



EUROPEAN TRANSPORT RESEARCH ALLIANCE – ETRA
(www.etralliance.eu)

STATEMENT OF PURPOSE AND VISION

BRUSSELS, JANUARY 2013

Executive Summary

The *European Transport Research Alliance (ETRA)* is an Organisation that has been formed by its partners – themselves well known Associations of European Transport research Organisations - as the result of a process of strengthening the cooperation between the various European transport research providers that started with the “Lyon Declaration” signed in 2008. The key vision of ETRA is the materialisation of the *European Research Area- ERA* in the field of Transport (ERA-T) as an “open space” for knowledge and growth in the field of Transport - an area where researchers, infrastructures, technologies, and knowledge circulate freely and are available to all.

The strategic objective of ETRA is to: *“work towards promoting further cooperation, coordination of activities, and common focus in European transport research provision, as part of the process and in full alignment with the objectives of creating the European Research Area in the field of Transport”*. A number of other, more detailed, objectives are defined in the *ETRA statement of purpose and vision* document which fully reflect the Terms of Reference of ETRA.

The priorities set by the *Alliance*, for work in the short to medium term future, have been set as follows¹:

- *Facilitating the development of world class research Infrastructures (RI) in the transport field.*
- *Facilitating the improvement of human skills and competences in transport research.*
- *Creating effective knowledge-sharing mechanisms and practices among policy makers, public and private research funders and between them and the society.*
- *Promoting the creation of world-class transport research institutions with world class scientific excellence, skills, competences, and key enabling technologies.*
- *Supporting and facilitating International (i.e. world) cooperation in transport research.*
- *Liaising with the EU Commission on strategic issues related to the promotion of the ERA-T and providing inputs and position texts based on the common views of the Alliance Partners.*

The execution of ETRA’ s work programme and activities rely on the contribution of the Alliance Partners, and their members. Details of the ETRA planned activities are shown in the *ETRA 4-year activity plan* as well as on the ETRA site: www.etralliance.eu .

¹ A more detailed account of the future ETRA activities is given in ETRA’ s *4-year activity plan* document.

MAIN REPORT

1 Background, scope and rationale of ETRA

The *European Transport Research Alliance – ETRA* has been created, on September 20th 2012, following a 4 year process of interaction, discussion, and maturing of the idea, that started with the *Lyon Declaration* on December 11, 2008. This declaration was signed by seven signatory Organisations (ECTRI, FEHRL, FERSI, ISN, HUMANIST, NEARCTIS, EURNEX) in an event organised in the frame of the EU French Presidency in Lyon, France. The Lyon Declaration provided the basis for a number of later actions and activities which aimed at further developing world-leading scientific and technical excellence in Europe through coordination and cooperative actions at European level and interface them at global level through existing and new partnerships.

Furthermore, it defined a number of 22 “lines of action and contributions” to the ERA 2020 governance, which can be summarised in the following areas:

- adhering to the *Fifth Freedom*² as regards human resources in the field of transport research, including gender equality,
- quality of research infrastructures ,
- open access to knowledge ,
- open trans-national physical or virtual networks ,
- autonomy of research organisations,
- education and training of the young researchers (Transport PhDs,)
- evaluation and joint programming,
- international cooperation,
- proper content (of transport research),
- improving transport research capacities,
- Improving – networking of transport research institutions.

Following the Lyon Declaration and in order to work and analyse in a more organized and systematic way the state of the *European Research Area (ERA)* in the transport domain, and to achieving the ERA objectives in order to address the Grand Challenges, the EU funded the strategic project *DETRA - Developing the European Transport Research Alliance*³. The partners of this project were the five transport research organisations that are the founding partners of *ETRA*⁴. These partners thus

² *Fifth Freedom – the provision of skills for attractive careers.*

³ DETRA European project funded under 7th FP (Grant n°266051) <http://detra.fehrl.org/> coordinated by FEHRL.

⁴ ETRA founding partners (Alphabetically): ECTRI (European Conference of Transport Research Institutes), EURNEX (the European rail Research Network of Excellence), FEHRL (Forum of European National Highway

committed themselves to work together on the deepening of the ERA objectives in transport, in order to address the *Grand Challenges* and to promote the European Research Area (ERA) development within the transport domain⁵.

From this commitment, the rationale grew that a new independent and horizontal – cross cutting sort of approach was needed focussing in strengthening the cooperation between the various European transport research providers and promoting a more effective response to meeting the *Grand Challenges* in the Transport domain in Europe. This view created the need for the *European Transport Research Alliance (ETRA)*.

In due consequence of the above rationale, the main area of activation (scope) of the *ETRA*, has been defined as the transport research provision (i.e. human skills and competences, research infrastructures, as well as research Organisations and their Networking) within the European Union and its Member States. However, since the EU closely cooperates, and aligns its policies with the rest of the countries in the European continent, the true scope and extent of *ETRA*'s activities are all countries of Europe irrespective of whether they are members of the EU or not.

2 Building the European Research Area - ERA

As Europe strives to develop its vision and effective governance, of the *European Research Area (ERA)*, policies and initiatives have focused (at National and EU level) to promote coherence and synergy in creating a globally competitive, knowledge-

Research Laboratories), **FERSI** (Forum of European Road Safety Institutes), and **HUMANIST** (the Human centered design Network for Information Society Technologies).

⁵ For the non familiar with these notions readers it is noted that the **Europe 2020** strategy, out forward by the EU in 2010 aims to turn *the EU into a smart, sustainable and inclusive economy*, delivering high levels of employment, productivity and social cohesion and facing the so called *grand challenges* facing European societies defined in general as: “global warming, tightening supplies of energy, water and food, ageing societies, public health, pandemics and security” (see: EU Commission Communication, “**EUROPE 2020. A strategy for smart, sustainable and inclusive growth**”, COM(2010) 2020, 3.3.2010). This strategy defined seven flagship initiatives: • Innovation Union / • Youth on the move / • A digital agenda for Europe / • Resource efficient Europe / • An industrial policy for the globalisation era / • An agenda for new skills and jobs / • European platform against poverty. The *Horizon 2020* programme which belongs to the first of the above initiatives defines as part of its research and innovation production activities the so called “grand challenges” research stream, which consists of 8 sub-themes (challenges):

1. Health, demographic change and well-being;
2. European Bio-economy Challenges: Food security, sustainable agriculture and forestry,
3. Marine and maritime and inland water research;
4. Secure, clean and efficient energy;
5. **Smart, green and integrated transport;**
6. Climate action, resource efficiency and raw materials;
7. Europe in a changing world - Inclusive, innovative and reflective societies;
8. Secure societies - Protecting freedom and security of Europe and its citizens.

based and innovative Europe. The long-term vision for ERA is based on the so called “Lisbon strategy” to make Europe a: “leading knowledge economy and society based on the “knowledge triangle” of: research, innovation and education, as major drivers of competitiveness and quality of life”. The process in reaching the ERA, is known as the *Ljubljana process*⁶. The vision of a genuine single European Research Area⁷ has been highlighted there, as an “open space for knowledge and growth”, and featuring (among others):

- ✓ Full and unimpeded mobility of researchers,
- ✓ Provision of attractive careers for them, enabled by the ‘fifth freedom’,
- ✓ Modern universities and research Organisations ensuring global excellence,
- ✓ Researcher- and enterprise-friendly research environment, including SMEs enjoying conditions favourable to investing in research and exploiting its results, having access to world-class research infrastructures, participating in open and well-coordinated research programmes, sharing and using knowledge across sectors and borders, and developing strong links and coordinated cooperation with partners outside Europe,
- ✓ Citizens benefiting from the contribution of large-scale R&D efforts to solve major societal challenges,
- ✓ Involvement of all stakeholders including regional authorities, universities and research Organisations, civil society and business which should be fully associated with ERA governance,
- ✓ Long-term partnership between the Member States and the Commission involving relevant Community, national and joint ERA initiatives. From the early phases of planning of initiatives to their implementation, monitoring and evaluation, the partnership should be taking into consideration the roles and prerogatives of EU institutions and the principle of subsidiarity,
- ✓ A well coordinated strategy for international cooperation in the area of science and technology.

To achieve this vision, five *ERA initiatives* have been established⁸ and are being promoted for full materialization through an effective ERA governance being established at an operational level and based on partnership between the Member States and the European Commission. The five ERA initiatives are:

- *MORE EFFECTIVE NATIONAL RESEARCH SYSTEMS*, through more investment and promoting of national competition,
- *OPTIMAL TRANSNATIONAL CO-OPERATION AND COMPETITION*, based on common research agendas on grand challenges and infrastructures,

⁶ COM(2007) 161 final Green Paper The European Research Area: New Perspectives.

⁷ EC Green Paper The European Research Area: New Perspectives, COM(2007) 161 final

⁸ EC Communication on ERA framework, Brussels, 17.7.2012 COM(2012) 392 final

- *AN OPEN LABOUR MARKET FOR RESEARCHERS*, which facilitates mobility, supports training, and ensuring attractive careers,
- *GENDER EQUALITY AND GENDER MAINSTREAMING IN RESEARCH* by encouraging gender diversity to foster science excellence and relevance, and
- *OPTIMAL CIRCULATION, ACCESS TO AND TRANSFER OF SCIENTIFIC KNOWLEDGE* to guarantee access to and uptake of knowledge by all.

3 The ETRA vision: building the ERA in Transport

The key vision of ETRA is to help and support the materialisation of the ERA and the ERA initiatives in the field of Transport (i.e. the full realisation of the ERA-T).

The Alliance sees this materialisation of ERA-T as the equivalent of creating a European "internal market" for transport research, i.e. an area where researchers, infrastructures, technologies, and knowledge circulate freely and are available to all.

Effective pan-European coordination of research activities, programmes, and policies at European, National and regional level is a necessary condition for achieving the ERA-T.

4 Strategic ETRA objectives

The strategic objective of ETRA is, to:

“work towards promoting further cooperation, coordination of activities, and common focus in European transport research provision, as part of the process and in full alignment with the objectives of creating the European Research Area in the field of Transport”.

The Alliance has defined also a number of other, more detailed, objectives which complement the above main one, creating a momentum for cooperation and providing value added to its partners. These, more detailed objectives, have been defined in the Terms of Reference signed by the founding members of ETRA , as follows:

- a. Providing a structure for the interchange of knowledge and making joint efforts to foster research results through to their full implementation,
- b. Promoting the setting of joint transport research priorities and coordinating research programmes and initiatives,
- c. Promoting cooperation in all relevant areas and, where possible, developing cross-modal and interdisciplinary joint research activities (including JRIs),

- d. Preparing common position papers (e.g. SRA, road maps) on key transport related issues for added value to the transport users and the community as a whole,
- e. Joint strengthening of the European research expertise, research infrastructures and mobility of researchers through specific joint actions and initiatives,
- f. Promoting the uptake of European transport expertise and innovation internationally,
- g. Supporting the continued development of TRA as the major European and international conference bringing together all stakeholders in the sector,
- h. Other related initiatives as necessary (especially with regard to facilitating the cooperation and more resource efficient functioning of its partner Associations in their quest to provide their planned services to their members).

In fulfilling the above objectives and providing added value in the ways mentioned above, the ETRA is always complementing the work of the Alliance partner Associations.

5 Statement of purpose and priorities

In the spirit of its stated vision, ETRA has been created in order to help its partners to achieve a more coordinated European Transport Research space, and get effectively integrated in the developing European Research Area in the field of Transport. Its purpose therefore can be stated as to:

“facilitate the process of developing the European Research Area in the field of Transport for the benefit, and on account of, the Alliance partners and in doing so to provide value added that can only be achieved through joint and coordinated actions involving all or most of the partners”.

In relation to its above purpose and in providing such value added, the ETRA’s purpose and scope of activities can be defined in more detail as:

- a. Facilitating the *free and unimpeded flow of competent transport researchers* and achieving high levels of mobility between institutions, disciplines, sectors and countries (this has also been long recognised by the *Alliance* partners as a key desirable objective).
- b. Facilitating the development of European *world-class research infrastructures* in the field of Transport that are integrated, networked and accessible to research teams from across Europe and the world.
- c. Facilitating the development of global *“networked” research institutions and communities* in the Transport sector that include engagement with effective

public-private cooperation and partnerships able to participate fully and contribute to ERA-T proper functioning.

- d. Developing *effective knowledge-sharing mechanisms and practices* between policy makers, public and private research, industry and society towards developing a fully integrated and multimodal Transport system and achieving a fully integrated and cross-disciplinary European transport research establishment to support it.
- e. Promoting *International cooperation* as a core concept for the ERA-T i.e. the opening of the ERA-T to the world for raising the level of scientific expertise, addressing global challenges and creating a more dynamic and competitive European transport sector at global level.
- f. Finally, promoting *well-coordinated and funded research programmes and priorities in the Transport sector*, at European level and internationally, including jointly-programmed public transport research at European level, in order to solve not only technical problems and develop new technologies but also to face the evolving new priorities in meeting the *grand societal challenges*⁹, achieve coordinated research implementation and joint evaluation, and other important horizontal issues. Examples of “horizontal” research priorities that ETRA will try to promote, for more “societal value added” and which have been largely sidestepped in the past, are:
 - i. Reduce the climate, air quality and noise impacts of transport;
 - ii. Make transport infrastructure and transport systems more resilient to a changing climate;
 - iii. Reduce energy consumption in the transport system and increase the security of supply;
 - iv. Reduce transport system impacts on ground water supplies;
 - v. Consider transport in the context of land-use planning;
 - vi. Increase the effectiveness of transport necessary for food production (including in developing countries) and improve transport logistics to reduce food waste;
 - vii. Improving safety and security, reducing traffic accidents fatalities and injuries;
 - viii. Adapt transport and mobility systems for an ageing population;
 - ix. Shape and maintain a transport system that reflects the needs of developing globalisation and help European transport system stakeholders to adapt accordingly.

⁹ As mentioned before these *Challenges* include climate change, energy, water and food, public health, ageing societies and globalisation.

The ETRA will work in full synergy with its partner Associations. The essence of its creation and activities will not be towards creating and promoting totally new activities but rather towards forming the platform where existing ERA relevant activities from the Alliance partners are brought together and conducted in common. In doing so the ETRA will also try to promote a more efficient use of the resources spent by the Alliance partners – and promote feasible and practical ways of creating value while minimising or rationalizing their required operational resources (e.g. by the possible pooling of such resources).

Building on the above, as well as on the wider vision, scope and rationale of the *Alliance*, we can state that all the activities that fall within ETRA' s scope of purpose will be promoted to the best possible extent within the frame of functioning of the ETRA. More specifically, and especially in this initial stage of ETRA' s development, a number of priorities have to be defined for ETRA' s work in the immediate future, and these are the following:

- Facilitating the development of world class research Infrastructures (RI) in the transport field. Such infrastructures include the:

- ✓ “Hard” research infrastructures such as civil engineering laboratories facilities, large scale transport research infrastructures, and similar.
- ✓ “Networks” of electronic communication infrastructures that will link geographically dispersed facilities with each other and with researchers, and
- ✓ “Soft” infrastructures based on databases and libraries.

The particular role of the Alliance in respect to RIs is envisaged as:

- promoting harmonisation of technical requirements;
- promoting common use and utilisation of RIs by the European and world research community;
- facilitating the development of new RIs e.g. for addressing the new emerging global issues¹⁰;
- improving the coordination of management and means of access to RIs by the European and world research community;
- reducing fragmentation.

- Facilitating the improvement of human skills and competences in transport research. This would include a number of actions such as further supporting the mobility of transport researchers, the facilitation of job finding

¹⁰ Related to, for example, climate change adaptation, etc.

in transport research “without borders”, training and education actions, and so on. A more detailed account of expected activities in this respect is given in ETRA’ s 4-year activity plan.

- **Creating effective knowledge-sharing mechanisms and practices among policy makers, public and private research funders and between them and the society.**

The information dissemination and knowledge sharing among all relevant stakeholders is the condition sine qua non for the materialization of the ERA-T through better understanding and increased cooperation among the transport research community but also among this community and the society.

- Strengthening the ETRA Alliance Partners in **promoting the creation of world-class research institutions** with world class scientific excellence, by fostering provisions for skills, competences, and key enabling technologies (for a more competitive industrial base) and promoting the development of cross-cutting Joint Research Initiatives (JRI), Joint Technology Initiatives (JTI) and Supportive Actions in the Transport field.

- **Supporting and facilitating International (i.e. world) cooperation in transport research** through contacting major international transport research Organisations and Associations across the globe and promoting common actions and cooperation on behalf of, and in coordination with, the ETRA partner Organisations. Examples of actions in that respect could be organizing scanning tours, common workshops and Conferences, MoUs on specific issues, creation of common structures for international research cooperative work, etc.

- **Liaising with the Commission on strategic issues** related to the promotion of the ERA-T and providing inputs and position texts based on the common views of the Alliance Partners. In general, promoting the principles of the Lyon declaration and the present *ETRA purpose and vision document* towards the appropriate Commission levels as well as National Governments as necessary.

The execution of ETRA’ s work programme and activities will rely on the contribution of the Alliance Partners, and their members, on a purely voluntary basis. The Alliance aspires to infuse the necessary incentives and justification for this voluntary work on the basis of demonstrating the benefits that will be achieved to all, in the short and long term from a closer cooperation, focus, and coordination of activities along the lines described in this document and the *ETRA 4-year activity plan* which accompanies it.