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*The future of Transnational Research: some results and suggestions from current work*

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# *The Benefits of Transnational RTD*

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- 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.

## *Barriers to transnational research cooperation*

- Transactional 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.

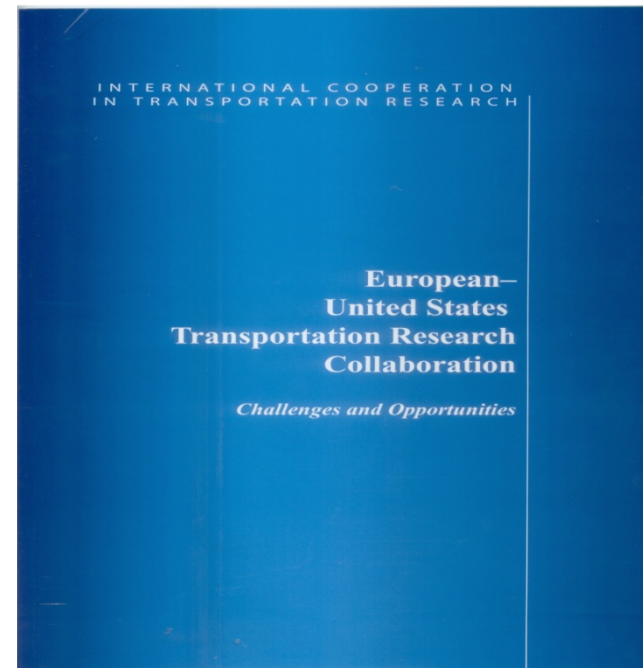
# *Elements of successful transnational collaborations*

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.

# *The report of the TRB - ECTRI working Group*

Posted online at:

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



## *The identity of the TRB / ECTRI Working Group*

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.

Active participation 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.*

## *Summary of WG recommendations*

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1. Formulate and adopt enabling policies;
2. Establish specific (transnational) collaboration mechanisms;
3. Lay the groundwork of joint programming and funding;
4. Improve data management and sharing;
5. Facilitate Mobility of the human capital.

## 1) Formulate and adopt enabling policies, to ...

1. Alleviate concerns over intellectual property rights;
2. Create standards and common frameworks for the conduct of research;
3. Take into consideration the role of the market in fostering innovations;
4. Target the provision of incentives to stimulate funding schemes for cooperation;
5. Dismantle barriers to cooperation through a top-down approach (particularly prohibitive costs and conflicting intellectual property rights);
6. Take into consideration the need for mobility of scientists across borders.

## 2) Establish specific collaboration mechanisms

### *Possible Models :*

1. ***Organized, centralized and institutionally-driven collaborative RTD*** (governmental entities come together to identify the objectives of the partnership, 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 Program sponsored by the Federal Highway Administration -FHWA).
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 “twinning”).
5. ***Distributed collaboration through joint programming*** (Combines the top down approach of institutionally-driven research and the bottom-up approach where needs are usually identified from bottom-up proposers coupled with an institutional-level identification of strategic direction, shared or joint funding and shared management structures).

### 3) The groundwork of joint programming and funding

1. Facilitate the issuing of transnational research calls for tenders;
2. Find ways of “merging” transnational sources of finance to create funding for transnational research programs;
3. Establish common rules for the allocation and commitment of research funding;
4. Find common administration and monitoring procedures;
5. Set commonly acceptable evaluation procedures;
6. Establish common rules relating to IPR and exploitation – implementation of research outcomes;
7. Address the main barriers.

## 4) Improve data management and sharing

- Develop the infrastructure for data management and sharing at international level;
- Address the issue of free access soft research infrastructures (libraries, data and knowledge);
- Create common standards for data documentation;
- Establish commonly agreed practices for data sharing.

## 5) *Facilitate the mobility of the human capital*

1. Harmonized training and education of the new generation of research personnel (across borders) by targeting:
  - ✓ research governance and management issues;
  - ✓ thematic themes of global concern (e.g. climate change and sustainability);
  - ✓ Issues of communication across cultures; etc.
2. Promotion of exchanges at the PhD and post-doctorate levels to train and educate the new generation of scientists.
3. Development of well-trained research administrators and research managers (ultimately in a *Training academy for strategic and research governance*).
4. Development of *professional certification* processes for transnational research work.

# *Follow – up actions possible at many levels*

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## Level 1

- Further dissemination - discussion at all levels.
- 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*).

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THANK YOU  
FOR YOUR ATTENTION !

# ***ISSUES OF IMPORTANCE***

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1. Comparable Programme Management (lean);
2. Research Evaluation (common criteria, methods);
3. Research Governance and financing;
4. Training and Human Resource Management;
5. Appropriate funding “vehicles” and schemes ;
6. Thematic co-operation;
7. Benchmark research governance;
8. Common Intellectual Property Rights;
9. Cooperation, and greater accessibility between “soft” research infrastructures.

## *Indicative transnational research themes*

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- Specific “regional” issues and challenges;
- Advancement of cohesion, coordination, cooperation through know how transfer and dissemination actions between advanced and lesser advanced areas;
- “Global” challenges (e.g. congestion, energy consumption, environmental impacts - climate change, etc).
- Support to policy formulation and implementation;
- Implementation of international Conventions and rules;
- Other bilateral or multilateral regional issues.

