CER
The Voice of European Railways

POSITION PAPER

Standardisation & Climate Change

28th June, 2012

COMMUNITY OF EUROPEAN RAILWAY AND INFRASTRUCTURE COMPANIES - COMMUNAUTÉ EUROPÉENNE DU RAIL ET DES COMPAGNIES D'INFRASTRUCTURE - GEMEINSCHAFT DER EUROPÄISCHEN BAHNEN UND INFRASTRUKTURGESELLSCHAFTEN

CER aisbl Avenue des Arts, 53 B-1000 Bruxelles Tel: +32 2 213 08 70 Fax: +32 2 512 52 31 contact@cer.be www.cer.be

CLIMATE CHANGE & STANDARDISATION

The **European railway system** has been standardised and regulated for more than 150 years and is defined through a **complex and vast hierarchical standardisation and regulation landscape**. The standardisation starts with the basic functional requirements on company level and goes up to European standards like UIC Codes, UIC/UNIFE Technical Recommendations and CEN/CENELEC EuroNorms/ Technical Specifications. The regulation comprises national framework as well as Technical Specifications for Interoperability (TSI) ensuring the interoperability of the trans-European rail system and the European Commission's Directives.

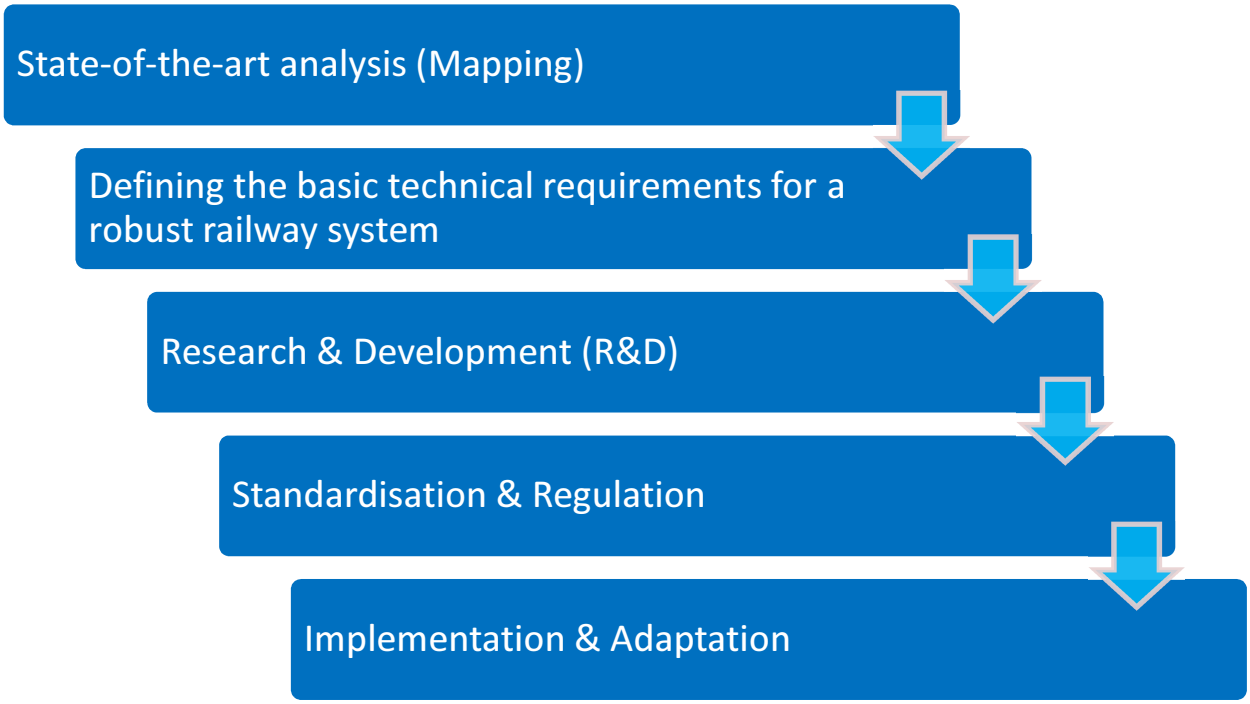
In order to adapt the European railway system to climate change, the **existing standardisation needs to be adapted or extended** accordingly. Firstly a complete **mapping** of the existing standards and regulation is required to identify the gaps between the current situation of the rail system including rolling stock and infrastructure and the target system of a resilient railway system. The open points should be closed by **well-focussed research and development activities** e.g. in the Framework of **Horizon 2020**. All R&D activities in terms of climate change adaptation must be fully exploitable in terms of standardisation potentials. Based on these finding the existing **European standardisation bodies** (incl. UIC) as well as the on-going standardisation work in European must be supported and the aspect of climate change and resilience added to the **existing framework**.

Taking into account the **long life cycle costs of the rail system's components**, like 20-30 years for trains, 30 years for ballast formation and 75 years for bridges, the standardisation work has to be well supported broadly and started as soon as possible allowing the periodic replacement of the existing and fatigue components by new, improved and climate change resilient elements of the rail system. The major elements of the rail system to be considered are: ballast formation, catenary, earthworks, slab track, drainage systems, water ducks and bridges.

Annex 1

Life Cyle of selected railway system components

Roadmap to achieve a robust European (rail) transport system



Annex 2

List of Abbreviations

CEN	Comité Européen de Normalisation - European Committee for Standardization
CENELEC	Comité Européen de Normalisation Électrotechnique- European Committee for Electrotechnical Standardization
CER	Community of European Railways
R&D	Research and Development
TSI	Technical Specifications for Interoperability
UIC	Union Internationale des Chemins de fer - International Union of Railways
UNIFE	Union des Industries Ferroviaires Européennes - Association of the European Rail Industry

Disclaimer

Community of European Railway and Infrastructure Companies (CER) AISBL

Avenue des Arts 53
B-1000 Brussels
Belgium

Tel +32 2 213 08 70
Fax +32 2 512 52 31
contact@cer.be

This CER document is for public information.
Although every effort is made to ensure the accuracy of the information in this document, CER cannot be held responsible for any information from external sources, technical inaccuracies, typographical errors or other errors herein. Information and links may have changed without notice.