



CEF PSA Project UBS Activity 1

07.04.2022 | Mainz

Gantt Chart of the activity 1

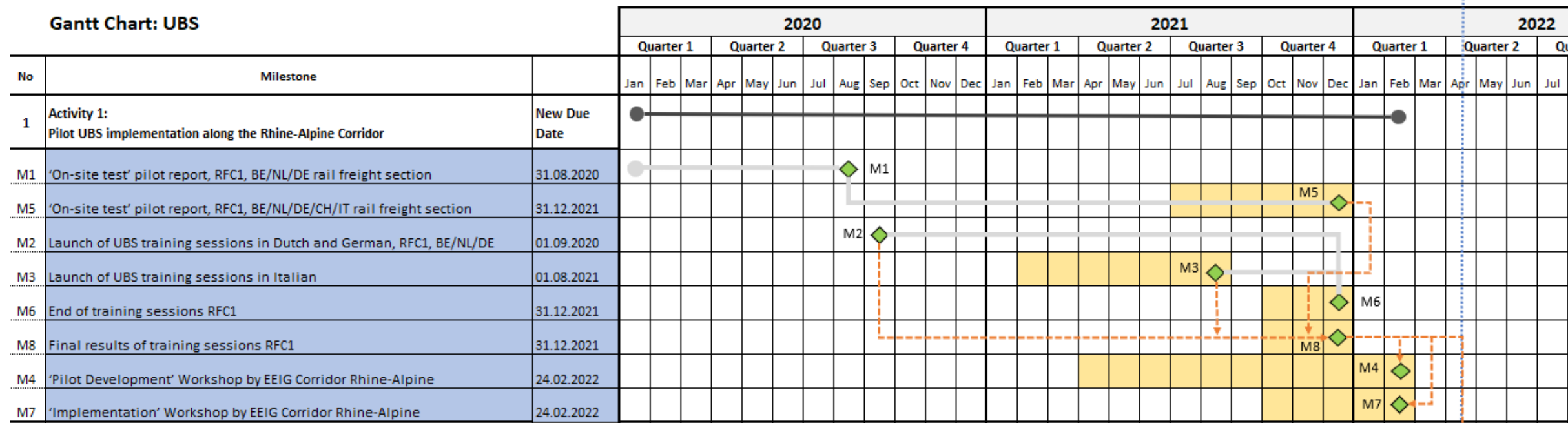
Description of the action



- ◆ Done
- ◆ In Progress
- ◆ Failed

CEF PSA Call: UBS Action

Gantt Chart: UBS



First part of the project



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.



Common rules for brake position



- In cooperation with the UBS project of XRail and UIC, common rules for brake position were defined.

Train weight without locomotive	Timetabled train type: P				
	Brake position of leading working locomotives	Brake position of the first 5 vehicles thereafter	Brake position of all following vehicles	What if required brake position is not possible?	Maximum allowance of non-braking vehicles
0...800 t	P	P	P	Turn brakes off	3 consecutive wagons; but first and last vehicle of the wagon rake (excl. leading working locomotives) must be able to brake / <i>Teilbremsverhältnis</i> to be checked for trains towards / through Switzerland**
801...1200 t	G	P	P		
1201...1600 t	G	G	P		
1601...2500 t	G	G (only wagons ≥32 t*)	P (only wagons ≥32 t*)		
2501... 4000 t	G	G (only wagons ≥40 t*)	P (only wagons ≥40 t*)		

Train weight without locomotive	Timetabled train type: G		
	Brake position of all vehicles (incl. locomotive)	Maximum allowance of brake position P	Maximum allowance of non-braking vehicles
0...800 t	G	12 axles, for the rest turn brakes off	3 consecutive wagons; but first and last vehicle of the wagon rake (excl. leading working locomotives) must be able to brake / <i>Teilbremsverhältnis</i> to be checked for trains towards / through Switzerland*
801...1200 t	G		
1201...1600 t	G		
1601...2500 t	G		
2501... 4000 t	G		

* It is in the responsibility of every RU to ensure compliance with TSI-OPE in every train. This means, that in case of doubt RUs are responsible to install procedures that ensure that they also fulfill TSI-OPE 4.2.2.6.1 (i.e. when preparing a train that is known to run via a stretch with a high gradient, the generally allowed number of consecutive non-braking wagons may not be used to full extent / *Teilbremsverhältnis* should be checked)

* Permanently coupled and articulated wagons forbidden – rule currently in review within 2nd TrainDY study
 ** It is in the responsibility of every RU to ensure compliance with TSI-OPE in every train. This means, that in case of doubt RUs are responsible to install procedures that ensure that they also fulfill TSI-OPE 4.2.2.6.1 (i.e. when preparing a train that is known to run via a stretch with a high gradient, the generally allowed number of consecutive non-braking wagons may not be used to full extent / *Teilbremsverhältnis* should be checked)

REMARKS

- In case of articulated or permanently coupled wagons each sub-unit counts as a separate wagon. In "long locomotive" it is allowed to have >5 such sub-units (e.g. 3 articulated wagons) in brake position G if the sub-units exceeding the norm belong to the same articulated or permanently coupled wagon, which also has sub-units within the first 5 vehicles (see UIC 421 Appendix A)
- Even if one of the first five vehicles in train does not have a functioning braking system it shall nevertheless be considered as part of "long locomotive"
- Trains to Austria may also run in position P even if the path used was foreseen for a G-train (to avoid change of brake position on the border)

Adjustment of the targets



Nº OF ISSUE	NAME OF THE ISSUE	DESCRIPTION
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 divided in 2.1 and 2.2
2.1	Brake calculation	Calculation of the available and the required brake percentage
2.2	Brake position	Adjustment of the brake position depending on total train weight

- In cooperation with the UBS project of XRail and UIC, barriers to fully harmonize the calculation of required and existing brake percentage have been identified.

Second part of the project



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.
3	Revision of the brake sheet/wagon list, V1.2	Integration of findings from practical experience into the brake sheet/ wagon list.
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.
6	New brake positions	2 nd TrainDY study for wagons weight limits and articulated wagons.



New common brake sheet/wagon list



- The new international brake sheet (V1.2) covers all requirements. The information in the boxes are clear for the driver anyway which language he speaks.

Train number: _____ Train date: _____

International brake sheet and wagon list

1. Issuing RU			2. Train number		3. Departure date		5. Country code					
4a. Valid from station			4b. Valid to station			6. Train profile:						
7. v _{max} , km/h:												
Train parameters												
8. Remarks during the journey						9. Special features of the train						
<input type="checkbox"/> 10. Dangerous goods in train			16a. Valid from station		16b. Valid to station		16c. Valid from station		16d. Valid to station			
<input type="checkbox"/> 11. Exceptional consignment in train			17a. # of first wagon		18a. # of last wagon		17c. # of first wagon		18c. # of last wagon			
<input type="checkbox"/> 12. Additional documents about restrictions added			a		b		a+b		c		d	
<input type="checkbox"/> 13. Waste shipments in train			Active locomotives		Wagons and inactive locomotives		Total		Active locomotives		Wagons and inactive locomotives	
19. Count nos												

