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**BUNDESAMT FÜR VERKEHR**



Bundesministerium  
für Verkehr,  
Innovation und Technologie



Eisenbahn-Bundesamt



Inspectie Verkeer en Waterstaat



Infrastruktur Betrieb



GRUPPO FERROVIE DELLO STATO

# Task Force Interoperability (TFI) International Requirements List (IRL)

December 2007

# Development of Verona-München Corridor

Ministries of Austria, Germany and Italy (May 2002)

3 different working groups were constituted:

- Operational WG - representatives of the infrastructure managers to analyse quality and compliance with timetables, trying to create a unified working check system along the railway corridor.
- Capacity Management/Timetable WG - representatives of the infrastructure managers, to analyse the capability (hour by hour) of the railway corridor and the allocation of the routes that are not in use, taking into consideration the possibility of interfacing the timetable planning systems.
- Interoperability WG - representatives of the infrastructure managers and the appointed national bodies for the homologation of the rolling stock, to homologate the locomotives which can operate along the railway corridor.

# Interoperability WG: Trilateral

- Austria: BMVIT (Federal Ministry of Transport, Innovation and Technology) and ÖBB Netz (ÖBB Infrastruktur Betrieb AG)
- Germany: EBA (Federal Railway Authority) and DB Netz (DB Netz AG)
- Italy: RFI S.p.A. – Technical Directorate – CESIFER

**E412, EU43, BR1822, BR189**



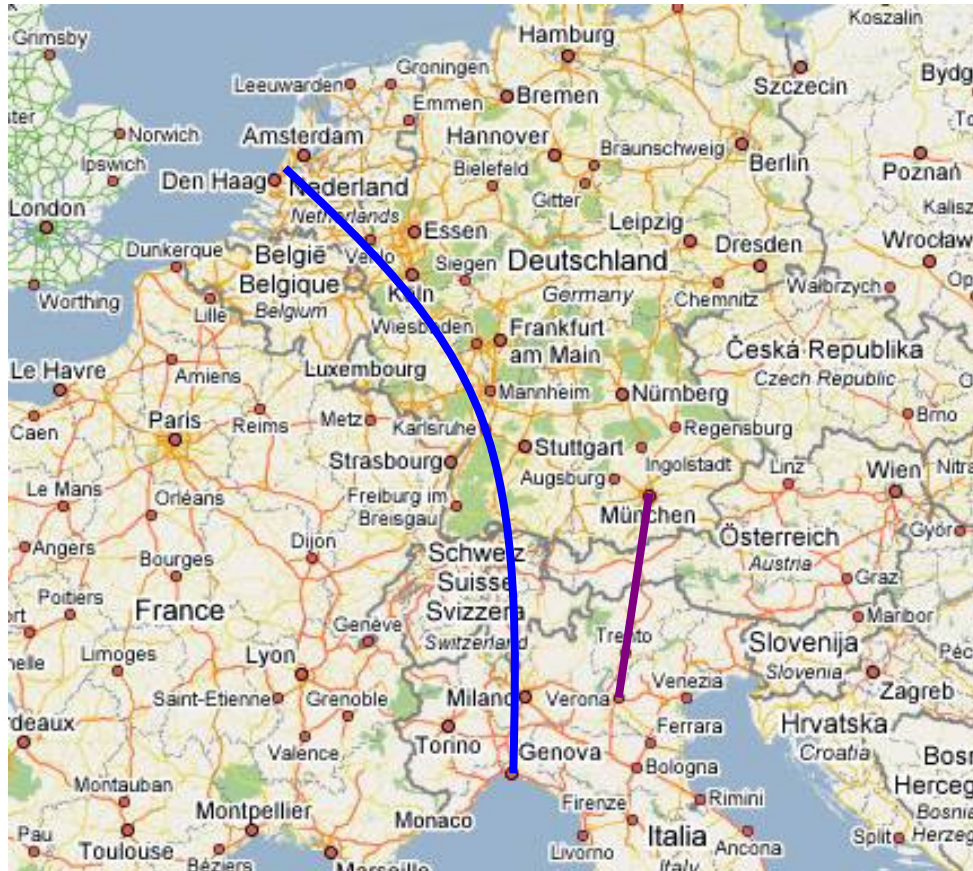
Until the application of TSI, each organisation has their own rules

~~New specific rules for the Corridor~~

Mutual approval for tests and documentation

# Trilateral → Task Force Interoperability

2003-2004: Trilateral + Swiss (BAV) + Holland (IVW)



Verona-  
-München

Genova/Milano-  
-Rotterdam

# Working group

TFI meetings with some builders of multi-voltage/multi-system locomotives (Bombardier Transportation and Siemens Transportation):

- ✓ possibility to speed up the process of homologation of rolling stock on the involved networks
- ✓ opportunity to optimally manage the resources intended for the process
- ✓ actively contribute solutions to the problematic situations that may occur during the homologation process
- ✓ discuss the details of the process of homologation and possible problems that could emerge

# Working group

Homologation requirements refer to:

1. EN norms, UIC leaflets for items pertaining to the railway technique (e.g. load-limit gauge)



**NO PROBLEMS FOR MUTUAL APPROVAL**  
(technical dossier, test report, etc.)

2. National laws (e.g. fire protection)



Mutual approval **NOT ALLOWED**: TFI promoter to Minister for modify regulations



# Locos involved



Bombardier E412



Siemens BR189



Siemens ES64U4



Bombardier E186

# 2002-2003: responsive work

Homologation process of new locomotives is faster and more linear compared to the rolling stock already homologated by some infrastructures.

It is more difficult to guarantee that homologation requirements will be met on single railway networks for the rolling stock which has already been produced and is circulating on other infrastructures:

- non-acceptance of tests previously performed (could refer to laws that nowadays are outdated)
- supply of technological equipment that could interfere with already existing ones and the regular function of other networks



# 2004-2005: concurrent homologations

In the case where the rolling stock homologation follows the same steps in all the involved railway networks, it is easier to pass and to do so in less time, thus avoiding possible obstacles that could turn up, for example, the incompatibility of the different equipment used.

The requests of homologation in 2004-2005 opened a new phase characterized by a consultation of homologation projects: test runs and trial activities were coordinated, and the demonstrations were in compliance and mutually recognized when possible.

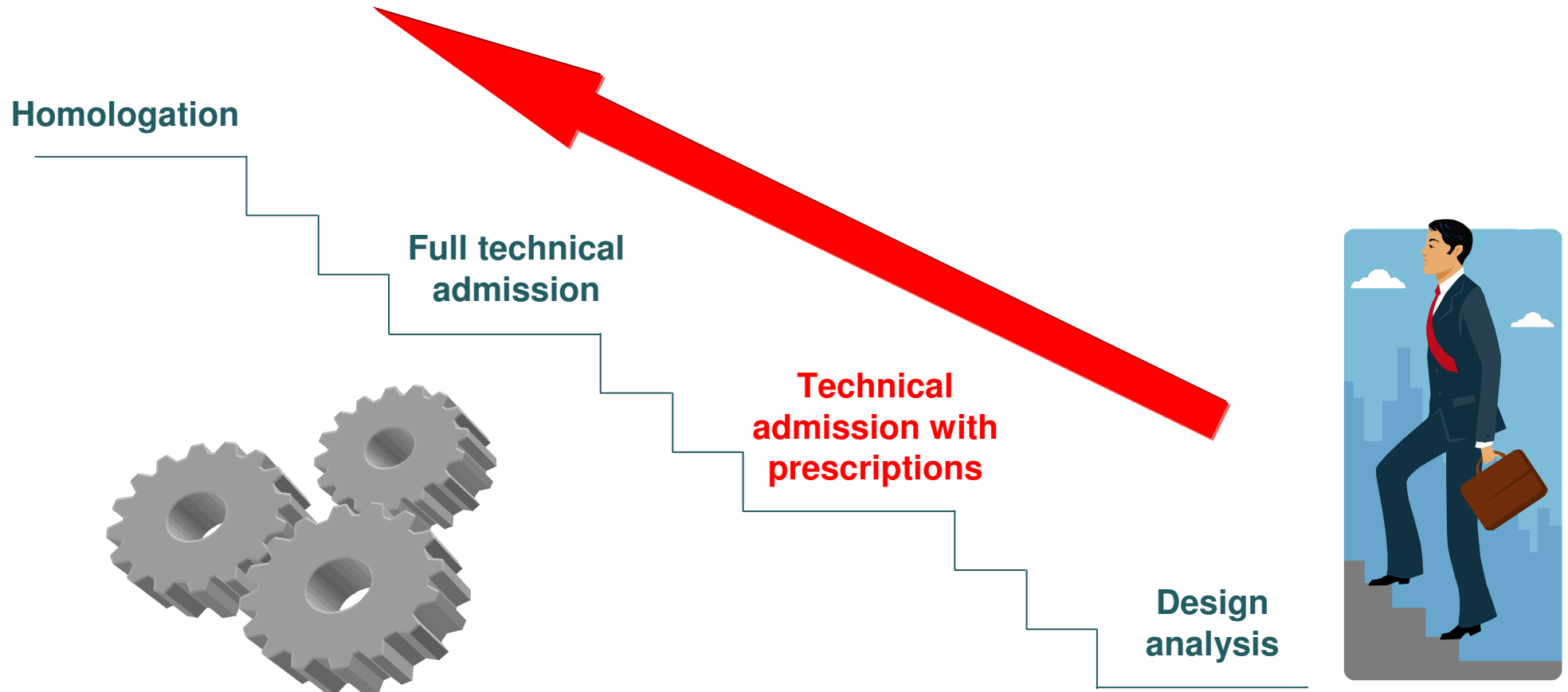
Synergy effects could be carried out concerning:

- the length of the project
- work done to carry out the tests
- total costs



# Homologation

## Incremental approach



# New concept for homologation

Search for country specific tests, that reach the same safety level



Eliminate cost expensive and time consuming multiple check by cross acceptance



The actual safety level will be kept

# Future developments

The jump in quality to optimize the homologation processes and therefore make the requirements of each network the same (where it was possible) consisted of the drawing up of a catalogue of requirements called “International Requirement List” (IRL), where all the homologation requirements on the five networks are mentioned in a structured manner.

The design and construction of new vehicles can take account of each single requirement of the involved infrastructures, from the beginning and in an organized way.

The procedure allows for the future adaptation of solutions pertaining to the homologation process that are:

- cost-optimized
- greatly functional
- future-oriented



# Future developments



Top-down approach



Bottom-up approach

IRL represents a project complementary and no substitute to TSI

**IRL is the tool to apply the cross-acceptance agreement signed by Ministries of A, CH, D, I and NL (Memorandum of Understanding)**



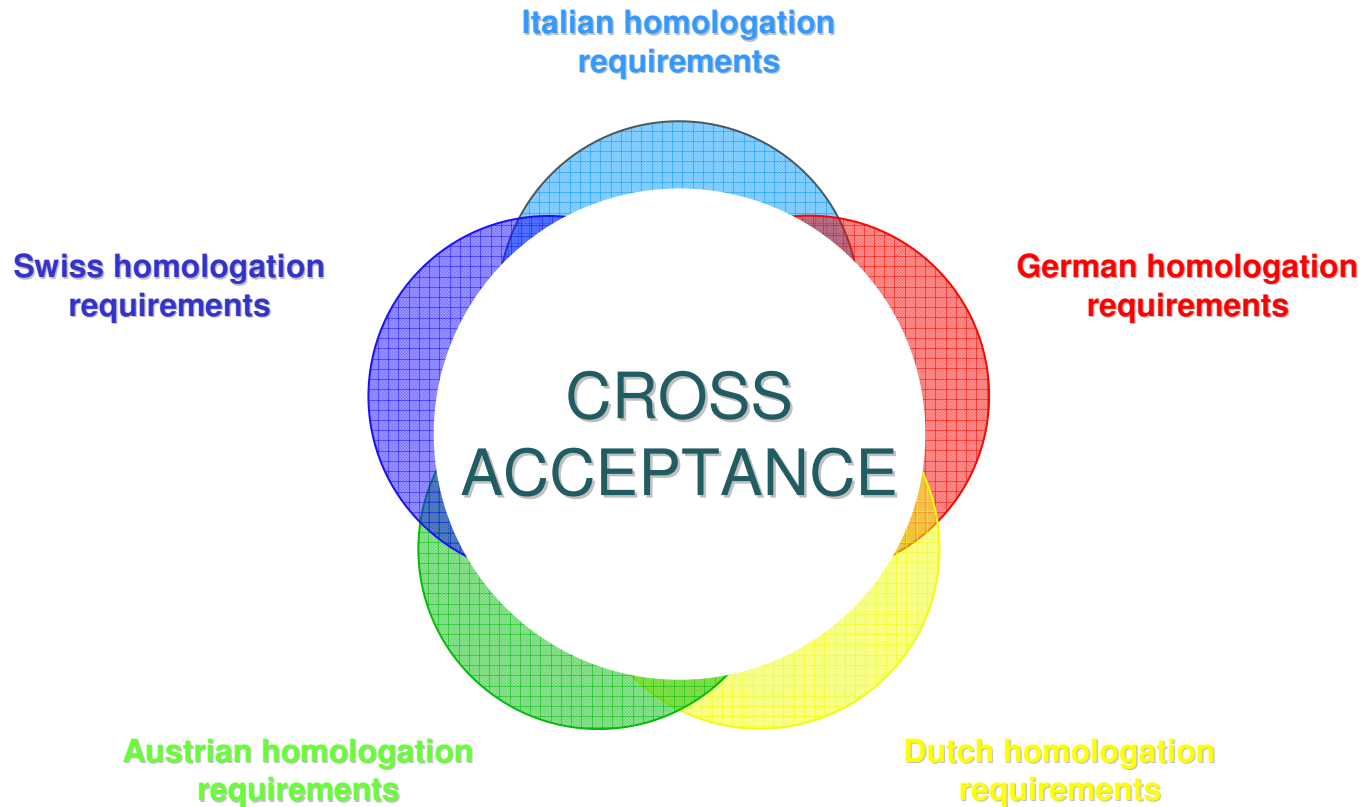
# Future developments

The IRL becomes:

- a systematic subsidy that takes account of, from the beginning of the planning phase, each homologation requirement and of the access conditions of the infrastructures
- a tool used to program and coordinate the activities and test runs
- the guideline to define the mutually accepted conformity proof
- a structure to harmonize and bring together the pertaining laws and regulations

**IRL MUST BE REALIZED IN KEEPING WITH OTHER PROJECTS THAT ARE IN PROGRESS IN EUROPE, IN ORDER TO BE COMPLEMENTARY AND NOT ALTERNATIVE TO THEM**

# International Requirements List



IRL allows to identify easily requirements for cross acceptance  
IRL makes the requirements available in advance