



14 November 2013

*HERMES project*

*Dr. George Kotsikos, School of Mechanical & Systems Engineering, Newcastle University*



# Establishing a Comprehensive Transport Research Information Management and Exchange System

## The “HERMES” project

A presentation to the Transportation Librarians Roundtable  
14 November 2013

## Background

- The HERMES project was created in response to the European Commission's call for:
  - *“providing the means of enacting productive international transport research cooperation in the future”,*
  - *“encouraging participation and dissemination of research results.”*

# Aims

- The HERMES project has undertaken a number of activities but two form the core of the project:
  - the creation of a *“transport research database access portal”* to facilitate access to information on transportation research carried out internationally,
  - to *“engage researchers”* in round table discussions to address the issues that inhibit a closer international collaboration in transportation research.

# The HERMES Consortium

- Newcastle University
- Foundation WEGEMT
- European Aeronautics Science Network
- Euromobilita s.r.o.
- International Union of Railways

UK  
NL  
BE  
CZ  
FR

## Non EU collaborating organisations

- Transportation Research Board (TRB)
- Australian Road Research Board (ARRB)
- Institute of Transport Economics Japan (ITEJ)

USA  
AUS  
JAP

## Advisory Board

- Mr M. Violand                      OECD
- Mr G. Woodroffe                    RSSB
- Mrs B. Sandstedt                    VTI



Facilitating access to information of international transportation research.

# PORTAL DEVELOPMENT

## Portal development

- A list of worldwide databases of transportation research by transport mode has been compiled and links to those have been established.
- Access to 169 databases (list constantly updated) has been achieved.
- Databases have been ranked in three categories
  - Simple databases
  - Searchable databases
  - Full databases

## Portal development

- **Simple database:** Lists of projects, very basic information (*title, description of the main topic of the project, project manager*), most under HTML format , no search engine.
- **Searchable database:** Detailed description of work (*PDF document often attached*) and consortium info. Accessible through a simple search engine (neither keywords nor thesaurus), no translation of information in English.
- **Full database:** Detailed project and consortium information, organised through a precise search engine with keywords and thesaurus.
- HERMES had to address those challenges and developed a number of software solutions to retrieve information.



# Portal development

[transport-research-portal.net](http://transport-research-portal.net)





Creating the conditions for closer international collaboration in transportation research

# ENGAGEMENT OF RESEARCHERS

## Engagement of researchers

- HERMES WORKSHOP ON INTERNATIONAL COLLABORATION
  - UIC Headquarters, April 2014
  - 87 participants over 2 days from EU, US, AUS, Japan, Israel, Ukraine, Egypt, S. Korea
  - identify and debate the issues that inhibit closer international collaboration,
  - express their opinions on the policies/measures that need to be taken to eliminate/circumvent any obstacles.
  - provide recommendations for policies and best practices.
- HERMES QUESTIONNAIRE
  - A questionnaire was sent to over 1,000 transport researchers and industry executives around the world addressing similar issues to those raised at the workshop.

# Workshop output

## ● IPR

- Not as big a problem as initially perceived
- Virtually all countries have adopted a “first to file” system. In the US came into effect in March 2013 (America Invents Act)
- IPR can be defined at the outset through a consortium agreement

## ● Administrative issues

- Distance, travel time
- Language
- Cultural differences
- Complex rules for participation can put off people from participating, especially small players (SMEs)
- Homologation, standardisation differences
- Differences in legal systems

# Workshop output

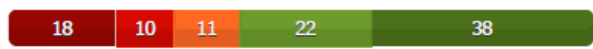

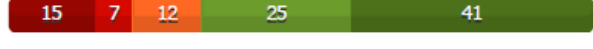

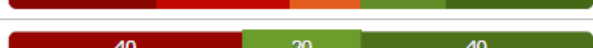
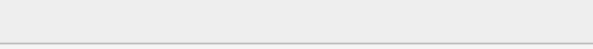





## ● Funding

- No dedicated funding mechanism for international collaboration.
- EC's FP generally generous to participation of non EU entities. No equivalence (reciprocity) from other nations.
  - “Concerted actions” or “Targeted calls” have been the instrument for such collaborations.
- Funding horizon. Maybe the most important obstacle.
  - In the EU typically 3 years, awarded to a consortium.
  - In the US, Australia, Japan typically one year, awarded to a single entity.

## ● Access to up to date information of ongoing research projects













## ● PERSONAL CONTACT

# Questionnaire output – Funding sources

Sub-questions	Resp.	% of responses
National Government and Regional (various grant schemes)	98	
Local Government (e.g. regional development funding)	90	
European Union collaborative research programmes (if in EU)	102	
Industry funding (either single entity direct funding or Joint Industry Projects)	99	
Own funding	91	
Other, please specify	10	
Average: 3,15 — Median: 3		
<ul style="list-style-type: none"> <li> 1.</li> <li> 2.</li> <li> 3.</li> <li> 4.</li> <li> 5.</li> </ul>		











Replies to "What is the most important source for funding for your research?"

# Questionnaire output – Consortia building

Sub-questions	Resp.	% of responses
Reputation of institution/organisation	98	
Recommendation	98	
Personal contact	104	
Familiar with institution through staff/student exchange programme	96	
Experience from previous collaboration	103	
Website (e.g. CORDIS)	89	
Other, please specify	17	
Average: 3,45 — Median: 4		
<ul style="list-style-type: none"> <li> 1. 1</li> <li> 2. 2</li> <li> 3. 3</li> <li> 4. 4</li> <li> 5. 5</li> </ul>		

Replies to "If you have participated in international collaborative projects, how did you seek potential partners?"

# Questionnaire responses – Access to Information

Sub-questions	Resp.	% of responses
Transportation Research databases	98	
Scientific journals	103	
International conferences	100	
Rely on colleagues for information	102	
Other, please specify	21	
Average: 3,45 — Median: 4		
<ul style="list-style-type: none"> <li> 1.</li> <li> 2.</li> <li> 3.</li> <li> 4.</li> <li> 5.</li> </ul>	<p><u>Drawbacks with databases:</u></p> <ul style="list-style-type: none"> <li>• Time consuming process,</li> <li>• Fragmentation of information to different databases</li> <li>• in-database navigation issues (difficult to navigate and get the information)</li> </ul> <p><u>Other:</u> Networks, Google, etc</p>	

Replies to “How do you stay informed of current and past global research activities in your field





The HERMES Project Output

# CONCLUSIONS & RECOMMENDATIONS

## Conclusions

- **“Personal contact”** is the most important issue for the research community.
- **“Easy access to information”** has been addressed by the HERMES Transport Research Portal. The portal needs to continue its efforts to identify more databases worldwide and establish links and intensify its dissemination activities to raise awareness.
- **“Funding for international collaborative programmes in transport research”** is broadly not available.
  - Countries will not change legislation (easily or in the short term) to accommodate funding for international collaborative transport research.
  - *Coordination of existing sources of funding and research themes* in each nation state can be used for international collaborative research projects.

# HERMES Project Recommendations

## ● Personal contact


- A scheme similar to the EC’s “Cooperation in Science & Technology” (COST) programme is proposed
  - **International Collaboration In Transport Innovation (i-CITI )**
- Not the same as “conferences”, researchers invited to join “focus groups” already working on similar research topics in their countries.
- Three year duration programmes - sufficient to establish contacts between researchers working in similar topics, exchange of ideas, help overcome cultural issues.
- As with COST funding restricted to travel & subsistence for participating researchers, i.e. not expensive to implement.
- Excellent vehicle also for young researchers to begin networking

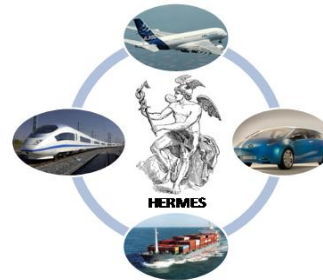
# HERMES Project Recommendations

## ● Funding

- **Existing funding** instruments can yield results if **effectively used and coordinated**.
  - National, own, industry, etc., sources of funding can be used by each nation state to enter international collaborative projects, where the added value can be demonstrated (an i-CITI programme can facilitate this)
- Industry, particularly SMEs, can get involved (no new administrative rules for them to enter collaborative research projects)
- Need for a **“Coordinating web based platform” (HERMES?)** to provide information on priority topics of research and available funding (EU, national government )

# HERMES Project Recommendations

- HERMES already achieved its aim of facilitating access to information on current and past transport research worldwide.
- Long term aims
  - To be the “**one stop shop**” for the transport research community.
  - Will work with the European Technology Platforms (ACARE, ERTRAC, Waterborne, ERRAC and new Logistics Platform) and equivalents to ETPs worldwide and act as a “**web based tool**” to disseminate research priorities.
  - Establish links with funding authorities (EU27 and International) to inform the research community of opportunities available.
- HERMES will very soon incorporate a [database of skilled transport researchers](#) within EU and associate states 
- HERMES is slowly building on its links and networks of collaboration and can develop into a **permanent central coordinating unit** of all issues related to international collaboration in transportation research.



Thank you

[www.transport-research-portal.net](http://www.transport-research-portal.net)

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Website: [www.hermes-project.net](http://www.hermes-project.net)





Go to 'Search' in the side menu (or top menu if you are logged in), enter a keyword in the text box and click on the small green + to the right. In the image below I've entered 'rail', which has returned 382 results. Notice that there is an option to refine the search.

Image 1



- Researcher profiles
  - My profile
  - Messages
  - Friends
  - View groups
  - Search
  - Advanced Search
- View all profiles
- Search the Portal
  - General Search
  - Database Search
  - Search by Country
- Help
- About

Refined By

Keyword  Match

Refine Results

Keyword

About 382 results

**Jasmina Pašagić Škrinjar**

**Nikolina Brnjac**

**Marko Subotić**





**Step 2: Under 'Refine Results' enter another keyword and click the green +. In the image below I've entered 'bulgaria'. There are now 87 results with researchers who have 'rail' and 'bulgaria' as keywords in their profile.**



- Researcher profiles
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- Help
- About

Refined By

Keyword	Keyword	Match
rail	bulgaria	All

Refine Results

Keyword

20

About 87 results

**Zoya Damianova**

**Emilia Zakova-Domoustchieva**

**Denitsa Marinova**



**Step 3: We can refine the results further. I've entered 'green' (Image 3) and in Image 4 you can see that a single researcher who satisfies all the criteria: 'rail', 'bulgaria' and 'green' has been found.**



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  - Search by Country
  
- Help
- About

Refined By

Keyword  Keyword  Keyword  Match

Refine Results

Keyword

20

About 1 results

**Ivan Milenov**

A circular profile picture of Ivan Milenov, showing a person's face with a colorful background.

Researcher profiles

- [My profile](#)
- [Messages](#)
- [Friends](#)
- [View groups](#)
- [Search](#)
- [Advanced Search](#)

[View all profiles](#)

Search the Portal

- [General Search](#)
- [Database Search](#)
- [Search by Country](#)

- [Help](#)
- [About](#)

[Home](#) [Profile](#) [Friends](#) [Groups](#) [Photos](#) [Search Profiles](#)   

[Block user](#) [Report user](#) [Share this](#)



Ivan Milenov

**Member since**




Tuesday, 15 October 2013 15:13

**Last online**

22 hours 40 minutes ago

**Profile views**

1 views

 [Add as friend](#)  [Photos](#)  [Send message](#)

[More](#)

**About Me**

Title

Mr

Sex

Male

Highest qualification

PhD

Country (researcher)

[Bulgaria](#)

Area of expertise

Electric transport- green cars; Electricity and electrical ; AC drives; High-speed transport; Converters; Substations; Nanotechnology

Job title

[Assoc.Prof.,Dean](#)

National projects managed (English language)

Method and programmable power source for faster charging of batteries for electric

