



EU/US Transport research cooperation issues

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The Benefits of Globalized Transportation RTD

- 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.

Elements of successful international collaborations

- Clearly defined goals and principles for collaboration,
- Mutual benefit to be derived,
- Appropriate institutional structures and processes in place,
- Credible ‘champions’, i.e. individuals or institutions that will take the lead.

Key *ingredients* of successful international partnerships

- Strategic convergence of individual and collective interests among partners;
- Clearly articulated goals and objectives;
- Ground rules for interaction among partners (formal agreement or MoU);
- Inclusion of key stakeholders;
- Existence of champions or advocates;
- A clearly stated and inclusive participatory decision-making process;
- Secured initial sources of funds and sustainability over time;
- Distribution of benefits among partners;
- Solid organizational structure or procedures for management and operation of the partnership;
- Overall evaluation of success criteria be in place;
- A seamless, vertical as well as horizontal structure;

Barriers to international research cooperation

- High Information Costs
- Transactional Hurdles
- Differences in Intellectual Property Regimes
- Cultural Differences
- Capacity to “Go it alone”
- Institutional Inertia
- Labor Issues
- Differences in Institutional cultures.

Models of international research cooperation

(1/2)

- 1. Organized, centralized and institutionally-driven RTD collaborative research* (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 Joint OECD-ECMT Transport Research Centre (JTRC)).
- 2. Spontaneous, dynamic, scientist-to-scientist research-initiated RTD collaborative activities occurring at the national or sub national levels* (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).

Models of international research cooperation

(2/2)

- 3 *Distributed collaboration that involves several governmental entities, and shared management structure* (Combines the top down approach of institutionally-driven research and the bottom-up approach to creating collaborations. Needs are usually identified from the bottom-up coupled with an institutional-level identification of strategic direction).
- 4 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).
- 5 International Information Exchange through Technology Assistance Programs (cooperation among countries or agencies on technology exchange through various activities and relationship models including “twinning”).

ISSUES OF PRIMARY IMPORTANCE

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.

Types of priority Research Items

- Specific “regional” issues and challenges;
- Advancement of cohesion, coordination, cooperation between advanced and lesser advanced areas;
- Global challenges such as congestion, energy consumption, environmental impacts (and now climate change), etc.
- Support to policy formulation and implementation;
- Ways to realize a single labor market for researchers.

Adoption of focused enabling policies, that:

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 those that involve prohibitive costs and conflicting intellectual property rights);
6. Take into consideration the need for mobility of scientists across borders.

Build specific collaboration mechanisms and joint programmes

- Specify collaboration mechanisms by: clearly defining goals; adopt processes that lower the effects of barriers and enhance synergy; promote fair partnerships using credible champions and institutions; etc.
- Work towards, eventually, a joint programming processes, joint work programmes, and joint calls (The NGSIM framework could be one reference model)
- Address the main barriers

Lay the groundwork for joint programming and funding

1. Facilitate the issuing of international research calls for tenders, bids and their evaluation
2. Find ways of “merging” international sources of finance to create funding for specific “common” international research programs
3. Establish common rules for the allocation and commitment of research funding
4. Find common administration and monitoring procedures for (international) research projects
5. Set commonly acceptable evaluation procedures of research results
6. Establish common rules relating to IPR and exploitation – implementation of research outcomes.

Improve data management and sharing

- Improved data management is essential for successful international collaboration. Developing the infrastructure for data management and sharing at international level is an imperative.
- Address the issue of free access soft research infrastructures (libraries, data and knowledge).
- Create common standards for technical documentation and
- Establish comonly agreed practices.

Mobilize the human capital

- Training and education should target governance and management as well as thematic issues of global concern, such as climate change and sustainability. Communication across cultures is an area of utmost importance since collaboration ultimately involves human behavior and positive human interaction. Cultural competency and sensitivity can lead to successful cross-cultural collaboration.

How to facilitate “common” education and training

- Promote exchanges at the PhD and post-doctorate levels to train and educate the new generation of scientists.
- Develop well-trained research administrators or research managers, ultimately in a *Training academy for strategic and operational research governance*.
- Develop a *professional certification process for international research work*.



Drawing on the European paradigm of trying to create the *European Research Area (ERA)*, let's start working towards creating the “*Global (Transport) Research and Innovation Area - GRIA*” of the future !

Thank you !!