



European Freight DAC Delivery Programme

enabled by Europe's Rail

Moving European Rail Freight Forward

DAC @ VPI Symposium

Jens Engelmann

Hamburg, 14 January 2025



All DAC-related work areas and activities



Europe's Rail Flagship Project 5

EDDP

Stakeholder Management

EC/ERA

DACcord **Europe's Rail System Pillar**

ESOs

FP5TRAN 54M









DAC/"Full Digital Freight Train Operations"

target operat. proc.

functional regs.

system architecture tech. development testing & demos tech. specification authoris, dossiers





Technology (mirroring & sector feedback)



Operational Procedures (mirroring & sector feedback)





Fleet Analyses & rtf Engineering (rtf readiness)

Infrastructural

& IT adaptations

Placing into service

plan (safety,

workforce training,

rulebooks etc.)



Retrofit capacity (workshops, workforce, components):

Migration

strategies &

retrofitting plan

(traffic & customer

sidings analysis,

operational plan)









Funding & Financing plan

CBA (updates)



Investment plan & procurement framework plan







drafts for the EC



TSI revision





procedures standardization (plan & execution)

Technical harmonisation: preparing inputs for ERA TSI drafting process & driving **EU** standardisation

Alignment of rail & DAC system architecture

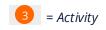






Executing European standardisation













All DAC-related work areas and activities







Europe's Rail EC/ERA System Pillar

DACcord









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Technology (mirroring & sector feedback)



Operational Procedures (mirroring & sector feedback)





DACcord

Fleet Analyses & rtf Engineering (rtf readiness)

Placing into service

plan (safety,

workforce training,

rulebooks etc.)



Retrofit capacity (workshops, workforce components)



Infrastructural & IT adaptations

Migration strategies & retrofitting plan

(traffic & customer sidings analysis, operational plan)









Investment plan & procurement framework plan





development of efficient & suitable authorisation provisions & requirements

preparing TSI drafts for the EC



TSI revision





Technical harmonisation: preparing inputs for ERA TSI drafting process & driving **EU** standardisation

Alignment of rail & DAC system architecture







Executing European standardisation













High

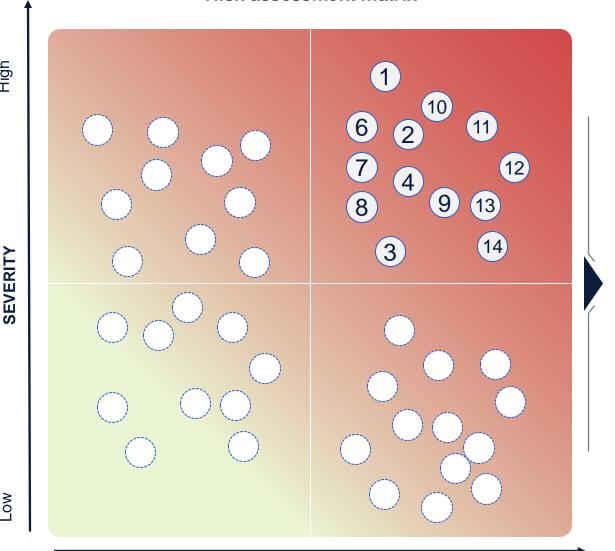
EDDP/FP5/SPT4 TOP Risks

Risk assessment matrix

First consolidated view. To be refined further More detailed reports in following PBs







Top Risks for FP5-TRANS4M-R **Technology Development**

e. g. emergency brake solution, RAMSS target values, energy/data system, ...

Mitigation

High management attention & allocation of resources, regular reporting in PB

Top Risks for Pioneer DAC Trains

e. g. means of verification of requirements for authorisation, availability of loco hybrid coupler, (task force) workshop series EC/ERA/NSA/EU-Rail & bilaterals ERA/FP5, focused development in DACtivate & alignment with PDTs

Top Risks for DAC Full Deployment

e. g. vehicle fleet overview, knowledge on separability of traffics, EU/national funding & financing available, ...

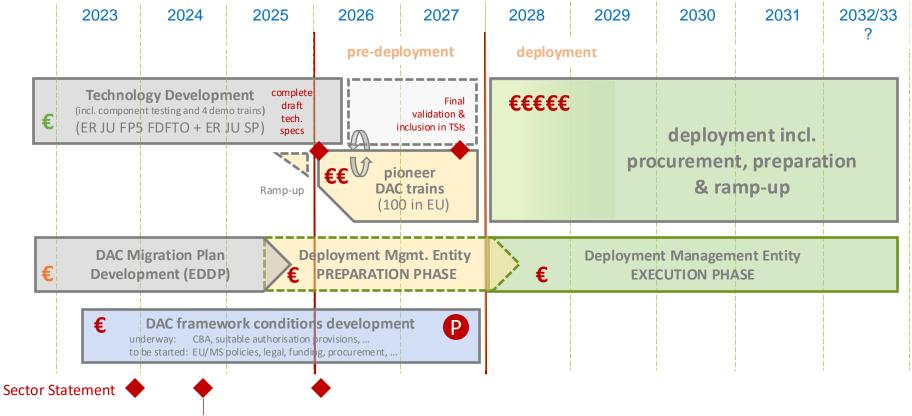
Fostered exchange between DACFIT and industry partners, HL meeting EC/ERA/JU/EDDP with loco OEMs, regular report in PBs, proper setting-up of "separability" workstream in EDDP WAC, ...

Low



The DAC General Master Plan 01 [June 2023]





Funding Pilot Deployment Projects

Specific access to the network for commercial pilot test operations (based on draft technical specs)

DAC Legal Package:

TSIs final (technical + migration + operations)
Deployment Management Entity Deployment
Funding Instrument
Suitable authorisation provisions

Major amendments/NEW:

- DAC pilot deployment projects
- DAC framework conditions development
- Deployment Management Entity
- E Budget and resource need (already funded)
- Budget and resource need (currently mainly unfunded)
- P Determining milestone:

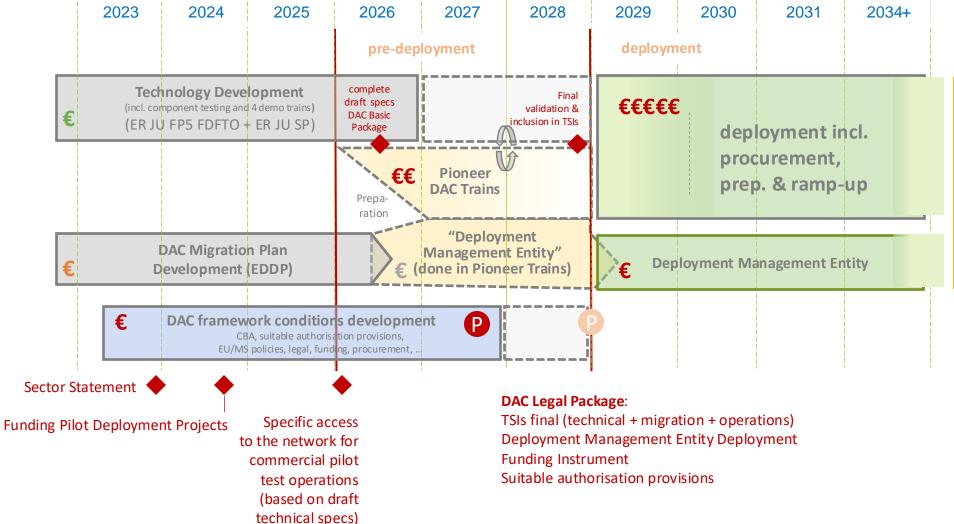
 DAC Legal Package to be implemented before this deadline





The DAC General Master Plan 02 [December 2024]

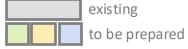




Major amendments/reasons:

- Extension of FP5-TRANS4M-R to end-2026 (Dec. 2026)
- Updated planning and focus on DAC Basic Package
- DAC technology for Pioneer Trains operation available as of end-2026
- Budget and resource need (already funded)
- Budget and resource need (currently mainly unfunded)
- Determining milestone:

 DAC Legal Package to be implemented before this deadline



CEF call text was published on 24.09.2024

EU OBJECTIVE: REMOVING INTEROPERABILITY BARRIERS





CEF-T-2024-SIMOBGEN-REMIB-WORKS; 640 mEUR in TOTAL for 10 topics

for rail freight operations (including validating the system in commercial operations). Projects must involve relevant stakeholder groups from at least 4 Member States and include testing in cross border and shunting yards operations. The studies can cover all phases/tasks necessary for collecting data on the system reliability and availability in commercial operations (technical, administrative, legal, certification/authorisation, procedures, etc.).

The studies/technical reports shall contribute to a wider deployment of DAC in the EU and therefore be publicly available.

Investments concerning rolling stock, notably the installation of sensors or other devices on wagons, are not supported, except as regards DAC studies