

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

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Content

1. About the TSB Innovation Agency
2. Reasons for applying ECORails
3. ECORails activities
4. Berlin Pilot Application Site

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 competencies of the region*
- *Creation of an innovation friendly climate / of societal acceptance for sciences and technologies*

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Business Areas

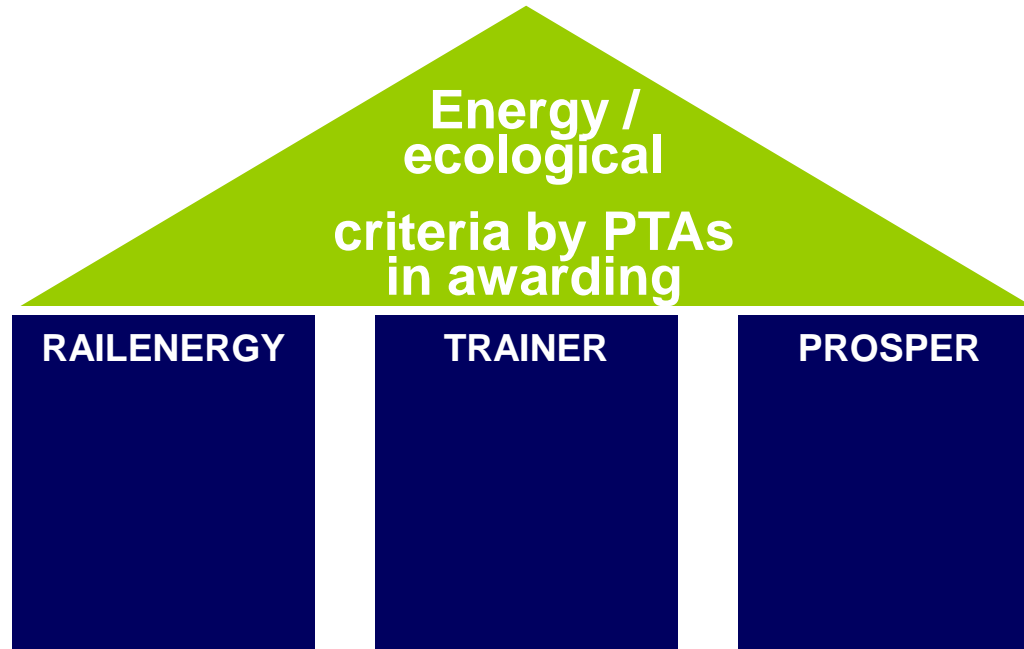
- *Life Science / Health*
- *Transport & Mobility*
- *Energy technology*
- *ICT*
- *Optics / Microsystem technology*
- *Industry & Research*

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:

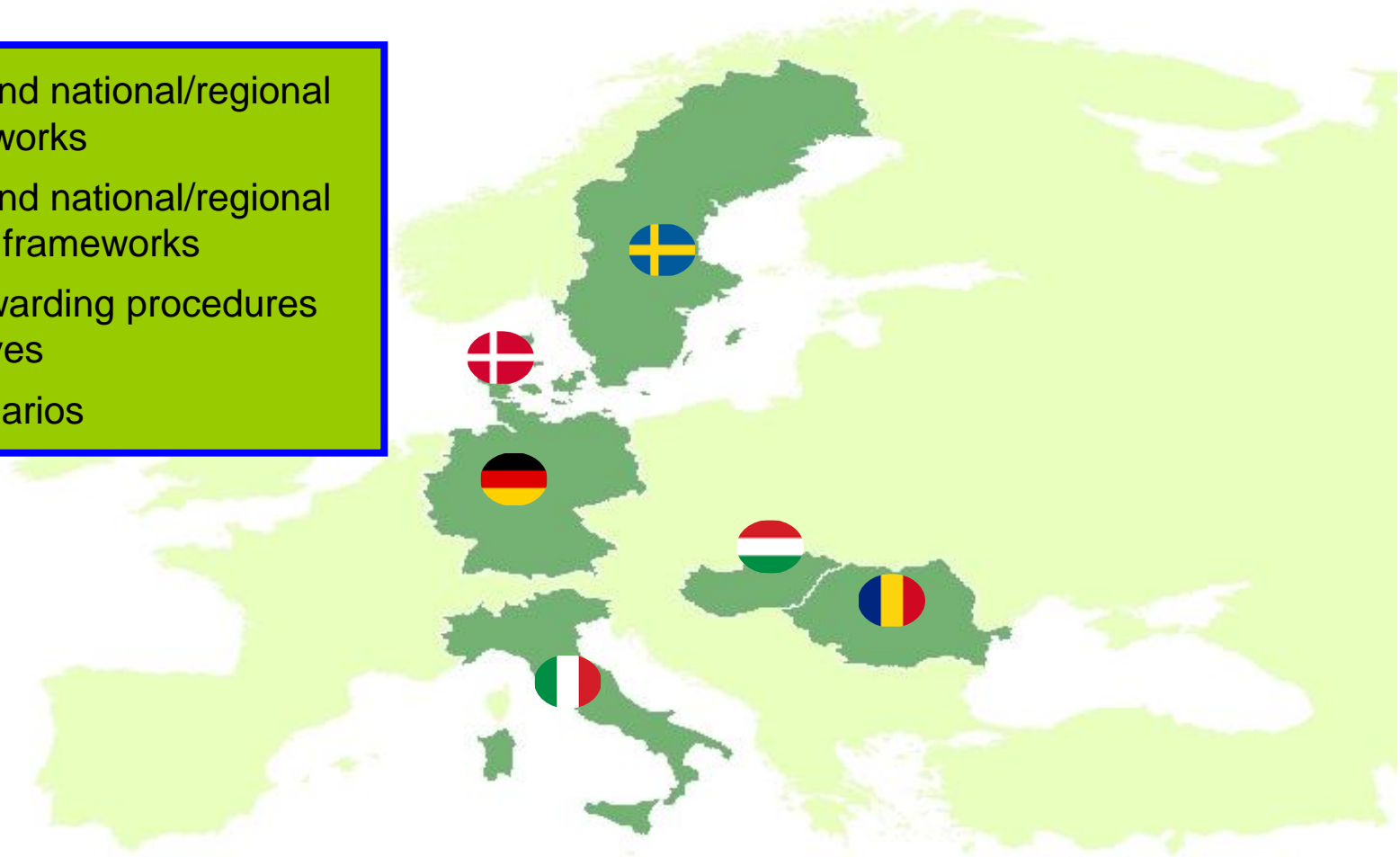
- **Identification of administrative expectations, needs and requirements**
- **Catalogue of energy efficient technologies and operational measures**
- **Energy performance criteria** supporting the identification of the energy reduction and environmental potentials
- **Information on economical benefits (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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