



Railway norms and standardisation

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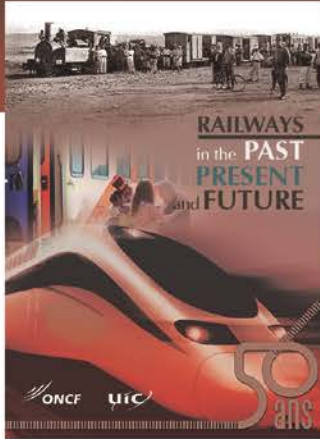


ONCF



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SUMMAR

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- 1. Railway System Specificities**
- 2. Characteristics of Railway Standards**
- 3. Which Standards for the Railway Operating Companies ?**
- 4. UIC Standardisation System**
- 5. UIC International Railway Standards**
- 6. Clustering the standards**
- 7. The Challenges for the Railways**
- 8. Conclusion**



RAILWAYS SYSTEM SPECIFICITIES

1. High level of **investments** (Human and Financial resources)
2. High level of **performances** (RAMS parameters) demand
3. High level of **complexity**
4. Strong **connection** and relation with other existing transport systems
5. Fulfilment of precise and well described **business and service plan**
6. Relatively **small scale** productions
7. Not **homogeneous** and **distributed** infrastructure



RAILWAYS EVOLVING CONTEXT

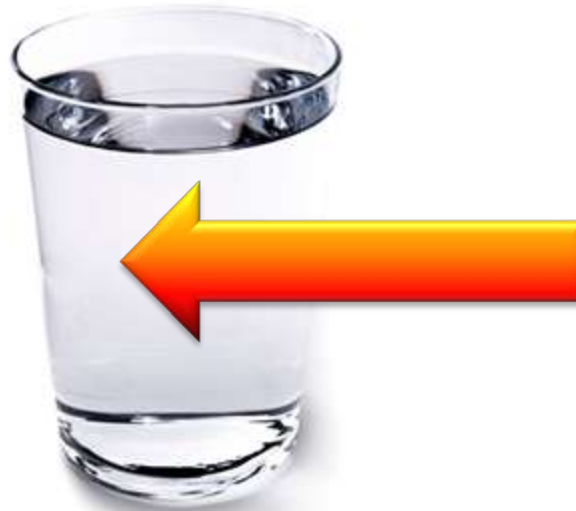
1. Reorganization of the Railways with vertical disintegration
2. New techniques for different subsystems and publication of international rules and norms
3. New types of contract to build, operate and maintain Railways requiring longer term commitment
4. New interfaces between operators (rolling stock) and infrastructure managers (maintenance) institution



CHARACTERISTICS WANTED FROM STANDARDS

Standardisation System should be a voluntary system, organised under principles such as

- *transparency*
- *openness*
- *impartiality*
- *consensus*
- *maintenance*
- *availability*
- *quality*
- *stability*
- *effectiveness*
- *independence of specific interests*
- *market relevance*
- *coherence*



A SUSTAINED RAILWAY SECTOR DYNAMIC with UIC

- More than 230 members & partners
- For more than 90 years on 6 continents
- More than 400 technical workshops, seminars, conferences and meetings in the last 5 years; some 670 norms in 3 languages

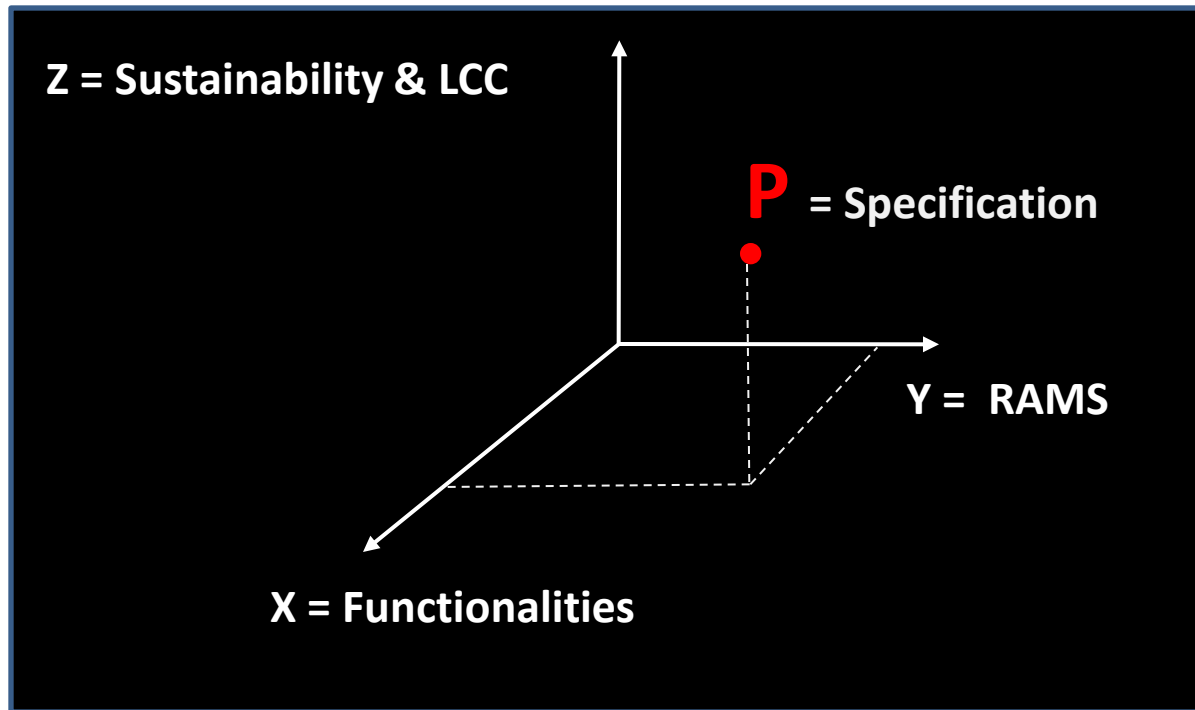
UIC is a global organisation for railway standardisation capable of interpreting the requirements of the Railway Operating Companies.

The Railway Operating Companies are the responsables of the railway service and are the System Integrators of the Railway Systems.



WHICH STANDARDS FOR THE ROCS ?

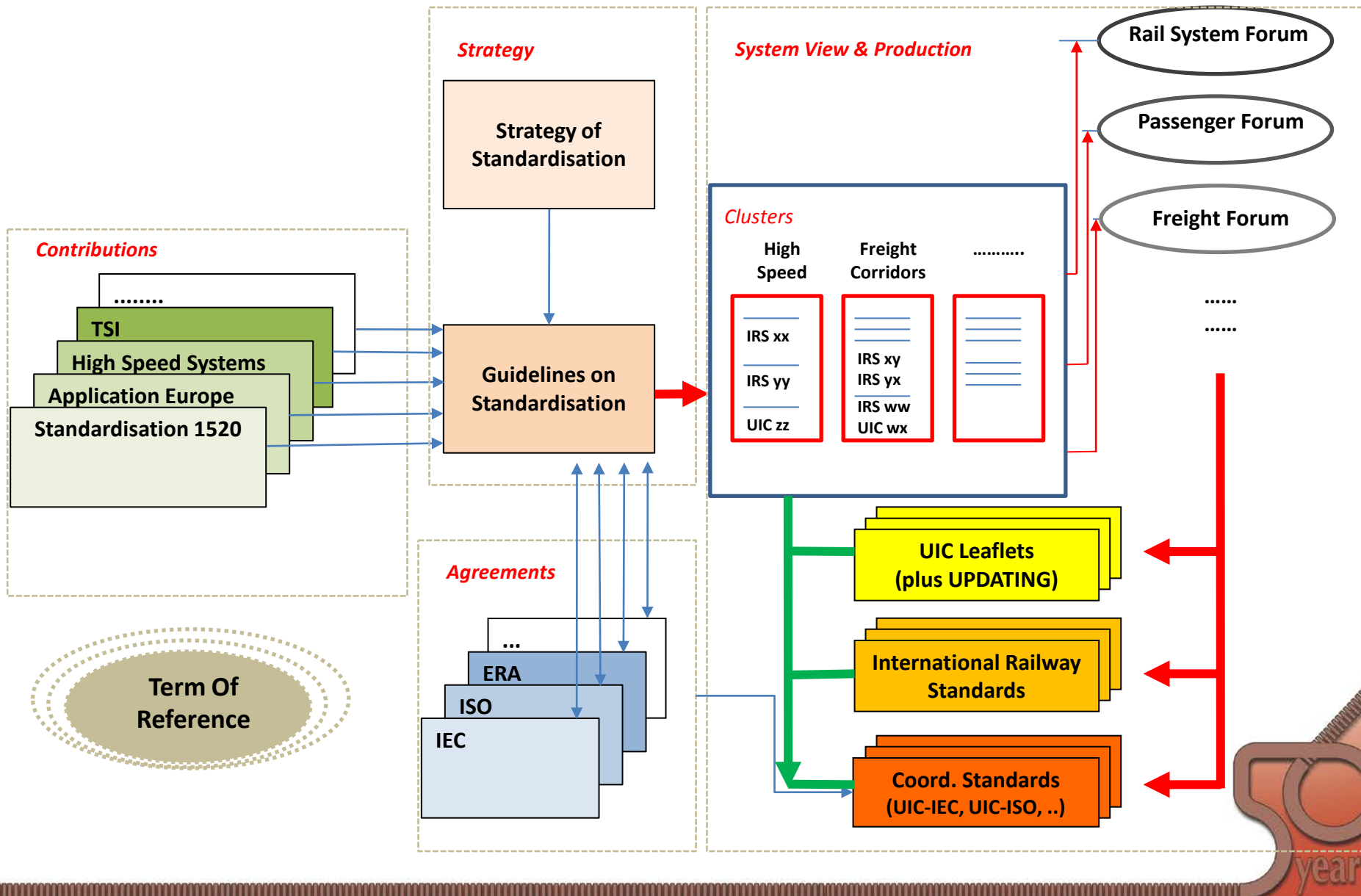
The Specification Space



1. maintain and enhance quality
2. provide information
3. ensure interoperability and compatibility
4. increase safety
5. increase value for consumers
6. increase competition
7. lower output and sales costs
8. benefiting economies

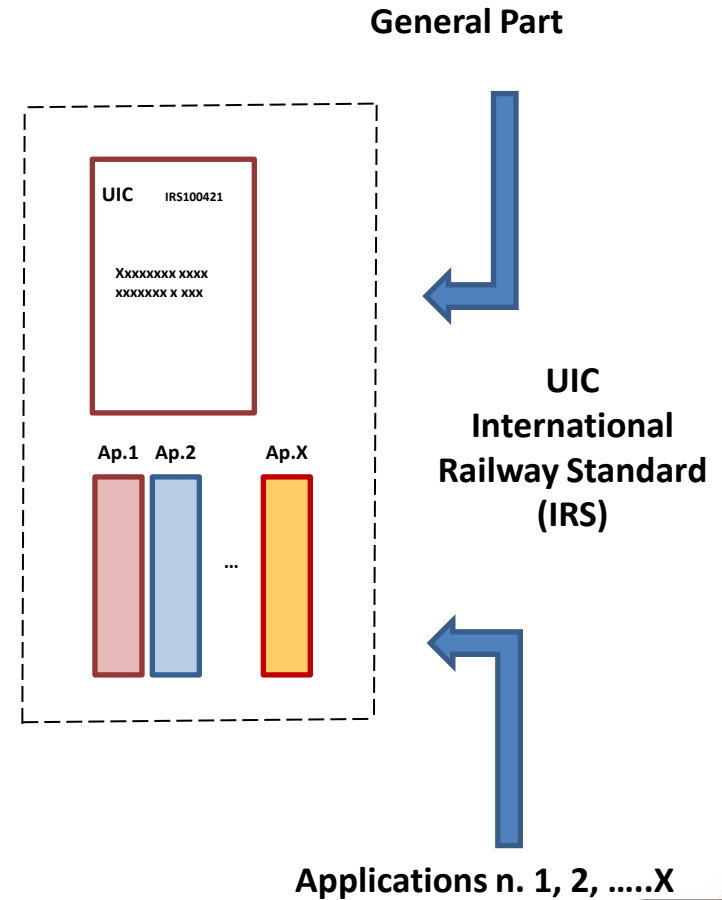


UIC STANDARDISATION SYSTEM

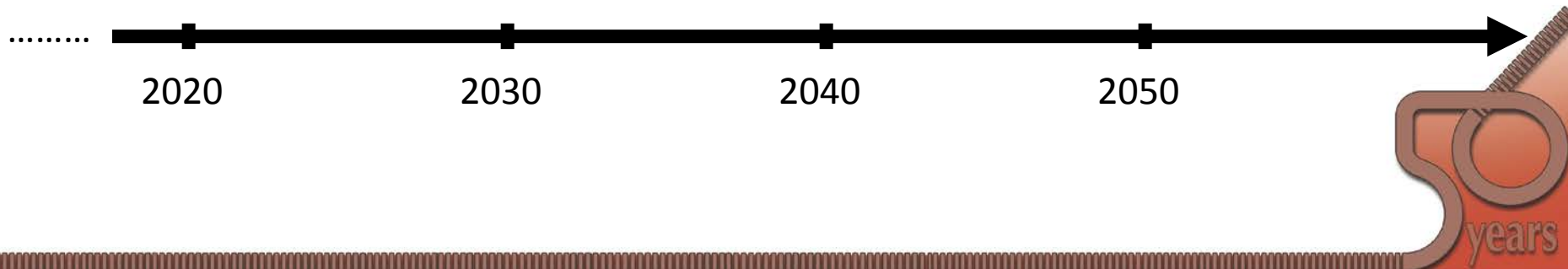
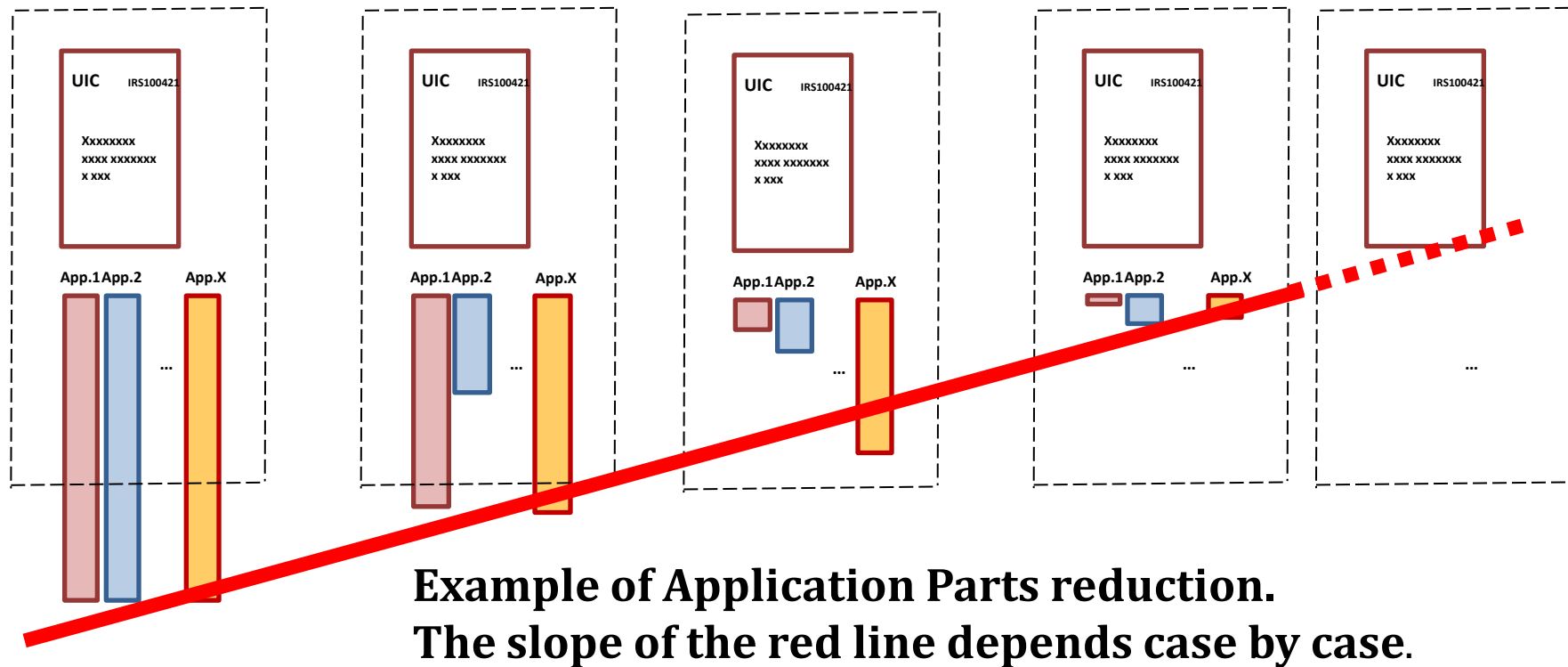


INTERNATIONAL RAILWAY STANDARDS

- ➔ 1. A General Part: with the elements common to all Applications that are implemented when the IRS is adopted.
- ➔ 2. Several optional Application Parts: each of them is pertinent for a specific service or geographic application.

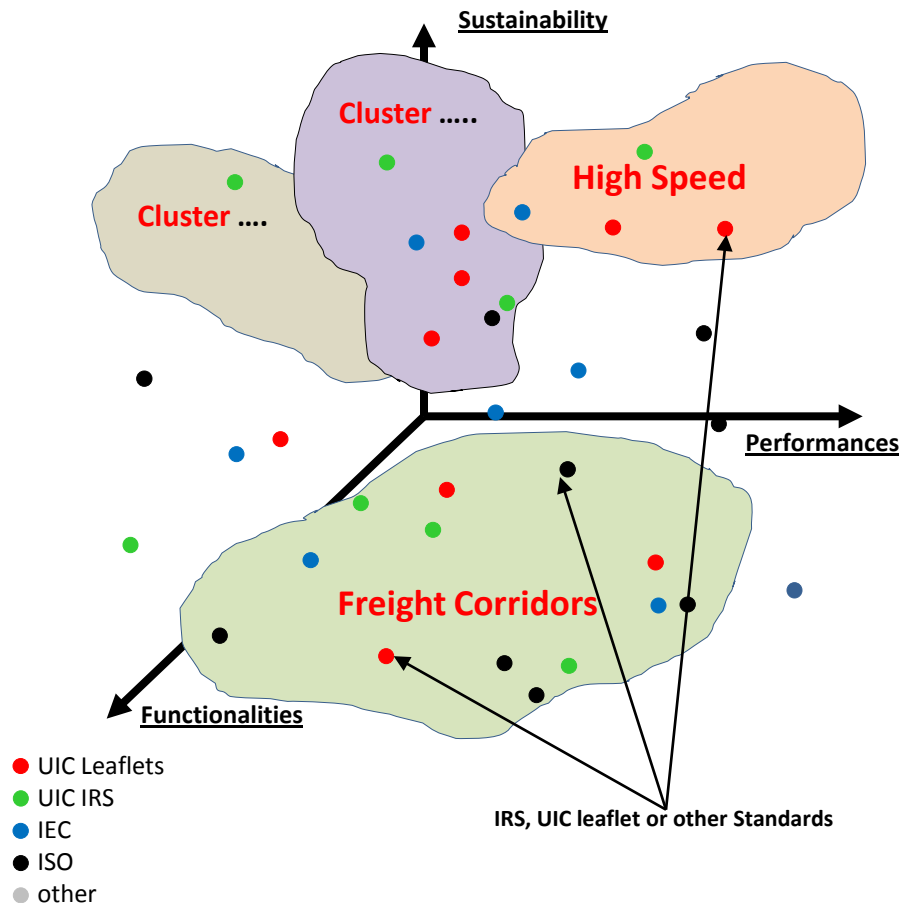


INTERNATIONAL RAILWAY STANDARDS PATHWAY



CLUSTERs of Standards

Clusters = coordinated sets of norms addressed to standardise the pre-competitive items of the railway applications.



DEMANDED LEVEL OF SERVICE

+

BOUNDARY CONDITIONS

+

TRANSPORTATION PROBLEM

+

AVAILABLE SYSTEMS

=

CLUSTER



ROCs CHALLENGES ON STANDARDISATION



Standards help in the major societal challenges

globalisation

economic and financial crisis

innovation

market weaknesses

climate change

sustainable resource use

ageing of population

integration of people with disability

consumer protection

workers' safety and conditions

social inclusion



CONCLUSION

- 1. Railway Standardisation is the way to consolidate the experiences, the best practices and the service proven solutions for the continuous improvement of the passenger and freight transport.**
- 2. The different stakeholders involved in the Railway System and subsystems need always to orient and focus their attention and efforts to the final users and consider them as their *market*.**
- 3. A complementary and balanced approach from the various stakeholders in the standardisation domain is the solution that might induce the expected step change in the railway service.**
- 4. The UIC strategy and programs on standardisation are conceived to allow the ROCs to concretely implement and maintain valuable railway applications.**





THANKS

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 **ONCF**

 **uic**

 **50**
years