



# CEF PSA Project UBS

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# The initiation of the actions



- In 2017, the EU initiated a “Issue Logbook of technical problems in railway operations” with the aim of identifying interoperability barriers hampering international rail freight traffic. One of the most important priorities that has been identified and that is encountered by the railway sector is the technical operational issue of different national braking sheets and braking performance requirements (Priority 1).

Nº OF ISSUE	NAME OF THE ISSUE	DESCRIPTION
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## 1. BRAKING (Priority 1)

1	Braking sheets	Every country and nearly every RU uses a different Braking Sheet with different layout and content. The UIC Leaflet 472 gives a frame with mandatory and optional Data and an example for the layout.
2	Braking performance	Requirements for braking performance (in particular the braking percentages) as well as the braking calculations are different in the Member States.

- In the end of 2018, the DB Cargo AG launched efforts with its national companies to solve the issues.
- A first study concerning „Braking“ on the Rail Freight Corridor 1 has carried out 2019. Requirements for the change of brake rules along the corridor RFC 1 have been defined by DBC NL/DE/CH/IT.
- Based on these findings, a working group of brake experts from various European RUs, led by Xrail and the UIC, has developed a proposal for common rules for the brake position and the content of an European braking sheet and wagon list. This is called Unified Braking Scheme (UBS).

## **DB Cargo as trendsetter to Unified Braking Scheme (UBS) in Europe.**

- The goal was to roll out the UBS solution on the Rhine-Alpine Corridor
- For this purpose, the CEF PSA UBS project was launched in 2020.

## **The project members**

- DB Cargo AG (Germany, Netherlands, Italy)
- UIC
- EEIG Corridor Rhine – Alpine EWIV
- Eisenbahnbundesamt (EBA)
- DB Netz

Funded by European Commission

# Pilot UBS implementation along the Rhine-Alpine Corridor

## Activity 1



The main objective of the first activity of the Action was to develop pilot projects along the Rhine-Alpine Corridor. These pilots will, in practice, overcome the issue of the different existing national braking sheets and brake position rules, which today hinder interoperable and seamless freight train operations across Europe.

Pilot Activity 1 defines the main tasks in the implementation of the Unified Braking Scheme (UBS) on rail freight sections along the Rhine-Alpine Corridor.



# Main tasks of Activity 1

## Activity 1



- Task 1.1 Pilot operations, “on-site test” of the UBS solution along the Rhine-Alpine Corridor
  - First pilot operation, with focus on the Germany/Netherlands rail freight section
  - Second pilot operation, with focus on the German/Netherlands/Switzerland/Italy
- Task 1.2 Training sessions for operational staff to adopt the UBS solution along the Rhine-Alpine Corridor
- Task 1.3 “Best practices” workshop to share pilot project activities and results, including the publication of the UBS results
  - “Pilot development” workshop
  - “Implementation” workshop



# First pilot operation

## Activity 1 (Netherlands/Germany)



No.	Points of interest	Deliverables
1	RU implementation of brake position rules	DBC Netherland adopts the brake position regulations in the rules of the RU.
2	UBS training sessions	The changed regulations were trained to the operational staff and have been applied since then.
3	First test trains	The first test train runs were successfully carried out in August 2020.
4	Regular operation	Trains from NL to DE still run according to the brake position rules of the CEF PSA UBS project.

# Second pilot operation

Activity 1 (Netherlands/Germany/Switzerland/Italy)



No.	Points of interest	Deliverables
1	UBS training sessions	The changed regulations were trained to the operational staff.
2	Second test trains	The second test train runs were successfully carried out in December 2021.
4	RU implementation of brake position rules	The RUs are in the process of permanently implementing the changes in their rules.
5	RU implementation of brake sheet and wagon list	The RUs are in the process of implementing the documents into their IT systems.

# Findings of Activity 1

## First and second Pilot operation



### Adaption of the brake position rules

Cooperation with infrastructure managers or authorities could be necessary.

Check processes and procedures within the railway undertaking in parallel from the beginning.

Influence of the 2nd and 3rd TrainDY study.

The braking position rules are understandable and easily adaptable to operational procedures.

Three-part training, theory, practice, web-based is the best way.

### Adaption of the braking sheet and wagon list

Layout of the braking sheet and wagon list is intuitive.

The structure of the document is simple and very clear.

Braking sheet and wagon list in one document.

Extended range of application.

Electronically created documents.

Effective training in handling.



Thank you for your  
attention.

Questions?

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