European Freight DAC Delivery Programme enabled by Europe’s Rail

Moving European Rail Freight Forward

Plenary meeting of DAC National Contact Points (NCPs)

Keir Fitch, Head of Unit C4, DG MOVE  | Giorgio Travaini, Executive Director, EU-Rail
Jens Engelmann, EDDP Programme Co-Manager, EU-Rail
Libor Lochman, EDDP C/SEE ambassador, EU-Rail

online, 12th of June 2024
Agenda

1. Introduction and purpose of the meeting
   - Keir Fitch
   - Giorgio Travaini
   - 14:00 – 14:05

2. Tour de table - participants to shortly introduce themselves
   - All participants
   - 14:05 – 14:15

3. Role of DAC national contact points
   - Libor Lochman
   - 14:15 – 14:35

4. Update on most important developments by the European DAC Delivery Programme
   - Giorgio Travaini, Jens Engelmann
   - 14:35 – 14:50

5. Update from participants on DAC related activities at national level
   - NCPs
   - 14:50 – 15:10

6. Any other business: remaining questions by participants
   - All participants
   - 15:10 – 15:25

7. Conclusion
   - Keir Fitch
   - 15:25 – 15:30
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Experience in relations with stakeholders around DAC in the last years showed the need for single points of contact at national level (EU and other countries operating 1 435 mm network).

Important NCP role:
› **Contact point** for the stakeholders and EDDP
› **Helps coordinate DAC related activities** in the country
› **Collates/communicates the sector feedback**
› **Co-organise the DAC meetings** (fora) in cooperation with the EDDP management & country/region team
DAC Stakeholder management | country grouping

Group

- **EU**
  - EU Institutions/bodies

- **FR**
  - FR (4F)

- **DACH**
  - DE, AT, CH

- **Benelux**
  - BE, NE, LU

- **Central**
  - CZ, PL, SK, Rail Baltica

- **Southern**
  - HU, SI, HR

- **Eastern**
  - BG, RO, EL, (TR), (MD), (UA)

- **W Balkan**
  - TCT-countries

- **Baltic**
  - FI, Baltic, Rail Baltica

- **Nordic**
  - SE, DK, NO

- **IT**
  - IT

- **Iberian**
  - ES, PT

- **IE**
  - IE

- **UK**
## EDDP country groups, NCPs & ambassadors

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<th>NCPs</th>
<th>EDDP ambassadors (group)</th>
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<td>EU</td>
<td>EU Institutions + groups + OTIF</td>
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<td>EU-Rail &amp; EDDP PM (EU-Rail &amp; Mark Topal/Jens Engelmann)</td>
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<td>FR</td>
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<td>Henri Vichard</td>
<td>Railenium (Danijela Doric); UNIFE (Hugo Tabouret); Wabtech (Laura G.) TBC</td>
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<td>DACH</td>
<td>DE, AT, CH</td>
<td>Jan Schöning (DE)</td>
<td>DB Cargo (Michael Sünder); UIP (Lisa Gruber); ÖBB (Sarah Bimingstorf) VAP (CH) most likely to be added</td>
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<td>Andrea Neuschlová, Peter Klamo (SK)</td>
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<td>Jesus Coloma Pérez, Roberto Marín Escribano (ES)</td>
<td>CER (João Sarmento) + EU-Rail (Javier Ibanez de Yrigoyen TBC) + NN Spain</td>
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Regular “DAC fora” / meetings in the European countries/regions

Organised by EDDP country/region team + National Contact Points (NCPs)

Ca. 2 DAC fora/year per country/region

Objectives:
=> Inform on the state of the play of the different EDDP actions
<= gather information from the country/region & recruit relevant contributors to EDDP workstreams

Participants:
- national/regional stakeholders
- EDDP country team; NCP
- EDDP PM, all EDDP/FP5/SP work areas (depending on agenda)
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DAC for Full Digital Freight Train Operations

- more than just a coupler
- key and unique enabler for numerous applications
- allowing more use cases to generate a max. possible benefit
- the backbone for “full digital freight train operations” in order to transform European rail freight
All DAC-related work areas and activities

Europe’s Rail Flagship Project 5

B

1 EDDP

2 Stakeholder Management

EC/ERA

Europe’s Rail System Pillar

ESOs

1 FP 5 FDTO sounding boards

2 Technology (mirroring & sector feedback)

3 Infrastructural & IT adaptations

4 Operational Procedures (mirroring & sector feedback)

C

1 Fleet Analyses & rtf Engineering (rtf readiness)

2 Retrofit capacity (workshops, workforce, components)

3 Migration strategies & retrofitting plan (traffic & customer sidings analysis, operational plan)

4 Placing into service plan (safety, workforce training, rulebooks etc.)

D

1 Funding & Financing plan

2 CBA (updates)

3 Investment plan & procurement framework plan

4 Other regulatory & legal framework plans

E

1 Development of efficient & suitable authorisation process & requirements

2 Preparing TSI drafts for the EC

F

1 Operational procedures standardization (plan & execution)

2 Preparing inputs for ERA TSI drafting process & driving EU standardisation

3 Alignment of rail & DAC system architecture

G

Operating “100” DAC pre-deployment trains

A

DAC “Full Digital Freight Train Operations”

target operat. proc. functional reqs.
system architecture tech. development testing & demos tech. specification authoris. dossiers

FP5TRANs4M-R

Stakeholder Management

Funding & Financing plan

CBA (updates)

Investment plan & procurement framework plan

Other regulatory & legal framework plans

TSI revision

Operating “100” DAC pre-deployment trains

Europe’s Rail System Pillar

ESOs

Europe’s Rail Flagship Project 5

B

1 EDDP

2 Stakeholder Management

EC/ERA

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Operating “100” DAC pre-deployment trains

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DAC “Full Digital Freight Train Operations”

target operat. proc. functional reqs. system architecture tech. development testing & demos tech. specification authoris. dossiers
Preconditions for investing in DAC deployment
(= everything that needs to be proven before investment decisions will be taken)

1. DAC-Technology (incl. additional DAC based technology) and DAC-operations/functionalities are clearly defined (tech. package) and harmonised (Single European DAC System)

2. The technology meets all essential requirements - in particular in the area of RAMS (reliability-availability-maintainability-safety/security) - proven through large demonstrations

3. The operational functionalities/use cases bring the expected benefits - proven through large demonstrations incl. safety aspects

4. Positive CBA incl. adequate funding programs (by EU and MS) available for all European wagon and locomotive operators and keepers (as they will have to invest), considering the individual/regional conditions such as the cases where upgrading is not possible/feasible

5. Respective authorisation provisions are available to ensure a facilitated, rapid authorisation process and mitigate authorization risks for wagons and locos (incl. availability of relevant documentation)

6. A sound migration plan is set, guaranteeing simultaneous deployment in Europe (sector agreement and legal framework) based on available and adequate funding programs, established capacities for production and upgrading of wagons and locomotives, staff training, and availability of the necessary infrastructure and IT adaptations
The DAC General Master Plan 01 [June 2023]

Technology Development (incl. component testing and 4 demo trains) (ER JU FP5 FDFTO + ER JU SP)

DAC Migration Plan Development (EDDP)

Deployment Management Entity Deployment

DAC Legal Package development

Deployment Management Entity EXECUTION PHASE

DAC pilot deployment projects

DAC framework conditions development

Deployment Management Entity

Budget and resource need (already funded)

Budget and resource need (currently mainly unfunded)

Determining milestone: DAC Legal Package to be implemented before this deadline

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

Sector Statement

Funding Pilot Deployment Projects

2023 2024 2025 2026 2027 2028 2029 2030 2031 2032/33

Pre-deployment

deployment

deployment incl. procurement, preparation & ramp-up

DAC pioneer trains (100 in EU)

Existing

to be prepared
Functions and components considered within the pre-deployment trains

The 100 pre-deployment trains shall be equipped with the DAC basic package:

- DAC coupler incl. energy and data system
- Train composition detection
- Automated brake test
- Train integrity/train length determination
- Automated uncoupling (in-train from loco)

Coupler with mechanical or push-button uncoupling from wagon side and including “prevent coupling” function

- Hybrid coupler for locos and DAC for special wagons, e.g. T3000 – if applicable
Why large-scale pioneering and a pre-deployment phase is needed

Three objectives:

1. Ensure full reliability of the DAC technology
   - DAC technology used in commercial operations
   - Assess the validity of assumptions developed in EDDP (Migration) / FP5 (Design)
   - Assess technology integration by collaboration with FP5 technology providers and suppliers of existing assets

2. Prove added value and optimise EDDP processes for full DAC roll-out
   - Gather information for full-scale deployment and roll-out
   - Learn and develop. Create a steppingstone towards full DAC deployment
   - inform and communicate with stakeholders

3. Ensure smooth integration of DAC into the overall railway system
   - Ensure (mass) authorisation provisions can effectively be applied
   - Assess interchangeability/broad interoperability with other digital systems on trains, tracks and central IT systems
   - Assess effectiveness of operational rules/rulebook (developed in EU-Rail System Pillar)
There is substantial interest in the PDT initiative: 47 companies intending to participate, more interested to join.
We have a solid basis to advance with the project, with broad European coverage.

OVERVIEW OF PARTICIPANTS - PIONEER DAC TRAINS INITIATIVE

CONCLUSIONS

- Total of 36 routes (incl. cross-border) confirmed so far
- Good balance of different RU types and geographies
- Many stakeholders have included provisions or conditions to be fulfilled (re. financing, tech. requirements, training, etc.)
- Many stakeholders still need to provide details on traffics, loco and wagon types
- Overall, the contribution is very positive and forms a good starting point for further planning and refinement.
To summarise

- We are working on technology, test preparation, migration plans, etc.
- **Pilots in commercial operations across Europe** shall prove the assumptions taken and pave the way towards full deployment.
- We now need to bring the exchange with all stakeholders in the different countries on the next level for a better structured input for the overall migration planning (e.g. fleet & traffic info), CBA optimisation, sharing pilot’s trains results, funding/financing issues etc.

Therefore we need you, the NCPs:

› **As contact point** for the stakeholders and EDDP
› **To help to coordinate DAC related activities** in the country
› **To collate/communicate the sector feedback**
› **To co-organise the DAC meetings / fora** in cooperation with the EDDP management & country/region team