MARKET IMPACT EVALUATION
ERRAC was set up in 2001 and is the single European body with the competence and capability to help revitalise the European rail sector:
  • To make it more competitive
  • To foster increased innovation
  • To guide research efforts at the European level

ERRAC Project Evaluation Working Group (EWG)
Objectives:
  • Determine the market impact of previous rail research to improve use of research funding
  • Ensure a strategic approach to the prioritisation of rail research

Project Evaluation
  • Individual projects are evaluated after they have been completed to ensure successful dissemination of project results
  • To ensure that the results of previous rail research can be taken into account for future projects
  • To avoid weak market uptake of results by learning the lessons of previous research
  • The EWG will provide intelligence based on the project evaluations for input into future European Framework Programmes
<table>
<thead>
<tr>
<th>Project acronym:</th>
<th>HVB</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP:</td>
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<tr>
<td>Programme acronym:</td>
<td>TRANSPORT: Specific RTD programme in the field of transport</td>
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<td>Project Reference:</td>
<td>G1RD-CT-2000-00467</td>
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<td>Call identifier:</td>
<td>The 3rd Call for Proposals</td>
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<tr>
<td>Total Cost:</td>
<td>€ 1,131,790</td>
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<td>EU Contribution:</td>
<td>€ 599,255</td>
</tr>
<tr>
<td>Timescale:</td>
<td>December 1997- December 1998</td>
</tr>
<tr>
<td>Project Coordinator:</td>
<td>Marina FRACCHIA (UNIVERSITÀ DEGLI STUDI DI GENOVA)</td>
</tr>
</tbody>
</table>

-presented by: C. Cheron
-date evaluation: 24.01.08
-market uptake: Medium
-follow up projects: None
-other related Projects: RAPSDRA, ERTMS
European Rail Research Advisory Council

ERRAC Project Evaluation Group

HVB
High Voltage Booster
PROJECT NAME: High Voltage Booster

Objectives
To design and validate a booster equipment (HVB) for the railway supply systems using static VAR technology able to achieve the following goals:
• To improve electrification system voltage regulation
• To cater for permanent growth in traffic levels
• To allow for the evolution of new traction types
• To reduce capital and running costs

The aim of this device is to compensate for voltage regulation on the electrification system.

In a more practical way
• Technical: maintain overhead line voltage to constant level at the substation to avoid voltage drop at the end of the sector supplied
• Financial: decrease installation cost when possible
HVB: Background

Details

- Total Cost: 2 787 187 EU
- EU Contribution: 1 402 745 EU
- Period: 04/2000 to 12/2002
- Scientific Coordinator: Marina FRACCHIA (CRT)

Partners

- INSTITUT NATIONAL DE RECHERCHE SUR LES TRANSPORTS ET LEUR SECURITÉ (FR)
- LABORATOIRE ELECTROTECHNIQUE de GRENOBLE (FR)
- SOCIETE NATIONALE DES CHEMIN DE FER Français/RFF (FR)
- ASI ROBICON (IT)
- CENTRO RECERCA TRAPORTI (IT)
- ITALFERR (IT)
- RAILTRACK (GB)
- UNIVERSITE POLYTECHNIQUE DE MONS (B)
- RAILINFRABEHEER (NL)
HVB: Background

Links to other Projects:
- ... (to precise)

Follow-up Projects
- ... (to precise)
European Rail Research Advisory Council

HVB – Tests

Villenoy tests site (France)
[Paris-Nancy railway line, near Meaux east of Paris]

Chathill test site (UK)
HVB: Results

Project Conclusions:
• Operating use relevant
• Will be developed for other projects
• Solution to optimise infrastructure in certain conditions

Achievements
• Voltage gap compensated at the sub-station: 3kV
• Target Cost device achieved (around 1M€)

A comparison with the HVB cost and the installation of a new Electrical Substation is reported in the following diagram:

Economic analysis between HVB cost and the installation of a new electrical substation
HVB: Evaluation criteria

1. Were the results implemented in the design of the new products and services? Were these new products/services put into commercial operation – **yes**
2. Is new legislation and standardization based on findings from this research project – **No**
3. Are the results of the project implemented across Europe or only in a small number of Member States – **small number of Member States for the moment**
4. Are the results of the project implemented outside Europe before being accepted in Europe – **No, first in Europe (GB and F)**
5. Did the projects increase competitiveness of the European railway sector abroad with regard to products, services, standards and system design – **Yes: it can decrease the installation cost**
6. Did the project increase competitiveness of the railway transportation compared to other transport modes – **Yes: it can decrease the installation cost and it optimises the energy supplied**
7. Are the results of the project taken into consideration when preparing public tenders – **Yes**
8. Does the implementation of the project results help facilitate cross-border operations by problem-solving in the domain of interoperability –
9. Does the implementation of the project results help facilitate inter-modal operations by problem-solving in the domain of inter-modality –
10. Can benefits be assessed in financial terms – **Yes**
11. Applicability of results to future scenarios – **Already implemented in other site and proposed as an alternative in supply scheme**
12. Usefulness of research procedures for future projects (incl. modelling) –
HVB: Reasons for outcome
HVB: Lessons learnt