

THIRD OPINION OF THE
EXTERNAL ADVISORY GROUP
KEY ACTION SUSTAINABLE MOBILITY AND INTERMODALITY
GROWTH PROGRAMME

INTRODUCTION

1. The External Advisory Group (hereinafter the EAG) of the Key Action “Sustainable Mobility and Intermodality” (Competitive and Sustainable Growth Programme, Fifth Framework Programme) advises the Commission on the strategy for the implementation of the Council Specific Programme Decision¹.
2. The initial Key Action Work Programme and the two subsequent updates have been the main subject for discussion by the Group.
3. This document contains the third opinion of the EAG, which has three objectives: advise the Commission on the second revision of the Work Programme covering 2001 calls for proposals; provide strategic reflection concerning Transport RTD activities; and reflect their considerations concerning the role of the EAG.
4. The EAG met on 25/05/2000, 20/07/2000, and 13/09/2000.

REVISION OF THE WORK PROGRAMME

5. The second revision of the Work Programme defines the strategy and priorities for the next calls for proposals. Normally, these calls would be the last of the programme since they allow committing the remaining budget of the Key Action (85 M€ out of 370 M€: although only 45 M€ was discretionary).

The structure of the Work Programme

6. The strategic objective of the Key Action is to reconcile transport activity with the need to reduce its negative impact on the physical, social and human environment. To achieve it the Key Action develops and implements the objectives of the Common Transport Policy: promoting sustainability, enhancing quality and efficiency and improving safety and security of the transport system. Combining the problem solving and the system approach three strategic areas of research have been identified: socio-economic scenarios for sustainable mobility; infrastructure and their interfaces with transport means; and modal and intermodal transport management systems.
7. After two years the present structure of the Work Programme is considered valid and well understood. Therefore it has been decided that the priorities for the future calls should be integrated in the existing structure.
8. It would be desirable to find a more appropriate timing of the calls. The December call closing in March is well timed, while the June call closing in September runs

¹ Decision 1999/169/EC of 25 January 1999

over the summer period being this considered as a handicap for the proposals quality. A better timing for the June call should be established.

A strong need to identify priorities

9. Due to the policy driven nature of the Key Action, which aims to develop and implement the Common Transport Policy, DG TREN has carried out an internal review to identify the most relevant RTD activities for EU policy-makers and RTD responsables. These activities should match with the Specific Programme decision, the new policy priorities of DG TREN, the emerging result from the Fourth Framework Programme (FP4) and the activities already launched under FP5.
10. The RTD activities resulting from this review have been the starting point for this year's work of the EAG. After receiving detailed information on each of these activities the EAG has established priorities among them and has also clustered some. All were considered to be relevant, but because of budgetary constrains a rigorous prioritisation exercise was needed.
11. The support to GALILEO (Global Navigation Satellite System) and to the CIVITAS (on Clean Urban Transport) initiative is considered high priority since both are closely linked to the Policy Priorities of the Commission and to the major interest of Member States.
12. Galileo is in the middle of its definition phase financed through the dedicated call in June 1999. At the end of the year the Commission has to present to the Council the result of this Definition phase, and normally a decision whether or not to proceed would be taken. Therefore the EAG sees positive the continuation of the support to Galileo, in case of a "go" decision by the Council.
13. CIVITAS initiative being made in parallel with the Green Paper on Clean Urban Transport currently under preparation. The objective of this initiative is to assess the impacts on energy consumption, traffic conditions and pollution in cities of the introduction of radical new sustainable urban transport policy strategies, supported by innovative measures, technologies and infrastructures. These strategies should particularly aim at achieving a shift in modal choice of people who have the option of car use towards alternatives. A combined call between the Growth Programme and the Energy Programme is under preparation.
14. Although CIVITAS was welcomed, the difficulty of its implementation by cities (high political risk) and the very ambitious objective have been discussed. However, the EAG has given full support to the initiative as good example of the type activities the Framework Programme should promote and in particular highlights the co-ordination effort made between the Growth and Energy programmes. It would be desirable to co-ordinate this initiative also with Information Technologies Programme and with Key Action City of Tomorrow.

Priorities for 2001

15. The priorities that should be included in the Work Programme 2001 are the following:

Socio-economic scenarios for sustainable mobility

16. In the area of *tools for decision making* priority should be given to: the completion of the ETIS (European transport policy Information System) with the development of the ETIS agent; the establishment of a European Intermodal Information system for freight transport; support a European Airport System performance observatory.
17. In the area of *transport driving forces* priority should be given to: understanding of the effects of e-commerce and e-life in general on the transport chain, including the analysis of changes in the urban transport patterns and competitiveness of cities; and analysis of the Mobility decision choices towards intermodality.
18. In the area of *policies for Sustainable Mobility* priority should be given to: criteria for the integration of an European Intermodal Network of freight terminals and routes in the TEN-T (Trans-European Network for Transport); the financing of transport investment with particular attention to the situation in the Accession Countries; the institutional issues in transport policy implementation with particular attention to the situation in the Accession Countries; the demonstration of new radical transport policies in Urban Areas (to be included in CIVITAS).

Infrastructures and their interfaces with transport means and systems

19. In the area of *infrastructures development and maintenance* priority should be given to: the improvement of the road/vehicle interaction; and to Intelligent Shipping operation.
20. In the area of *environment* priority should be given to: strategies to influence the road fleet composition; and the environmental integration of road infrastructures into the landscape.
21. In the area of *transport safety* priority should be given to: further development of road safety standards with particular attention to the protection of vulnerable road users; life-cycle safety impact assessment of road planning, design, construction, operation and maintenance; a new approach to railway safety based on risk assessment and cost/benefit evaluation; the development of methodologies to collate flight/operational and human factors data to improve safety trend analysis.
22. In the area of *transport security* priority should be given to the establishment of security/safety procedures for freight intermodal transport operations.
23. In the area of *human factors* priority should be given to strength the professional knowledge of local and regional transport planners.

Modal and intermodal transport management systems

24. In the area of *traffic management systems* priority should be given to: the demonstration of a new approach to timetable planning and slot allocation in the Trans-European Rail Freight Network; and the demonstration of solutions to improved services reliability and data exchange for cross-border freight trains.
25. In the area of *transport and mobility services* priority should be given to: the improvement of the quality and efficiency of the European wagonload services; and the demonstration of new approaches to the distribution of goods in metropolitan areas (to be integrated in CIVITAS).

26. The area of *satellite navigation* is considered a priority in itself and therefore the Key Action should support it.

STRATEGIC REFLECTIONS ON TRANSPORT RTD

27. The EAG has discussed several strategic issues concerning the orientation of the Transport RTD activities. These issues are grouped under four headings: the work programme structure and strategy; the work programme implementation; co-ordination of Transport RTD activities under the Framework Programme; and the dissemination and exploitation strategy.

Work programme structure and strategy

28. The work programme structure is considered to be satisfactory and to be working well. The transition from FP4 modal approach to the system approach in FP5 has caused discussions but it is also bringing cross fertilisation of technologies and solutions between modes.
29. The *top-down approach* for transport policy research is understood and appreciated by the EAG, as it should provide sound basis for supporting policy decision-making. Nevertheless, bottom-up ideas could bring new and good solutions possibly hampered by the present approach. The ideal combination of top-down and bottom-up approach could through a clear problem solving definition of the work programme, leaving more freedom to proposers creativity to address the well-identified problems.
30. The *problem solving approach* is appropriate, considering the need for solutions of present transport problems. But an RTD programme has to look also to the long term, in the case of transport to anticipate and validate policies for the future. In this sense the “problem understanding” approach, should be part of the work programme strategy.
31. The work programme definition requires a substantial effort due to the complexity of identifying and describing the problems addressed by the Key Action.
32. *Modal vs intermodal* approach to Transport RTD has presented the EAG with something of a dilemma. The *transport system approach* should close this futile discussion by widening the view. Transport system should take account of transport demand and other social needs. Transport RTD should aim to generate the knowledge and technologies that may contribute to this end. This means mainly equipping each mode to serve the functions to which they are best suited and facilitating and promoting synergies between modes where this adds real value.
33. The work programme should distinguish between *long term and short term* research. The long-term research needs normally more financial support and closer follow up. Particularly in the case of policy research to guarantee the correct orientation of the activities and the adequate dissemination of the results. The short-term research should be supported and steered by those with a direct interest on the results. Both types of research are necessary for the Key Action but a good distinction would bring better results.
34. The philosophy introduced, by the *European Research Area* communication from the Commission, about networking RTD activities to optimise the European RTD

system, has to be taken into account. It is particularly relevant in the case of development and application of best practices; in this case the top-down approach should be abandoned in favour of a partnership approach with National, Regional and Local research initiatives. The non-technical barriers, which prevent the introduction of research results, should also be addressed.

Work Programme Implementation

35. The EAG considers that DG TREN faces an *under staffed* situation to manage the Transport RTD activities. Policy driven research needs close follow up to ensure the correct guidance of the projects but also for the optimal dissemination of results among policy makers.
36. Focused call for proposals may lead to substantial impacts. Such *targeted actions*, which may integrate tasks from different areas of the work programme, can contribute to a more effective system approach that should deliver actual solutions covering all relevant aspect of the problem tackled.
37. *Targeted action* promoted by the Framework Programme could accept a degree of risk. Research is exploring the borders of the mankind knowledge and success may not be guaranteed. And if success were guaranteed, why should it be supported by public funds?
38. There is also a concern that targeted actions might be overly influenced by short-term political imperatives and that these may throw an initially well-conceived RTD programme seriously out of balance. In this respect it is important to remember that incremental changes are the norm of progress rather than substantial breakthroughs.
39. There is no simple relationship between the *size* of a project and *its potential impact*. Example from the road world: Even small improvements to e.g. pavement maintenance (stemming from incremental research) may have a vast economical impact while e.g. road safety has attracted huge research resources and we still see more than 40.000 killed every year in the EU.
40. However there are some types of research tasks that require a significant level of resources and diversity of skills to be tackled effectively. The challenge here is to get a good match between the nature of the task and the scale and type of resources. Whilst there have been some EU funded projects which have suffered from inadequate resources it is suspected that there are others which have suffered from there being too many parties involved. This raises the issue of size and complexity. To be big does not mean that there have to be lots of agencies involved. When the US DoT commissioned the development of its next generation of transport models it did not go to large consortia of researchers it picked one high quality outfit (Los Alamos) and gave it the (very large) job.
41. The very complex *evaluation process* run by the Commission is valued positively. The five evaluation criteria (scientific excellence, European added value, social impact, economic impact and management) used under FP5 are seen as relevant for the proposal selection process.
42. It is considered, that for this Key Action, which has a top-down oriented work programme serving mainly the Common Transport Policy, the scientific and

technical excellence criteria should receive a higher weight than the others, because the other criteria (EU added value, social impact and economic impact) are strongly reflected in the work programme definition.

43. Considering the large effort that the preparation of a proposal means, the Pre-Proposal Check used so far is appreciated. It may discourage poorly focused proposals, while refining more promising ones. Other two-step approaches to the evaluation process could be analysed in the future.

Co-ordination of Transport RTD activities under the Framework Programme

44. This issue has been present in all the EAG discussions since the beginning of FP5. The spread location of Transport RTD in FP5 has been a recurrent concern.
45. It is desirable in future to take steps to better integrate the management of Transport RTD activities from definition through to implementation.
46. Further interaction between the others three or more EAGs (those on Information society Technologies, City of Tomorrow, Energy, Land Transport and Marine Technologies and Aeronautics) dealing with transport RTD would contribute to this end.
47. In the future the creation of a single Thematic Programme for all transport RTD activities would avoid the present difficulties and may also provide the opportunity for a complete transport system approach.

Dissemination and exploitation strategy

48. In the case of policy research, making the results available and accessible to all potentials users is as important as the research itself. Therefore a strong, well-organised and continued dissemination strategy should receive the first priority. Being this fundamental for all Member States, it could be even more so for Accession Countries, in which a deep social and economical transformation is taken place and the decision making process is critical.
49. The users of the transport policy research are decision-makers in the administration and in the industry, and researchers.
50. The decision making process in a very competitive world needs a good scientific foundation. The outcomes of the research have to be presented to decision-makers in a way suited to their needs, highlighting the benefits and helping them in the implementation of new solutions.
51. The availability and accessibility of project results are also fundamental to achieve an effective knowledge generation system through the Key Action. It is essential, when making a proposal or assessing milestone of project, to have the best information about the ultimate output from other project in the same area.
52. Further involvement of the users in the complete research process would come from a strong and effective dissemination, which may present useful results.
53. The opportunities offered by *Internet technologies*, as knowledge information system, should be fully exploited. The possibility of giving access, both to on going and finished projects, could optimise substantially the whole research process. Nevertheless, the *printed reports* are highly appreciated since the degree

of use of these technologies among decision-makers is low, and even more in the Accession Countries.

54. The co-operation with National, Regional and Local authorities, as advocated by the *European Research Area*, could increase the efficiency and effectiveness of the dissemination.
55. The Transport Research Conference hold in Lille in November 1999 is deemed as good practices. But continuity of this type of events is essential to achieve the necessary effectiveness. Conferences and workshops addressing both decision-makers and researchers could serve the objective of attracting user in the research arena.
56. The creation of the *ETRF (European Transport Research Forum)* is perceived very positively by the EAG. The Commission should support the initial steps of such initiative till it may become self-standing. The ETRF could very well cover the gaps between decision-makers and researchers and between EU and National Transport RTD Programmes. It could also contribute to an efficient dissemination of project results.
57. The ETRF as well as providing a tailor made opportunity for the dissemination of FP results it will allow the Commission and other agencies with an interest in transport research to better understand what is going on and where the best work is being done. It would provide an opportunity for European researchers to improve contacts and communication optimising the state of the art definition and should avoid the present situation where European researchers present their RTD results in the TRB (Transport Research Board in the United States). The experience of the EAG members who attended TRB Annual Meetings shows that it is valuable and that a European event of similar character would be positive.
58. The ETRF is an effective way to implement the European Research Area in the Transport domain.

ROLE OF THE EXTERNAL ADVISORY GROUP

59. The creation of EAG to give advice to the Programmes in FP5 is appreciated.
60. Strategically and from a management point of view, the separation between the definition of activities and their implementation should deliver positive results. Nevertheless, the EAG feels that greater split; giving to the EAG a more active role in identifying research areas would be necessary. At the same time it is recognised that due to the policy orientation of the Key Action and the top-down approach it is difficult to achieve a totally split situation.
61. Increasing the involvement of end users of the transport system in the EAG, as recommended by the Growth 5-Year assessment panel report, is considered rather complex and probably not necessary. What is felt important is the involvement of users of the research. Nevertheless, the limited number of members of the EAG in combination with the wide variety of users of the transport research creates a difficult dilemma when defining the profiles for the membership of the EAG.
62. On the other hand the problems of the transport system users can be well channelled into the EAG through intermediate actors with a deep knowledge on

transport and probably better placed to translate into research relevant to the transport problems.

63. Distinction has to be made between the problem of the involvement of users in the EAG and the agreed and subscribed principle of involving users in projects. At project level, it is critical since they have to define the requirements associated to the targeted objectives, they have to validate their findings and they have to integrate the results into the transport system.
64. Nevertheless, it is considered important to come to a common understanding on what is usually described as users and what should be their role in the different phases of the research process.
65. It would be necessary for the orientation of future Transport RTD activities to receive feed back from on-going projects, particularly concerning achievements.
66. Due to the wide spectrum covered by the Key Action, the EAG could identify some tasks to entrust to subgroups of the EAG and therefore work more efficiently. These groups could establish virtual working methods.