



# Trans-Atlantic transport research collaboration: challenges and opportunities

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# The Benefits of Transnational Collaboration

- Access to additional research capital, advanced equipment, and technical skills;
- Greater awareness of advances in technology and practices;
- Ability to deploy state of the art and state of the practice technologies and methods of operation more quickly;
- Better relationships among professionals and better conduit for information exchange and deployment of technologies and innovations with a relatively small investment of resources;
- Better understanding of the issues faced in other countries;
- Avoidance of costly duplicative research;
- Building of positive multilateral and unilateral relationships between and among countries;
- Benefiting individual researchers by providing international exposure (reputation building) and additional funding resources for research, and finally
- Increasing the chances for “transformative” research results.

# *The most common Barriers*

- Transactional and procedural hurdles;
- Differences in Intellectual Property Regimes;
- High Information Costs;
- Cultural Differences;
- Conception of “Capacity to *Go it alone*”;
- Institutional inertia and bureaucratic procedures;
- Research labor differences (e.g. in employment permit regulations, salaries and regimes);
- Differences in institutional cultures.

*Report on  
EU-US  
transport  
research  
collaboration  
by the TRB-  
ECTRI  
Working  
Group 10*

INTERNATIONAL COOPERATION  
IN TRANSPORTATION RESEARCH

**European–  
United States  
Transportation Research  
Collaboration**

*Challenges and Opportunities*

Posted online at:

<http://onlinepubs.trb.org/onlinepubs/general/EU-USResearch.pdf>,

and

<http://www.ectri.org/>

## *The ECTRI-TRB report represents...*

... a concerted attempt to promote Transport Research collaboration issues between the US and the EU, enacted by the 2006 *Memorandum of Understanding* between the *European Conference of Transport Research Institutes (ECTRI)* and the *US/Transportation Research Board (US/TRB)*.

Working Group consisted by some 25 individuals from several US, and European Organizations (e.g. FHWA, US/DoT, Caltrans, NYDoT, PATH/Berkeley, INRETS, DLR, HIT, VTT, TRL, CEDEX, etc).

The resulting report touched upon wider International Cooperation issues.

*See also TR News 267 pp 43-49, March – April, 2010.*

# *Elements of successful international collaboration*

- 1. Strategic convergence of individual and collective interests among partners;**
- 2. Clearly articulated goals and objectives;**
- 3. Clear ground rules for interaction among partners (formal agreement or detailed MoU);**
- 4. Inclusion of key stakeholders in the research partnership;**
- 5. Existence of champions or advocates who will lead the way;**
- 6. Clearly stated and inclusive participatory decision-making process;**
- 7. Secured initial sources of funding and sustainability over time;**
- 8. Solid organizational structure and procedures for management and operation of the partnership;**
- 9. Existence of clear criteria for evaluation of the results.**
- 10. Existence of overall benefits (financial or strategic) for participating organizations.**

# *Possible Models of collaboration*

1. ***Organized, centralized and institutionally-driven collaborative RTD***  
(Governmental entities come together to identify the objectives of the partnerships, set strategic goals, identify research agenda and create the means for accomplishing the agenda, e.g. the EU sponsored *SICA* projects of International Cooperation);
2. ***Flexible, spontaneous, and dynamic scientist-to-scientist RTD collaborative activities*** (an international team of researchers takes the lead in developing and providing a specific technology or jointly managing a research project under the *expressed consent* of national or sub-national governments).
3. ***One-way (or two-way) information exchanges*** on technologies and best practices involving one or more host countries and an information seeking technical delegation (e.g. *International Technology Scanning Programs*).
4. ***International Information Exchange through Technology Assistance Programs*** (cooperation among countries or agencies on technology exchange through various activities and relationship models including the US model of “twinning”).
5. ***Distributed collaboration through joint programming*** (several national administrations issue a joint research call – “top down” institutionally driven strategic direction – and proposers provide the “bottom up” research needs. This is coupled with an institutional-level shared or joint funding and shared management structures).

# ISSUES THAT NEED TO BE ADDRESSED

1. Formulation and adoption of appropriate enabling policies by the responsible administrations;
2. Establishment of common Programme Management structures (lean) and rules including, among others:
  - *Comparable Research evaluation procedures (common criteria, methods)*
  - *Comparable Research Governance and financing structures*
  - *Common benchmarking of research governance*
  - *Common or comparable Intellectual Property Rights provisions*
  - *Rules and procedures for joint programming;*
3. Address the Training and Human Resource Management issues;
4. Greater accessibility between “soft” research infrastructures;
5. Establish areas and Research Themes of common interest (Thematic co-operation).

# Create and adopt enabling policies, that ...

.....

1. Create standards and common frameworks for the conduct of (transnational) research including comparable Research Governance and financing structures;
1. Delineate and promote the role of the “market” in fostering innovation and supporting research;
2. Dismantle barriers to transnational cooperation through a top-down approach (particularly through establishing common *programme management structures* cutting down prohibitive costs and conflicting intellectual property rights – see next slide);
3. Work towards establishing common funding and joint programming schemes;
4. Facilitate the mobility of scientists and researchers across borders.
5. Formulate other actions and incentives to stimulate transport research transnational cooperation.

# *Establish comparable Programme Management structures*

1. Establish common (or comparable) rules for the allocation and commitment of research funding;
2. Establish common (or comparable) administration and monitoring procedures;
3. Set commonly acceptable evaluation procedures;
4. Establish common (or comparable) rules relating to IPR;
5. Define common exploitation – implementation rules for research outcomes;
6. Establish common benchmarking of research governance;
7. Establish common rules for Joint Programming, especially:
  - the procedures for issuing of transnational research calls for tenders;
  - The “merging” of transnational sources of finance (public or private) to create funding for joint research programs;
  - Setting the common Themes and Topics.

# Training and Human Resource Management issues

1. Promotion of research personnel exchanges at all levels (including PhD and post-doc level) .
2. Development of well-trained research administrators and research managers (ultimately in a Training academy for strategic and research governance).
3. Development of professional certification processes for transnational research work.
4. Harmonized training and education of the new generation of research personnel (with broad “international” perspective , across borders) by targeting:
  - ✓ research governance and management issues;
  - ✓ Education on thematic issues of global concern (e.g. climate change, sustainability, congestion alleviation, etc);
  - ✓ Issues of communication across cultures.

# Harmonisation – facilitation of the use of “soft” research infrastructures

- Establish commonly agreed practices and mechanisms for data management and sharing at National and transnational levels;
- Improve the technical infrastructures for data management and sharing;
- Address the issue of free access to “soft” research infrastructures (libraries, data, and knowledge bases);
- Improve and simplify standards for data documentation;
- Proliferate “best practices” of common data sharing;
- Facilitate the wider exchange of information on existing data bases and data.

# Research Themes of common interest

- Specific “regional” issues and challenges;
- Dissemination, know-how transfer actions;
- “Global” challenges , e.g.:
  - ✓ sustainability – environmental / climate change issues
  - ✓ congestion,
  - ✓ energy consumption,
  - ✓ environmental impacts - climate change.
- Support to (regional) policies formulation and implementation;
- Implementation of international Conventions and rules;
- Other bilateral or multilateral regional issues.

# *Possible actions at many levels*

## Level 1

- Further dissemination – discussion at all levels of working group proposals.
- In-depth analysis and documentation of possible actions recommended by the report, through collaborative research and funded studies. Funding through existing mechanisms.
- Bottom-up implementation of recommendations through “individual” initiatives

## Level 2

- Discussion in official bilateral or multilateral meetings between National delegations with a view to new research cooperation agreements.
- Gradual formulation of new statutory frameworks for international TR cooperation (*joint working groups by the responsible administrations, study of success stories, etc*).

## Level 3

- Implementing “drivers” through new enlarged International Agreements (bilateral or multilateral)
- Creating common mechanisms for joint TR programming and funding.
- Creating dedicated International bodies or Organizations (e.g. like the recent *EU-US Energy Council*).



***Thank you for your  
attention***

