



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

4-YEAR ACTIVITY PLAN 2013 - 2016

BRUSSELS, JANUARY 2013

Introduction and priorities

According to the *statement of purpose and vision* of ETRA, the priorities set by the Alliance, for work in the short to medium term future, were:

- A. *Facilitating the development of world class research Infrastructures (RI) in the transport field.*
- B. *Facilitating the improvement of human skills and competences in transport research.*
- C. *Creating effective knowledge-sharing mechanisms and practices among policy makers, public and private research funders and between them and the society.*
- D. *Promoting the creation of world-class transport research institutions with world class scientific excellence, skills, competences, and key enabling technologies.*
- E. *Supporting and facilitating International (i.e. world) cooperation in transport research.*
- F. *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.*

Accordingly, the means by which the *Alliance* will strive to fulfil these priorities were delineated as:

- a. Providing a “platform of interaction and consensus building” between the Alliance partners in key issues and activities and facilitating their interaction. In other words provide the ground where existing ERA relevant activities from the Alliance partners are brought together and conducted in a coordinated way.
- b. Helping to bring closer, and facilitate more the interaction between, the Alliance partners (e.g. through organising common events, and activities).
- c. Helping towards achieving a more consensual approach to issues and debates on European and world transport research issues.
- d. Providing a more integrated form of representation for the transport research providers of Europe towards the EU and its Member States, as well as other entities.
- e. Supporting, in a horizontal way, the definition of balanced content and priorities in European as well as National transport research programmes with emphasis in providing adequate support for more “societal value adding” issues as it has been presented in the *ETRA Statement of Purpose and Vision* document.

- f. Promoting work in areas not directly covered by its partners today, and which can best be achieved through a common approach and joint action.
- g. Liaising – in full cooperation and alignment with all ETRA partner Associations - with the European Commission and its advisory bodies and supporting their initiatives.
- h. Helping European Transport research to speak with a more coordinated voice outside of Europe.

Put simply, the ETRA will try to strengthen the wider cooperation of the European transport research community at all levels.

The present ETRA 4-year activity plan, which was approved in the ETRA Plenary session of December 11th 2012, materializes the above priorities and general means of achieving them by delineating a number of specific activities for the first four years of the life of the alliance that fall in the following broad areas:

- I. Achieving maximum of ***acceptance and recognition*** of ETRA and its role within Europe, and beyond, increasing its appeal to the European transport research community, enlarging its partnership, and increasing the cooperation between its partner Organisations.
- II. Promoting the easier access and availability of ***transport research infrastructures (RIs)*** to a wider circle of individual researchers or research organisations as a way of giving more freedom for conducting cutting edge research, and to achieving higher utilization of RIs;
- III. Improving the ***“human competencies”*** in the field of transport research, and by consequence transport in general, by strengthening the mobility of researchers, their access to specialized training (seminars, courses, or internet based educational platforms), and other actions.
- IV. Promoting structures and agreements and achieving greater coordination of activities for ***knowledge sharing*** as well as ***information exchange*** on issues of relevance to transport research (e.g. research topics and proposals, technical specialization, policy issues and positions related to all fields of transport, etc). The aim will be to avoid duplication of research, increase the possibilities of cooperation and joint project development, and supporting new systems and tools to increase knowledge and information transfer throughout Europe and beyond.
- V. Achieving more excellence by promoting ***international cooperation*** and increasing the ***international standing*** of its partner Organisations.

In parallel to the above main streams of activities, the ETRA and its Partners will be promoting the development of more concentrated and cross-cutting forms of research activity through *Joint Research Initiatives (JRI)*¹, and *Joint Technology Initiatives (JTI)* as well as other research Supportive Actions in the Transport field.

¹ For a definition of JRI see project *DETRA (Developing the Transport Research Alliance)* - project funded under the EU's 7th FP (Grant n°266051) <http://detra.fehrl.org/> and DECOMOBIL Project, <http://www.humanist-vce.eu/projects/decomobil.html>.

In the following sections we present in more detail the planned activities within each of the above five priority areas.

Increasing the membership and recognition of the Alliance

In order to achieve its vision, the *Alliance* needs first and foremost to strengthen its foothold and make its presence felt in the European Transport research field and beyond, as a consensus and synergy building Organisation . This will entail a number of actions and activities that are outlined below²:

1. A continuous and well coordinated *drive to increase the number of partner Organisations*. Written invitations to join the *Alliance* will be directed towards appropriate EU based Associations. These letters will be complimented by informational meetings with designated ETRA representatives (the chairman, the Secretary, or the chairs of partner Organisations). Candidate Organisations to be targeted by way of priority include:

First priority:

1. EARPA³
2. ISN⁴
3. NEARCTIS⁵
4. WEGEMT⁶
5. ECMAR⁷

Second priority:

- EUCAR⁸
- EARTO⁹
- AVERE¹⁰
- TransportNet¹¹
- EUA¹²
- AET¹³

² All activities in this 4-year activity plan are numbered in sequential numbering.

³ European Automotive Research Partners Association (www.earpa.eu)

⁴ Integrated Safety Network (http://eufp-event.inrets.fr/pgm/TT4/TT4_MG_JP_VERRIEST_ISN.pdf)

⁵ Network of Excellence for Advanced Road Cooperative traffic management in the Information Society (www.nerctis.org)

⁶ European Association of Universities in Marine Technology and related sciences (www.wegemt.org.uk)

⁷ European Council for Maritime Applied R&D (www.ecmar.eu)

⁸ European Council for Automotive R&D (www.eucar.be)

⁹ European Association of Research and Technology Organisations (www.earto.eu)

¹⁰ The European Association for Battery, Hybrid, and Fuel Cell research (www.aver.org)

¹¹ The University Network for Transport Education and Research (www.transportnet.org)

¹² European University Association (www.eua.be)

¹³ Association of European Transport

- IDEA¹⁴ League (transport chapters)

Observer status:

- JRC¹⁵
- WCTRS¹⁶

2. *Dissemination of ETRA related info and material.* The ETRA will communicate externally its existence in a systematic way and by all possible facilities (e-mail, internet, social media). The material to accompany these dissemination activities will be based on the *statement of purpose and vision* document, the *4-year plan of activities*, and any other relevant material to be formulated. It may also consider in due time (and after it is properly organized internally) the issuance of a Newsletter. Information about ETRA will be also sent to the EU Member States' research governing bodies, major European research Organisations and relevant international organisations.
3. Of equal importance is the enhancement / enlargement of cooperation ties and the *establishment of dialogue with relevant international transport research organizations*, based on existing or future MoUs.
4. In order to assist this dissemination drive, the ETRA will produce an *ETRA informational pamphlet*, and in due time a *Newsletter* with information on activities of all its Partners. Such Newsletter and pamphlet will have to be actively supported by all Partners in terms of content and funding.
5. *Meetings and other contacts with key stakeholders* in the transport research field in Europe will be arranged in order to compliment the ETRA's external communication drive. Such meetings will be sought – by way of priority - with: the EU Research Commissioner, the European Parliament's transport committee chair and rapporteurs, the ETP chairs (ERTRAC, ACARE, ERRAC, WATERBORNE), programme committees, the OECD/ITF JTRC, ERANET Transport, etc.
6. Promote ETRA's recognition through *presentations about the ETRA* in the *various Conferences and other fora*. Such presentations will be made by the ETRA chair, secretary, or partners' representatives. The TRA Conference as well as the TRB Annual meeting will be particularly targeted for this purpose. The ETRA will seek to participate in the TRA 2014 Management Committee and other organs of this Conference.

Promoting a more coordinated and universal use of Transport Research Infrastructures

¹⁴ International Debate Education Association (<http://idebate.org>).

¹⁵ Joint Research Center of the European Commission (<http://ec.europa.eu/dgs/jrc/index.cfm>)

¹⁶ World Conference on Transport Research Society (www.wctrs.org)

Transport *Research Infrastructures (RIs)* is an area where wider European cooperation is needed in order to achieve economies of scale and reduce duplication in expenditures. The ETRA approach in this area will be:

“to establish increased networking around existing RIs, encourage the systems to coordinate such RIs within the ERA-T and to assist initiatives undertaken by the relevant Organisations - to develop new RIs commonly available to European researchers”.

In either case, i.e. that of existing RIs or the creation of new ones - the first step will be to formulate a common view on the needs of RIs (the why), the anticipated impacts (the results), the means of cooperation (the how), and finally the priorities (the which). If these short summarised statements could be agreed upon by the transport sector - not only by a single mode - there will be a great potential to actually create the RIs in the transport sector that would form the backbone of a strong ERA¹⁷.

So, the first need would be to increase the utilization of existing RIs in the transport sector by improving their networking and facilitating relevant knowledge exchange amongst the scientists and experts working with these RIs. The action to be taken by ETRA in this respect, in order to facilitate such networking, will be to:

7. A. Create a *Research Infrastructures Task Force (RITF)* which will *formulate recommendations and promote actions for networking and information and knowledge exchange on existing European RIs in the Transport field.* This will entail (among others) the following actions¹⁸:

- a. Building a forum of correspondents for knowledge sharing on the characteristics and capacities of existing transport RIs, starting with ETRA’s partners’ already established such RIs.
- b. Formulating an up-to-date overview of existing world-class transport RIs, in Europe. This effort will be based on the RI online catalogue developed as part of the DETRA project mentioned earlier (see footnote no. 4 above), and enlarge it as necessary. The catalogue will be adapted for ETRA purposes.

¹⁷ For a more detailed investigation and proposed actions on the issue of transport RIs see: DETRA, “Developing the European Transport Research Alliance”, European project funded under 7th FP (Grant n°266051) <http://detra.fehrl.org/>.

¹⁸ It is essential that Alliance partners and their members will actively contribute to this ETRA initiative as well as to the Working Group (if finally formed) under the same code number 7. The ETRA management will appoint the coordinators and the members of the TF (and eventually the WG) in consultation with the ETRA partners.

- c. Organising common seminars/workshops focusing on topics related to the use of transport RIs (see also action no. 8 below).
- d. Promoting the creation of the appropriate institutional frameworks formulation and submission of appropriate proposals for EU funded projects (in appropriate calls), or to common COST projects, etc, in order to set up and establish a coherent and commonly accepted network of transport RI utilization involving – at first stage - the ETRA partners and their members and, at a second stage, all relevant European and world transport research communities¹⁹.
- e. Establishing relations with ESFRI to promote the awareness of ETRA's priorities for transport related RIs.
- f. Identifying any further missing RIs (not already covered by the DETRA project) that are needed to address current and future needs.
- g. Identifying potential sources of funding and sharing knowledge on the process of developing RIs between ETRA partners.
- h. Support the communication and cooperation between the working groups of ETRA partners that exist to promote individual RIs.

The ETRA will therefore assist and where appropriate, the creation of new RIs in the transport field. In the DETRA project four such new RIs were proposed in the following fields and will be the starting point:

- i. Naturalistic Road User Behaviour Centre
- ii. European Multi-modal Traffic (EMT) model
- iii. Resource Centre for European Transport Infrastructure Construction (ETIC) and performance data
- iv. European Road Infrastructure Testing (ERIT) facility.

Since transport-related RIs do not appear in the ESFRI (*European Strategy Forum on Research Infrastructures*) roadmap, ETRA will assist a concerted effort that may be undertaken by interested stakeholders to ensure that large transport RIs, form part of the ESFRI landscape, and promote the development of cooperation agreements for the joint use of relevant transport RIs.

The ETRA officials will make initial contacts and discussions with potential interested parties to investigate how these new RIs can be initiated. If sufficient interest exists that will justify a specific action on the part of ETRA, then a new WG will be formed under the umbrella of ETRA in order to follow the issue, and recommend and coordinate appropriate actions.

¹⁹ A good example to follow here, is *EIROforum*, the partnership between eight European inter-governmental scientific research organisations responsible for infrastructures and laboratories to combine the resources, facilities and expertise of its member organisations to support European science in reaching its full potential (<http://www.eiroforum.org/>).

It is essential that Alliance partners and their members will actively support the above initiative with reference to 'ETRA activity 7'.

The ETRA officials in consultation with ETRA partners will appoint the coordinators and the members of the RITF.

8. Organise an open event, e.g. a one-day Conference or workshop, on the subject of transport research infrastructures in order to promote a common approach to handling the issues of transport research infrastructures in Europe and beyond. Possible title of the event: "*Towards a more efficient use of transport research infrastructures*". The main issues and subjects of this event will reflect the actions foreseen for the RITF above and will focus towards presenting a consensus view on what can be done.

Improving the human skills and competencies in European transport research

The European transport research sector faces growing problems today to develop, attract and retain appropriate staff. Work in other fields of transport tend to offer greater financial incentives and work opportunities – quite often outside Europe. Closer cooperation between academic institutions and end-users (i.e. the member Organisations of ETRA partners) is therefore needed in order to inform and above all train appropriate personnel for transport research and offer them competitive work conditions. This is what has been called the "fifth freedom" in many EU Commission documents and is already the subject of actions in EU funded programmes especially within the Marie Curie programme of FP7 and in the "Excellent science" pillar of the new Horizon 2020 programme.

In the light of the above background, the ETRA's *statement of purpose and vision* document has defined as a key purpose of the *Alliance*, the: "*facilitating of the free and unimpeded flow of competent researchers in the transport field and the provision of proper education and training opportunities*".

In compliance with the fulfilment of this purpose, the ETRA will aim to promote high levels of researcher mobility (between institutions, disciplines, sectors and countries), and enhanced training opportunities. The proposed ETRA work in this area will proceed along the following two axes of activities:

9. Promote researcher mobility in the transport research area by forming a ***Mobility Working Group (Mobility WG)***. This WG will support the mobility of transport researchers, first among the members of ETRA partners, and in a wider sense later on and will support the ETRA to:
 - a. Facilitate the participation of ETRA related researchers to the EU funded actions for the mobility of researchers.
 - b. Liaise with the members of the Alliance partner Organisations to secure offers for positions for the temporary work appointments of researchers from other ETRA related Organisations.

- c. Develop an appropriate framework for funding the mobility of transport researchers within the ETRA's frame.
- d. Create the appropriate tools and infrastructures for the application, appointment, and researcher transfer activities between the participating Organisations in the ETRA supported mobility scheme. Such infrastructure would basically consist of a *web portal for the mobility of transport researchers* as well as a commonly agreed procedural framework which would be approved by the interested Organizations - members of ETRA partners.

10. Support the on-going, and participate in new, activities for the *education and training of researchers in the transport field*. For many years now the three partners of ETRA i.e.: ECTRI, FEHRL, FERSI have cooperated in offering the very successful *Young Researchers Seminar (YRS)*. During the three days of this Seminar, some 60-70 young researchers from across the members of these three Associations gather together and they participate in a series of scientific sessions in which they present their papers and get advice and support from specially designated tutors. This is definitely a success story that needs to be continued and enhanced in the future, and ETRA will assist in this on-going process. Further to this on-going activity, the organisation of specialized training Seminars and postgraduate courses (e.g. leading to Master or even PhD degrees in *research management and execution* or to MBA Rail, Master or PhD Rail degrees) should be investigated and promoted.

To promote activities in the above areas the ETRA will create a special ***Task Force on Education and Training issues (ET-TF)*** which will:

- a. come to discussions with the appropriate University Associations (e.g. the EUA or the TransportNet) as well as with leading education establishments in Europe to discuss the feasibility and interest in developing specialized transport research related courses.
- b. Propose the best means by which ETRA will promote the materialization of these courses.
- c. Promote education and training activities for the transport researchers as well as transport specialists of the future 20, and measures identified by the *SkillRail* project²¹. Indicative actions in this respect include:
 - i. Support or organise special short training courses for transport researchers along the best practice example of the Young Researchers Seminar organised every two years by ECTRI, FEHRL and FERSI.

²⁰ It is noted that in the current decade a gap of some 100 000 transport scientists and engineers is estimated to exist in the European transport sector alone.

²¹ The project fostering a better match between the human resources needs and the offer of skills to make railways a more competitive and innovative sector. For details see: <http://www.skillrail.eu>.

- ii. Support University courses and degrees aimed at the transport professional as well as the transport researcher.
- iii. Support the establishment of mechanisms and platforms for education & training on demand, by offering virtual(i.e. internet based), short courses, summer schools, master courses and workshops, as for example in the virtual EURNEX organised EURAIL University.

11. Organise a special Conference on “Education and Training activities in transport research” in order to exchange information, consensus building, and support for specific initiatives for educational and training issues dor transport researchers and other professionals, in the future. The event could be organised in cooperation with relevant Academic (University) Associations as part of a wider event (e.g. the TRA 2014) for a maximum of exposure and participation.

Strengthening knowledge sharing, information exchange, and programming actions in transport research

The *ETRA purpose and vision* document stipulates that one of ETRA’s future goals is to have the Alliance as the hub of continuous flow of information as well as a facilitator for knowledge sharing between the Alliance partners and also between the members of the partners. The main scope of these activities will be to make recommendations to partners and their members regarding the enhancement of existing knowledge and information sharing platforms or development of new ones, after having answered two fundamental questions as follows:

- a. Are we ready to share knowledge and to what extent ?
- b. Are we prepared to merge our facilities for sharing knowledge?

Furthermore, the ETRA knowledge and information exchange activities will further aim to:

- Provide harmonised²² proposals for research programming content for the transport sector that avoids overlapping between the various fields and modes of transport, and covers also the “horizontal” elements i.e. those of common interest to all fields of transport (see section 5 point (f) of the *ETRA Statement of Purpose and Vision* document);

²² Among the Alliance Partners

- Investigate novel financing mechanisms and funding for these activities and for developing new tools and mechanisms utilising all possible transport research instruments including Joint Research Initiatives (JRIs)²³;
- Capacity building for “excellent” research programmes and projects.

12. In the above light and in order to provide the necessary outputs mentioned above, a special Task Force (which may later be converted to a permanent Working Group) will be created. This ***Knowledge Sharing and Information Exchange TF (KSIE-TF)***, will have the following terms of reference:

- i. Perform a detailed analysis of the current state of knowledge sharing and information exchange followed by the ETRA partners and their members, vis-à-vis :
 - a. Internal communication, i.e.:
 - means of recognition and motivation;
 - means to improve the feeling of membership;
 - ways to allow communication and exchanges through well defined processes, information on activities, and projects.
 - b. External communication, i.e.:
 - informing the external world on activities developed by the transport research organisations;
 - promoting the Alliance’s Partners achievements to key opinion formers at European and national level;
 - increasing and promoting the perception of the transport research organisations by the public;
 - developing “opportunities” for transport research organisations;
 - Foster more visibility of the transport research community.
- ii. Support the creation of the proper infrastructure for knowledge sharing in the transport sector among the members of ETRA’s partners, at first, and later among the rest of the research community in Europe and globally. Such infrastructure could take the form of a web portal or other similar type of instrument²⁴. The process of knowledge sharing is time- and cost-consuming, and in practice it requires a real effort, first of all to gather the information and secondly to make it easily accessible to whoever is interested. The ETRA does not have the means to create such infrastructure itself, but it will try - through the *KSIE TF* or other means - to promote and support actions for creating such infrastructure through proper funding.
- iii. Prescribe the desired characteristics for such knowledge sharing infrastructure. Relevant to this activity, the *Stakeholders Forum*

²³ The concept of JRIs, explained in the DETRA project D5.2 deliverable, can be supported by ETRA in making convergence between the Marie Curie Network’s anticipatory and transformative research and the specific advanced thematic research of the transport sector in the "societal challenges" research.

²⁴ An example of the type of instrument that could be useful in this case, is the *Strategic Energy Technologies Information System - SETIS* (<http://setis.ec.europa.eu/>), which is a system for sharing knowledge in the strategic energy technology information.

workshop which was organised by the DETRA project to discuss the recommendations for sharing knowledge in the future, should be studied and if found appropriate adopted.

- iv. Promote information exchange among the Alliance partners and their members on issues such as: research topics and proposals, technical specialization, policy issues and positions related to various issues and fields of transport, etc. The aim will be to avoid duplication of research and increase the possibilities of cooperation and joint project development among the ETRA partners and their members. This kind of activity will also be aimed at overcoming fragmentation and promoting integration in the transport research sector and is connected to the wider task of “Institution building” in the transport research field.

In this area of activities, the Alliance will proceed on a matter-of-fact way i.e. directing first its Task Force to answer the fundamental questions as set out in bullets (a) and (b) at the beginning of this section, and then deciding on the best practical way of promoting the expansion of the work to the rest of the above mentioned fields.

Promoting International Cooperation in transport research

Promoting *international cooperation* and increasing the international standing of its partner Organisations is a major objective and task of the *Alliance*. The position taken here is that we cannot promote the state of European transport research without considering its role and position internationally. This includes, by way of priority, our relations with our “neighbouring” regions, who share our transport networks, but is of equal importance vis-a-vis the wider international and indeed global transport research community with whom we share the same or similar transport problems and can work together on common solutions.

Aspects of international cooperation touch upon all of the previous issues raised, but we have to build on the work that has already been done in this field (most notably by project EUTRAIN in which participate most of ETRA’s partners). So, in view of the experience gained so far, the ETRA will:

- 13.** Participate, promote and share (information on) activities of international cooperation. This activity will be pursued constantly by ETRA and its partners in continuation and strengthening of the existing initiatives taken by the EU Commission, the US/TRB, and other international transport research stakeholders.

Time frame

The above activities will cover a time span of at least 4 years. They cannot be all promoted at once. They will be materialised step by step and will be reviewed yearly by the Plenary Session of ETRA's partners.

An indicative allocation of the above activities in time, is shown in the following Table 1:

Table 1: Time frame of 4-year ETRA Activity Plan

Activity No.	Short Description	Year 1 (2013)	Year 2 (2014)	Year 3 (2015)	Year 4 (2016)
1	Drive to increase the number of partner Organisations				
2	Dissemination of ETRA related info and material				
3	Contacts with international transport research organizations based on existing or future MoUs				
4	Informational pamphlet				
5	Meetings and other contacts with key stakeholders				
6	Presentations about the ETRA in the various Conferences and other fora				
7	Research Infrastructures Task Force (RITF)				
8	One-day Conference "Towards a more efficient use of transport research infrastructures"				
9	Mobility Working Group (Mobility WG)				
10	Task Force on Education and Training issues (ET-TF)				
11	One-day Conference "Education and Training activities"				

	<i>in transport research”</i>				
12	<i>Knowledge Sharing and Information Exchange TF (KSIE-TF)</i>				
13	<i>International cooperation activities</i>				