanisation of social sciences and humanities. It is important to note that these visions complement Union research efforts, which are the spearhead of Europeanisation. In other words, it is not that European policy in the social sciences will shift from the development of particular research agendas towards promoting particular ways of functioning of research institutions and communities. It is the recognition that there is a need to tackle together the ways in which research is conducted as well as the thematic content of research in order to be effective in informing societal decision-making and solving the problems of European society.

From the standpoint of decision-making in European Union institutions, Europeanisation is seen an effort to continuously broaden and deepen the body of knowledge that is relevant for the continuously evolving decision-making needs at the European level. This includes underpinning theories and stylised facts that guide the development of disciplines in the social sciences and humanities. There are good indications that this form of internationalisation of social science and humanities research is having an effect at the level of organisation of research communities as well as in promoting social sciences and humanities within the general scientific societies and institutions. For example, in recent years there has been a rise in the European Associations in the fields of community research. The European Association for the Study of Science and Technology (EASST); the European Inter-university Association on Society, Science and Technology; the Network of European Centres in Science and Technology Studies (NECSTS); the Centre for Economic Policy Research (CEPR), the European Consortium for Political Research (ECPR), the European Educational Research Association (EERA), the European Sociological Association (ESA), the European Economic Association (EEA) are but some examples of scientific associations co-operating with the key action socio-economic research. Furthermore, a number of general scientific (and even engineering) associations at the European level have been increasingly involved with the key action, such as the European Science Foundation, All European Academies, the European University Association, Euroscience, EuroCASE etc.

The monitoring and coordination of the socio-economic dimension in FP5 is implemented by the horizontal key action on « Improving the socio-economic knowledge base » and currently takes form of 2 yearly reports and a final synthesis report produced by the Direction K with support from Directorates in charge of implementing the thematic programmes. These reports account the degree to which a socio-economic dimension, as well as opportunities for socio-economic research are integrated in the various specific programmes. They provides an overview of the calls and the results in each specific programme addressing particularly how the socio-economic dimension has been considered in terms of priority and response to the calls, during evaluation including choice of experts and negotiation. Finally the reports provide a set of recommendations for a better integration and management of this dimension in the programmes and to facilitate an improved complementary between them for the future calls.

2. Support for the development of scientific and technological policies in Europe

In order to improve interaction with socio-economic research in FP5, two additional smaller programmes (STRATA and CBSTII) are jointly managed by Directorate K together with the KA

on « improving the socio-economic knowledge base ». STRATA and CBSTII (12.5 M€each) form *the Support for the development of scientific and technological policies in Europe* part of IHP and are intrinsically closely linked to socio-economic research.

2.1 STRATA

STRATA (Strategic Analysis for specific political issues) aims at enabling considered reasoning by researchers and Research Technology Development and Innovation policymakers and improving the efficiency of the European policy development process at local, regional, national and international level, as well as interactions with other related policies. The aims are to stimulate innovation in RTD projects, to collaborate with those responsible for policy development and foresight initiatives, and to contribute to the co-ordination of policy and policy related research at the European level.

2.2. CBSTII

CBSTII (Common Basis of Science, Technology and Innovation Indicators) aims at improving existing and developing new and pertinent indicators for research and innovation and for the conceptual design of new European policies. CBSTII also uses these indicators in analyses and disseminates them primarily through its publications such as the European Reports on S&T Indicators (3rd edition due out 1st quarter of 2003) and its annual Key Figures.

3. Perspectives for the 6th Framework Programme

The analysis of the integration of the socio-economic dimension in the 6th FP shows that this dimension appears in about all the thematic areas as a consequence of a clear and strengthened political will expressed in the Framework Programme in the part "**Integrating and Strengthening the European Research Area**" (SP1) :

*"The principle of sustainable development..., **the socio-economic aspects** ... of the actions to be undertaken... will be taken duly in consideration if they are relevant for the action concerned "*

and in the specific programme under this same part:

*"... considerations of..., social,... of the research to be undertaken and its potential application, as well as **socio-economic impacts of scientific and technological development and foresight**, will where relevant form a part of the activities under this heading "*

Therefore, socio-economic research, and innovation, together with the consideration of ethical, social, legal, regulatory and wider cultural aspects of the research, are important to all relevant parts of FP6. These cross cutting issues particularly in SP1 cover each of the thematic priorities and are complemented by socio-economic research carried out within the priority 7 « Citizens and governance in a knowledge based society ».

The activities to be carried out in priority 7 with a budget of 225 MEUR, are intended to mobilise in a coherent effort, in all their wealth and diversity, European research capacities in economic, political, social sciences and humanities that are necessary to develop an understanding of, and to address issues related to, the emergence of the knowledge-based society and new forms of relationships between its citizens, on one hand, and between its citizens and institutions, on the other. Through the implementation of this new programme, it is intended to contribute to the creation of a European Research Area in the social sciences and humanities.

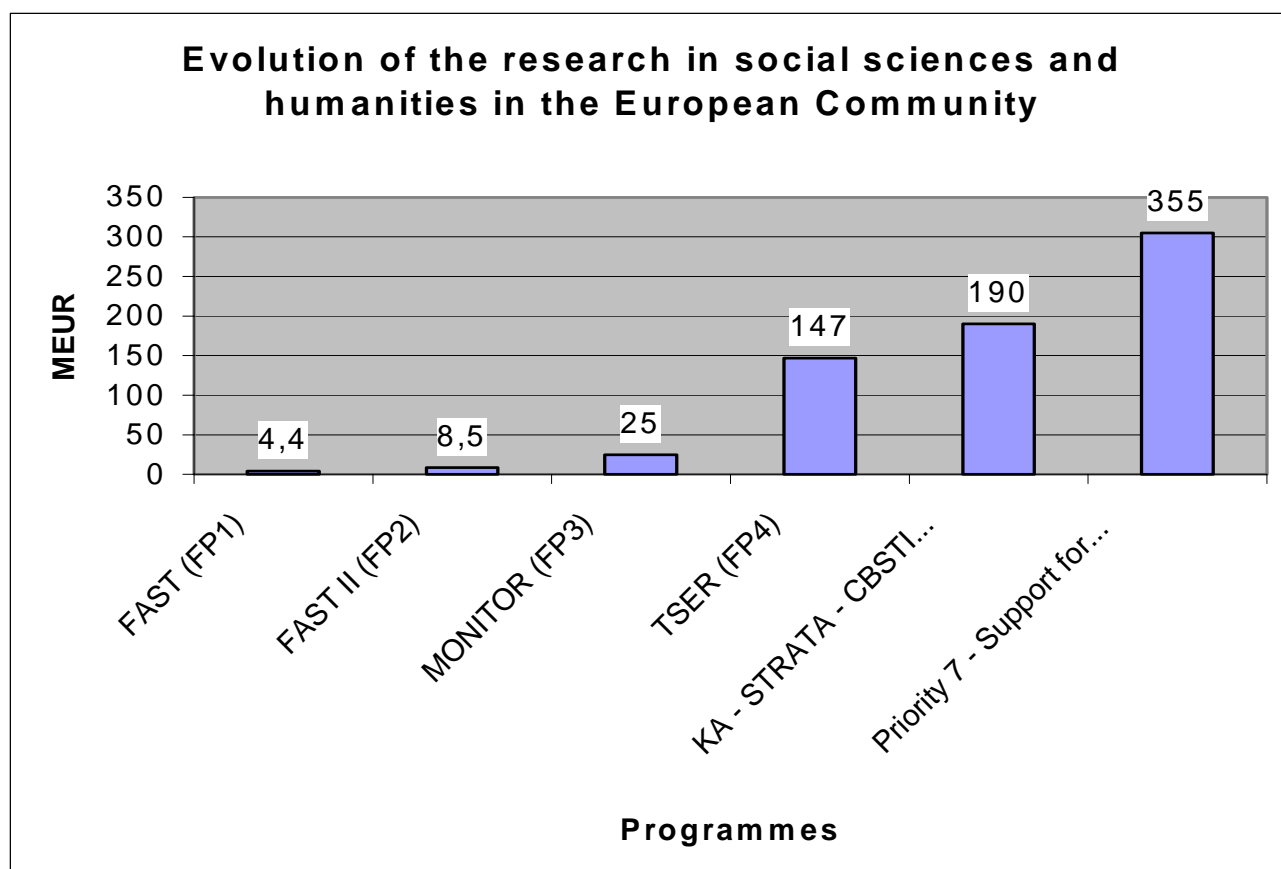
In SP1, the priority on the Support for the coherent development of policies with a budget of 50 MEUR, contributes to the understanding of the structure and evolution of S&T and innovation activities in support to the development of coherent policies. Globally, it is therefore inherently socio-economic prevailing and offers many opportunities for participation of social, political, human sciences and economists.

Within the other part of FP6 "**Structuring the ERA**", the aim of the "Science & Society" action with a budget of 80 MEUR, is to help develop the environment in which a knowledge-based society can be achieved, by seeking both a better integration of science in society *and* society in science. In so doing it will contribute to the implementation of the Commission's Action Plan on Science and Society, and will support the objectives of the White Paper on European Governance.

The programmes « Citizens and governance in a knowledge based society », the support for the coherent development of policies and the interaction between « Science & Society » integrate intrinsically a socio-economic dimension aiming at contributing to the development of a knowledge-based society in accordance with the Lisbon strategy.

Below, it is showed the distribution of the budget for research in social sciences and humanities since FP1 excluding the other socio-economic related research activities integrated in other relevant technology oriented programmes of FPs.

Under FP6 the science policy support work of the type carried by STRATA and CBSTII under FP5 is continued in the Specific programme "Focusing and Integrating Community Research" (SP1). The STRATA activity passed nevertheless from a specific activity in FP5 into a horizontal activity in FP6 distributed into some priorities e.g. priority 7, priority 8 and section 12 on the support for the coherent development of policies (non exhaustive). CBSTII is mainly to be continued under priority 8 and essentially under section 12 on the support for the coherent development of policies



6.2 Matrix for 4.1 Analysis and synthesis of recommendations and their follow-up and results, from 1999 to 2001 monitoring exercise

ISSUES	RECOMMENDATIONS		
	1999	2000	2001
	1. STRATEGY AND OBJECTIVE		
Overall strategy and objectives	<p>Budget distribution among disciplines.</p> <p>In order to be able to compare the quality of applications across disciplines in activities like MCF and RTN, the budget distribution among disciplines should not as currently depend solely on demand as shown by the number of applications. The Panel suggests that only a portion (e.g. 80%-90%) be distributed that way, using the rest (10%-20%) for a second round distribution with the aim of balancing quality and needs across disciplines.</p>		<p>The IHP overall should put more effort into defining the desired outcomes and impacts that it envisages with through the respective activities and should subsequently develop assessment indicators that fit these envisaged objectives.</p> <p>We suggest that the impact on less favoured regions and candidate countries should be addressed in the next FP. For less-favoured regions and candidate countries it may be possible to introduce special training fellowships addressing the auxiliary human resource development needs,</p> <p>The Panel proposes that on behalf of both the STRATA and CBSTII activities, a high level policy user platform is set up, inviting policy makers from members states and other commission services to discuss policy priorities and needs.</p>
ERA			<p>A horizontal high level interface between the scientific community for social sciences and humanities and the research and innovation policy community should be organised at European level. Currently there are too few organisations supporting the position of these science areas in the ERA</p>

<p>Policy/intervention instruments</p>	<p>European added value A serious attempt should be made to produce guidelines on the meaning of European added value for evaluators and proposers alike, since the concept is susceptible of relatively different interpretations for each of the activities within the IHP programme.</p> <p>Harmonise all fellows across the activities (MCF, RTN) under the Marie Curie <i>brand</i> with the objective of further strengthening a prestigious, homogenous <i>brand name</i></p>		<p>The Fellows in Research Training Networks should actively be encouraged to move within the network from one laboratory to another in order to enrich their research experience. Additionally, joint RTN courses on horizontal issues such as ethical issues or research management should be organised</p> <p>Training objectives (not only training instruments, i.e. seminars, workshops, graduate courses etc.) should be stated with clarity in all mobility proposals.</p> <p>The Commission should encourage and support courses in research management and not only courses in research itself.</p> <p>The Archimedes prize should be reformed. The Panel suggests that the Prize system needs to be rethought. One possibility is to open the contest to all fields of science and possibly also to students who already have a Master degree. We suggest that alternatives could be explored, such as supporting Science and Technology summer schools for 15-18 year olds and Science Fairs for young people of secondary school age</p> <p>The dialogue workshops, bringing together researchers and policy makers, organised in the Key-action have been an innovative and useful activity. The Panel nevertheless recommends that a wider user group is addressed outside the Commission and that a follow-up in the form of a survey of participants is made to find out to what extent the workshops are appreciated and produce outcomes</p> <p>The policy driven mission of the STRATA and CBSTII units and the bottom-up call for proposal mechanism for funding are not always compatible. The units should be allowed to allocate some funding in addressing urgent policy needs in a more direct way</p>
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Candidate countries			
International cooperation	Globalisation of the Research Training Network activity by opening the networks to groups outside the European Union.	<p>The EC should encourage the participation of Applicant Countries</p> <p>Networks and possibly Fellowships should support participation from non-European countries</p>	
SME's			
Innovation (including patenting)			
Gender awareness		<p>Action needs to be taken to raise women's participation in all areas of IHP closer to 40%</p> <p>A gender box for the scientist responsible should be added to any proposal and contract forms which do not currently include one</p> <p>It is important to know whether there is any discrepancy between the proportion of women researchers whose work passes quality thresholds and the proportion who secure funding</p>	<p>Mainstreaming the gender issue is very important, but at the moment it is still important to support the issue through specific measures. The Panel recommends that this issue be specifically addressed in the work programmes for FP6</p>

<p>Public awareness</p>		<p>It may be helpful to rethink the strategy of awarding distinctions. The Archimedes prize should be based on national level competition.</p> <p>Raising Public Awareness activities need to be linked closely to national science promotion activities and to include dissemination from research projects as appropriate for the general public.</p> <p>Distinctions should be based on preliminary national-level schemes.</p> <p>The question of whether it is desirable to pursue the objective of a science award at the most prestigious international level, and whether the goal justifies the resources necessary, should be given consideration.</p>	<p>The Panel believes that the public awareness concept must continue to be supported. News of European science and technology accomplishments and their impact on the quality of life should reach an even larger audience. Promotion of science in Europe should be raised through increased public awareness. This can be achieved by making better use of synergy with national public awareness campaigns, as well as science and technology initiatives by other international organisations. Stand alone initiatives without visibility in the Member States will remain sub-critical</p>
<p>Socio-economic aspects</p>		<p>The STRATA and CBSTII Activities be integrated into the Socio-Economic Research Key Action and application procedures be brought into line.</p>	
<p>2. IMPLEMENTATION , MANAGEMENT AND PROCESSES</p>			

Procedures and tools in general	STRATA and the Key Action should be jointly managed since the former may play a key role in bridging the gap between policy and research.		
Launch of activities (calls for proposals, information to proposers, application tools...)		The topics for STRATA should be broadened in order to attract applications from the leading experts in the field	The contract preparation form (CPF), which now consists of many pages, should be simplified Preparations and training for the practical implementation of FP6 should cover all IHP activities. Transparency should be given to the various user groups of IHP on the changes in FP6, both in terms of contents and research management

<p>Evaluation and selection of proposals (evaluation manual, time to contract...)</p>	<p>Two-round evaluations (like in the Key-Action where experts evaluate the quality of research and then, scientific officers' rank the projects based on priority) should be remodelled for the sake of transparency</p> <p>Stable, formal, ad hoc impact evaluation methodologies should be developed for all relevant activities, trying to keep an integrated approach among them. Impact information, today largely unavailable, is a required input for the future proper assessment of the programme.</p>	<p>Greater use of electronic document transmission, fax and mail to allow evaluators to consider applications in their home country and come together for a relatively brief final decision meeting in Brussels</p> <p>Reduce processing time for applications by greater use of electronic document transmission, fax and mail to evaluators and speed up the production of contracts.</p> <p>Funding of projects be based on rank-order as decided by the evaluation scores given by scientific experts.</p> <p>The two-stage application procedure in the case of intermediary bodies is simplified to a one-stage decentralised procedure, but opportunities for individual applications outside the decentralised procedure remain and are publicised.</p>	<p>The RTN evaluation panel meetings should be held at the same time in order to increase interaction between panels. This would be beneficial as many of the applications are multidisciplinary</p>
<p>Management Information System/ Internal IT system</p>		<p>The Database of Experts should be refreshed on a three rather than a five-year cycle, and this should include updating information on existing experts.</p>	<p>The Panel would like to see the MCF web-site complemented by a database with short CVs of young researchers with an interest in a fellowship. Industrial hosts could use this to identify appropriate fellows</p>

Specific cases /programmes			
Dissemination of information and results	<p>The valorisation and dissemination of ongoing socio-economic research should be a priority for the programme management, using additional resources wherever necessary. A formal evaluation of the contribution of each research project to the policy objectives and knowledge base of the Community should be the final step in the life cycle of every research project. One should make use of professional expertise for research dissemination and communication purposes.</p>	<p>Providing central support with skills in the area of dissemination beyond academic communities</p> <p>Improve the CORDIS web pages by more regular updating and better indexing and search facilities.</p> <p>Specific budgets for dissemination be made available to Key Action research, separate from the negotiated research budgets</p> <p>A register of national and European research and academic professional organizations, grant-awarding bodies and non-profit associations active in relation to research should be drawn up</p> <p>Ensure that information is distributed via academic organization as well as national contact points.</p>	<p>The Commission should support a closer interaction amongst NCPs. This should start in 2002, being the concluding year of FP5 and the preparatory year for FP6. Regular meetings should be scheduled</p>

<p>Evaluation and monitoring</p>		<p>The first meeting of the monitoring panel takes place in mid-September so that the final report can be submitted in January.</p> <p>The Core Indicators database be established at the beginning of the year and updated in real time, so that up-to-date statistics can be supplied throughout the monitoring process.</p> <p>Attention is paid to monitoring of successful applications by discipline and country.</p> <p>Improve monitoring of organisations, which host fellowships.</p> <p>Decentralise administration to the large-scale facilities but retain the monitoring function and review staffing.</p> <p>If there is to be two-stage ranking procedure, academic evaluation must be central at both stages.</p>	<p>The Annual Monitoring exercise is a heavy administrative burden on the Commission services. Due to its late start the preparation of self-assessment reports clashes with end of year priorities. A less frequent rhythm within the five-year planning cycle could be found to ease this burden</p> <p>The new Industrial Host Fellowship demands a new approach in terms of proposal evaluation and impact assessment, particularly in the case of SMEs. In this type of activity we would expect additional applied research and development to be carried out with a possible aim towards technological innovation and commercialisation goals</p> <p>Despite the fact that dissemination is evaluated at the proposal stage and in the contract negotiations, greater emphasis should be given to this task in the project monitoring, and particularly when first results of RTD projects are realised . The Commission should withhold part of the payments until these deliverables are provided</p>
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Human resources			
3. IMPACT OF POLICY AND PROGRAMMES			
Impact assesment (incl. TIP)			
4. OTHERS			

PART B:**Responses of the Programme Management to the
external Monitoring Report**

RESPONSES BY COMMISSION SERVICES TO THE 2002 IMPROVING HUMAN POTENTIAL MONITORING REPORT

Experts Recommendations	Commission Services' Responses	Services' Commitments (if any)	Deadline
<p>An informatics system should be installed suitable for handling the workflow management of large numbers of relatively small contracts. The panel consider this to be a matter of considerable urgency.</p>	<p>The Informatics Unit of DG Research is developing a workflow management tool for the management of contracts for the whole Sixth Framework Programme.</p> <p>A workflow tool is also under development for contracts of the Fifth Framework Programme. Specific features will be implemented to meet the specific needs of Mobility actions. These needs relate to the processing of quantitative project information for better managing the large number of Marie Curie Contracts. Directorate D (Human factor, mobility and Marie Curie actions) has been active in analysing the requirements and communicating them to the Informatics Unit.</p>	<p>Directorate D is committed to use the IT systems as soon as they are operational</p>	<p>The delivery of the Sixth Framework Programme tool by the Informatics unit is scheduled for September 2003.</p> <p>The delivery of the Fifth Framework Programme tool is scheduled for July 2003.</p>
<p>Marie Curie Fellowships</p>			
<p>The web site should be developed so that potential contractors and Fellows can check their eligibility for the programme</p>	<p>The Programme management acknowledges positively this recommendation. In fact, when implemented, it will reduce the work for the coordinators at the host fellowships, for the applicants for the individual fellowships and also for the Commission services, as it will reduce number of requests on eligibility issues.</p> <p>The tool has been developed as a pilot project for four actions and is hosted in the following web address: http://europa.eu.int/comm/research/fp6/mariecurie-actions/action/level_en.html.</p>	<p>Development of a web based electronic tool for applicants and institutions for the Sixth Framework Programme Marie Curie actions. The application for the European Fellowships is being tested.</p>	<p>The tool should be fully operational for all the Marie Curie Actions by October 2003.</p>

RESPONSES BY COMMISSION SERVICES TO THE 2002 IMPROVING HUMAN POTENTIAL MONITORING REPORT

Experts Recommendations	Commission Services' Responses	Services' Commitments (if any)	Deadline
<p>If future evaluations are not going to be carried out at meetings of experts but remotely, there should still be occasional meetings to discuss the criteria used and to check how well the evaluation process is working.</p>	<p>Commission services agree on the importance of a continuous contact with experts to monitor and, if necessary, improve the evaluation process. For each evaluation panel there will be a meeting of 'rapporteurs' in Brussels to agree on the scores given by all the experts. These meetings will provide the opportunity to get direct feedback from a very representative sample of experts. Also, efforts have been made to improve remote briefing of experts, in particular through an interactive web-based briefing session, including a Bulletin Board System for the exchange of information between the experts and the Commission.</p> <p>In addition, it is planned to set up a group of independent observers for the Marie Curie actions, that will be analysing and giving independently feedback on the evaluation process to the Commission</p>	<p>A group of three independent observers is currently set up for all the Marie Curie instruments</p>	<p>Evaluation sessions (June-Nov 2003)</p>
<p>The organisation of scientific workshops at which Fellows describe their projects and overall experience to a multidisciplinary audience is seen to be of value to their training and should continue</p>	<p>The Programme management is pleased by the importance given by the panel monitoring to the organisation of multidisciplinary workshops as complementary training of the Marie Curie fellows.</p>	<p>For 2003, at least four scientific workshops are planned.</p>	<p>One workshop has already taken place in France (Paris-February 2003) and the others are planned in Italy, Netherlands, Greece and/or Poland.</p>

RESPONSES BY COMMISSION SERVICES TO THE 2002 IMPROVING HUMAN POTENTIAL MONITORING REPORT

Experts Recommendations	Commission Services' Responses	Services' Commitments (if any)	Deadline
Research Training Networks			
Future analysis of questionnaires should be supplemented by visits of experts to the laboratories of a sample of networks.	The questionnaires submitted come from the Young Researchers, whom have either finished their appointment or are still appointed by the network. For the latter, there is already the opportunity for the Project Officers to discuss the issues raised at the mid-term reviews during a session devoted exclusively to the Young Researchers. The outcome of these discussions could be reported alongside the analysis of the questionnaires themselves. Visits of experts to the laboratories of a sample of networks are envisaged in the context of the Impact Study being launched by the Research Training Networks Unit.		