

The ECORails Project: Why a Public Transport Administration initiated ECORails – and how ECORails was organised

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1. About the TSB Innovation Agency

TSB Board of Trustees

Supervisory Committee of the TSB Foundation and Innovation Agency

TSB Technology Foundation Berlin

Business Areas

- *Technology & Innovation*
- *Education*
- *Technology communication*

Activities

- *Data and Facts for the Technology policy*
- *Identification of competencies and cooperation potentials*
- *Proposals for action for the further development of the region*
- *Further development of the technology portfolio of the region*
- *Promotion of the young academics for engineering professions*
- *Communication of the research and technology c competencies of the region*
- *Creation of an innovation friendly climate / of societal acceptance for sciences and technologies*

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Business Areas

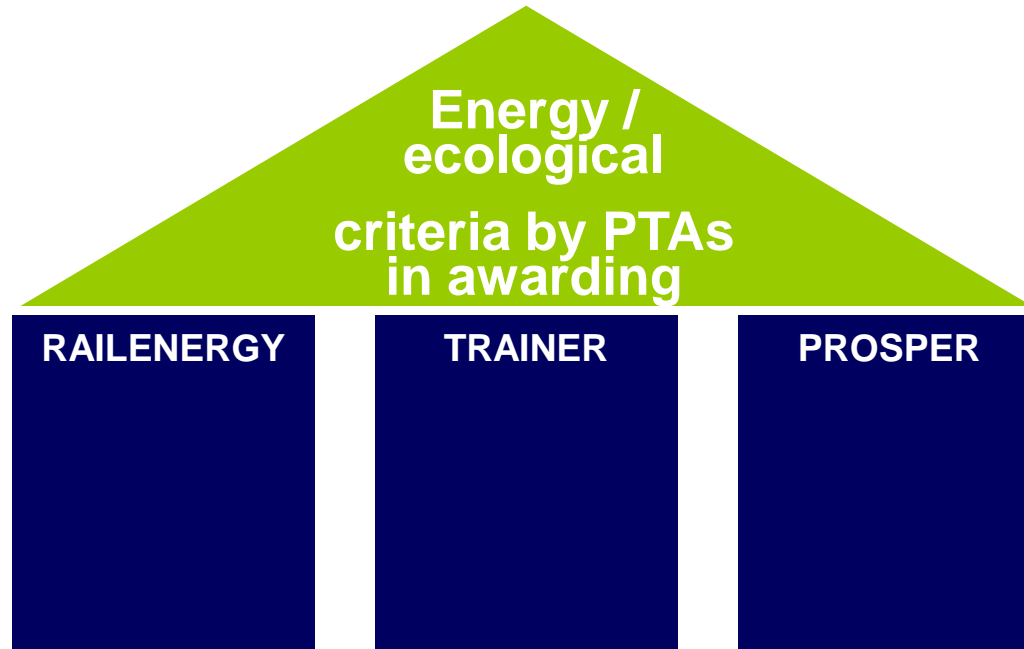
- *Life Science / Health*
- *Transport & Mobility*
- *Energy technology*
- *ICT*
- *Optics / Microsystem technology*
- *Industry & Research*

Activities

- *Knowledge and Technology Transfer*
- *Management of Future Areas and Clusters*
- *Project Development and Management*
- *Network Management*
- *Innovation and Technology Consultation*

2. Reasons for applying ECORails

Application of know-how in regional rail transport



- Rolling stock procurement: Consumption criteria, bonus-malus systems
- Inclusion of energy aspects into infrastructure charges
- Energy consumption assessment: Reference lines, technological specifications, standardised methods, energy labels

3. ECORails activities in brief

Decision support for energy efficient and environmentally friendly awarding – tendering, procurement – in RRTP:

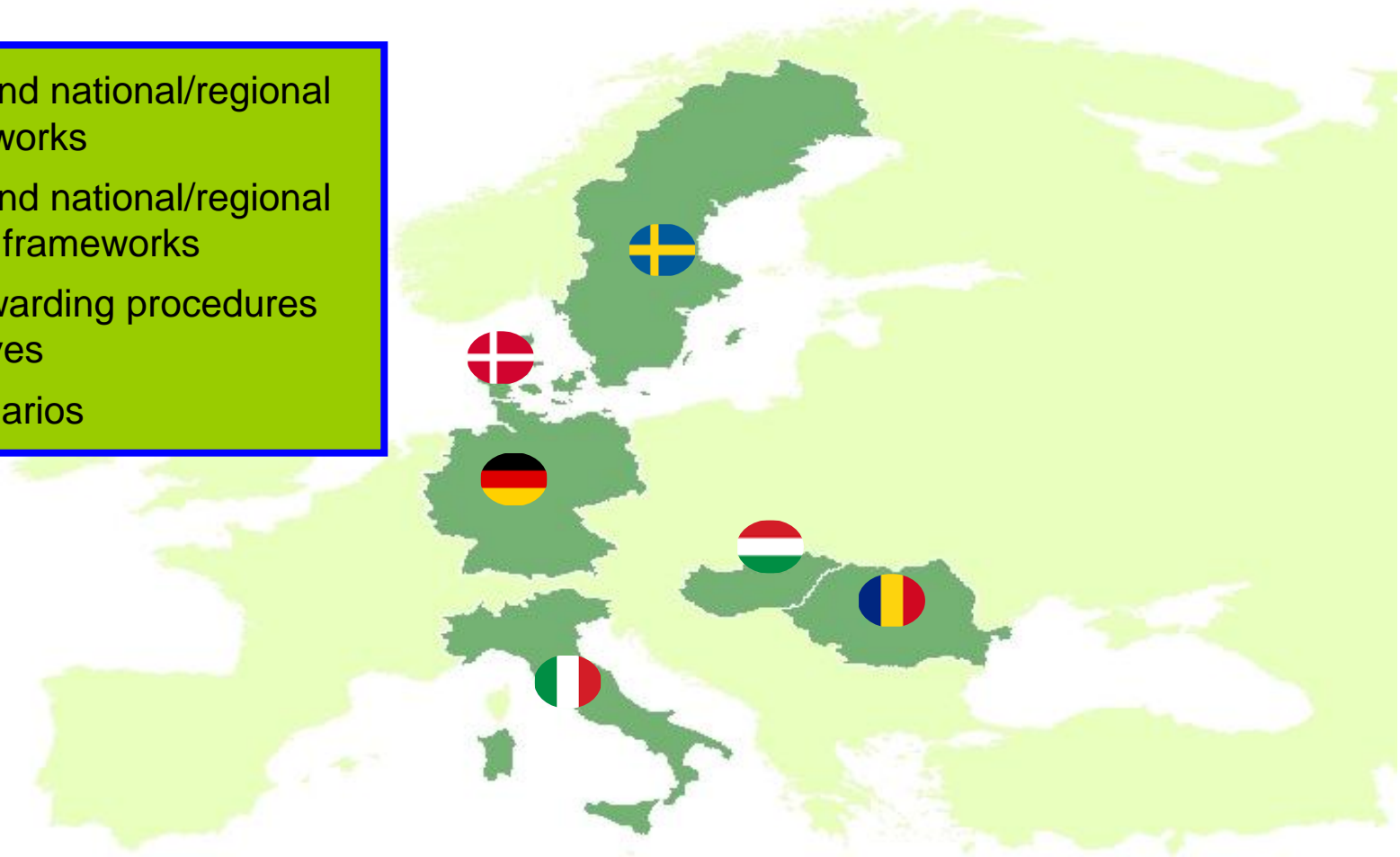
- **Identification of administrative expectations, needs and requirements**
- **Catalogue of energy efficient technologies and operational measures**
- **Energy performance criteria** supporting the identification of the energy reduction and environmental potentials
- **Information on economical benefits (i. p. amortisation) for technologies and operational measures**
- **Awarding text modules compliant with European law** useable by Public Transport Authorities (PTA's) for regional awarding EU-wide
- **Test/Evaluation of the guidelines at four exemplary European sites (Berlin-Brandenburg, Øresund, Lombardy, Timișoara)**
- **Duration: 2009 – 2011 (26 months)**

3. Performance Targets

- **Level 1: Quantitative energy and CO₂ emission savings**
 - 5% in comparison to current awarding
 - 10% with regard to the currently used rolling stock
 - In the long term: System-wide improvement of energy efficiency for regional railway by 15% by 2020
- **Level 2: Manageability of the Guidelines**
 - 12 interviews/written questionnaires with PTAs/TOCs from at least 6 countries
 - 4 agreements with PTAs on the energy efficiency and CO₂ targets
- **Level 3: Scope of dissemination**

3. Performance targets: 12 PTA/TOC Interviews conducted in 6 countries

- European and national/regional legal frameworks
- European and national/regional economical frameworks
- Regional awarding procedures and objectives
- Future scenarios



3. The ECORails Guidelines

<u>Strategy</u>		Strategic considerations; definition of mid-term and long-term objectives	
<u>Main phases at PTA in a typical award project:</u>		<u>Main associated actions at PTA:</u>	
Competitive Awarding	Direct Awarding / In-house provision	Competitive Awarding	Direct Awarding / In-house provision
A. Preparation		A. Definition of the award project: decision on award procedure; identification of needs, options and targets	
B. Elaboration		B. Elaboration of ITT / (direct) contract text plus planning of phases D-G; publication of tender documents	
C. Response to tender	C. + D. + E. Negotiation	C. Mainly bidding operators to work; PTA to answer bidders' questions	C. + D. + E. Agreement on the contractual clauses and on the economical and technical details of the contract
D. Evaluation and awarding		D. Evaluation, decision and justification; communication of the result	
E. Negotiation		E. Further negotiations and specifications; preparation of the contract	
F. Preparation of contract period		F. Verification of performance with selected operator; preparing of monitoring	
G. Follow up during the contract period		G. Monitoring and bonus/penalty awards on annual basis	

3. The Pilot application approach

- Consideration of the relevant risks for PTAs and TOCs, resulting from developments during the contract period, as there are
 - framework conditions rooting in public rail transport demand
 - energy prices
 - legal environmental requirements (e.g. ambient noise regulation) and juridical decisions
- Provision of information
 - For consumption and emission reduction potentials as well as cost estimations
 - LCC approaches
- Reality check of the Guidelines test version by the Site Stakeholder Group (SSG) acting as a **„Sounding Board“**
- Understanding about the interests of the different stakeholders (PTA, TOC, Manufacturing Industry)
- Test of the Guidelines in particular for the phases preparation and elaboration regarding
 - Comprehensiveness and correctness of contents
 - Perceivability
 - Completeness

4. Pilot Application Sites

- **Berlin-Brandenburg:** Urban catchment with suburban and rural connections
- **Øresund:** Cross-border connection – Danish part
- **Lombardy:** Dense and mixed network of several cities, towns and rural areas
- **Timișoara:** Regional transport in a new EU member state – both city catchment and network of cities, towns and rural areas

4. Berlin Pilot Application Site

- **Indexing of energy costs** on a realistic level, based on new rolling stock with low consumption
- **Maximum level of energy consumption** (verification by test run according to a specific service profile)
- **Option to offer lower energy consumption** and thus getting higher scores
- **Concept for parked train mode** (qualitative assessment)
- **Driver's training for energy efficient driving** (qualitative assessment: minimum requirements for training modules)
- **Monitoring** of real energy consumption during the contract period
- **Noise**
- **Pollutants** (mainly particulate matter (PM), NO_x)
- **Incentives for intensified use of „better“/modernised vehicles** mainly referring to noise and pollutants

Contact

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