



FP7 Mid-Term Evaluation of COST 2010

Report by an Expert Panel:

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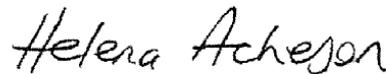
FP7 Mid-term Evaluation (MTE) of COST - The Panel

We, the undersigned, are pleased to present our report to the European Commission.

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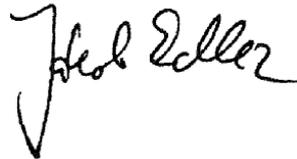
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Executive Summary

1. General Conclusions and Recommendations Regarding the Follow-up of Previous Reviews and Evaluations and the Further Development of COST

This report is the outcome of the FP7 Mid-Term Evaluation (MTE) of COST (European Cooperation in Science and Technology) conducted by a Panel of independent experts from January to May 2010. The mandate for this evaluation was to ascertain whether the recommendations of the FP6 Evaluation of COST (Monfret, 2006) and the Evaluation Summary Report for the FP7 grant agreement between the ESF and the Commission have been implemented. Furthermore, the Panel had to give recommendations for the further development of COST. According to the decision concerning FP7 the outcome of the FP7 Mid-term Evaluation of COST are supposed to be the basis for a decision on a possible increase of the total budget of COST under FP7 up to 250 M€.

Given the mandate and on the basis of a first preliminary assessment that any change in the given contractual and operational situation of COST would cause transaction costs higher than any benefit, the Panel considered it logical to subdivide its task between two time-intervals and the structure of this report reflects this, dealing initially with COST in the context of the current Framework Programme i.e. up to 2013 and secondly, discussing the further development of COST in the European Research Area after 2013.

COST was set up as an intergovernmental framework in 1971 and financed by the member states till the end of the 1980s. After the political changes of 1989 and the new requirements of widening European RTD cooperation, COST has benefited from direct funding under the EU Framework Programmes with a significant budget increase taking place between FP6 and FP7, respectively from €80 million and potentially up to €250 million. The European Commission provided the operational secretariat for COST until 2003. Since then, the European Science Foundation (ESF), on the basis of a contract under FP6 and a Grant Agreement (GA) under FP7 with the European Commission, has been the implementing agent for COST. As COST itself does not have a legal basis, it cannot be party to a contract or GA with the Commission.

The assessment of progress regarding the implementation of the Monfret and Evaluation Summary Report¹ recommendations were considered by the Panel in the context of the FP7 timeline (2007 -2013). The second requirement of the COST Mid-Term Evaluation i.e. advice to the Commission regarding the further development of COST, was considered in the context of a post-2013 timeframe.

Overall, the ESF/COST Office and CSO are proceeding well regarding the implementation of the Monfret and Evaluation Summary Report(s) recommendations. However, governance remains an issue and very worryingly, in the Panel's view, the debate regarding the future (legal status) of COST and its implementation arrangements which has been developing both within and between the parties (ESF and COST CSO) has the potential to damage both.

¹ Evaluation Summary Report (ESR) from the panel of experts evaluating the FP7 COST proposal

The Panel advise against any attempt to dismantle the Grant Agreement (GA) between the Commission and ESF before the end of FP7 as this would potentially incur considerable decommissioning costs and have significant disruptive consequences for all parties – ESF, the Commission, the COST Office and not least, the COST Actions themselves as the ESF would have no responsibility for their continuation.

The ESF have confirmed that they have no wish to step back from the GA but will cooperate if such a move is initiated by the CSO. Following meetings of the CSO and the JAF Executive Group in March and April 2010 respectively, it would appear that there is an improved likelihood that the Grant Agreement remains in place until the end of FP7. The Panel strongly urge both parties to resolve their difficulties in a pro-active and rational manner and to ensure that the GA remains in place until the end of FP7.

Provided the Grant Agreement remains in place until the end of FP7 and COST and ESF agree to continue their joint efforts regarding synergies and networking, the Panel recommend that the appropriate process be put in place to allocate the additional €40 million reserved in FP7 for COST.

Regarding the further development of COST, it is important to separate the COST actions – COST as a ‘networking instrument’ - from the COST ‘organization’. In relation to the latter, very specific challenges have arisen since the publication of the Monfret report and the recommendation to decide between one of the two organizational options

- COST as independent legal entity, or
- Full integration of COST in ESF.

The question of the further development of COST must not be reduced to establishing a legal entity or not but has to be answered in the broad context of ERA objectives, strategies and structures. Of course, in that context, also the question may be asked if the complexity of an inter-governmental framework with all the specific structural and procedural characteristics of COST is adequate for an instrument with a relatively small budget is justified and optimal.

The Panel consider that networks are important tools providing spaces for initiating new collaborative arrangements, building critical mass of research effort, for achieving complementarities in an ever more specialised research landscape and for reducing isolation and compartmentalisation within the ERA.

Consistent with a *‘form follows function’* approach the Panel considered the proposed COST Office Association (COA) and identified three possible organizational options for the Member States, the Commission and other stakeholders to consider when implementing a ‘bottom-up networking’ instrument for nationally funded research projects.

The Panel took note of and considered the discussions within the CSO to establish a COST Office Association (COA) as a legal entity to be potentially assigned with the task of implementing organization in the future. The Panel considered in particular the following specific issues regarding a COA:

- The value/validity of an inter-governmental structure for spending EU money without commitment of substantial national co-funding by COST member states can be questioned.
- Such a structure would increase the fragmentation of EU funded ERA instruments and organizations.
- For such a relatively small value initiative (€30million/year) how can it be justified to have a stand-alone organization?
- As a stand-alone organization the COA would assume not only the rights but also the responsibilities for every aspect of its governance and management.
- Notwithstanding the fact that there are some variations between member states, the Panel note how weakly embedded COST remains in the national research and technology policy frameworks.

Therefore, the Panel in its further deliberations looked for other options. The Panel organised its considerations, in a first step, by defining the characteristics of an ideal networking instrument building on the model of COST Actions. In a second step, the Panel identified three possible options for the future organization of such a networking instrument in ERA with either strong financial commitment from national funding sources – directly from national governments or via ESF member organizations - or a full integration in the portfolio of EU funded ERA instruments.

The Panel consider that a networking instrument is an important tool in the portfolio of ERA instruments providing spaces

- for reducing isolation and enhancing communication within the ERA,
- for identifying and achieving complementarities in an ever more specialised research landscape, and
- for building critical mass of common research efforts.

Notwithstanding the multiplicity of policy objectives being pursued for the ERA within the Framework Programme, the Panel strongly agree that there is both the need and the possibility within the European Research Area for a ‘bottom-up networking’ instrument for nationally funded research projects. In that respect, COST has made invaluable contributions over the last almost 40 years and COST Actions can act as model case.

Ideally, what should such a networking instrument do? The Panel identified the following key characteristics:

- ✓ Facilitate the sharing of knowledge;
- ✓ Raise awareness of research in the same areas to facilitate complementarities, catalyze the research process and avoid unnecessary (and costly) duplication such as for example the use of infrastructure for the same kind of analyses;
- ✓ Create synergies through enhanced transparency and communication;

- ✓ Identify complementary competences and activities;
- ✓ Pave the way for new collaborative trans-national projects and initiatives by providing a “laboratory”, “incubator” or “launching platform”;
- ✓ Match what scientists think is needed with societal and industrial needs;
- ✓ support transnational epistemic communities (structural consequence);
- ✓ Provide a development mechanism for Early Stage Researchers;
- ✓ Identify training needs of researchers;
- ✓ Provide a flexible low-cost entry point for newcomers and for global interaction and participation.

Consistent with a *‘form follows function’* approach the Panel identified three possible organizational options for implementing such a ‘bottom-up networking’ instrument for nationally funded research projects and decided to look at the pros, cons and implications for the European Research Area bearing in mind the following general aspects:

- For the optimisation of the ERA, defragmentation of resources and efforts is essential;
- Critical mass and scale is needed, and
- Consolidation of organizations supporting the development of ERA should be considered wherever appropriate in this context.

The Panel identified three options for the further development of COST and COST Actions as follows:

- A. COST Actions implemented through a strong Inter-Governmental COST Organization and funded by the COST member states via a common pot;**
- B. COST Actions fully integrated into and taken over by ESF and funded by the ESF member organizations, end of inter-governmental approach;**
- C. COST Actions integrated as Coordinated Actions into the EU funded ERA instruments under the EU RTD Framework Programme – end of inter-governmental approach.**

Option A would give COST full independence and a clear profile and brand ensuring the commitment of and links to COST member states. In fact, it is difficult to justify why COST as an intergovernmental framework or organization still should be funded by the EU twenty years after the political changes of 1989. Option A would be in line with member states initiatives for joint programmes. It would add to the “intellectual Variety” of instruments but not to reducing fragmentation.

Option B would avoid the possible/probable tensions and discrepancies between COST and ESF, but would require the commitment (including financial) of ESF members (rather than COST member), quality evaluation approach, synergies of and complementarity between different networking instruments, structural simplification of funding organizations and a

one-stop shop regarding networking instruments. It would mean a limited contribution to defragmentation.

Option C would (re-)integrate a networking instrument in FP which is missing anyway since FP6 and FP7. It would not invent a new instrument but just utilise Coordination Actions. It would certainly be a substantial step towards integration and reducing fragmentation as well as coherence and consistency of ERA instruments and the rules for participation and evaluation.

The Panel present their findings with the ambition to provide well based and neutral decision support and identified Pros and Cons as well as ERA related implications for each option to support the decision making process of the relevant stakeholders during the period till the end of FP7.

2. Detailed Conclusions and Recommendations Regarding the Follow up of Monfret and ESR Recommendations

• *Science and financial management*

1. Bottom up approach:

The Panel members are satisfied that COST continues stressing and strengthening the bottom up approach which is essential and supports the logic of the whole network activity.

2. Supporting new areas and newcomers:

In general, the Panel members are satisfied that strong efforts are being made to supporting new areas and newcomers such as Early Stage Researchers and researchers from non-COST countries.

The Panel have several particular recommendations:

- The impact of the Open Call on the profile of proposals in terms of disciplines and issues should be monitored;
- New ICT, web-based opportunities or networking should be explored for supporting new developments, disruptive technologies, and potential paradigm shifts;
- The roles of Early Stage Researchers (ESRs) in COST Actions and also in Domain Committees and other network activities should be identified;
- The role of COST in internationalisation of S&T cooperation should be monitored over the timeframe of different customer satisfaction surveys.

3. Future user survey

The Panel welcome that a Customer Satisfaction Survey and an Impact Assessment (see also below '14.-16.) have been commissioned to an external contractor and is aware of the fact that the reports were available early this year only. It is recognised that the JAF has already decided that the COST Office will prepare appropriate measures for the follow-up

For broadening the user survey sample to non-participants creative approaches such as peer surveys or peer conferences will have to be considered.

Evidence on the uniqueness of the COST instrument and whether it provides a facility not covered by any other instrument could be gleaned from a comparison of the behaviour of grant awardees and non-awardees. In this context, counterfactual questions can also highlight effects, such as the likelihood that the same results would have been achieved also without COST.

One can and should draw conclusions from the findings of customer satisfaction of scientific users on expected and perceived performance of COST. Refocusing should not mean abandoning this type of evaluation but extending it and complementing it with appropriate monitoring to cover other aspects, including impact assessment questions. This could include spill-over questions regarding persistence in networking, new projects in other settings, follow-up activities and being able to differentiate between the outcomes from the actual research funded by national ministries and the value of the COST network itself. Being able to properly assess “newness”, both of the participants and the fields of research, the level of network re-formation, the subsequent co-publication patterns of network partners are all relevant in the context of impact assessment and could be built into the user survey.

The Panel appreciate that COST has developed a new set of indicators and assessment methods. Those indicators and the thinking behind it go in the right direction. They complement the user survey, but appear to be slightly overambitious in their monitoring approach, while some key impact questions – outlined above – are not addressed.

4. Good standards of science and financial management

The Panel welcome improvements in science management achieved in recent years. There is room for improvement regarding the clarity of evaluation criteria and evaluation feedback and also in clarifying regarding roles of different actors in the evaluation procedures. Dissatisfaction with the feedback to proposers in stage 1 remains an issue.

5. Use of the COST Annual Grant agreement and its impact

Based on the available information the Panel are able to confirm a high level of customer satisfaction towards COST. A specific review of the use of the COST Annual Grant Agreement (CAGA) and its impact on quality monitoring etc. could be considered after 2011 when the migration towards the CAGA will be completed.

6. COST Office staff level

In the Panel’s view, the COST Office seems to be overstaffed especially in light of the fact that most of the actual work is carried out by the Domain and Management Committees. In considering the optimum staffing level, the Panel suggest a comparison for example with an Article 185 (ex art. 169) implementing agent.

The functions and performance of the COST National Coordinators and their relations to the COST Office are yet other aspects deserving to be reviewed in a general review of the COST structures and management.

The supervision and performance assessment of the COST Office calls for clarification and streamlining. The main concern for the Panel is not just the actual level of COST Office staff

but the high degree of staff churn which is taking place at this time and the vacancies that have ensued. This is certainly a situation where urgent action is called for. Also the fact that customer satisfaction levels with the COST Office are currently at a rather low level of 17% is certainly a matter for concern and calls for review and action.

7. Rules and procedures

The Panel took note that the CSO updates the “Guidelines for Assessment, Monitoring, Evaluation and Dissemination of Results of COST Actions” at regular intervals in line with improvements to the application and evaluation processes (the most recent being March 2010). It is, however, concerned that customer satisfaction is still at a very low level regarding the clarity of the evaluation criteria and the feedback following stage 1 of the application process. The criteria seem to be rather complex and vague at the same time. The Panel welcome that COST and ESF are working together to improve the criteria and the Panel recommend to benchmark the COST evaluation procedures and practices also against the approaches of the Framework Programme and of national funding bodies.

The web-services are continuously improved and expanded. This certainly contributes to improving the comprehensibility and accessibility of all information regarding the implementation of COST Actions.

The Panel welcome the positive ‘spill-over’ effect from the co-habitation arrangement with ESF in the exchange of ‘good practice’ has taken place whereby many modern management information systems, processes and evaluation procedures have been adapted and adopted.

• Governance

8. Roles of the CSO

The Panel came to the view that the intergovernmental framework of COST creates a high level of bureaucratic overload. However, it was not able to see benefits of these arrangements for the researcher customers of COST or with regard to links to national policies.

From the discussions with COST stakeholders the Panel conclude that the CSO’s strategy is “to have no strategy” for COST and that the “ERA vision of COST” is just a repetition of references to past success stories. This strategy deficit is certainly problematic in a situation where the EU Member States join forces for strengthening the European Research Area and refining the ERA instruments.

The Panel acknowledge the CSO activities related to the decisions of COST Actions and to oversee the COST Office. However, the Panel take note that the CSO, while in principle refraining from making decision on individual actions, still does regard the implementation of recommendation #8 as an unwelcome constraint on its decision making competence.

9. Domain Committees and transparency

The Domain Committees (DCs) play an important role on the COST evaluation and selection process. Transparency and openness of COST have to be ensured by means of an adequate turnover of members. The Panel support an increased renewal of DC members and recommends reconsidering the possibility of an extension of membership. A membership of eight years seems very long.

10. Reconsidering the Domain Committees

The Panel do not support the idea to further alter or decrease the number of Domain Committees. The first experiences with the Trans-Domain Standing Assessment Body are seemingly positive. However, there is a need to better explain the concept and objective of Trans-Domain proposals to the research community.

- **Communication**

11. Communication strategy

The Panel welcome the efforts towards improving communication with the customer base and raising awareness about COST. Dissemination plan and outreach activities of the COST Office are well received and appreciated. The web site is user-friendly and provides useful information to interested researchers.

The Panel would welcome to see more active involvement of the COST National Coordinators (CNCs) in the communication activities supporting COST.

The communication strategy towards researchers in strategic target countries that are not members of COST – especially the in the near neighbourhood of the EU – deserves further development and implementation.

- **COST - ESF Synergy**

12. Scientific management and scientific expertise

The Panel members are convinced of possible synergies regarding scientific expertise and management between COST and ESF and acknowledge that there were effort towards achieving such synergies, however, to too little impact and success. The Panel encourage the parties towards overcoming the tensions that have developed and take a proactive approach finding pragmatic solutions to the situation and agreeing on the respective roles and tasks in order to ensure the smooth operation of COST till the end of FP7.

For the future, all parties involved CSO, ESF, the Commission and the member states have to cooperate for finding solutions for COST that in general drastically reduce the complexity of the organizational set-up and overload of COST as a whole and that in particular ensure an optimal implementation of COST Actions or the appropriate networking instrument following the model and experience of COST Actions oriented towards the ERA objectives and in well defined complementarity with other ERA instruments.

For the support of decisions about the future of COST, the Panel identified three clearly defined options for COST as a strong independent organization, COST Actions fully taken over by and integrated into ESF, and last but not least COST Actions organised as Coordinated Actions fully integrated into ERA instruments of the Framework Programme.

13. COST in the future mission of ESF in ERA

The Panel see as a common factor of COST and ESF that both organizations have ambitions towards boosting transnational and interdisciplinary networking.

ESF is built on its membership of national funding organizations, research organizations and academies of sciences. ESF's core mission includes the promotion of fundamental research and more recently also science strategy. Amongst its initiatives the Research Networking Programme shows some complementarities with COST activities. ESF is researcher-oriented but it also works on research strategies to develop complementary collaborative actions with national and European funding bodies and research organizations.

COST is an intergovernmental framework governed by the CSO representing the COST member states. The core activities of COST are COST Actions supporting the transnational coordination of nationally funded research projects. Through the Domain Committees communication, interaction, coordination and possibly also cooperation between participating research projects are supported.

In case COST or COST Actions will be taken on board by ESF and ESF members in the future the Panel underline the importance that the specific characteristics of COST Actions and their added value are preserved.

- **Impact**

14. Impact indicators for follow-up and measuring

15. Methodological approach, indicators and relevant data comprehensive impact study on the basis of finalised COST Actions

16. Mid-term evaluation relying on impact study

The Panel are satisfied that COST is actively implementing the ESR and Monfret recommendations and that an Impact assessment (IA) study was performed by an external contractor in 2009 (Technopolis) focussing on scientific and social impacts. The result of the IA study is positive. The Panel acknowledge also the work on indicator development but sees still room for further improvement.

The Panel see a problem of attributing outcomes produced in COST only to COST. Therefore, it recommends a co-publication analysis comparing pre-existing patterns with post-COST Action patterns. Such an analysis should also address the question of sustainability of network partnerships.

Furthermore, the Panel recommend studying the impact that COST Actions currently have or could have in the future on ERA objectives. In addition, it suggests that also the position and integration of COST activities in the overall pattern of national and European activities should be captured in future impact assessments.

The Panel identified an interesting possible added value of COST Actions in the area of identifying 'early weak signals' of newly emerging scientific fields or issues. This might contribute and feed into the forward looking mechanisms discussed and developed by ESF and EUROHORCs and also in the frame of Joint Programming initiatives. The Panel found that this aspect of COST Actions has not been utilized by COST and should be considered in the future.

Finally, the Panel missed the impact of COST on COST member states' science and research policies being addressed in the Impact assessment study. This aspect of COST is frequently emphasised by COST stakeholders. However, the Panel were not able to find any convincing evidence supporting these claims. Therefore, in future impact assessments this should be an important issue to be addressed.

1. Policy Context

- **The evolving European Research Area**

When launched in 2000, as part of the Lisbon Strategy, the European Research Area (ERA) was very much a political concept. It represented an important pillar in Europe's ambition to become a knowledge economy and was also seen as a response to the growing competitive pressures of internationalisation.

The original objective to overcome fragmentation, isolation and compartmentalisation of national research efforts and systems in Europe and to remove the disparities of regulatory and administrative systems – to create a common market for ideas, technologies and researchers - has evolved and continues to do so. The influence of the Lisbon Strategy on regional and national research policies has gradually become more evident and progress, albeit slower than originally hoped for, towards the original objective of making the European Union the most competitive and dynamic knowledge-based economy in the world *is* taking place.

The landscape has changed remarkably in the last decade with the introduction of a number of innovative policy support mechanisms such as the coordination of national and regional research programmes, a strategic roadmap for infrastructures, Joint Technology Initiatives, Joint Programming, and improved researcher mobility options. Following the publication of the ERA Green Paper and the related consultation and expert reports, ERA initiatives have been launched towards further strengthening the potential of a fully functioning ERA to meet the many challenges facing European society.

The EU Council² has reaffirmed that the ERA constitutes a core element of the Lisbon Strategy for growth and jobs and stressed the necessity to ensure that the ERA is fully operational and fully contributes to the “knowledge triangle” of research, innovation and education driving the international competitiveness and sustainable development of Europe and underpinning its ambitions to further develop its position as a leading knowledge economy and society.

The point has now been reached where the most far-reaching provision for research policy in the new Lisbon Treaty is the anchoring of the actual concept of the European Research Area (going even further to define the meaning of shared competence in the context of RTD). Moreover, the promotion of scientific and technological advance in its own right has become a specific objective of the Union for the first time.

The context is changing and new trends are emerging – globalisation and internationalisation of research continues and the low research intensity of the EU is a challenge, particularly with the reduction (in some regions/sectors) of the contributions from the private sector. At the same time, new opportunities emerge and European grand

² Council Conclusions on the definition of a “2020 Vision for the European Research Area” 1 and 2 December 2008

challenges have been defined and, there are changing paradigms regarding open innovation, virtual networks, services and the servicisation of manufacturing.

Prior to the stimulus now being provided by the new Lisbon Treaty, the general view was that whilst much had been achieved through various EU (funding) instruments, broad based innovation strategies, the Open Method of Co-ordination and wider stakeholder involvement, success has been limited by too much focus on EU action and insufficient Member State commitment.

The Council of the European Union has stressed that co-ordination and cooperation activities in the ERA are important. Co-ordination of Community and Member State research efforts and underpinning policies continue to challenge given the different policy objectives and structures in the EU27. In the context of ERA assessment and co-ordination, the EU Competitiveness Council (December 2008) also recalled that one of the traditional networking activities COST continues to be essential to the creation of a true spirit of cooperation. This spirit will be required if synergies between existing and possibly new instruments is to achieve better impact from research investments and to substantially reduce the already heavy burden of administration and bureaucracy already associated with managing transnational research projects.

• **EU Framework Programme for RTD – the landscape of Instruments**

The multiplicity of policy objectives pursued through the Framework Programme and their links with intervention mechanisms is an intrinsic source of FP complexity.

As the ERA evolves, EU initiatives are becoming more impact-oriented rather than instrument-oriented. Some recent work by CREST³ typified ERA instruments between four broad categories⁴, each corresponding to a different mode of intervention at European level and thus to a different type of impact on the research system or the research activities carried out therein:

1. Funding of research activities from the EU budget,
2. Processes of “ERA-optimisation” of national/regional funding,
3. Soft tools supporting policy development and co-ordination, and
4. EU legislation impacting ERA

Notwithstanding the complex multidimensional nature of many of the instruments, the typology positions the various instruments in the category which corresponds to their main or dominant characteristic.

In Table 1 (Annex 5), prepared and further developed on the basis of the schema presented by the European Commission to CREST, COST is co-located with the ESF Research Network instrument in the category ‘co-operation with a view to co-ordination’. However, in contrast to the ESF networking scheme, the networking in COST Actions is actually funded through the EU Framework Programme, thereby creating new structures of

³ CREST: Scientific and Technical Research Committee

⁴ ERA Toolbox: a typology of European-level instruments. Prepared for CREST by European Commission services. 2009

European cooperation of nationally funded research. COST, thus, is a hybrid in the scheme of the Table below, sitting in between EU funded and ERA-optimisation instruments.

In addition, Networks of Excellence (NoE) are located under that category. However, NoE had the specific objective towards developing virtual centers of excellence as new sustainable structures in the European Research Area. According to the 2008 review of NoEs⁵ only a small number of NoE achieved this objective. However, in the course of this review it became clear that a networking instrument is needed in the frame of European RTD activities. This was also confirmed by the outcomes of a workshop on ERA-instruments convened by the Swedish Presidency in June 2009⁶ where regarding networking support in Europe it was emphasised that *“there seems to be a continuous and consistent need for this in Europe”*.

It should be noted at that point that in the EU RTD Framework Programme the Coordination and Support Actions (CSA) are ample instruments that can be utilised for serving such networking purposes without introducing a new instrument. However, in FP6 and FP7, the Coordination Actions have practically not been used for networking.

⁵ Report of the Expert Group on the Future of Networks of Excellence. Brussels, 2008

⁶ Summary of CREST-meeting on 17th July 2009 and workshop with major stakeholders on 24th June 2009 on ERA Instruments and ERA Governance. Swedish Presidency, first semester 2009.

2. Mid Term Evaluation of COST

- **Rationale**

The 7th EU Framework Programme for RTD (FP7) provides a financial allocation for COST of at least €210 million and up to €250 million, subject to the outcome of the present mid-term evaluation. This financial support is based on a Grant Agreement (GA) between the Commission and the European Science Foundation (ESF), the legal entity designated by the COST Committee of Senior Officials (CSO) as its implementing agent. While the ESF is responsible for the operational implementation of the Grant Agreement, the COST CSO is the governing body in charge of the strategic orientation of COST and the final agreement on new COST Actions and activities.

The FP7 Grant Agreement entered into force in June 2007 and in principle covers the whole duration of FP7. For budgetary/technical reasons the funding of COST is provided on an annual basis, with annual amendments to the Grant Agreement each year.

The financial contribution from COST member states is comparatively very small. Despite this fact, due to the COST set-up as an inter-governmental framework, the governing body of COST is the COST Committee of Senior Officials (CSO).

The mandate of the evaluation panel – the Panel (for the members see Annex 1) - is to assess the management and implementation of the Grant Agreement over the period 2007-2010, based on the Description of Work (Annex 1 to the Grant Agreement).

- **Objectives**

There are two main objectives for the midterm evaluation:

1. To assess how the recommendations in recent reviews have been followed up by COST, especially the FP6 Final Review (Monfret Report) and the FP7 Evaluation Summary Report (ESR) from the panel of experts evaluating the FP7 COST proposal.

The recommendations arising from the reviews can be grouped according to the following themes:

- Scientific and Financial Management,
 - Governance,
 - Communication,
 - Synergy COST-ESF, and
 - Impact.
2. To give recommendations for the further development of COST. These recommendations could guide COST itself in the further implementation of the GA, and could also guide the Commission's further work with COST.

- **Methodology**

The methodology was pre-determined by the Terms of Reference at Annex 2.

The Panel strongly considered that all conclusions in this mid-term evaluation should have a verifiable evidence base, grounded in analysis and, should be augmented by interviews/hearings with the relevant key actors, as listed in Annex 3.

The three main players in the current arrangement: COST, ESF and the European Commission provided timely and comprehensive reports to the Panel regarding the implementation of the Grant Agreement.

The Panel based their work on written documents received from the European Commission, from the ESF, and from the COST CSO including i.a. Customer Satisfaction Survey, Annual Reports, Impact Assessment, Grant Agreement reports. See Annex 4.

On three days of interviews key stakeholders answered questions from the Panel, and presented supplementary information.

3. What is COST?

COST⁷ is an intergovernmental framework set up in 1971 by 19 European countries together with the European Communities. COST has now 35 European member countries (27 EU member states, 3 EFTA member states, 3 acceding and candidate countries, two potential candidate countries, and Israel as cooperating country). Since 2003, COST has been funded through a contract/Grant Agreement between the Commission and European Science Foundation (ESF) supported by the Framework Programme.

In FP6 the contribution was €80 million, in FP7 it will be at least €210 million, and up to €250 million in the case of a positive Mid-Term Evaluation in 2010.

- **Funding mechanisms - the profile of COST**

COST has a bottom-up profile, meaning that the topics for which COST actions can be applied for are open and are freely chosen only by the proposing scientist. No budgets are ex ante earmarked to thematic areas. It organises open calls twice a year. COST does not fund research itself but supports the networking of nationally-funded research activities organised in 9 scientific Domains and – at present - more than 220 running Actions.

An Action brings together researchers from a minimum of 5 countries (the average is 20) and has an average annual budget of approximately € 100 000. Research entities from non-COST countries are allowed to participate in Actions based on the principle of mutual interest and provided they cover their costs of participating out of own funds (except in the case of 'near neighbour' countries whose researchers' participation is funded by COST). While the individual COST actions are limited in their budgets, the leverage is considerable. COST has itself calculated that the nationally funded research that is brought together in the Actions is worth a total of €2 billion annually.

- **Basic governance arrangements**

As already underlined in previous reviews, COST has a very complex governance system:

- Key decisions are taken at COST Ministerial Conferences which are held every five years in average (the last Ministerial conference took place in 2003).
- The Committee of Senior Officials (CSO) is the highest decision making body governing COST. The General Secretariat of the Council of the EU provides the Secretariat of the CSO. Each COST member state nominates up to two representatives to the CSO, one of whom is the COST National Coordinator (CNC).

⁷ COST was established by a Conference of European Research Ministers in 1971

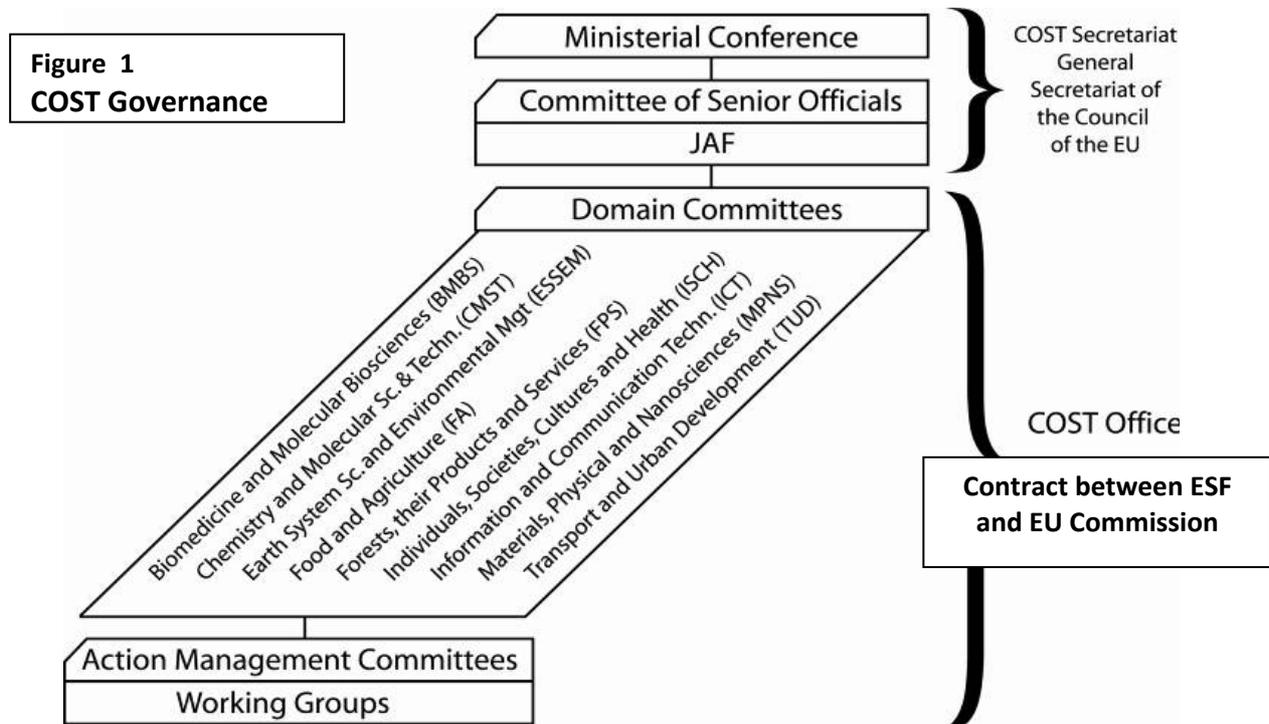
- The General Secretariat of the Council of the EU provides the Secretariat of the CSO taking care of the meetings and preparing the minutes. In addition, the Council Secretariat ensures that the decisions on new COST Actions are processed in accordance with the requirements of the intergovernmental framework of COST and that the respective Memoranda of Understanding are treated accordingly and documented in the Council database of intergovernmental governmental agreements.
- The COST Office is located in the ESF as the administration and secretarial support to Domain Committees, implementing decisions of the CSO, preparing an annual activity plan and budget, and providing financial support, PR and dissemination to actively develop the COST initiative. The Office is responsible for Call management, the organization of the selection process, contract management, monitoring and evaluation of actions and the dissemination of results. The Head of the COST Office is appointed by the Secretary General (SG) of the ESF in consultation with the CSO President. All employees are appointed by the ESF SG and the Head of the COST Office reports to the ESF CSO and is responsible to ESF SG.
- The 9 COST Domain Committees (DC) are mainly responsible for the evaluation of proposed COST Actions and for the monitoring and quality control of Actions in their domain. The DCs report to the CSO. COST member states through the CSO designate one representative (a senior scientist or an expert) each in the 9 DCs.
- Each Action (at present about 240) has a Management Committees (MCs). Actions are reporting to their DC. Members of the MCs are also nominated by the CNC through the CSO.
- Each Action has also approximately four Working Groups.

Considering the modest size of COST in financial terms the governance structure and the management approach are certainly complex.

A Memorandum of Understanding (MoU) between COST and ESF from 2003 and, an Addendum to the MoU from 2006 provide the background for the implementing agent capacity. According to the subsequent Grant Agreement (2007) with the Commission, the ESF was designated as the implementing agent acting as the legal entity and the contractor of the Commission. Based on the Grant Agreement, the ESF is responsible for the operational implementation of COST activities through the COST Office in Brussels. The COST Office provides and manages the administrative, technical and scientific secretariat for the Domain Committees and the COST Actions. Thus, ESF has the full contractual responsibility for the implementation of COST activities while the CSO is the governing body with regard to the scientific orientation and management of COST.

Figure 1 on the next page shows the COST governance structure. In 2009, this structure generated four meetings of the CSO with up to 65 participants each. The JAF, the Executive Group of the CSO, meeting one month in advance of CSO meetings, with

normally 7 participants, prepares the CSO meetings. In 2009, the 9 Domain Committees, who meet on average three times per year, had 294 members. In the 240 Actions running last year, each Action has approximately four Working Groups with an average of 60 researchers participating in each WG. In 2009, 7542 Action Management Committee members met one or two times per year to achieve co-ordination in the Working Groups.



COST is an instrument with a relatively small annual budget of € 30 million supporting networking of nationally funded research projects. The management and the money available are certainly aspects that will have to be considered in decisions on the future organization of COST Actions and COST management structures beyond 2013, especially when compared to the currently accepted general understanding on cost efficiency and easiness of management.

- **Role of the Commission**

A Commission - COST partnership was established in 2004 and the former is in attendance and gives advice on policy issues at the COST CSO and JAF Executive Group. The Commission monitors the Grant Agreement with ESF and initiates reviews of COST.

4. Follow up of Recommendations of Previous COST Reviews and Evaluations

The Panel worked in accordance with the mandate of the COST Mid-term Evaluation and the 16 evaluation questions and themes based on recommendations of the Monfret report and the Evaluation Summary Report (ESR) as defined by the Terms of Reference (see Annex 2). The Panel had the benefit of in-depth interviews and discussions with stakeholders (see Annex 4) and of reports and other documents provided by COST, ESF and the Commission (see Annex 3) upon which to base the following assessment and conclusions.

- **Scientific and Financial Management**

Recommendation 1. The bottom-up approach has shown itself to be important and appreciated by the scientific community, a fact that should be stressed and strengthened in the future (ESR)

COST has been designed as a bottom up scheme, driven by scientists. The scientific community certainly welcomes the bottom up approach as it is in the interest of scientists to have as much flexibility as possible. There are no indications of top down interference by the COST Committees. The Open Call procedure is deliberately left entirely open, with the indication to apply for one of the domains (which is a managerial provision to find the appropriate evaluation and expertise framework for each proposal). The trans-disciplinary proposal “domain” (TPD) provides the possibility to have an entry point for those proposals that do not fit elsewhere.

The introduction of an Open Call process has further strengthened the bottom-up dimension. This is not only widely appreciated but is in fact a distinguishing feature of COST amongst the other ERA instruments. COST can fill the bottom up gap opened up by the Framework Programme (also confirmed by the FP 6 assessment), as it allows for new combinations and networks of researchers without thematic limitations. The ERC is another bottom-up mechanism, albeit for individual researchers but without the networking feature of COST. Whilst there may well be a quality differential between the two mechanisms, there is a need within the evolving ERA landscape for both approaches.

Conclusions:

The Panel members are satisfied that COST continues stressing and strengthening the bottom up approach which is essential and supports the logic of the whole network activity.

Recommendation 2. Adapt procedures and processes in such a way as to maximise the possibility of supporting new areas and newcomers, which are not supported by other programmes and initiatives, consequently using the bottom-up principle. (Monfret)

COST has set strategic objectives in these two areas – new areas and newcomers. Accordingly they have introduced new ways to meet these aims.

The effect of procedures and processes on supporting *new areas*, however, is not yet proven. User surveys are useful to show early effects, however statistical evidence is also needed. Going forward, *the impact of the Open Call on the profile of proposals in terms of disciplines and issues should be monitored.*

New areas are difficult to support because high profile individual researchers might not yet be available. As only projects that have already been funded at the national level can be put forward to COST, this immediately limits the extent to which ‘newness’ can be a feature of COST Actions. New developments in science, disruptive technologies, paradigm shifts require separate strategies. These must focus on unanticipated opportunities rather than on state-of-the-art type information, knowledge sharing. *New ICT, web-based opportunities for networking should be explored for this.*

Nurturing newly emerging scientific areas remains a challenge in Europe. COST could have a role to play here. The Open Call with two collection dates per year is one of the most visible evolutions of COST procedures and whilst proposers are invited to locate their topic in one of the nine Domains, the introduction in 2008 of an inter-disciplinary Trans-Domain Standing Assessment Board (SAB) greatly facilitates the possibility to support new areas. There are still some evaluation challenges to be addressed regarding inter-disciplinary proposals but these are being pursued. In Peer Review, assigning proposals to the most appropriate DC is critical. New areas belonging to more than one domain have been hard to handle in the past. The new Trans Domain approach tackles the interdisciplinary nature of new actions. How inter-disciplinary proposals are assessed and decided upon is interlinked to other governance issues (trans-disciplinarity/transparency), discussed elsewhere.

The particular encouragement given to Early Stage Researchers (ESRs) is a tangible means of supporting newcomers (and also increases the likelihood of new areas being introduced within Actions). The existing instruments are being applied in favour of ESRs and as a means of capacity building. The Strategy for ESRs has resulted in a range of new initiatives, with good levels of uptake, within the limit of the COST institutional boundaries (no research money provided by COST) and describes specific support measures (e.g. short-term scientific missions, inter-disciplinary training schools, workshops, Conference Grants, Chair nomination, criteria in open calls, ESR as MC delegates) to increase the visibility and involvement of ESRs.

There is sufficient evidence to show that the introduction of the Early Stage Researchers Strategy in March 2007 does not miss its intended effect in targeting *newcomers* – with 350 short term scientific missions (2008) and with ESR involvement in more than half of the 1300 STSMs in 2009, compared to none in 2007. Preliminary proposals involving ESRs in the 2009 Open Calls attracted 326 (34%) such proposals out of 946 and 219 (29%) out of 764. (Data up to 1 October 2009.) Under the COST Outreach Strategy, three ESRs workshops were organised at ESO2008 and 15 specific ESR training schools in 2009.

ESRs participate in 90% of the Actions. This level of representation is good but needs to be considered in tandem with their 'role' in the Actions – to really benefit from the networking their role in co-ordination, as members of the Domain Committees and other network activities should be identified. In 2009, one third of the proponents declared themselves as ESRs and for the first time, one Domain (ICTs) had a majority of ESR proposers – 59% (Collection 2009-1). The challenge for COST is whether, beyond the networking aspect, there are other means to support Early Stage Researchers, such as e.g. training measures?

There is increasing participation in Actions by researchers from non-COST member countries (currently researchers from close to 350 institutions). New countries' involvement has been helped by the recently introduced Near Neighbour Scheme and Reciprocal Agreements with third countries in other parts of the world. In 2009, 270 representatives of non-COST country institutions participated in 346 meetings of the Management Committees (at their own expense). Increasing emphasis on the role of COST as a potentially important internationalisation mechanism for ERA is becoming evident over the timeframe of the different customer surveys and should be monitored to be able to draw conclusively from the findings.

COST users see COST's biggest advantage as bringing in new partners, establishing new contacts. Satisfaction of newcomers with COST is higher than with more experienced users, as newcomers benefit from the establishment of transnational networks much more, in relative terms, than experienced users who may have had similar, overlapping networks in the past and thus the network effects are smaller. Satisfaction of applicants with bringing in new partners and enhancing involvement of early stage researchers is high and very similar (82 and 85% respectively).

Conclusions:

In general, the Panel are satisfied that strong efforts are being made to supporting new areas and newcomers such as Early Stage Researchers and researchers from non-COST countries. The Panel have several particular recommendations:

- The impact of the Open Call on the profile of proposals in terms of disciplines and issues should be monitored;
- New ICT, web-based opportunities or networking should be explored for supporting new developments, disruptive technologies, and potential paradigm shifts;
- The roles of Early Stage Researchers (ESRs) in COST Actions and also in Domain Committees and other network activities should be identified;
- The role of COST in internationalisation of S&T cooperation should be monitored over the timeframe of different customer satisfaction surveys.

Recommendation 3. Refocus the, future regular, user survey to not mainly include the current customers and their views on the COST processes but also to have a better insight in the views on COST from the wider scientific community (and thus the non-users and potential users). (Monfret)

The CSS 2010 targeted applicants, facilitators and participants. The recommendation would like to see this changed. The Monfret Report refers to an enlarged impact and indicator plan that it wants to see implemented. The impact assessment study did include a participant survey but also case studies and a systematic attempt to reach out to non-participants. The latter did not fully succeed, but for interesting reasons: Whilst key network nodes in scientific areas were contacted, all of those have had, at some point in time, some connection to COST. While recommendation #3 targets the traditional user survey more than this impact assessment the experience in the latter does demonstrate the methodological challenge in broadening the user survey sample to non-participants. Creative approaches such as peer surveys or peer conferences will have to be considered.

Evidence on the uniqueness of the COST instrument and whether it provides a facility not covered by any other instrument could be gleaned from a comparison of the behaviour of grant awardees and non-awardees. In this context, counterfactual questions can also highlight effects, such as the likelihood that the same results would have been achieved also without COST.

It can be seen in the impact indicator table that COST is working towards addressing this methodological challenge (and implementing this recommendation) as the proposed indicators put emphasis on the wider scientific community and independent national and European players.

The user survey in itself is not enough, if adequate management processes for analysing and improving performance are not integrated into the organization and not carried out on a regular basis. Independent of a monitoring system being put in place, a systematic approach to the follow up and implementation of survey findings needs to become much more explicit in COST.

Conclusions:

The Panel welcome that a Customer Satisfaction Survey and an Impact Assessment (see also below Recommendations 14.-16.) have been commissioned to an external contractor and is aware of the fact that the reports were available early this year only. It is recognised that the JAF has already decided that the COST Office will prepare appropriate measures for the follow-up

For broadening the user survey sample to non-participants creative approaches such as peer surveys or peer conferences should be considered.

Evidence on the uniqueness of the COST instrument and whether it provides a facility not covered by any other instrument could be gleaned from a comparison of the behaviour of grant awardees and non-awardees. In this context, counterfactual questions can also highlight effects, such as the likelihood that the same results would have been achieved also without COST.

One can and should draw conclusions from the findings of customer satisfaction of scientific users on expected and perceived performance of COST. Refocusing should not mean abandoning this type of evaluation but extending it and complementing it with appropriate monitoring to cover other aspects, including impact assessment questions. This could include spill-over questions regarding persistence in networking, new projects in other settings, follow-up activities and being able to differentiate between the outcomes from the actual research funded by national ministries and the value of the COST network itself. Being able to properly assess “newness”, both of the participants and the fields of research, the level of network re-formation, the subsequent co-publication patterns of network partners are all relevant in the context of impact assessment and could be built into the user survey.

The Panel appreciate that COST has developed a new set of indicators and assessment methods. Those indicators and the thinking behind it go in the right direction. They complement the user survey, but appear to be slightly overambitious in their monitoring approach, while some key impact questions – outlined above – are not addressed.

Recommendation 4. In the present situation of the increased budget, devolution of management responsibilities and changes in governance, the good standards of science and financial management must be maintained, in particular with the introduction of the Annual Grant Scheme (Monfret)

The science management and the evaluation procedures for COST Action proposals have greatly evolved in the latter part of the decade. Customer awareness concerning the Annual Grant Scheme has risen from 2007 and in parallel customer satisfaction towards COST has also risen from 2007 and is currently on a high level.

There remains some dissatisfaction regarding the clarity of evaluation criteria and evaluation feedback. Further clarification and separation of the roles of external expert panels (rating of proposals) on the one hand and Domain Committee members (ranking of proposals) on the other hand is an aspect to consider.

There have been no major changes in science management since 2008; however, the Panel regard the introduction of a procedure for reviewing Trans Domain Proposals as a very positive initiative.

Conclusions:

The Panel welcome improvements in science management achieved in recent years. There is room for improvement regarding the clarity of evaluation criteria and evaluation feedback and also in clarifying regarding roles of different actors in the evaluation procedures. Dissatisfaction with the feedback to proposers in stage 1 remains an issue.

Recommendation 5. The FP7 mid-term evaluation should make a specific review of the use of the new COST Annual Grant Agreements and their impacts on quality

monitoring, the speed of payments, the administrative burden to the user community and the overall acceptance of COST (Monfret).

In terms of customer satisfaction, this particular issue does not raise any specific questions. General satisfaction towards COST is on a high level. Regarding the speed of payment, numbers or trends are unavailable or are difficult to find from the evaluation material. Additional specific reviews of these issues would be worthwhile.

Quality Monitoring as part of the process of proposal evaluation has not undergone major changes since the Monfret report, so it is the view of the Panel that the COST Annual Grant Agreement (CAGA) is unlikely to have had significant effects on the Quality Monitoring. Much of the focus and effort likely to impact on the Quality Monitoring, in the years covered by this evaluation, has been on the development of different IT systems and tools.

From September 2009 onwards, new COST Actions have been managed under the COST Annual Grant Scheme with the support of the online Information System, e-COST. COST Actions which end before 1 June 2011 will not be obliged to move to the CAGA. The annual grants as a replacement for the pay-as-you-go scheme has to date been very well received by users/participants and facilitators/DC members. However, a full evaluation of the customer satisfaction with the CAGA will need further analysis in the future as a stepwise migration which started in September 2009 will only be completed by mid 2011.

Conclusions:

Based on the available information the Panel are able to confirm a high level of customer satisfaction towards COST. A specific review of the use of the COST Annual Grant Agreement (CAGA) and its impact on quality monitoring etc. should be considered at latest after 2011 when the migration towards the CAGA will be completed. The scheme gives the Management Committees much more responsibility for the financial management of individual Actions and this of course raises concerns regarding the capability of the COST Action leaders to handle cash flows and the wider financial management. These are aspects to be covered by such a review.

Recommendation 6. An aspect of the (mid-term) review should be to consider the COST Office staff levels in view of the changes in the COST activities. (Monfret)

The Monfret Panel was not able to make an analysis of the staffing level at the COST Office. The recommendation was premised on the need for further improvements, deemed necessary in scientific and financial management and on foot of future changes in COST activities.

The COST Office was set up according to the COST-ESF Memorandum of Understanding (2003). The MOU states that “the management needs to be strengthened and processes of administration be simplified, emphasising the need for substantial outsourcing”. The Annex to the MOU defines the roles and responsibilities of the COST

Office as the administration and secretarial support to Domain Committees, implementing decisions of the CSO, preparing an annual activity plan and budget, and providing financial support, PR and dissemination to actively develop the COST initiative. The Office is responsible for Call management, the organization of the selection process, contract management, monitoring and evaluation of actions and the dissemination of results.

The Head of the COST Office is appointed by the Secretary General (SG) of the ESF in consultation with the CSO President. All employees are appointed by the ESF SG and the Head of the COST Office reports to the ESF CSO and is responsible to ESF SG. From information found on the COST website the Office has a staff of 53. The Head of the COST Office is assisted by a Head of Scientific Operations. 16 science officers and 16 science administrators compose the main team which is supported by another team of 19 people. Support consists of HR, IT, PR, conference officers, receptionists. The functions of such posts as business analyst and senior science administrator are not clear.

The COST Office seems to be overstaffed especially in light of the fact that most of the actual work is carried out by the Domain and Management Committees. However, as the committees themselves are so oversized, doubtlessly this in itself requires extra manpower for organization and administrative support.

The main concern for the Panel is not just the actual level of COST Office staff but the high degree of staff churn which is taking place at this time and the vacancies that have ensued. This is likely to impact on efficiencies and represents a real cost to the organization in terms of knowledge and competence. It is also impacting negatively on staff morale.

In considering the optimum staffing level, the Panel deliberated on what might be an appropriate benchmark. The conclusion, bearing in mind the nature of COST, is that perhaps comparisons with an Article 185 (ex Art. 169) implementing agent could be used.

The Panel have not found a convincing explanation for the activities of 35 COST National Coordinators (CNCs) nor their relationship with the COST Office. It is aware their tasks of nominating members of Domain Committees, Management Committees and working Groups and that some of the CNCs organise national COST meetings with members of DCs or national COST days. The Panel, however, were not able to assess the quality of the nominations and their relations to relevant parts of the scientific community and also the extent and impact of the other activities performed by some of the CNCs. In any case, the CNCs are another aspect of the complex and extensive organizational structure of COST and there is a need for reviewing their activities.

Responsibility for assessing the performance of the COST Office is also unclear and with the Office being supervised by both the CSO and ESF, the Panel are concerned about the possibility of governance conflicts developing.

Conclusions:

In the Panel's view, the COST Office seems to be overstaffed especially in light of the fact that most of the actual work is carried out by the Domain and Management Committees. In considering the optimum staffing level, the Panel suggest a comparison for example with an Article 185 (ex art. 169) implementing agent.

The functions and performance of the COST National Coordinators and their relations to the COST Office are yet other aspects deserving to be reviewed in a general review of the COST structures and management.

The supervision and performance assessment of the COST Office calls for clarification and streamlining. The main concern for the Panel is not just the actual level of COST Office staff but the high degree of staff churn which is taking place at this time and the vacancies that have ensued. This is certainly a situation where urgent action is called for. Also the fact that customer satisfaction levels with the COST Office are currently at a rather low level of 17% is certainly a matter for concern and calls for review and action.

Recommendation 7. Clarity and availability of rules and procedures and their application.

This question touches upon quite a range of different rules and procedures and it can cover two aspects

- a) the internal procedures and rules for coordination between COST-ESF and CSO
or
- b) the rules and procedures regarding the interface to the user/researcher

The two aspects are horizontal in nature and can be interpreted as a general point on "clarity" and "availability of the rules and procedures". It is also relevant in the context of the previous two recommendations on Scientific Management and the implementation of the Grant Agreement.

The Panel approached the review of the follow up of the recommendation guided by three concerns identified in the Monfret Report discussion:

1. Are overall rules and procedures formulated clearly enough and accessible?
2. Are evaluation criteria and procedures clear to all?
3. Are users informed and capable enough to apply the Annual Grant Scheme (financial self-management)

Previous evaluation reports, even if calling for more *simplified* procedures, all acknowledge that the financial procedures and management are satisfactory and to the required standards. The Monfret report itself is positive about the "improvements" as regards the "simplification of application procedures and a

speeding up of decisions and payment schedules” (after ESF provided the COST Office). However, where concern has been expressed in early reviews is with respect to the coordinating structures and processes between ESF-COST and the CSO, a point taken up elsewhere in this Mid-term Evaluation.

Attention is being given by COST to the need for clarity and transparency regarding rules, procedures and their application. The “Guidelines for Assessment, Monitoring, Evaluation and Dissemination of Results of COST Actions” are updated at regular intervals in line with improvements to the application and evaluation processes (the most recent being March 2010). The aforementioned user survey had found that the clarity of the evaluation criteria is not satisfactory. In respect of this, ESF and COST are actively engaged in improving these. The COST Office now offers two Vademecums – one for activities financed under the ‘pay-as-you-go’ scheme, and one for the COST Actions managed under the COST Grant Scheme. The rules have not changed, only the way they are presented.

The web is by far the most important source of information for those interested in accessing COST; thus, the strategy to improve the web content and accessibility is important in the context of recommendation #7 – this is a continuous process and user survey feed-back should be fully integrated into any new web developments. e-COST currently provides the opportunity to improve the comprehensibility and accessibility of the Vademecum to Grant Holders, and to beneficiaries of the ‘pay-as-you-go’ system.

The general awareness and clarity regarding instruments and procedures is moderate whilst awareness of COST schemes and regulations is high. Those who have questions about procedures find the COST Office very accessible. In fact, satisfaction levels with the COST Office have improved in the interval between surveys but, currently at 17%, are at a rather low level.

The Panel welcome the positive ‘spill-over’ effect from the co-habitation arrangement with ESF in that exchange of ‘good practice’ has taken place whereby many modern management information systems, processes and evaluation procedures have been adapted and adopted.

Conclusions:

The Panel took note that the CSO updates the “Guidelines for Assessment, Monitoring, Evaluation and Dissemination of Results of COST Actions” at regular intervals in line with improvements to the application and evaluation processes (the most recent being March 2010). It is, however, concerned that customer satisfaction is still at a very low level regarding the clarity of the evaluation criteria and the feedback following stage 1 of the application process. The criteria seem to be rather complex and vague at the same time. The Panel welcomes that COST and ESF are working together to improve the criteria and the Panel recommend to benchmark the COST evaluation practices and procedures also against the approaches of the Framework Programme and of national funding bodies.

The web-services are continuously improved and expanded. This certainly contributes to improving the comprehensibility and accessibility of all information regarding the implementation of COST Actions.

The Panel welcome the positive 'spill-over' effect from the co-habitation arrangement with ESF in the exchange of 'good practice' has taken place whereby many modern management information systems, processes and evaluation procedures have been adapted and adopted.

- **Governance**

Recommendation 8. The CSO should focus on the ESF/COST policies and procedures and act as a Member State based high-level advisory body. In this context, the CSO should not be involved in the decisions related to the individual Actions. (Monfret)

The fundamental role of the CSO is to oversee the COST Office and it is also required procedurally to deal with decisions on COST Actions. By virtue of its inter-governmental nature, the CSO has a very large membership (approx 70). It meets approx. three times per year (four times in 2009) and a separate Secretariat (the General Secretariat of the EU Council) prepares its meetings and outputs. In addition, the Council Secretariat ensures that the decisions on new COST Actions are processed in accordance with the requirements of the intergovernmental framework of COST and that the respective Memoranda of Understanding are treated accordingly and documented in the Council database of governmental agreements.

The CSO layer necessitates a high level of interaction and communication between the COST Office (currently in ESF) and the EU Council COST Secretariat. In the view of the Panel this introduces a high level of unnecessary bureaucracy, without the benefits of any perceived meaningful linkage back to national policies or Ministerial involvement. The Panel consider that there has been no coherent and structured approach taken by the CSO to develop a Vision and Strategy for COST in the context of the ERA. Reverse-engineering historic rationales and popularity onto the present and the future does not represent a strategy. Asserting that co-operation policy is EU policy and that COST does this well and can be used to build up the ERA, is not a strategy. The Panel were informed that "the strategy is to have no strategy" and that "the existing COST vision still lacks a clear roadmap". The Panel agree there is no strategy.

The CSO is committed to the continuous improvement of the COST policies and procedures through the systematic revision of the "Guidelines for Assessment, Monitoring, Evaluation and Dissemination of Results of COST Actions" – the most recent revision being March 2010. However, regarding the specific point of refraining from involvement in decisions related to individual Actions the CSO underlines that "It has also been the deliberate approach by the CSO not to exclude the possibility of directly adopting Actions, if needs be, for instance in response to imminent strategic needs which might emerge". In the light of the lack of strategy, the Panel see the

danger that this may open the door for ad hoc decisions that might contradict the bottom up nature of COST and are not based on clear and agreed criteria.

Conclusions:

The Panel came to the view that the intergovernmental framework of COST creates a high level of bureaucratic overload. However, it was not able to see benefits of these arrangements for the researcher customers of COST or with regard to links to national policies.

From the discussions with COST stakeholders the Panel conclude that the CSO's strategy is "to have no strategy" for COST and that the "ERA vision of COST" is just a repetition of references to past success stories. This strategy deficit is certainly problematic in a situation where the EU Member States join forces for strengthening the European Research Area and refining the ERA instruments.

The Panel acknowledge the CSO activities related to the decisions of COST Actions and to oversee the COST Office. However, the Panel take note that the CSO, while in principle refraining from making decision on individual actions, still does regard the implementation of recommendation #8 as an unwelcome constraint on its decision making competence.

Recommendation 9. Transparency should be improved by reasonable rotation of the domain committee members. (Monfret)

Appointment procedures for the Domain Committees (DC) were revised in 2006 (before the Monfret Report). Appointments are for four years and can be extended to a second term, 8 years altogether. On request, the COST Office gives statistics/information on Committee member activities to National Delegates. The Member State Delegate can nominate two further experts to the DC and this should take the overall gender and discipline balance into account. Fundamentally, the membership of the Domain Committees is the responsibility of the Member States. The premise of the Monfret (and previous) report(s) is that

- 1) transparency in the Domain Committees (DC) needs to improve,
- 2) transparency can be improved by rotating the DC membership.

A closer look at what transparency and renewal actually means is needed. Interpreting the Monfret Report, the renewal of membership is not so much about transparency for decision making, but transparency in terms of *access* for changing communities, new ideas, networks, scientific areas represented in the committees. Renewal of committee members can thus be seen in association with efforts for improvements of the accessibility and application procedures COST including the Open Calls.

The Panel agree that transparency is about **accountability** and **equity of access**. As COST Committees make decisions about public money, they are accountable to the taxpayer and the basis for such decisions should be known. More fundamentally, the decision *makers* at each stage of the decision making process (priorities, selection)

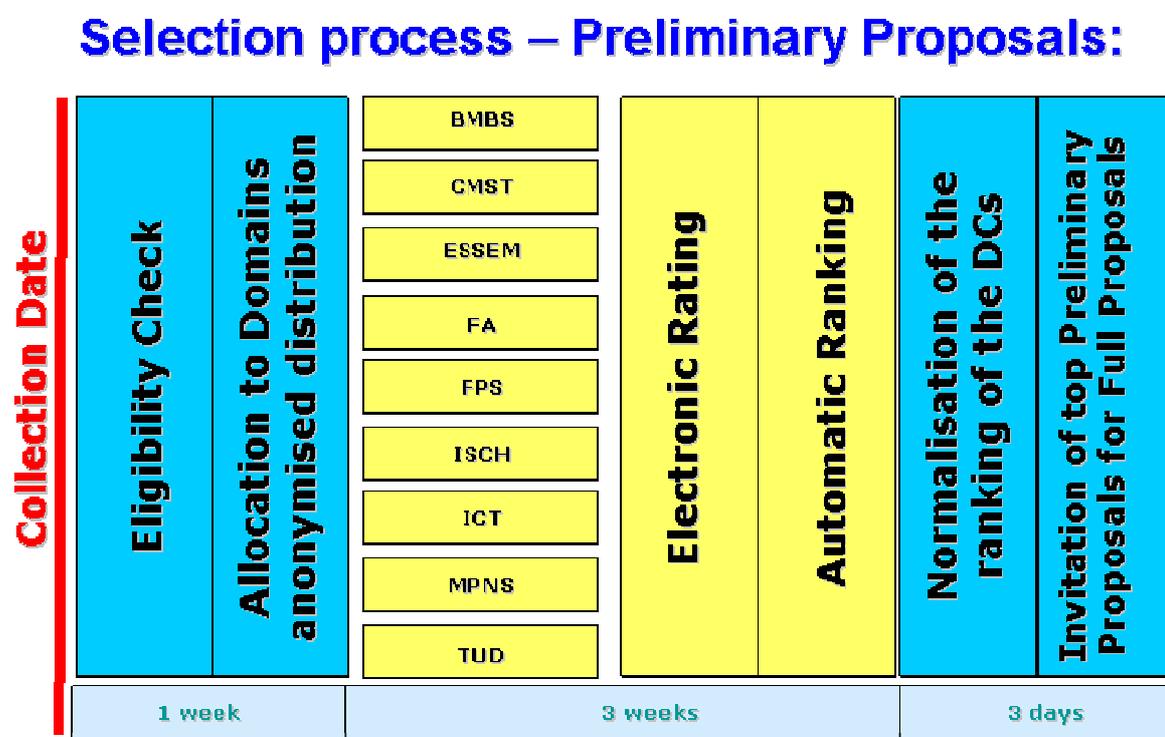
must be absolutely clear. Of course, transparency does not mean to disclose the verdicts of individual evaluators, it means openness of the process so that those stakeholders not involved can understand which decision is taken by whom – and renewal means that more stakeholders get involved over time.

The recommendation does not distinguish between *members* of the DC and *experts*. Some differentiation could also be asked for here as experts can link to the scientific community and newcomers probably better than the actual Delegate.

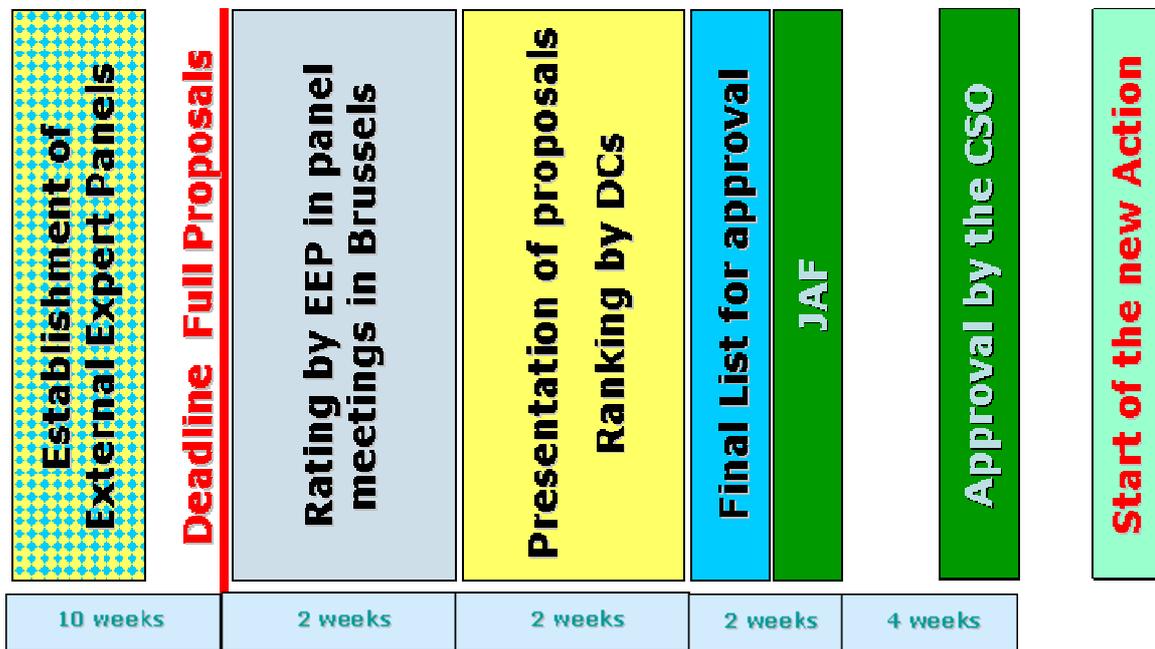
The schema for COST Open Calls below illustrates the complexity of the interactions during the process and hence the need for transparency regarding roles and criteria at each point.

In addition to the elements of the evaluation process shown in the schemes below, the Council Secretariat ensures that the decisions on new COST Actions are processed in accordance with the requirements of the intergovernmental framework of COST and that the respective Memoranda of Understanding are treated accordingly and documented in the Council database of governmental agreements.

Figure 2: Elements of the evaluation and selection processed for preliminary and full proposals of COST Actions



Selection process – Full Proposals:



The expected effect of increased transparency and renewal of committee members would further ensure and cement that COST is truly open (together with the Open Calls) for the scientific communities, and would help to avoid any (also unintended) closed shop as well as ensure that more clarity exists regarding how decisions are made and issue areas discussed in the committee.

Conclusion:

The Domain Committees (DCs) play an important role on the COST evaluation and selection process. Transparency and openness of COST have to be ensured by means of an adequate turnover of members. The Panel support an increased renewal of DC members and recommends reconsidering the possibility of an extension of membership. A membership of eight years seems very long.

Recommendation 10. Reconsider the nine Domain Committees and find a structure which maximises the opportunities for multidisciplinary and ‘out-of-the-box’ research networks. (Monfret)

The premise for this recommendation is that

- 1) Opportunities for multidisciplinary and ‘out-of the box’ research were insufficient;
- 2) The domain committee structure hinders more of such research.

COST/ESF support the objective (more multi-disciplinarity) but do not consider a change of domains to be the right solution for it. In 2005, 12 Committees have been

re-designed into 9 Domains through a cumbersome process, whereby Nanosciences and Physics did not have a domain, but were supposed to be “addressed in all Domains...”. The current structure of nine Domain Committees is considered for the time being to be an optimal number. Further aggregation of themes could be difficult and possibly reduce transparency.

However, one unanswered question is whether COST can ensure that areas of research, which do not fit into the DC structure, are taken into account adequately well in the selection process. In other words, does the DC structure by its very nature “pre-eliminate” proposals in a bottom-up approach? Furthermore, the CSO have decided that another change of the scientific domains in such a short period of time would be counter-productive as far as stability of the arrangements and familiarity for the scientific community are concerned.

A Trans-Domain Standing Assessment Body has been introduced in 2008, composed of the chairs of the nine DC plus two scientific experts per domain, led by a neutral coordinator appointed by the CSO president – making some 28 persons. Whilst still relatively new, the early experiences are positive. Organising evaluations poses the same challenges here as in other organizations who seek to introduce multidisciplinary initiatives.

Among the 977 eligible preliminary proposals submitted through the two annual collection dates for the Open Call procedure in 2009, there were 161 interdisciplinary proposals as a result of the “Trans-Domain Proposals Standing Assessment Body” (TDP-SAB), less than in 2008. Treatment of inter/ trans-disciplinarity is still in need of careful analysis within COST. Two recommendations in the COST Customer Satisfaction Survey 2010 suggest, on the one hand, that applicants do not always understand what is really intended with TDP and, on the other hand, that politics for TDP selection needs to be more explicit. The reduced number of TDPs in 2009 corresponds to the survey findings.

Conclusions:

The Panel do not support the idea to further alter or decrease the number of Domain Committees. The first experiences with the Trans-Domain Standing Assessment Body are seemingly positive. However, there is a need to better explain the concept and objective of Trans-Domain Proposals to the research community.

- **Communication**

Recommendation 11. A high quality Communication Strategy and its actual implementation would enhance the sustainability of COST in the long run (ESR)

The COST Communication Strategy is expected to target scientific, industrial as well as wider public communities. The strategy should lead to attracting new actors into COST activities (young researchers, for instance), to promote and increase future

coordination and cooperation in new COST Actions and of course to strengthen public awareness of COST and its results.

The outreach activities and the dissemination plan from COST includes targeting new external groups, new channels to distribute information (COST website and e-COST, expert and corporate publications, conferences, seminars, strategic workshops, network of disseminators, among other things) and, finally, monitoring and evaluation in order to measure the impact.

Visitors to the COST homepage will find a site that is user-friendly, easy to access and which provides a considerable amount of useful information mainly for researchers and research institutions. Many achievements of the COST outreach strategy and dissemination plan should be recognised.

- Total redesign of the COST website commenced in summer 2008, the new website was launched in January 2009.
- The Website receives an average of 998 visits per day from 207 countries.
- 200 publications were funded and catalogued in the library of the COST website (June 2007 - December 2009).
- Campaigns, articles and advertisements in relevant publications to raise awareness for COST activities.
- COST electronic newsletter.
- Contacts with journalists or media to increase online visibility of COST.
- There exists a list of 'multipliers' being used to disseminate information about COST.

The extent of COST's visibility varies in individual countries depending on several factors, more specifically the exposure of particular research communities to COST, the availability of alternative resources to researchers, and – in some countries - awareness raising activities by the COST National Coordinators (CNCs). Obviously, the involvement of national facilitators and Domain Committee members would be crucial to raising awareness about COST and its role in the European R&D system. However, the Panel had difficulties to identify substantial contributions of COST National Coordinators towards raising and promoting participation of new target audiences in COST.

There was much evidence to provide the basis for the following communication-related comments.

- The COST 'appeal' is growing more strongly with 'Near Neighbours' countries;
- There is continued concern about the feedback at Stage 1 of proposal application;

- Greater definition and clarity needs to be communicated regarding Trans-Domain proposals (a tutorial guide perhaps?).

Much emphasis is put on the open nature and internationalisation potential of COST and as COST itself aims for a high level of international inclusiveness, any Communication Strategy should consider how to best strategically target non-European country participants.

Conclusions:

The Panel welcome the efforts towards improving communication with the customer base and raising awareness about COST. Dissemination plan and outreach activities of the COST Office are well received and appreciated. The web site is user-friendly and provides useful information to interested researchers.

The Panel would welcome to see more active involvement of the COST National Coordinators (CNCs) in the communication activities supporting COST.

The communication strategy towards researchers in strategic target countries that are not members of COST – especially the in the near neighbourhood of the EU – deserves further development and implementation.

- **COST - ESF Synergy**

Recommendation 12. The synergy regarding the scientific management and scientific expertise between COST and ESF should be reinforced. (Monfret)

COST and ESF aims and activities overlap in certain aspects, especially regarding their instruments for networking (the ESF-RNP, smaller in size, vs. COST Actions) but also in matters of governance. In the last two years, when considering the possibility to share mechanisms, synergy appears to have been an objective. Various initiatives to further the scientific interactions between COST and ESF are reported, namely, ad-hoc working group meetings, interactions between COST and ESF Committees, joint COST-ESF Forward looks, etc. However, evidence of present impact or success of such initiatives is not apparent to the Panel. Instead of working out matters of possible complementarities regarding strategies and networks, demarcation and discomfort appear to persist.

A proactive approach would be needed to deal with this and a solution found to clarify roles while simultaneously acting cooperatively.

Interactions regarding scientific management and scientific expertise are desirable between the two parties at several different levels:

- Governance: Involving the strategic decision making mechanisms of the two bodies especially as regards their networking activities.

- Operational: To promote and facilitate interaction between the COST Domain Committees and the ESF Scientific Standing Committees and Expert Committees and Boards and, where appropriate, between COST Actions and ESF instruments particularly ESF Research Networking Programmes.
- Administrative: In addition to IT, back office activities need to be aligned as far as possible in order to provide the most efficient service.

In some cases this involves an exchange of information, in others there may be an adoption of good practice from one of the parties and in the remainder it involves the development of new processes or procedures of possible coordination and cooperation.

From the Member States' and Commission's perspective, any body meeting the qualifying conditions could act as the external implementing agent of the COST Grant Agreement. Nevertheless, with ESF becoming the implementing agent for COST the Member States and the Commission also envisaged potential complementarities and synergies between both organizations. As integral elements of the ERA, together they could provide an interface between EU and national funding sources.

The establishment of the "ad-hoc" COST-ESF Working Group "Networking" has the task to study the procedures regarding increasing COST-ESF synergies in the networking and Forward Look activities and to approach questions such as distribution of work and rationalization of the networking instruments.

The *lack* of synergy can also have a strong effect. There are overlapping functions in COST and ESF that in principle have nearly the same customer base; this can lead to "shopping around". Applying multiple forms of public support to the same activities is generally not in the best interest of society and certainly not in line with the ERA objectives. There are other, less general, aspects of lack of synergy in scientific management activities reported at or inferred from the available documents:

- a) Possible lack of communications or perceived incomplete communications with effects on the working atmosphere and leading in some cases to premature resignations of staff.
- b) Concrete problems regarding recruitment.
- c) Regarding scientific and political synergy - currently, it is difficult to find clear evidence indicating a wish for cooperation between the two stakeholders in order to achieve, through their interactions, better results than those that can be obtained separately. Although ESF-COST cooperation is included in the high level discussions, the governing bodies have not yet established a clear (joint) vision about it. The DC Chairs would wish to see more reciprocal invitations/openness on the part of ESF groupings to the relevant COST activities but it is not clear whether this is due to a lack of awareness (an ESF communication point) or something intentional.

In addition to this, practically all the documents evaluating different aspects of COST, or COST as a whole, observe that the governance structure is complex and a possible

source of frustration, overlapping, and consequently, decreases the possibility of real synergy.

Conclusions:

The Panel are convinced of possible synergies regarding scientific expertise and management between COST and ESF. It acknowledges that there were effort towards achieving such synergies, however, to too little impact and success. The Panel encourage the parties towards overcoming the tensions that have developed and take a proactive approach finding pragmatic solutions to the situation and agreeing on the respective roles and tasks in order to ensure the smooth operation of COST till the end of FP7.

For the future, all parties involved CSO, ESF, the Commission and the member states have to cooperate for finding solutions for COST that in general drastically reduce the complexity of the organizational set-up and overload of COST as a whole and that in particular ensure an optimal implementation of COST Actions or the appropriate networking instrument following the model and experience of COST Actions oriented towards the ERA objectives and in well defined complementarity with other ERA instruments.

For the support of decisions about the future of COST, the Panel identified three clearly defined options for COST as a strong independent organization, COST Actions fully taken over by and integrated into ESF, and last but not least COST Actions organised as Coordinated Actions fully integrated into ERA instruments of the Framework Programme.

Recommendation 13. ESF should consider how it will take on board the future constellation of COST and consider how/whether it fits with its core mission within the realisation of ERA. (Monfret)

ESF is led by 79 research funding organizations, research performing organizations and academies of sciences which operate at the national or European level. Its core mission includes the promotion of fundamental research and more recently, it has refocused on science strategy. ESF is researcher-oriented but it also works on research strategies to develop complementary collaborative actions with national and European research organizations. ESF Member organizations and EUROHORCs have a decisive role in defining the ESF Vision and work plan (see: EUROHORCs and ESF Vision on a globally competitive ERA and their Road Map for Actions).

COST is an intergovernmental framework providing the means for individual research projects, funded from national sources, to network. COST defines itself as an entry point to the European research system for a younger generation of researchers and for researchers from Central and Eastern European countries. COST Actions are places where consortia are formed and initiatives are launched that later may submit to FP or to other funding agents supporting collaborative RTD activities.

There is potential for COST and ESF to have valuable complementary missions for the realization of ERA. As a common factor, actions from both bodies help to reduce fragmentation in Europe to the extent that they boost interdisciplinary and transnational networking and collaboration. Their interest in young scientists and the development of their careers also coincide, in the case of ESF by developing a vision on the research career structure for ERA, in the case of COST by supporting meetings, stages and short-term scientific missions that can help young researchers to learn, increase interactions and international collaboration, prepare proposals and enrich their capacities.

COST has mechanisms for building consensus and common understanding across individual networks and between networks organised in Domain Committees. It claims to set new agendas and build communities. ESF “Forward Looks” aim also to define research agendas, however, at the national and European level and from a more strategic perspective.

Given the various subtle differences in vision and mission and the different membership logics between ESF (heterogeneous but selective organizations vs. Member States) related above, and given the supposed lack of approval of certain (not all) COST procedures, one might suppose that ESF taking on board of any future constellation of COST could perhaps imply changes for COST. However, any changes envisaged by ESF should not lessen the ‘added value’ of COST Actions as well as its societal impact, so much emphasized in all the studies (see below Option B, page 54).

Conclusions:

The Panel see as a common factor of COST and ESF that both organizations have ambitions towards boosting transnational and interdisciplinary networking.

ESF is built on its membership of national funding organizations, research organizations and academies of sciences. ESF’s core mission includes the promotion of fundamental research and more recently also science strategy. Amongst its initiatives the Research Networking Programme shows some complementarities with COST activities. ESF is researcher-oriented but it also works on research strategies to develop complementary collaborative actions with national and European funding bodies and research organizations.

COST is an intergovernmental framework governed by the CSO representing the COST member states. The core activities of COST are COST Actions supporting the transnational coordination of nationally funded research projects. Through the Domain Committees communication, interaction, coordination and possibly also cooperation between participating research projects are supported.

In case COST or COST Actions will be taken on board by ESF and ESF members in the future the Panel underline the importance that the specific characteristics of COST Actions and their added value are preserved.

- **Impact**

Recommendation 14. As COST develops, a system of impact indicators for follow-up and measuring should be introduced. (ESR)

Recommendation 15. Launch a comprehensive impact study on the basis of finalised COST Actions including scientific, socio-economic and societal impacts. In order to do this, COST should today prepare a methodological approach, define indicators and collect relevant data to be well prepared to launch such a study for the mid-term evaluation. (Monfret)

Recommendation 16. The mid-term evaluation should be able to rely on a solid and comprehensive impact study in order to appreciate COST efforts. (Monfret)

As all three recommendations (14, 15, 16) relate to each other this section will address all the three together.

A comprehensive impact study was commissioned in 2009 (Technopolis). The introduction and publication of the impact study demonstrates that COST is moving to implement the recommendations. The methodology and the indicators used in the impact study focused on the scientific and social impacts of work carried out in COST Action networks and sought to demonstrate the added value of networking and cooperation to European research. In so far as data has been collected and analysed in respect of the already agreed indicators, the picture emerging is to the positive. One caveat, caused by the methodologies used so far to analyse COST, is the open attribution problem. The outputs produced in COST can only be attributed to COST if they emerge out of the collaboration or as a result of learning taken place in the networks. This is hard to trace, but a co-publication analysis that compares pre-existing patterns with post-COST action patterns would shed some light here.

In addition, COST needs to think more specifically and strategically about the impact it is currently having or can have in the future on (some) ERA objectives, for example:

- Increase European co-ordination and integration of research funding
- Enhance research capacity across Europe
- Develop and sustain excellence and overall quality of European research
- Promote structural change and specialisation towards a more knowledge intensive economy
- Mobilise research to address major societal challenges and contribute to sustainable development

With regard to co-ordination and integration of research funding along the spectrum, from approx 900 pre-proposals, 180 full proposals to approx 60 new COST Actions, all should somehow be integrated into what is happening both nationally and at EU level. This potential and synergy is not being captured in the impact assessment or in the activities of the Domain Committees, for example, in their annual conferences.

Continuous refining of the indicators to capture networking effects will require ongoing attention. As COST is mainly about building (new) network that make a difference, indicators are needed to demonstrate the sustainability of networks and partnerships. If COST is to have an impact in the ERA the network formed via a COST Action, or at least crucial new partnerships out of the network, should in some way 'exist' after the Action is completed. The co-publication analysis hinted at above and further systematic case study works to trace follow up activities are crucial here.

Both the CSS and impact study highlight the diminishing role of industry. In the early COST years, this had been a defining feature of COST Actions and industry's current lower participation could suggest a less optimistic view of the ultimate value of the research being undertaken or a perception that COST Actions have become less application oriented.

Furthermore, COST has the potential through the DC's Annual Progress Conferences to feed into the (still in discussion) pan-European forward-look mechanism being developed by ESF/EUROHORCS on behalf of the Commission, in the context of the Joint Programming initiative. Here we are talking about the detection/collection of 'early weak signals' regarding emerging technologies and societal needs, not about pushing COST into a grand challenge model.

In fully publicly sponsored activities the end-customer is not the scientific community but the citizen/taxpayer. If national funding systems deem projects that may ultimately network through a COST Action worth funding then this should be enough for relevance in the bottom up COST model. Nevertheless, to demonstrate the real impact and added value of COST, a random selection of COST Actions should be analysed in terms of outputs and outcomes (e.g. knowledge used in applications and co-publications of actors in the network) that would not have happened without the COST actions.

The various assessment activities focused on the effect and added value of networking. This goal is important and the results seem to be well-justified. However, in a sound and holistic evaluation of COST a more comprehensive approach to show the added value of COST in general to the building of ERA is needed particularly to answer the question of how COST contributes to reducing fragmentation within the ERA. Such an evaluation would have to analyze the structuring effect for the scientific landscape and the various epistemic communities mobilized, the jointly produced output (as mentioned above), the creation of new opportunity structures for follow up joint action and the complementary effects with more limited networking activities in multi-lateral schemes and with large projects funded in the Framework Programme. This panel report cannot answer these questions, it can, and does, however, assess the strategic role the COST mission and activities play in the landscape of ERA instruments more generally.

The impact assessment report and the customer satisfaction final report include interviews with stakeholders. The reports however do not say anything about how

important COST is seen at the COST member states' science policy and research funding level. The issue is of importance since the member states are facing huge challenges dealing with national science policy priorities (funding and human resources in R&D&I sectors, reforms in university and innovation sectors etc), participation in ERA objectives (new instruments, JP, EIT etc, infrastructure etc) and global competitiveness. The COST member states' science policies have to look at larger initiatives and broader objectives which will definitively mean new priorities being set. This perspective needs to be taken into account in future impact assessments. It was not evident to the Panel that COST itself makes strong efforts towards its member states at the science policy level regarding strategic co-ordination and linkages. From the member states' policy stakeholders' perspective it appears that COST is seen as a minor player on the national/European science and innovation landscape. This view is supported by the statement in the already mentioned report of the European Parliament: "Since the linkage between COST and national policies relies "...*heavily on the position of individual CSO members*", it is considered as ineffective."

Conclusions:

The Panel are satisfied that COST is actively implementing the ESR and Monfret recommendations and that an Impact assessment (IA) study was performed by an external contractor in 2009 (Technopolis) focussing on scientific and social impacts. The result of the IA study is positive. The Panel acknowledges also the work on indicator development but sees still room for further improvement.

The Panel see a problem of attributing outcomes produced in COST only to COST. Therefore, it recommends a co-publication analysis comparing pre-existing patterns with post-COST Action patterns. Such an analysis should also address the question of sustainability of network partnerships.

Furthermore, the Panel recommend studying the impact that COST Actions currently have or could have in the future on ERA objectives. In addition, it suggests that also the position and integration of COST activities in the overall pattern of national and European activities should be captured in future impact assessments.

The Panel identified an interesting possible added value of COST Actions in the area of identifying 'early weak signals' of newly emerging scientific fields or issues. This might contribute and feed into the forward looking mechanisms discussed and developed by ESF and EUROHORCs and also in the frame of Joint Programming initiatives. The Panel found that this aspect of COST Actions has not been utilized by COST and should be considered in the future.

Finally, the Panel missed the impact of COST on COST member states' science and research policies being addressed in the impact assessment study. This aspect of COST is frequently emphasised by COST stakeholders. However, the Panel were not able to find any convincing evidence supporting these claims. Therefore, in future impact assessments this should be an important issue to be addressed.

- **The Panel's general conclusions on the follow up and implementation of the Monfret and ESR recommendations**

Overall, the ESF/COST Office and CSO are proceeding well regarding the implementation of the Monfret and Evaluation Summary Report(s) (ESR) recommendations. In some instances (e.g. final identification of impact indicators, full roll-out of the pay-as-you-go system) delays have occurred but the clear intention on both sides is to move forward to full implementation.

Governance, however, remains an issue and very worryingly, in the Panel's view, the debate regarding the future (legal status) of COST and its implementation arrangements which has been developing both within and between the parties (ESF and COST CSO) has the potential to damage both.

Since the publication of the Monfret report and the recommendation to decide between one of the two organizational options

- COST as independent legal entity, or
- Full integration of COST in ESF,

very specific challenges have arisen, including i.a. tensions regarding the respective ambitions for COST on the part of some COST Member States and the ESF. This has led to a fraught relationship developing between the two parties and there is a real danger that a break-down in understanding of future developments and needs will occur. This in turn has left the COST Office not unaffected and is impacting on staff morale and there has been an increased rate of staff turn-over in the recent past.

- **Recommendation regarding the allocation of additional €40 million**

The Panel advise against any attempt to dismantle the Grant Agreement (GA) between the Commission and ESF before the end of FP7 as this would potentially incur considerable decommissioning costs and have significant disruptive consequences for all parties – ESF, the Commission, the COST Office and not least, the COST Actions themselves as the ESF would have no responsibility for their continuation. The ESF have confirmed that they have no wish to step back from the GA but will cooperate if such a move is initiated by the CSO. Following meetings of the CSO and the JAF Executive Group in March and April 2010 respectively, it would appear that there is an improved likelihood that the Grant Agreement remains in place until the end of FP7. The Panel strongly urge both parties to resolve their difficulties in a pro-active and rational manner and to ensure that the GA remains in place until the end of FP7.

Provided the Grant Agreement remains in place until the end of FP7 and COST and ESF agree to continue their joint efforts regarding synergies and networking, the Panel recommend that the appropriate process be put in place to allocate the additional €40 million reserved in FP7 for COST.

5. Further Development of COST – beyond 2013

It was clear to the Panel that the assessment of progress regarding the implementation of the Monfret and Evaluation Summary Report⁸ recommendations had to be considered in the context of the FP7 timeline (2007 -2013). The second requirement of the COST Mid-Term Evaluation i.e. advice to the Commission regarding the further development of COST, should be considered beyond 2013. Nevertheless, the evidence used to assess the first requirement was useful when it came to considering the second.

When considering the further development of COST, it is important to separate the COST Actions – COST as a ‘networking instrument’ - from the COST ‘organization’. This means also separating the scientific satisfaction with the processes and outputs of COST Actions from the assessment of possible options for the organizational structure supporting COST activities. In respect of the latter, the Panel found the Kneucker Report on the *Legal Status and Governance of COST* (September 2008) and the SWOT Analysis *Options for Implementing COST* prepared by Technopolis (September 2009) very useful for their deliberations.

However, in contrast to Kneucker’s more ‘legally’ oriented approach, for the Panel, the first and foremost question is about the need of a networking instrument for the future development of the European Research Area. Only when there is such a need, the second question can be addressed about possible modern and adequate organizational structures that are well integrated in the overall ERA governance structures and in accordance with the objectives towards creating an integrated ERA. Thus, the present Panel followed an ERA oriented approach.

Consequently, the question of the further development of COST must not be reduced to establishing a legal entity or not but has to be answered in the broad context of ERA objectives, strategies, structures and instruments.

Characterisation of COST currently within the context of the ERA

COST has a long (since 1971) and well respected record bringing together scientists from all fields, in both basic and applied research, and from currently 35 COST member states as well as from an increasing number of countries that are not members of COST. COST Actions are regarded by its users as a simple but effective instrument supporting the bottom-up networking of nationally-funded activities (min. five participating COST countries) on specific research themes (inter alia through financing science management and working group meetings, conferences, short-term scientific missions and outreach activities.) Actions normally take four years and the average annual funding is €100,000 per Action.

In 1971, research activities at European level were not prevalent, the Framework Programme had not yet been conceived and the idea of creating a European Research

⁸ Evaluation Summary Report (ESR) from the panel of experts evaluating the FP7 COST proposal

Area was not an issue. Hence, COST had a pioneering role in grouping European researchers from different countries around a common technical or policy challenge identified by the researchers themselves following a “bottom up” approach. Furthermore, COST’s impact on the European research fabric at that time was important and necessary laying the ground and paving the way for future enhanced European research cooperation. Later it also provided a ‘stepping stone’ for Central and Eastern European countries and potential new member states towards getting integrated into European research activities.

However, in the meantime, more than twenty years of Framework Programmes and ten years of ERA initiatives have considerably changed the European research landscape. Cooperation of researchers in joint, transnational projects developed into a mainstream activity in Europe. At the same time, the EU and Member States recognize the importance of RTD contributing to the sustainable competitiveness of the EU and to tackling grand challenges of the Union. The current approach to internationalisation, through the Strategic Forum on International Cooperation (SFIC), favours more multi-lateral rather than bi-lateral arrangements.

European and national research budgets have increased and the number and scope of policy instruments have grown requiring careful reviews of existing instruments and their specific roles, functions and especially implementing arrangements. All of this needs to be considered in the context of how European and national policies might better support the development of joint funding mechanisms.

As the role of the European Parliament has now changed in the context of the Lisbon Treaty, the view of the EP Committee on Industry, Research and Energy (ITRE) in respect of COST should also be noted⁹: *“Considerations for COST involve: rethinking its value-added in ERA, deciding on its target groups and the wider communities it wants to involve; and, deciding on the geographical scope and the core business of COST.”*

In sum, much of the original rationale for COST has gone, and consolidation of instruments and implementation structures rather than further differentiation is called for. Therefore, it is crucial to take stock of the specific role that COST plays or could play in the new ERA landscape – both as a networking instrument and as a governing structure.

Networking and COST Actions in the European Research Area

Whilst recognising that scientists will always need to network, the future role and impact of COST Actions and COST structures have to be reviewed and adapted to the emerging ERA. Remote research in virtual research environments and other rapid developments in ‘E-science’ are already transforming the prospects for the networking of research activities in the future. Science 2.0 is, according to ERAB, a term already coined by analogy to the social networking methods of Web 2.0 to describe these new developments in science.

⁹ IP/A/ITRE/FWC/2006-087 Coordination between EU Research Framework Programmes and National Research Programmes.

However, results from a workshop with stakeholders organised by the Swedish Presidency in June 2009 and from a CREST meeting in July 2009¹⁰ as well as from the COST Customer Satisfaction Survey and Impact assessment indicate a continuous and consistent need for networking support in Europe. Also the expert Group on the Future of Networks of Excellence arrived at the same conclusion as a side result.

The Panel are convinced that the two main characteristics of instruments such as COST Actions have a role and a value in the ERA

- networking of nationally-funded projects and
- a bottom-up approach to the identification of areas for coordination and possible collaboration.

Whilst ‘networking’ and a ‘bottom-up’ approach are the key distinguishing characteristics of COST Actions, there are also other aspects of COST Actions, valued differently by different stakeholders and users, including inter alia

- the growing focus on Early Stage Researchers and the need to offer international networking experience and responsibilities,
- mobilising human resources through its Early Stage Researchers and Near Neighbours initiatives;
- its scientific scope including pre-normative research, public utility or scientific research and technological development,
- COST’s openness to global co-operation (based on mutual interest), thus providing a – or even the – low cost gateway to ERA for researchers and indeed funders from non EU Member States,
- (often) supporting networking around topics not yet on the policy radar and can therefore be a conduit for early weak signals regarding emerging fields and future societal challenges and/or the means to address them, and in general
- contributing to the Fifth Freedom (free movement of knowledge) offering light administration and a quick response for networking support.

The COST organization in the changed context of European RTD

There is a wide range of stakeholders involved in the COST framework – member country governments represented by the Ministerial Conference and at the CSO, members of Domain Committees nominated by member states, individual scientists and researchers active in COST Actions, the EU Commission and (currently) the ESF – each with different perspectives, goals and expectations. While this is seen by the CSO as one of the strengths of COST, this organizational set-up is certainly also a challenge.

In terms of its organizational character, COST can be seen as the important and most respected “guide fossil” of the evolution of European research cooperation and very

¹⁰ Summary of CREST-meeting on 17th July 2009 and workshop with major stakeholders on 24th June 2009 on ERA Instruments and ERA Governance. Swedish Presidency, July 2009

early ERA instruments. However, the question has to be raised if a scheme with scale and scope similar to COST would today be designed separated from other Community funded ERA instruments as an intergovernmental framework and organised in such a complicated structure, as illustrated in Figure 1, at the end of Chapter 3.

The Panel are not convinced of some of the arguments put forward for the inter-governmental nature of COST in its current shape and form especially given the fact that the COST scheme spends EU Framework Programme money. For example, COST CSO claim as a justification for the inter-governmental framework a role in the development and co-ordination of national research policies and efforts. This claim is not borne out by the evidence presented and the Panel didn't see any evidence of real links between the CSO and national policy makers. Regarding COST Linkages with National Policies, also the EP report concludes¹¹: “*Since the linkage between COST and national policies relies “...heavily on the position of individual CSO members”, it is considered as ineffective.*“

However, linking to national RTD policies would have potential. Given the bottom up nature of COST, the link could not be around the definition of thematic programmes at national level. It could be by virtue of having a well organised networking programme for nationally funded projects which then would be used to support networking programmes of national ministries and make them more targeted, with COST offering a broad, bottom up approach. It could also be used as an early signalling system for upcoming hot topics that need collaboration. A strategic discourse on those latter arguments has some appeal for an intergovernmental approach if CSO were really linked to high level policy making in the national governments.

Finally, an inter-governmental approach would add diversity to the funding structures across Europe and engage the Member State in a different, more committed way to joint action for research networking, complementing other instruments (see table 2). However, for all of this to happen, Member State governments would have to show clear commitment, including guaranteeing for the financial viability of the scheme.

The Panel took note of and considered the discussions within the CSO to establish a COST Office Association (COA) as a legal entity to be potentially assigned with the task of implementing organization in the future. The Panel considered in particular the following specific issues regarding a COA:

- The value/validity of an inter-governmental structure for spending EU money without commitment of substantial national co-funding by COST member states can be questioned.
- Such a structure would increase the fragmentation of EU funded ERA instruments and organizations.
- For such a relatively small value initiative (€30million/year) how can it be justified to have a stand-alone organization?

¹¹ EP report on „Coordination of EU Research Framework Programmes and national research programmes.”, p.27

- As a stand-alone organization the COA would assume not only the rights but also the responsibilities for every aspect of its governance and management.
- Notwithstanding the fact that there are some variations between member states, the Panel note how weakly embedded COST remains in the national research and technology policy frameworks.

Therefore, the Panel in its further deliberations looked for other more preferable options. The Panel organised their considerations, in a first step, by defining the characteristics of an ideal networking instrument building on the model of COST Actions. In a second step, the Panel identified three possible options for the future organization of such a networking instrument in ERA with either strong financial commitment from national funding sources – directly from national governments or via ESF member organizations - or a full integration in the portfolio of EU funded ERA instruments.

A bottom-up networking instrument for nationally funded research projects and options for the future development of COST

The Panel consider that a bottom up networking instrument is an important tool in the portfolio of ERA instruments providing spaces

- for reducing isolation and enhancing communication within the ERA,
- for identifying and achieving complementarities in an ever more specialised research landscape, and
- for building critical mass of common research efforts.

Notwithstanding the multiplicity of policy objectives being pursued for the ERA within the Framework Programme, the Panel strongly agree that there is both the need and the possibility within the European Research Area for a ‘bottom-up networking’ instrument for nationally funded research projects. In that respect, COST has made invaluable contributions over the last almost 40 years and COST Actions can act as model case.

Ideally, what should such a networking instrument do? The Panel identified the following key characteristics:

- ✓ Facilitate the sharing of knowledge;
- ✓ Raise awareness of research in the same areas to facilitate complementarities, catalyse the research process and avoid unnecessary (and costly) duplication such as for example expensive use of infrastructure for the same kinds of analyses;
- ✓ Create synergies through enhanced transparency and communication;
- ✓ Identify complementary competences and activities;
- ✓ Pave the way for new collaborative trans-national projects and initiatives by providing a “laboratory”, “incubator” or “launching platform”;
- ✓ Match what scientists think is needed with societal and industrial needs;
- ✓ Support transnational epistemic communities (structural consequence);

- ✓ Provide a development mechanism for Early Stage Researchers;
- ✓ Identify training needs of researchers;
- ✓ Provide a flexible low-cost entry point for newcomers and for global interaction and participation.

Consistent with a '*form follows function*' approach and taking account of the existing practices and institutional options the Panel identified three possible organizational options for implementing such a 'bottom-up networking' instrument for nationally funded research projects and decided to look at the pros, cons and implications for the European Research Area bearing in mind the following general aspects:

- For the optimisation of the ERA, defragmentation of resources and efforts is essential;
- Critical mass and scale is needed, and
- Consolidation of organizations supporting the development of ERA should be considered wherever appropriate in this context.

The three options are as follows:

- A. COST Actions implemented through a strong Inter-Governmental COST Organization and funded by the COST member states via a common pot;
- B. COST Actions fully integrated into and taken over by ESF and funded by the ESF member organizations, end of inter-governmental approach;
- C. COST Actions integrated as Coordinated Actions into the EU funded ERA instruments under the Framework Programme, end of the inter-governmental approach.

Option A would give COST full independence and a clear profile and brand ensuring the commitment of and links to COST member states. It would re-establish the situation before 1989. In fact, it is difficult to justify why COST still should be funded by the EU twenty years after the political changes of 1989. It would be in line with member states initiatives for joint programmes. It would add to the "intellectual variety" of instruments but not to reducing fragmentation.

Option B would avoid the possible/probable tensions and discrepancies between COST and ESF, ensure the commitment (including financial) of ESF members (rather than COST members), quality evaluation approach, synergies of and complementarity between different networking instruments, structural simplification of funding organizations and a one-stop shop regarding networking instruments. It would mean a small contribution to defragmentation.

Option C would (re-)integrate a networking instrument in FP which is missing anyway since FP6 and FP7. It would not invent a new instrument but just utilise Coordination Actions. It would certainly be a substantial step towards integration and reducing

fragmentation as well as coherence and consistency of ERA instruments and the rules for participation and evaluation.

The outcomes of the Panel’s considerations regarding Pros and Cons of the three options as well as the respective implications for the European Research Area are presented in Table 2 below. The Panel present their findings with the ambition to provide well based and neutral support for the decision making processes of the relevant stakeholders in the period till the end of FP7.

Table 2: Possible organizational arrangements of bottom up networking instrument and implications for the European Research Area

A. COST Actions implemented through a strong Inter-Governmental COST Organization and funded by COST member states

PROs	CONs	Implications for ERA
<ul style="list-style-type: none"> • Strong and visible ‘brand’ for COST • Provide more intellectual variety of research funding organizations • Member States will (have to) ensure substantial financial commitment and demonstrate ‘ownership’ • Potentially better linkage to national policies • Simpler governance structure than current • In-expensive for the European Union • Bi-lateral negotiations better facilitated with certain third countries; “opening up” systematically easier • Clear basis for contractual arrangements • Not an EC instrument; possibly more flexible ‘own’ rules 	<ul style="list-style-type: none"> • Further fragmentation in ERA • Potential lack of coherence and consistency with other ERA instruments in the Framework Programme • Expensive for COST member states Membership a possible financial challenge for some countries • Simpler governance than current but still potentially complex organizational structure and formal procedures 	<ul style="list-style-type: none"> • Real commitment (including financial) from COST member states required • State guarantee required from each COST member state • No or minor funding from Framework Programme (possibly similar to EUREKA for support of the secretariat) • Requires approvals from national Parliaments • Impact on configuration of future EU RTD programme (FP)

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B. COST Actions fully taken over by and integrated into ESF and funded by ESF members

PROs	CONs	Implications for ERA
<ul style="list-style-type: none"> • ‘One-stop shop’ for scientists seeking networking • A certain defragmentation of European funding structures • Uniform procedures within ESF • Access to ESF peer review database and procedures • Improved coherence and co-ordination between different types of networks (COST Actions and ESF Research Networking Programme) • Synergies with other ESF instruments, such as e.g. ‘Early weak signals’ from COST Actions for ESF foresight activities • Rationalisation of committees 	<ul style="list-style-type: none"> • Different cultures to be reconciled (COST legacy vs. ESF experience) • Possible pressure from ESF members towards science focus • Would distance COST Actions from national policy interests unless ESF invites (kind of) CSO as Governing Board for networking instruments • Potential lack of coherence and consistency with other ERA instruments in the Framework Programme • Possibly adding to complexity through heterogeneous membership structure of ESF. 	<ul style="list-style-type: none"> • COST member states and ESF would have to negotiate and agree next steps • End of COST as structure and also possibly as brand • The nature of the organization would be determined by ESF member organizations and not anymore by COST member states • Potential tensions of “COST logic” with interests of ESF member organizations

C. COST Actions integrated as Coordinated Actions into the portfolio of EU funded ERA instruments under the Framework Programme

PROs	CONs	Implications for ERA
<ul style="list-style-type: none"> • Bottom up networking instrument in FP (Coordination Action) 	<ul style="list-style-type: none"> • If efforts towards simplification of FP procedures don’t make 	<ul style="list-style-type: none"> • End of COST (as we know it) as structure and brand

<p>following the model of COST Actions</p> <ul style="list-style-type: none"> • Complete and coherent set of complementary ERA instruments at EU level • Coherent and consistent rules for participation for all ERA instruments • Contribution to rationalisation, transparency of roles and functions of organizations instruments of EU RTD activities 	<p>substantial progress: Possible loss of flexibility and more heavy administrative procedures</p> <ul style="list-style-type: none"> • Simple and light profile of COST lost and possible 'negative association' with the FP • Reduced direct commitment of EU Member States to transnational and potentially more global approaches 	<ul style="list-style-type: none"> • Need for EC ensuring necessary implementing arrangements and capacities (e.g. REA) in the frame of future EU RTD programme (FP) • More clear role and profile of ESF as defined by its member organizations
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6. Acknowledgements

The Panel express their severe thanks to the European Commission officers from Unit B.4 of Directorate General for Research in particular Markku Warras as the deputy head of unit and for Jan-Arne Eilertsen for the excellent support provided in all aspects of this challenging exercise.

The Panel highly appreciated also the excellent communication and support of all interviewees as listed in Annex 3. During its deliberations and discussions, the Panel were impressed by the openness and fairness of all stakeholders involved from COST, ESF and the European Commission indicating the interest and commitment of all involved parties to contribute to finding constructive and viable solutions for the development of COST till the end of FP7 and also for the further development of COST after 2013 in the interest and for the benefit of European research and technological development.

FP7 Mid-term Evaluation of COST
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**MANDATE, SCOPE AND OBJECTIVES OF THE EVALUATION,
EVALUATION QUESTIONS AND THEMES**

MANDATE, SCOPE AND OBJECTIVES OF THE EVALUATION

- **Mandate**

The FP7 Cooperation Specific Programme provides a financial allocation for COST of at least 210 M€ and up to 250 M€, subject to the mid-term evaluation. This financial support is based on a Grant Agreement between the Commission and the European Science Foundation (ESF), the legal entity designated by COST as its implementing agent.

ESF submitted the FP7 COST proposal on 1 April 2007. It was positively evaluated by the Commission, assisted by a panel of experts meeting in Brussels on 18-20 April 2007.

Upon signature of the parties the Grant Agreement entered into force on 2 June 2007. This Grant Agreement will in principle cover the whole duration of FP7. For budgetary/technical reasons the funding of COST is provided on an annual basis, with annual amendments to the Grant Agreement each year. The latest amendment was signed in June 2009 providing an additional EUR 30 million for one further operational year. The next amendment is foreseen to be signed in June 2010.

The mandate of the evaluation panel is to assess the implementation of the Grant Agreement, based on former reviews, hearings with COST stakeholders and written input provided by the Commission, ESF and the COST Office.

The FP7 COST Grant Agreement is one of the biggest in FP7 in terms of Community contribution, and as such there is a need for an evaluation.

- **Scope**

The mid-term evaluation of COST covers the years 2007-2010.

The scope of the evaluation is to assess how the Grant Agreement has been managed and implemented during the first part of FP7, based on the Description of Work (Annex I to the GA).

- **Objectives of the evaluation**

There are two main objectives for the midterm evaluation. The first is to assess how the recommendations in recent reviews have been followed up by COST, especially the FP6 Final Review (Monfret report) and the FP7 Evaluation Summary Report (ESR).

The second objective is to give recommendations for the further development of COST. These recommendations could guide COST itself in the further implementation of the GA, and could also guide the Commission's further work with COST.

Most importantly, based on the outcome of the midterm evaluation, a decision will be made on a possible increase under FP7 of the total budget of COST up to 250 M€.

EVALUATION QUESTIONS AND THEMES

The evaluation Panel will base its work on the findings and recommendations in recent assessments and reviews of COST. The most important documents are the ESR from the panel of experts evaluating the FP7 COST proposal, and the final review of the FP6 contract (Monfret report). These reviews give several recommendations to COST and ESF, as well as recommendations for the management of the Grant Agreement and for the mid-term evaluation. The Panel is requested to address all the recommendations listed below, verbatim from the ESR and the Monfret report, when reference to the source is mentioned:

Scientific and financial management

1. The bottom-up approach has shown to be important and appreciated by the scientific community, a fact that should be stressed and strengthened in the future. (ESR)
2. Adapt procedures and processes in such a way as to maximise the possibility of supporting new areas and new-comers, which are not supported by other programmes and initiatives, consequently using the bottom-up principle. (Monfret)
3. Refocus the – future regular – user survey to not mainly include the current customers and their views on the COST processes but also to have a better insight in the views on COST from the wider scientific community (and thus the non-users and potential users). (Monfret)
4. In the present situation of the increased budget, devolution of management responsibilities and changes in governance, the good standards of science and financial management must be maintained, in particular with the introduction of the Annual Grant Scheme. (Monfret)

5. The FP7 mid-term evaluation should make a specific review of the use of the new COST Action annual Grant Agreements and their impacts on quality monitoring, the speed of payments, the administrative burden to the user community and the overall acceptance of COST. (Monfret)
6. An aspect of the (mid-term) review should be to consider the COST Office staff levels in view of the changes in the COST activities. (Monfret)
7. Clarity and availability of the rules and procedures and their application.

Governance

8. The CSO should focus on the ESF/COST policies and procedures and act as a Member State based high-level advisory body. In this context the CSO should not be involved in the decisions related to individual Actions. (Monfret).
9. Transparency should be improved by reasonable rotation of the domain committee members. (Monfret)
10. Reconsider the nine domain committees and find a structure which maximises the opportunities for multidisciplinary and 'out-of-the-box' research networks. (Monfret)

Communication

11. A high quality Communication Strategy and its actual implementation would enhance the sustainability of COST in the long run. (ESR)

Synergy COST-ESF

12. The synergy regarding the scientific management and scientific expertise between COST and ESF should be reinforced. (Monfret)
13. ESF should consider how it will take on board the future constellation of COST and consider how/whether it fits with its core-mission within the realisation of ERA. (Monfret)

Impact

14. As COST develops, a system of impact indicators for follow-up and measuring should be introduced (ESR)
15. Launch a comprehensive impact study on the basis of finalised COST Actions including scientific, socio-economic and societal impacts. In order to do this, COST should today prepare a methodological approach, define indicators and collect relevant data to be well prepared to launch such a study for the mid-term evaluation. (Monfret)
16. The mid-term evaluation should be able to rely on a solid and comprehensive impact study in order to appreciate the COST effects. (Monfret)

Interviewees

Prof. Francesco Fedi	COST CSO President (by telephone)
John Bartzis, Vice President, GR Chris Reilly, UK Angeles Rodriguez Pena, ES Michel Gorlicki, FR	COST CSO
COST Domain Committee Chairs Dr. Hans Stodkilde- Jorgensen, (DK) Prof Dieter Schinzer, (DE) Prof. Cristina Pronello, (IT) Sylvain Joffre, (FI) Georges Wanet, (BE)	Biomedicine & Molecular Biosciences Chemistry and Molecular Science & Tech. Transport and Urban Development Earth System Sci. & Environmental Mgt. Trans-Domain Proposals
John Watson	COST Customer Satisfaction Survey (member of the Impact Assessment Panel)
Kimmo Peippo	COST Secretariat of the Council
Ian Halliday, President, Governing Council (GC) Marja Makarow, CEO Martin Hynes, GC Member and Chair, Finance & Audit Cmte. Reinhart Ceulemans, Chair, Standing Committee for LEES¹² David Weber, Director, Administration & Finance Marc Heppener, Director, Science & Strategy Development Martin Grabert, Director, COST Office Alfonso Ferreira, Head of Science Operations, COST Office	European Science Foundation
Anneli Pauli, Deputy Director General Jean-David Malo, Head of Unit, B4 (resp. for COST) Michael Sucker, Head of Unit, B5 (Admin & Finance)	Commission DG Research
Erik Arnold, Technopolis	Domain Reviews (4) COST Impact Study COST SWOT Analysis
Prof. Toivo Maimets	Monfret Panel member

¹² Life, Earth and Environmental Sciences

FP7 Mid-term evaluation of COST – background documents for the panel of experts (made available on the CIRCA website in sub folders as identified below)

I Reviews and studies:

- I.1 Bush report (Assessment, 2003)
- I.2 Kneucker report (FP6 mid-term evaluation 2005)
- I.3 Monfret report (FP6 final review 2007)
- I.4 FP7 Evaluation Summary Report, 2007
- I.5 Kneucker report on the legal status of COST, 2008
- I.6 COST Customer satisfaction survey (CSS) 2010
- I.7 Panel report CSS
- I.8 COST impact assessment 2009
- I.9 COST Impact assessment - Appendix
- I.10 SWOT analysis COST –ESF, Technopolis 2009
- I.11 COST Domain review AgriFoodEnv
- I.12 COST Domain review ChemPhys
- I.13 COST Domain review TranspUrb
- I.14 Arnold COST presentation

II COST documents:

- II.1 COST Guidelines, Draft updates March 2010
- II.2 Rules and Procedures for implementing COST Actions, COST 270/07
- II.3 COST CSO meeting conclusions, 3 November 2009
- II.4 COST CSO meeting conclusions, 1-2 December 2009
- II.5 COST ESR (Early Stage Researchers) strategy, COST 295/09
- II.6 COST in the ERA 2020
- II.7 COST outreach strategy
- II.8 Strategy for Cooperation with non-COST countries, COST 220/07
- II.9 COST Strategic Scientific Initiatives, COST 243/08
- II.10 COST Statement on Monfret Report, COST 239/07
- II.11 Response to Monfret report 2010

III Commission – COST documents:

- III.1 COST II - Second periodic report 31.12.2008
- III.2 COST II - 2nd Amendment to the Grant agreement June 2009 (Description of Work)
- III.3 Towards New Partnership COST-Commission, COST 270/04
- III.4 Commission comments on legal status
- III.5 COST II Third periodic report - Draft

IV COST-ESF documents:

- IV.1 COST-ESF MoU, COST 262/02
- IV.2 COST-ESF MoU, Addendum, COST 291/06
- IV.3 Minutes from COST-ESF HLG meeting, 6 May 2009

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- IV.4 Minutes from COST-ESF HLG meeting, 9 November 2009
- IV.5 WG Network minutes
- IV.6 WG Network COST position
- IV.7 WG Network presentation

V ESF documents

- V.1 ESF MTE report
- V.2 ESF MTE Report Annexes
- V.3 ESF/Heppener letter 18 Feb 2010
- V.4 EUROHORC ESF ERA Vision 2010

VI Other documents

- VI.1 Impact of Framework Programmes (draft 18 December 2009)

Table 1: ‘Typology’ of European-level instruments

Funding of Research Activities from the Community Budget	Processes of ‘ERA-optimisation’ of national/regional funding with eventual EU contribution	Soft tools supporting policy development and co-ordination	EU legislation impacting ERA
<p><i>Direct research carried out by the Commission Services themselves</i></p> <ul style="list-style-type: none"> ○ Joint Research Centre 	<p><i>Within the EU framework, development of sectoral/thematic European research agendas and pooling of national and community structures and funding:</i></p> <ul style="list-style-type: none"> ○ ERA-NETs (plus) actions ○ European Technology Platforms ○ Strategic Energy Technology Plan (SET Plan) ○ Article 185 (new treaty) 	<p><i>Information provision/monitoring</i></p> <ul style="list-style-type: none"> ○ ERAWatch ○ STC Key Figures Report ○ Industrial Research Monitoring etc. ○ Innovation Score Board 	<p><i>Legislation related to researchers’ labour market:</i></p> <ul style="list-style-type: none"> ○ Researchers from third countries and migration legislation ○ Intra-EU mobility and social security rules
	<p>Pooling of national funding at project level:</p> <ul style="list-style-type: none"> ○ EUREKA 		
<p><i>Indirect research activities funded by the Commission and carried out externally</i></p> <ul style="list-style-type: none"> ○ Framework Programme (FP7), in particular: <ul style="list-style-type: none"> - Collaborative research projects, - Coordination and Support Actions (CSA), - Marie Curie actions, - Research for the benefits of SMEs; 	<p><i>Member states defining common visions and strategic agendas for research and research infrastructures:</i></p> <ul style="list-style-type: none"> ○ GPC and Joint Programming ○ SFIC ○ ESFRI 	<p><i>Mutual Learning / Peer Review and Benchmarking:</i></p> <ul style="list-style-type: none"> ○ CREST-OMC 	<p><i>Innovation, Competition & Internal market policies: Framework for State Aid to R&I, FP and specific programme legislation. Rules of Procedures etc. Public procurement directives Proposal for Community patent</i></p>

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Table 1 (continued)

<p><i>New types of rationales for Community intervention: FP7 funding of research activities externalised through bodies with strong stakeholder involvement</i></p> <ul style="list-style-type: none"> ○ ERC, JTIs, RSFF 	<p><i>Pooling of national funding - thematic IGROs</i></p> <ul style="list-style-type: none"> ○ EMBO¹³, ESA, CERN, ESO, EMBL, ESRF, ILL 	<p><i>Guidelines based on Good Practice e.g.</i></p> <ul style="list-style-type: none"> ○ Researcher recruitment ○ Knowledge transfer ○ Public Procurement ○ Tax incentives and R&D 	<p><i>Bi-lateral S&T agreements Association instruments (MoUs, Protocols)</i></p>
<p>Co-funding of research activities from Community budget through the Structural funds. Main responsibility at national and/or regional level.</p>	<p><i>Cooperation with a view to co-ordination effects:</i></p> <ul style="list-style-type: none"> - <i>Networking nationally funded research activities:</i> <ul style="list-style-type: none"> ○ COST (funded from FP budget, governed by CSO and implemented by ESF) ○ ESF Research Network Programmes (RNP) ○ ESF EUROCORES - <i>Cooperation of research performers with different level of ambition and modalities</i> <ul style="list-style-type: none"> ○ FP's Networks of Excellence (NoE) ○ Knowledge & Innovation Communities (KIC/EIT) 		<p><i>EU Legal Framework for a European Research Infrastructure (ERI)</i></p>
	<p>EUREKA: orienting national funding for the support of market-oriented industrial R&D projects and clusters</p>		
	<p>Stakeholder dialogues with third countries.</p> <ul style="list-style-type: none"> ○ BILATs and INCO-NETs 		

