



PEOPLE

7FRDP Specific Programme

ECTRI INPUT



14 June 2005

REPORT ECTRI number 2005-03

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This paper is complementary to ECTRI's previous « ECTRI 7FRDP input » paper (dated 12 November 2004) and its statement of 29 June 2004 regarding EC COM (2004) 353 final.

It is aimed at providing additional inputs to the preparation of the following specific programmes a planned in the EC 7FRDP proposal COM (2005) 119 final (6 April 2005).

- PEOPLE

The structure of the paper follows that of the final bullets of COM (2005) 119 final bullets; it addresses some issues raised from the point of view of surface transport research.

It is one of a series of inputs for the 4 following 7FRDP specific programmes

- COOPERATION – ECTRI report 2005-02
- PEOPLE – ECTRI report 2005-03
- CAPACITIES – ECTRI report 2005-04
- IDEAS – ECTRI report 2005-05

REMINDER

Objective:

Strengthening, quantitatively and qualitatively, the human potential in research and technology in Europe, by stimulating people to enter into the researcher's profession, encouraging European researchers to stay in Europe, and attracting to Europe researchers from the entire world, making Europe more attractive to the best researchers. This will be done by putting into place a coherent set of "Marie Curie" actions, addressing researchers at all stages of their careers, from initial research to training to life- long and career development.

Rationale:

Abundant and highly trained qualified researchers are a necessary condition to advance science and to underpin innovation, but also an important factor to attract and sustain investments in research by public and private entities. Against the background of growing competition at the world level, the development of an open European labour market for researchers and the diversification of skills and career paths of researchers are crucial to support a beneficial circulation of researchers and their knowledge, both within Europe and in a global setting.

Mobility, both trans-national and intersectoral, including stimulating industrial participation and the opening of research and academic positions on a European scale, is a key component of the European Research Area and indispensable to increase European capacities and performances in research.

Source EC document COM (2005) 119 final

I – Initial training of researchers

ECTRI's first concern is the need to fund activities at a European level in order to prepare and train the next generation of surface transport scientists and professionals. There are two issues specific to the domain of surface transport research in Europe:

- A large number of current transport research scientists will be retiring in the next few years, their recruitment having been made in the early 1970s notably through the OECD, ECMT and NATO (or COMECON) programmes as well as national programmes.
- In some transport domains, e.g. guided transport, the need for a shift from professional knowledge to scientific knowledge as a basis for operation, rules and standards and safety is crucial.

All the activities of the Marie Curie programme and its sub programmes can address this problem, in both public and private areas, with transfer of knowledge organised around focussed scientific knowledge developed through simulation, observation and experiment. This programme must be given particular importance and weight in the overall effort.

It is important to note the role of academic research that is focussed on the specific needs of industry, government or academia itself, because the assembly of multidisciplinary, interdisciplinary and systemic or holistic scientific knowledge is critical to competitiveness and public governance.

However, it is crucial that training actions are accompanied by accreditation actions on Pan-European scale, especially on vocational training, in order to promote a common European scientific level and support the mobility of workers across Europe.

Marie Curie trans-national networks

There is a need to create some Marie Curie trans-national networks.

An issue for a good European governance for Science and Technology in the field of surface transport research is the preparation of the next generation of scientists and professionals educated or trained by or through research: *this is a requirement applying to all transport research stakeholders.*

In addition to the general needs for all scientific domains, as noted above there are 2 issues specific to surface transport research in Europe:

- A large number of current scientists will be retiring in the next few years, their recruitment having been made in the early 1970s notably through the OECD, ECMT and NATO (or COMECON) programmes and national programmes.
- In some transport domains, as in guided transport, the need for a shift from professional knowledge to scientific knowledge as a basis for operation, rules and standards and safety is crucial.

That is to say that it is crucial for the surface transport research community (industry, universities, research institutes, governmental agencies, ...) to have access to Marie Curie Programme activities dealing with young researchers, host or individual driver activities, or through the Marie Curie program (ie EST, RTN,...). to develop harmonised (not necessarily common) curricula of European PhDs or Masters in line with need.

In the domain of transport research, there is a strong need to network the researchers; this could be achieved by, for instance the creation of PhD and post-doctorates networks.

Early stage researchers

ECTRI believes that European scientific excellence at the international level in the field of surface transport related research requires:

- A structure of research supply by suitable instruments.
- An enhancement of the transfer of knowledge and know-how towards the NMS, AC and WBC transport research community.
- An enhancement of governance and management of research entities.
- An enhancement of the quality of process and procedures to provide research.
- An enhancement of the infrastructure research that is facing competition from abroad in both
 - o hard facilities or platforms
 - o soft research infrastructure :
 - *data bases for research and/or policy making*
 - *libraries and electronic access to knowledge environments.*
- A scientific training program to accelerate the allocation of human resources towards these specific scientific needs.

It is necessary to have in the surface transport related research domain access to some parts of the Marie Curie programme that are in line with this requirement such as:

- RTN
- Events
- host driven activities (exchange of researchers and/or post-doctorates)

It is desirable to clearly make the research infrastructure programme available to the transport research domain – a large part of the competitiveness of governance and industry is linked to the international quality of these research infrastructures, both hard and soft.

This also points to the need to retain the availability of the Network of Excellence instrument for transport research, and also to have the ERANET instrument oriented to the supply side of transport research.

In fact, the evolution of a research program towards a traceability of the various roles of programme authorities points also to the need for a light integration of research providers: ie funding bodies, research providers, research stakeholders, research buyers, research regulators and/or research evaluators.

ECTRI believes that all these research process oriented activities are not only relevant for public bodies but are also relevant to private bodies (both profit and non-profit making).

Some researchers have the possibility, during their studies, to visit some other research institutes with the aim to learn about other disciplinary and multidisciplinary cultures in Europe

ECTRI has already worked on networking activities for Young Researchers by organizing Young Researchers Seminars with the aims of:

- networking young transport researchers
- training young researchers, through tutorials and through feedback to design, prepare and present written and oral scientific communications.

The conference is thus not only aimed at scientific quality, but also at, the expression of ideas, their organisation and their presentation.

This part seems to bring together the mobility and training part of 6FRDP NoE and RTN 6FRDP Marie Curie including ToK events.

II – Life-long training and career development

Individual fellowship (experienced researchers)

There is a need of mobility for senior and confirmed researchers in the transport related research domain.

III – Industry-academia pathways and partnerships

This part is particularly relevant for transport problems, both between universities and research institutes and industry, suppliers and operators.

That is of particularly importance, if EU is willing to keep excellent industrial research centres in Europe linked to strong academic focussed research centre of excellence such as automotive, rail, ship building and their 1st to 3rd tier suppliers or transport operators.

IV – The international dimension

Attraction of talents / fellowship incoming, outgoing

International mobility is very important for transport first by welcoming foreigners, by sending people abroad and, in turn, by attracting European talent from other big knowledge society reservoirs.

In particular, ECTRI is ready to work at least with scientists with from neighbouring countries, WBC countries and Mediterranean countries.

V – Specific actions (genuine European labour market for researchers)

ECTRI supports this type of specific action in order to have clever, smart and fair competition and cooperation and to create the genuine European labour market of the European Research Area. The European Charter for Researchers is a good basis for such activities as the scientific waiver visa. But there are specific needs to be taken into account around the mobility of scientists, as generally speaking the need to organize concurrently the mobility of another high educated people and eventual kids.

Specific actions should target accreditation and pan-European training curricula related issues.