

Next step in harmonisation of passenger rolling stock

General overview of initiative of Europen railway operators

december 2018













Starting point *EuroSpec*

This initiative is fulfilling the next step in harmonisation





- Suffering from a variety of procurement processes, structures and requirements from the market.
- Heading for standard adaptable platforms.



Railway operators:

- All tendering their procurement, do not design trains;
- Dissatisfied about duration of procurement process for trains;
- Cost, quality and reliability still needs improvement;
- Need for better controlled uptake of innovations.



Passengers:

- Cost, quality and reliability still needs improvement;
- Expect a competitive level of comfort and quality.













EuroSpec – where it stands for

A clear vision, goal and potential outcome of this initiative

Vision:

Significant cost reduction and an overall improvement of the reliability, availability, maintainability and quality of trains.

Goal:

Define a common base and eliminate differences in non-competitive domain of rolling stock procurement. Along 4 different streams:

Process Requirements **Functional Requirements**

Product Requirements Innovative Requirements

Potential:

- Change to real European rolling stock platforms;
- Promotion of interoperability and cross functional authorisation;
- Economics of scale and standardisation reduce cost and improve quality and reliability.













Scope and position *EuroSpec*

In relation to regulations and standards

- In addition to the regulatory framework and without overlap with CEN/CENELEC structure;
- From user-perspective;
- No duplication;
- Filling gap in areas of users interest.

OUT-OF-SCOPE

Operator specific domain

Base harmonised specifications in non-competitive domain

Under the desirable desirable desirable domain

Operator specific domain

Europe desirable domain

OUT-OF-SCOPE

ISO, EN, ETSI, IEC-standards
Notified National Technical Rules (NNTR)
Technical Specifications for Interoperability (TSI)















Main features of *EuroSpec* initiative

Important characteristics for being succesfull



Focus: procurement of passenger trains in Europe for heavy rail use;



Pragmatic & business focus: simple and transparent processes, because a high level of thrust and respect, based on the need of the operators and end-users;



Fast & Efficient: use all the knowledge from all interested members, lean decision processes, small organization;



Low-cost (simple organization, based on equal share of in-kind contributions);



In cooperation: is needed for success. Create an appropriate and open organisation;



Well aligned approach is used. An efficient, flexible, lean approach to do this work.









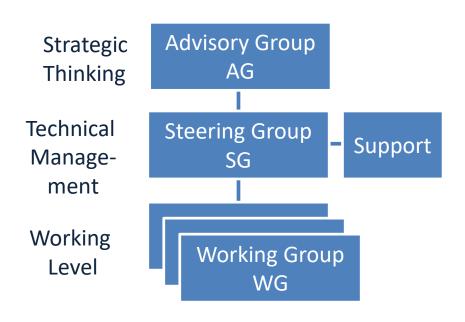




Characteristics of *EuroSpec*

Lean organisation starting point for achieving the defined goals

Flat organisation – 3 levels:



6 participants:

6 European train operating companies and the association of train operating companies in the UK represented by the RDG.















Specified and published specification modules



Toilet



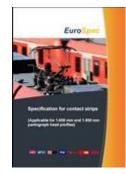
HVAC



Documentation



Requirement Management



Contact strips

All for an attractive price of € 0,00 each



Wheel & Brake disc



Sliding Step



Automatic Coupler













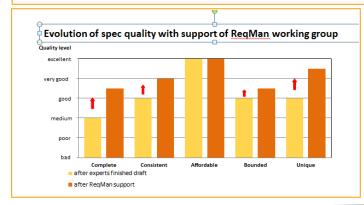


Module Requirement management important base for work

- EuroSpec "requirements management" has defined a common reference and method for the other working groups, to improve standardisation between all working groups;
- EuroSpec "requirements management" trains and coaches the specialists in writing requirements;
- EuroSpec "requirements management" reviews and improves the Eurospecs using several quality aspects.

The document **EuroSpec** Requirements Management provides a common focus on "requirements management" for use by companies in the rail sector. The document refers to existing standards and best practices and has the following chapters as content:

- Requirements Characteristics;
- Requirements Syntax;
- Requirements Attributes;
- Requirements Traceability;
- Requirements Validation and Verification;
- Requirements Interchange Format;
- Do we mean standards?















Module Sliding Step – example of harmonized requirements



FII²

Take-over

Verification

FAI1

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leview

ID	Requirement classification	Requirement text	Rationale	Offer of Tenderer(s)	D R
		1) Introduction			
SLST.1	INFO	This specification is an addition to EN 14752 and TSI PRM and contains specific items which operators encounter during the operation.	Scope of EuroSpec Sliding Steps.		
		2) Definitions and standards			
SLST.2	INFO	A sliding step is a bridge plate as defined in EN14752:2015, with the addition that the sliding step only moves in y-direction, and performs no rotation- or folding move.	EuroSpec has to be consistent with other existing norms.		
SLST.3	INFO	The coordinate system used to indicate directions throughout this specification is shown in figure 2.	Easy readability.		
SLST.4	RE	The sliding step shall co nply with EN 14752.	Consistent with SLST.1.	х	
SLST.5	RE	The sliding step shall conply with EN 16584-1.	Norm is not yet mandatory in TSI PRM.	X	
SLST.6	R	The sliding step shall conply with EN 16584-3.	Norm is not yet mandatory in TSI PRM.	х	
		ı			

Equal quality level of individual requirements

Importance and legal status of the requirement to the project

Reason to state the requirement

Indication of methods and/ or documentation to verify a requirement















This initiative adds already value to the sector

Application and dissemination of EuroSpec documents:

- Discussion with individual manufacturers
- Exchange and discussion with UNIFE (MoU in force);
- Already used in tenders by all EuroSpec members;
- Recognized, understood and included in new (standard) designs of manufacturers;
- Used as starting point for new EN-standardisation work
- Elements used as input for Shift2Rail-projects
- Publication at <u>www.eurospec.eu</u>.

Under construction

Networks:

• 'Experts' and 'design managers' meeting each other sharing experience and the same long term ideas.



















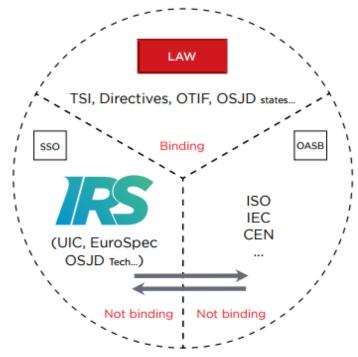






Scope and position *EuroSpec*Acknowledged by UIC and CER,

user-oriented focus and in voluntary domain



Railway Standardisation strategy Europe (UIC, November 2016)





Boosting railways for the 21st century A CER/UIC compendium for bringing railways forward

Brussels & Paris, 20.10.2016

Introduction

This document is the combination of a series of pieces of work undertaken during 2016. There was the CER, EIM, UIC, CIT "Roadmap for digital railways" published in spring, the "Shaping the mobility of the future" declaration signed by several CEOs in Lugano in June, and the CER/UIC "Tomorrow's railway, today" agreed in September.

In order to bring all that thinking together, this compendium of all the key points from those three documents has been produced.

		North-South axis asap)			
R & I and Requirements	Research	Foster topic driven innovation in on-going and future research and development initiatives (Shift²Rail and Shift²Rail2)	UIC	2020+	Shaping the mobility of the future
	European functional specification s for rolling stock procurement	This approach shall lead to supporting the preparation for the purchasing of rolling stock (or other railway subsystems) from an external source and improve the tendering or bid process by providing a set of harmonised requirements.	EuroSpec UIC	2017 - 2020	CER/UIC Roadmap "Tomorrow's railway, today"















Work plan EuroSpec

Overview of areas, ongoing and planned

Updated versions or additional content:

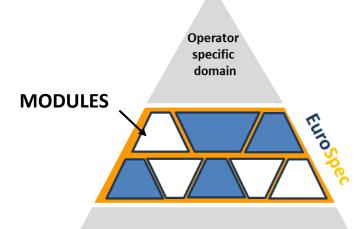
- Sliding step,
- Toilets,
- HVAC.
- Automatic coupler

First version in progress:

- Parking Noise,
- TCMS data service,
- Global comfort evaluation,
- Upgrading Software,
- Seat Comfort,
- Passenger Access Doors,
- Water tightness,

In scope for potential new modules:

- LCC,
- Upgradeability,
- Common Structure,
- Trivial ID's



ISO, EN, ETSI, IEC-standards
Notified National Technical Rules (NNTR)
Technical Specifications for Interoperability (TSI)







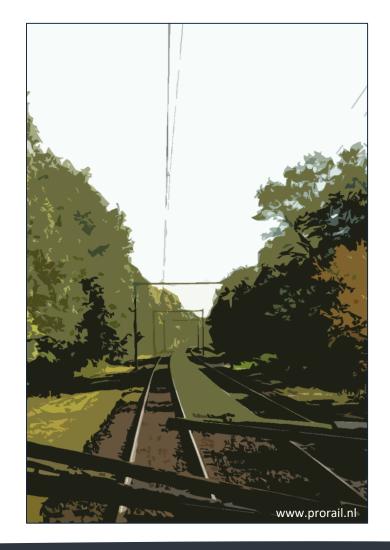






EuroSpec - the Outlook

- Train operators have been able to reduce their own specific requirements by making use of the first Eurospecs;
- For a sustainable railway sector further harmonisation is needed:
 - Increase of reliability by sharing good practice and experience;
 - Simplification of tender process in time and effort;
 - Increase cost efficiency by standardised products;
 - Smooth adaptation of innovations by harmonised approach.
- EuroSpec fills a gap in current standardisation landscape by harmonising the requirements from the train operators perspective;
- EuroSpec is a mean to obtain mature products needed to offer excellent products to the end customers.















Meeting EuroSpec

Our website www.eurospec.eu

Under construction

- Download area (free of charge!)
- Press corner
- Questions

Key contact

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EuroSpec

The accelerator for user-oriented harmonisation













