



## Deliverable D 6.1 DAC Migration Roadmap Review I

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## 1. Executive Summary

This summary describes the activities in the DACcord WP6 from project month M1 to M12.

It describes the performed work on the **DAC migration roadmap** from project month M1 until M12.

The tasks to be carried out on the DAC migration roadmap under this programme / DACcord project could be realised successfully in support to the EU-Rail JU and in cooperation with all parties involved in the different EDDP work areas and their interfaces, including the European Commission and the European Union Agency for Railways, leading to the current status of the detailed planning of the EDDP's work areas with their respective workstreams and deliverables.

The main achievements in the overall DAC migration roadmap management in Reporting Period 1 were

- › Setting-up – in first loop - an EDDP DAC migration roadmap (concept) / industrial migration plan
- › the detailed planning of the respective EDDP work areas C and D in the migration roadmap including milestones, key deliverables, required interactions/interfaces & iterations and related resource availabilities/needs
- › laying the basics for the upcoming overall programme risk management, including the EU-Rail FP5 TRANS4M-R project and System Pillar Task 4 activities
- › regular reporting on evolutions and findings in all EDDP boards including the stipulation of decision-making where required
- › overall management of the DAC migration roadmap and overseeing its execution

The objective of the WP6 has been fully achieved and all tasks have been successfully performed.

This work will be continued in the DACcord WP7 in the project months M12 to M24 and be summarised in the DACcord deliverable D7.1.

## 2. Abbreviations and acronyms

Abbreviation / Acronym	Description
DAC	Digital Automatic Coupler
EC	European Commission
EDDP	European Digital Automatic Coupler Delivery Programme
ERA	European Union Agency for Railways/ European Railway Agency
EU-Rail (JU)	Europe's Rail (Joint Undertaking)
FP	Europe's Rail Flagship Project
IM	Infrastructure Manager
PM	Programme Management
PMO	Programme Management Office
RU	Railway Undertaking
SH	Stakeholder
SM	Stakeholder Management
SP	Europe's Rail System Pillar
TSI	Technical Specification for Interoperability
UIC	Union Internationale des Chemins de Fer
WA	(EDDP) Work Area
WP	Work Package

### 3. Background

The project DACcord provides management competencies to support the EU-Rail JU for the continuation of the professional management of the activities of the European DAC Delivery Programme (EDDP), enabled by the EU-Rail JU and established in the EU-Rail JU work programme, in which European Rail Freight Sector and manufacturers are united to strive for the Europe-wide introduction of a Digital Automatic Coupler.

The present document constitutes the **Deliverable “D 6.1 DAC migration roadmap review I”** of the DACcord project’s **WP 6 “DAC migration roadmap I”** in the framework of the European DAC Delivery Programme within Flagship Area 5 as described in the EU-RAIL MAWP and contributes as well to / interacts with the Flagship Project 5 TRANS4M-R (see Figure 1).

DACcord beneficiary **railiable** was in charge of this work package, in close cooperation with members of the below depicted EDDP work areas especially C and D and all other EDDP members.

DACcord beneficiary **UIC** has performed quality and plausibility checks on the report produced.

For easier referencing, the identification of the areas and activities of the overall DAC programme has been set to the following nomenclature:

Work area	Activity	Title/content
A	A1	EU-Rail Flagship Project 5 TRANS4M-R, “Full Digital Freight Train Operations”
	A2, 3	FP5 FDFTO “Sounding Boards” for FP5 Technology and Operational Rules
B (EDDP & Stakeholder management)	B1	EDDP programme / risk management
	B2	EDDP Stakeholder management <b>(scope of this deliverable)</b>
C (Migration)	C1	Fleet analysis and retrofit engineering
	C2	Retrofit Capacity (workshops, workforce, components)
	C3	Migration strategies & retrofitting plan (incl. traffic analysis etc.)
	C4	Infrastructural and IT adaptations
	C5	Placing into service plan/measures (for operations/staff)
D (Economics)	D1	Funding & financing plan (for DAC pre- and full deployment)
	D2	Cost-Benefit Analysis (CBA) incl. updates
	D3	Investment plan & procurement framework plan
	D4	Other regulatory & legal framework plans (e. g. GCU)
E (EC and ERA-related)	E1	Efficient & suitable authorisation process/requirements; preparing draft TSIs
	E2	TSI revisions
F (EU-Rail System Pillar)	F	Standardisation of Technical and Operational Rules, preparing inputs to TSI drafting, driving EU standardisation
G	-	the (planned) pre-deployment (Pioneer) Trains project

## All DAC-related work areas and activities



**D** = Work Area    **3** = Activity

Figure 1. EDDP and EDDP management within all DAC-related work areas

## 4. Objective/Aim

The main objective of DACcord WP6 is/was **to define and, where resources can be made available, manage the DAC migration roadmap (actions) towards deployment in the months 1-12 of the project** (cf. Grant Agreement).

The execution of the actions of the roadmap is not an objective of this WP.

For doing this, railiable worked closely with the EDDP members and the wider rail freight sector via the EDDP/FP sounding boards and in close cooperation with WPs 9-10 (stakeholder management), specifically refining, optimising and interfacing with FP5, SP and others the existing actions of the DAC migration roadmap in EDDP.

*Table 1 DAC migration roadmap activities covered by this review*

<b>DAC migration roadmap activities at the day of proposal submission</b>	<b>Reference after ID allocation</b>	<b>Scope of this review</b>
<ul style="list-style-type: none"> <li>Fleet analysis &amp; engineering (retrofit readiness)</li> </ul>	C1	<b>In</b> (planned)
<ul style="list-style-type: none"> <li>Retrofitting capacity plan:</li> </ul>	C2	<b>In</b> (planned)
<ul style="list-style-type: none"> <li>Retrofitting plan (Traffic &amp; customer sidings analysis, operational plan)</li> </ul>	C3	<b>In</b> (planned)
<ul style="list-style-type: none"> <li>Infrastructural and IT adaptations:</li> </ul>	C4	<b>Not in</b> (planning started)
<ul style="list-style-type: none"> <li>Placing into service plan</li> </ul>	C5	<b>Not in</b> (planning too early)
<ul style="list-style-type: none"> <li>Funding/ Financing plan (see WP 11)</li> </ul>	D1	<b>In</b> (not yet 100% planned)
<ul style="list-style-type: none"> <li>CBA (updates)</li> </ul>	D2	<b>In</b> (planned)
<ul style="list-style-type: none"> <li>Investment plan &amp; procurement framework plan</li> </ul>	D3	<b>Not in</b> (planning too early)
<ul style="list-style-type: none"> <li>Other regulatory framework plans</li> </ul>	D4	<b>Not in</b> (planning too early)
<ul style="list-style-type: none"> <li>Suitable authorisation process (ERA)</li> </ul>	E1	<b>Not in</b> (work reported in FP 5)
<ul style="list-style-type: none"> <li>TSI revision (EC)</li> </ul>	E2	<b>Not in</b> (planning too early)

Table 2 Work package 6 tasks (cf. Grant Agreement):

<b>To achieve the EDDP and its interfaces management objectives set out in the overall WP objective, the WP carried out:</b>	<b>Status</b>	<b>chapter</b>
<ul style="list-style-type: none"> <li>Setting-up an EDDP DAC migration roadmap (concept) / industrial migration plan towards deployment by identifying the required topics/implementing actions – which are not part of this call - including milestones, key deliverables, required interactions/interfaces &amp; iterations and related resource availabilities/needs; objective-setting of the actions</li> <li>Allocating the actions to European, national or company/stakeholder level (e. g. assessment of the retrofit demands per country, per wagon-type and fleets; analysis of all major customer sidings/terminals per country with respect to mixed-coupler fleet operations etc.)</li> </ul>	Achieved	5.1
<ul style="list-style-type: none"> <li>Consolidating regularly the existing basic migration assumptions, findings, reports principles/boundary conditions (instruments, methods, tools, e g target scenario, tech packages, retrofit plan, legal and financing instruments, major criteria/ options for overall migration scenario optimisation, ...) for EDDP boards</li> </ul>	Achieved within the given limits	5.2
<ul style="list-style-type: none"> <li>Setting-up, managing of a DAC migration roadmap risk management plan incl. board reporting</li> </ul>	Achieved	5.1
<ul style="list-style-type: none"> <li>Developing major criteria/options for overall migration/ deployment scenario optimisation</li> </ul>	Achieved	5.3
<ul style="list-style-type: none"> <li>Sub-tasking and managing/overseeing the execution of these actions, where resources available</li> </ul>	Achieved	--
<ul style="list-style-type: none"> <li>Organising regular cross-checks between FP5 FDFTO and the different migration roadmap actions</li> </ul>	Achieved within the given limits	5.4

## 5. WP6 achievements (Months 1-12)

### 5.1. DAC migration roadmap and risk management

The DACcord task consisted in the (cf. Grant Agreement)

- *“Setting-up an EDDP DAC migration roadmap (concept) / industrial migration plan towards deployment by identifying the required topics/implementing actions including milestones, key deliverables, required interactions/interfaces & iterations and related resource availabilities/needs; objective-setting of the actions*
- *Allocating the actions to European, national or company/stakeholder level (e. g. assessment of the retrofit demands per country, per wagon-type and fleets; analysis of all major customer sidings/terminals per country with respect to mixed-coupler fleet operations etc.)*
- *Setting-up, managing of a DAC migration roadmap risk management plan incl. board reporting”*

#### 5.1.1. DAC migration roadmap structure and taxonomy


The EDDP organisation was slightly developed further to its current work areas in beginning-2023 (Graphic 3-1), complemented by its two Governing Boards (Programme and Supervisory Board) and the two so called “Sounding Boards”. For further detailed information refer to DACcord deliverable D3.1.

For a proper programme planning and risk management, the results to be achieved by the different EDDP work areas – and by FP5 and SP, to be noted - have to be identified, planned and closely monitored. The achievement of these results constitutes the “internal risk” of the programme, complemented by the “external risks” from outside the programme.


These results are, in the case of EDDP, mainly achieved through deliverables (reports, summaries, calculations, other documents). They need to contribute to achieving the overall Work Area objective (“do we do the right things?”) within the multi-annual EDDP work programme.

To distinguish better the different EDDP activities from others, the “work packages” labelling was given up (work packages are used in every project, the EDDP/FP5 world being full of projects, leading to a multitude of WPs with the same number but totally different scope) and transferred into a taxonomy with “work area” designation, with clear references to the overall EDDP structure (see Figure 2).

The revised EDDP taxonomy is already presented in DACcord deliverable D3.1 (summary on EDDP Programme Management) but is repeated here for reader-friendly, easier referencing of the works presented.




## We have updated the overall taxonomy



**What's new?**

- We have **"work areas"** (i. e. A, B, C, D,...), and **"activities"** (e. g. A1 to A3, C1 to C5, D1 to D4)
- Each activity has now a set of **(sub)workstreams** which result in **deliverables** with clear ownership



**Why does this matter?**

- Lack of transparency on ongoing work and status in the different areas
- Already many "work packages" in FP5/DACcord/project xy ...
- WP3 and WP5 numbering has no logic anymore (WPs 1, 2, 4, ... missing)
- A clear hierarchy is necessary for...
  - ...Clarity of Roles and Responsibilities
  - ...Progress tracking
  - ...Efficient resource management
  - ...Effective Decision-Making

**The following breakdown logic applies (example):**

- European DAC Delivery Programme
  - ↳ **Work Area C** "Migration"
    - ↳ **Activity C1** "Fleet analyses & RTF engineering (rtf readiness)"
      - ↳ **Workstream** "Preliminary technical rail freight fleet analysis"
        - ↳ **Deliverable** "Technical rail freight fleet analysis report"

Figure 2. EDDP structural taxonomy

The predominant EDDP work areas to be planned in detail for the **DAC migration roadmap** were/are the **EDDP work areas C and D**. A major but finally successful effort was required to align on the deliverables in the different activities with the WA leads. The process started in late-2023 and is under completion at the time of redaction of this summary. The migration roadmap will also be touched by work area E (authorisation processes) as soon as first results will be available (today covered in FP 5 TRANS4M-R and ERA Topical Working Group Freight). A respective regular exchange EDDP/FP5 on this subject will need to be installed as soon as possible, based on available results from FP5. It even revealed that probably a refreshing objective-setting exercise is required in M13-24, as the deliverables proposed by the WAs did not always have a clear relationship to the intended outcome.

### 5.1.2. EDDP / DAC migration roadmap Work Area C

The advanced intermediate result that will be presented to the Programme Board of April 2024 **in an exemplary way for Work Area C for the activities C1-C3** was finally promising. It consisted of the work areas, activities, workstreams and deliverables shown in Figure 3, Figure 4, Figure 5 and Figure 6 and integrated all upcoming or existing related EU-Rail projects at the right location of the work area/programme.

The activity C4 "Infrastructural and IT adaptations" is about to start its resourcing and planning at the start of the reporting period 2 (around M12/13) in Work Area C.

The Activity C5 "Placing into service plan" etc. cannot be sufficiently scoped at the moment and will be started most probably but only partially with the upcoming pre-deployment/pioneer trains.

## EDDP Work Area C: Migration

WORK AREA C: MIGRATION	
WORK AREA LEAD: [...]	
ACTIVITIES	RESPONSIBLE PERSON
C1 Fleet Analyses & rtf Engineering (rtf readiness)	Lisa Blumrodt
C2 Retrofit capacity (workshops, work-force, components)	Project X Partner
C3 Migration strategies & retrofitting	Andreas Lipka
C4 Infrastructural & IT adaptations	[...]
C5 Placing into service plan (safety, workforce training, rulebooks etc.)	[...]

1

Figure 3. EDDP Work Area C activities

## EDDP Activity C1

ACTIVITY C.1: FLEET ANALYSES & RTF ENGINEERING (RTF READINESS)					
ACTIVITY LEAD: LISA BLUMRODT					
WORKSTREAMS	RESPONSIBLE PERSON	SUBSTREAMS	DELIVERABLES	(RESPONSIBLE if applicable)	DEADLINE
Preliminary technical rail freight fleet analysis	Project X Partner	Project X <u>substream</u>	Technical rail freight fleet analysis (preliminary summary)	Project X Partner	(project plan)
Finalization of technical rail freight fleet analysis	Project X Partner	Project X <u>substream</u>	Technical rail freight fleet analysis (summary)	Project X Partner	(project plan)
Quantitative rail freight fleet analysis	Lisa Blumrodt	Project X <u>substream</u>	Quantitative rail freight fleet analysis (summary)	Lisa Blumrodt	(project plan)
European vehicle fleet upgrading database	Lisa Blumrodt	Intermediate data <u>storage</u>	European vehicle fleet upgrading database	Project X Partner	(project plan)
		Technical general information database setup		Thomas Heydenreich/UIP	30.06 2024
		EVR-linked database setup/cloning		[...]	[...]
		Database population (both)		[...]	[...]
Upgrading engineering solutions all fleet	[...]	Loco engineer, call(s)	Upgrading engineering solutions all fleet	[...]	[...]
Upgrading special engineering solutions	[...]	[...]	Upgrading special engineering solutions	[...]	[...]

Focal point in PB

2

Figure 4. EDDP Activity C1 planning

## EDDP Activity C2



ACTIVITY C.2: RETROFIT CAPACITY (WORKSHOPS, WORK-FORCE, COMPONENTS)					
ACTIVITY LEAD: DACFIT PARTNER					
WORKSTREAMS	RESPONSIBLE PERSON	SUBSTREAMS	DELIVERABLES	(RESPONSIBLE if applicable)	DEADLINE
Retrofitting processes, times & requirements	Project X Partner	Project X <u>substream</u>	Retrofitting processes, times & requirements (wagon summary)	Project X Partner	(project plan)
			Retrofitting processes, times & requirements (loco summary)	Project X Partner	
Available and Potential Retrofit Capacity	Project X Partner	Project X <u>substream</u>	Available and Potential Retrofit Capacity (wagon summary)	Project X Partner	(project plan)
			Available and Potential Retrofit Capacity (loco summary)	Project X Partner	
			List of 150 hardened suggestions for pop-up workshop sites	Sebastian Hohn	(project plan)
Assumption on components need	Wolfgang Alten	Basic package implementation	Updated version of components production description from <u>DACcelerate</u> migration study	Wolfgang Alten	(project plan)

3

Figure 5. EDDP Activity C2 planning

## EDDP Activity C3 (1/2)



ACTIVITY C.3: MIGRATION STRATEGIES & RETROFITTING PLAN					
ACTIVITY LEAD: ANDREAS LIPKA					
WORKSTREAMS	RESPONSIBLE PERSON	SUBSTREAMS	DELIVERABLES	(RESPONSIBLE if applicable)	DEADLINE
Strategies and boundary conditions	Helge <u>Stuhr</u>	Effects on market participants and mitigation measures	Report on impact on market participants by the individual migration strategies and countermeasures*	Helge <u>Stuhr</u>	31.05.2024 <sup>2)</sup>
		Alignment with technical component development and authorization strategy	Report on the consideration of migration requirements in FP5, and detected risks for migration	Helge <u>Stuhr</u>	31.05.2024 <sup>2)</sup>
		Feasibility of a "big bang"	Big bang feasibility report (Strategies, processes, critical resources, and DSS dependencies)	Helge <u>Stuhr</u>	31.05.2024 <sup>2)</sup>
		Technical and operational alternative solutions	Report on critical strategy issues and on the evaluation of alternative migration approaches	Helge <u>Stuhr</u>	31.05.2024 <sup>2)</sup>

\* examples: Rail operations in large sidings, impact of traffic demarcation on wagon deployment flexibility and damaged wagon management

Focal point in PB

4

Figure 6. EDDP Activity C3 planning

### 5.1.3. EDDP / DAC migration roadmap Work Area D

The workstreams for work area D could not yet be fully established, as especially the activity D1 (funding and financing plan) still left too many questions open. The workstreams shown in Figure 8 for D1 are EDDP Programme Management draft proposals, not yet adopted by the Activity Lead and need to be discussed further. For the activities D3 (Investment plan & procurement framework plan) and D4 (Other regulatory framework plans), any planning is too early at this stage. Investment/procurement planning for full deployment can be prepared when the Pioneer Trains have proven the fulfilment of the EDDP preconditions. The Pioneer Train project will certainly provide initial input to such planning. The planning horizon is therefore rather out of scope of the DACcord project. Other regulatory frameworks (incl. General Contract of Use / GCU) will also be better identified during the Pioneer Trains.

The activity D2 can, on the contrary, already be well planned. It encompasses the CBA itself, but also the different (company) case studies. Updates will be reported in the upcoming D7.1.

WORK AREA D: FUNDING AND FINANCING		
WORK AREA LEAD: ESTELLE BACCONNIER		
ACTIVITIES	RESPONSIBLE PERSON	TRAFFIC LIGHT STATUS OVERALL
D1 Funding & Financing plan	[...]	
D2 CBA (updates)	Mitchell van Balen	
D3 Investment plan & procurement framework plan	[...]	
D4 Other regulatory & legal framework plans	[...]	

Figure 7. EDDP Work Area D overview

ACTIVITY D.1: FUNDING & FINANCING PLAN						
ACTIVITY LEAD: ESTELLE BACCONNIER						
WORKSTREAMS	RESPONSIBLE PERSON	SUBSTREAMS	DELIVERABLES	(RESPONSIBLE if applicable)	DEADLINE	STATUS
						P
DAC Funding and financing (F&F) sources		Pioneer DAC trains	List of F&F sources for pioneer DAC trains (CEF and others)	?	18.06.2024 27.06.2024?	
		Full deployment	List of F&F sources for full DAC deployment (CEF and others)	?	Q3 2024 (New EC) 2025 (MAFF)	
DAC in new EC work programme			Draft / not yet agreed			

Figure 8. EDDP Activity D1 (draft) planning

ACTIVITY D.2: CBA (UPDATES)									
ACTIVITY LEAD: MITCHELL VAN BALEN									
WORKSTREAMS	RESPONSIBLE PERSON	SUBSTREAMS	DELIVERABLES	(RESPONSIBLE if applicable)	DEADLINE	STATUS			
						P	R	B	D
Review of CBA assumptions	Mitchell van Balen	Migration strategy	Revised CBA model, based on WP3 inputs	EDDP WP3	Q1 2025				
		Costs	Revised CBA model, based on FP5 inputs	FP5-WP19	Q4 2024				
		Time savings / train numbers	Revised CBA model, based on WP5 inputs	EDDP WP5	Q3 2024				
		Transport volumes (esp. for CT)	Revised CBA model, based on WP5 inputs	EDDP WP5	Q3 2024				
Further Economic Studies	[...]	Industrialisation effect of DAC	Study detailing the Industrialisation effect of DAC	UNIFE	[...]				
	[...]	Modal shift study	Study detailing the effects of DAC on accelerating the modal shift	UIC	[...]				
Update of CBA '24-'25	Mitchell van Balen	Reporting	Revised Report 2024-2025	Mitchell van Balen	Q2 2025				

Figure 9. EDDP Activity D2 planning (1/2)

ACTIVITY D.2: CBA (UPDATES)									
ACTIVITY LEAD: MITCHELL VAN BALEN									
WORKSTREAMS	RESPONSIBLE PERSON	SUBSTREAMS	DELIVERABLES	(RESPONSIBLE if applicable)	DEADLINE	STATUS			
						P	R	B	D
Intermodal Case Studies	Nicolas Gohel	Kombiverkehr	Report on case studies	Nicolas Gohel	Q4 2024				
		Samskip	Report on case studies	Nicolas Gohel	Q3 2024				
		Metrans	Report on case studies	Mitchell van Balen	Q2 2024				
		MERCITALIA	Validation of inputs but no detailed case study	Nicolas Gohel	Q3 2024				
		BLS Cargo	Report on case studies	Nicolas Gohel	Q3 2024				
Maritime port case studies	Nicolas Gohel	8 ports, incl 2 visits	Port report, annex to CBA report	Nicolas Gohel	Q2 2024				
Pioneer DAC Trains case studies	Nicolas Gohel	1 per pioneer train	Report on case studies	Nicolas Gohel	2025ff				

Figure 10. EDDP Activity D2 planning (2/2)

## 5.1.4. The way towards risk management

After having completed this exercise, the monitoring of the work execution starts, using a traffic light logic applied on the different parameters of the work (see Figure 11) (“do we do the things right?”):



Figure 11. EDDP traffic light status logic

Regular catch-up meetings on the progress of the work **in Work Areas C & D** and for the preparation of the various topics of the EDDP work programme in view of decisions in board meetings were scheduled throughout the year (participants: work area lead & co-lead participated, often complemented by other work area members). They were complemented with various additional in-depth meetings on specific work area topics. Status updates from those meetings were integrated in the subsequent board meetings. Due to the lack of resources especially in the fleet/workshop analysis field (C1/C2), the overall C results output to be reported was limited. Mitigating measures in form of supporting EU-Rail projects are underway (see 5.3). The biggest and very important step forward was made with the alignment/decision on the DAC “starter package” (Basic Package). The **Work Area C & D alignment meetings** in reporting period 1 took place (mainly via videoconference) on

April 2023	13, 14	December 2023	07
May 2023	05, 12, 22, 23, 19	January 2024	12, 18, 22
July 2023	11, 12, 13, 14	February 2024	16, 19, 27
August 2023	28	March 2024	06
September 2023	12	(April 2024)	08, 12, 17, 22, 24)
October 2023	10, 19, 31		

In addition to these specific parts of the programme, the other different EDDP activities were managed by the PM with all different partners and stakeholders on a nearly daily basis.

In the DACcord summary for the project months M13-24 (D7.1), the results of the application of the traffic light logic will be reported, including the identification of the critical path across all EDP/FP5/SP T4 workstreams, which will help to focus on the specific yellow/red areas deliverables / risks of the programme and lead further to the overall programme risk management system.

## 5.2. Regular consolidation of migration assumptions for EDDP boards

The DACcord task consisted in “Consolidating regularly the existing basic migration assumptions, findings, reports principles/boundary conditions (instruments, methods, tools, e.g. target scenario, tech packages, retrofit plan, legal and financing instruments, major criteria/ options for overall migration scenario optimisation, ...) for EDDP boards” (cf. Grant Agreement).

### 5.2.1. Regular reporting to EDDP boards

As the different EDDP boards agendas (see Annex 1) demonstrate, all relevant and upcoming migration issues were permanently prepared and reported on board level. The precise migration assumptions dealt with in the EDP programme boards are reported below with their agenda topic number. These topics were reported – if not individually interesting – to the Supervisory Board in a summarised way. WP3 corresponds to the later Work Area C before change of taxonomy.

#### EDDP Programme Board 25/04/2023

3. Allocation of former EDDP WPs 1-8 to EDDP neo		[ER JU/PM]
4. Further detailed DAC draft master plan	<b>action point</b>	[PM/ER JU]
5. EDDP work programme 2023	<b>action point</b>	[PM]
6. DAC migration roadmap: DAC “starter package” / way forward	<b>action point</b>	[PM/WP3]

#### EDDP Programme Board 01/06/2023

3. new WP3 Co-Lead	<b>decision</b>	[ER JU/WP3]
4. Further detailed DAC draft master plan	<b>decision</b>	[PM/ER JU]
5. Critical issue 3 - fleet retrofit preparedness: state of play	<b>action</b>	[PM/WP3]
6. DAC migration roadmap - DAC “starter package”: state of play	<b>information</b>	[PM/WP3]

#### EDDP Programme Board 12/09/2023

3. Task Force on DAC for Intermodal Wagons	<b>decision</b>	[EC/EU-Rail/WP5]
4. DAC migration roadmap - “starter package”: state & decision crit.	<b>decision</b>	[PM/WP3]
5. Critical issue 3 - fleet retrofit preparedness: state of play	<b>decision</b>	[PM/WP3]

#### EDDP Programme Board 21/11/2023

<b>EDDP and migration roadmap</b>		
6. Overview on EU-Rail calls (fleet analysis + engineering)	<b>information</b>	point type [EU-Rail]
7. EDDP overall planning 2023-2027: state of play	<b>information</b>	[PM/EU-Rail]

#### EDDP Programme Board 30/01/2024

<b>EDDP and migration roadmap</b>		
3. EDDP overall planning 2024-2027: state of play	<b>information</b>	point type [PM/EU-Rail]
4. Request for expression of interest for 100 pre-deployment trains	<b>information</b>	[EU-Rail]
5. Result from WP3 migration meeting on requirements to FP5	<b>information</b>	[EDDP WP3]

## 5.2.2. DAC basic (starter) package

One major step for the consolidation of migration assumptions on Board level was the definition of the **DAC technology packages/components for deployment (“starter package”)** in function of the progress in the FP5 FDFTO technical development and ERA authorisation process.

The background was to focus the DAC technology development in the FP5 TRANS4M-R project on the most beneficial functionalities which can be developed successfully within the EDDP timeframe and, at the same time, still be handled in DAC migration without overwhelmingly increasing the complexity and complication of the later DAC deployment due to a large bundle of new technology which must work perfectly in the field directly after installation. So one aspect of defining a **“DAC starter package” (later renamed to “DAC basic package”)** is to de-risk technology development as well as the technology roll-out, whilst remaining upgradeable to later added technical enablers (use cases).

This task was part of the definition/management of the migration roadmap.

The work kicked off in the 15/04/2023 Programme Board, aiming at a decision in the 12/09/23 PB (Figure 12).

### 4. DAC migration roadmap - DAC “starter package”: state & decis. criteria



#### Request to the Board for action

› To discuss internally the potential packages	Reminder from 15/04 PB	PB members
› To choose preferred starter & target packages (if different)		PB members
› To choose preferred steps + timeline(s) for starter pack => target pack, if any		PB members
› To organise bilaterals EDDP PM & WP3 ↔ PB members until 01/06 PB		EDDP PM
› To present first consolidated views in 01/06 PB		EDDP PM & WP3
› To moderate consensus-building until 12/09 PB for decision (incl. presentation in FP 5 sounding boards)		EDDP PM & WP3

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Figure 12. DAC Basic Package work plan (April 2023)

Bilateral meetings between the EDDP PM and the EDDP PB members led to an intermediate presentation of the results in the 01/06/2023 Programme Board and to a state of play which was ready for decision in the 12/09/2023 PB as planned (Figure 13).

#### 4. DAC migration roadmap - DAC "starter package": state & de

Similar view by some manufacturers



	Starter (Standard?) Package									time span	« later »					
	UIP	Dellner	SBB C	RLE	ÖBB	CD C	DB C	Voith	KB		SBB C	RLE	ÖBB	DB C	KB	Dellner
<b>Functionality</b>																
Mechanical uncoupling from wagon side		•	•	•	•	•	•	•	(•) FDN							
Push-button uncoupling from wagon side			FDN		FDN		•	•	FDN	•						
Uncoupling in-train from loco ("S")				•	prep	•	•	•	Prep	•					•	
Uncoupling from remote (radio?) ("S+")											•					
"Prevent coupling" (+ wagon/infra release)		•	•	•	•	•	•	•	•		•	(•)	•	•	FDN	
Energy/data management			WSG	•	•	•	•	•	•						•	
Train composition / wagon order				•	•	•	•	•	•						•	
"Ensure rolling" (remote bleeding)					•	•	•	•	Prep						•	
Automated brake test			RC	prep	•	•	•	•	•		•				•	
Train integrity as functionality				prep	prep	prep	prep	FDN	Prep	RC?	•				•	
Automated technical wagon inspection				prep	prep	prep	prep	prep	prep		•			•	FDN	
Rear view camera																
ep-brake (type: tbd)					FDN	FDN	FDN	FDN	FDN							
Dynamic wagon brake																
Electronic parking brake / mandatory?						(new)	FDN	FDN	FDN							
Automated yard operations																

# = DAC type    WSG = wheelset generator    RC = optional    FDN = further discussion

SBB: yes for digital, but data/energy independence

A majority of PB members desires a package already offering digital benefits, consisting of:

- mechanical or push button uncoupling from wagon side incl. "prevent coupling"
- uncoupling in-train from loco
- train composition/wagon order
- automated brake test
- data/energy system "ready" for the other functions (+upgradeable)
- avoiding re-authorisation as much as possible

Package corresponds to CBA tech package 3

Figure 13. Results of the DAC Basic Package bilateral alignments with EDDP PB members

The result was handed over to the FP5 TRANS4M-R project after the 12/09/23 PB meeting for feasibility feedback and related time planning (Figure 14).

### 3. DAC basic package

**Recommendation for decision**

**Reminder from 12/09 PB**


- › To decide to exclude a purely mech. package (AC)
- › to decide at minimum a "digital" starter/basic package approach (comprising the described data/energy & functions)

› To request the FP5 (technical development experts) to present **valid time plans**, defining their point in time readiness for the start of deployment (commercial pilot trains & general) incl. RAMS & authorisation, as soon as possible and **to be presented in the next PB**


- › EDDP PB members to start the pre-planning for the 100 commercial pilot trains
- › EDDP PM / EU-Rail to send respective information to EDDP and RFF members

Figure 14. Decision request on DAC Basic Package and FP5 feedback in 12/09/23 PB

After the FP5 confirmed the EDDP request, the final decision could be taken in the 21/11/2023 Programme Board by approving the DAC Basic package with its functionalities as depicted in Figure 14), decision which was anticipated by the 25/10/2023 Supervisory Board .



### 3. DAC basic package



**Recommendation to the Board for decision**

› To decide (confirm) the “**DAC basic package**” for demonstrator trains and pre-deployment trains & being the minimum package for full deployment (whereas further design principles like e.g. upgradeability, modularity, interchangeability\* could be added for the full deployment, as long as interoperability and performance of the basic system will be maintained):

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

*Notes:*  
 \* modularity, interchangeability, upgradeability & options for centralised software updates (e.g. over-the-air) will be discussed in separate expert groups  
 \*\* coupler with mechanical or push-button uncoupling from wagon side and incl. “prevent coupling” function

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Figure 15. DAC Basic Package

The different alignment meetings on the DAC Basic Package between EDDP PM, the EDDP PB members and EC/EU-Rail took place on:

April 2023	13, 18
May 2023	16, 22, 30, 31
June 2023	19
July 2023	19, 24, 26, 27, 28
August 2023	16, 17, 18, 30, 31
September 2023	04
November 2023	16, 20

### 5.3. Criteria/options for overall migration scenario optimisation

The DACcord task consisted in “Developing major criteria/options for overall migration/ deployment scenario optimisation” (cf. Grant Agreement).

This task / workstream can only be performed in a fully integrated way upon completion of the fact-finding on vehicle/fleet types and quantities and workshop capacity that still has to take place mainly in the activities C1 and C2. The required resources for doing this will be provided by the already mentioned upcoming EU-Rail project.

The Work Area C3 already anticipates in its workstreams the structure for such an optimisation cycle. Its findings will be regularly updated and discussed with the Work Area C responsables and brought to the boards as intermediate results; until certain insights on the above points will be stable enough to derive optimisation criteria or options.

First results will be visible towards mid-2025, in function of the C1 and C2 time plans and the results of upcoming EU-Rail projects which will feed adequate resources into these activities.

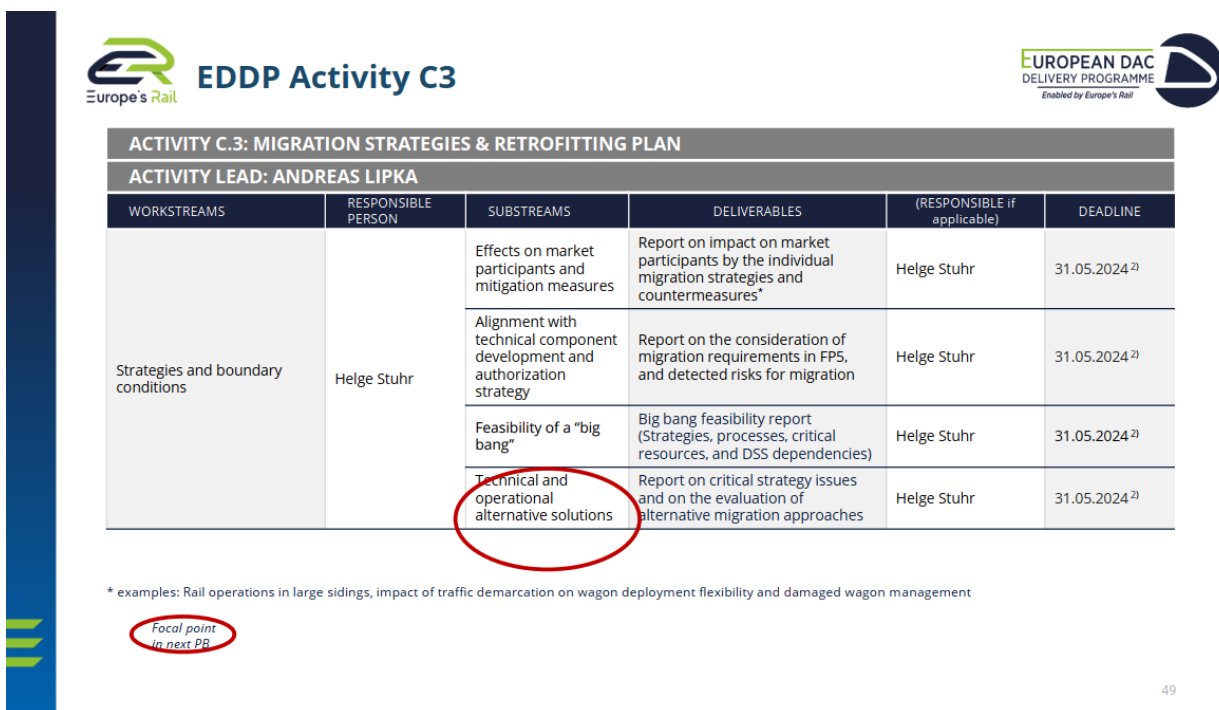


Figure 16. EDDP Activity C3 planning

## 5.4. Cross-checks FP5 FDFTO / migration roadmap actions

The DACcord task consisted in “Organising regular cross-checks between FP5 FDFTO and the different migration roadmap actions” (cf. Grant Agreement).


In first instance, a regular exchange between the EDDP migration roadmap activities and the FP5 FDFTO project requires a clear planning and deliverables on both sides which interface to the respective counterparts and are influenced vice versa. The EDDP work area structure now being stable, such regular exchange will be organised in the Reporting Period 2.

Nevertheless – and besides individual contacts that took place between individually the working environments, a first general input from EDDP side into the FP5 was launched in the EDDP Programme Board in September 2023 under the topic of:

6. *Critical issue 3 - fleet retrofit preparedness: state of play* **decision** [PM/WP3]

The intention was to clarify in which way requirements from migration roadmap to FP5 (examples see Figure 18) should be channelled . The “fast lane process” described on the right side in Figure 17 was decided.

### 5. Input from EDDP Migration to FP5: integration of WP3 in Polarion (1/3)



- “Design to upgrade”: Migration of the DAC into the existing railway market (e.g., considering existing diverse vehicle fleet, workshop capacities...) leads to “upgrade requirements” to the new product
- Such requirements are elaborated within the EDDP work package 3 (migration) and **need to be considered in the technical development in** (or partly outside) FP5.

**Process options for decision**

« **Formal lane process** »

1. **Collection** of WP3 requirements (Polarion Features and Requirements) in Polarion Excel Template by migration team → creation of a migration requirements list
2. **Sector feedback** in a migration sounding board (Teams call)
3. **Decision** about the list in the next EDDP programme board (November 2023)
4. **Upload** of the list to Polarion
5. **FP5 Polarion process** can start (December 2023)

« **Fast lane process** »

1. **Collection** of WP3 requirements (Polarion Features and Requirements), informal discussion with selected stakeholders and direct **upload** to Polarion
2. **FP5 Polarion process** can already start for these requirements
3. **Sector feedback** in a migration sounding board (Teams call; including first FP5 feedback via Polarion)
4. **Decision** about the list in the next EDDP programme board (October 2023; including first FP5 feedback via Polarion)
5. **Confirmation** or deletion of requirements in Polarion (November 2023)

Figure 17. Process options for channelling EDDP inputs into FP5

## 5. Input from EDDP Migration to FP5: integration of WP3 in Polarion (2/3)

### Examples (level of detail: feature)

Topic	Short description / reason
Fast exchange of screw coupler hook by DAC coupler head	Mounting of the coupler head in pop-up workshops needs to be possible without lifting wagons (even for wagons with bogies), lowering/moving/fixing of the 80 mm bolt possible by only one person
No change of wagon length (over buffer / coupler head)	Would result in too many changes in infrastructure (e. g., loading sites, loading connections to tank wagons, ...)
Fast mounting cable solutions	Flexible to be adapted to numerous different wagon types
All components need to be prepared for the 2-step mounting process of DACready	Fast mounting ( <u>plug&amp;play</u> ) of components in second step in pop-up workshop, all components mounted in first step need to be robust (years at wagon before first use)
Self test function and high reliability	After mounting the last digital components in the pop-up workshop, the system needs to fulfill a self test, leading to a positive result in nearly all cases ( <u>tbd</u> )
Update process for vehicle IT components secured	All wagons parked for weeks (running out of battery power) need to be able to communicate with vehicles that received updates in the meantime
Data: starter package without full locomotive IT integration	All functionalities of the starter package need to be possible with a locomotive tablet solution

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Figure 18. Examples for input from EDDP migration to FP5

The “fast lane” process foresaw that the migration criteria were introduced in the FP5 requirements tool (Polarion) first, then sector feedback (“sounding”) gathered by EDDP to collect the opinion of more stakeholders than the current WP3/WA C participants. and reported in the upcoming Programme Board in order to stipulate a decision. The decision on the provided items should have been taken in FP5 (resp. in the EDDP Programme Board) in October 2023, but the feedback process was slightly delayed.

The result of this “sounding” exercise and the intended next steps were then presented in the EDDP Programme Board of 30/01/2024 (Figure 19, Figure 20, Figure 21, Figure 22).

### EDDP and migration roadmap

6. Result from WP3 migration meeting on requirements to FP5 **information** *point type* [EDDP WP3]

Until the point in time of the redaction of this review document, there are no feedback results from FP5 to EDDP available. In the upcoming reporting period, a regular exchange can now really be organised in M12-24 of the project, based on the substantiated WA C/D planning and leading to an overall programme risk management. This exchange will of course include the System Pillar Task 4 activities.

### 5. Input from EDDP Migration to FP5: integration of WP3 in Polarion (1/3)

Reminder from 12/09 PB

- “Design to upgrade”: Migration of the DAC into the existing railway market (e.g., considering existing diverse vehicle fleet, workshop capacities...) leads to “upgrade requirements” to the new product
- Such requirements are elaborated within the EDDP work package 3 (migration) and need to be considered in the technical development in (or partly outside) FP5.

#### Process options for decision

##### « Formal lane process »

1. Collection of WP3 requirements (Polarion Features and Requirements) in Polarion Excel Template by migration team → creation of a migration requirements list
2. Sector feedback in a migration sounding board (Teams call)
3. Decision about the list in the next EDDP programme board (November 2023)
4. Upload of the list to Polarion
5. FP5 Polarion process can start (December 2023)

##### « Fast lane process »

1. Collection of WP3 requirements (Polarion Features and Requirements), informal discussion with selected stakeholders and direct upload to Polarion
2. FP5 Polarion process can already start for these requirements
3. Sector feedback in a migration “sounding” board (Teams call including first FP5 feedback via Polarion)
4. Decision about the list in the next EDDP programme board (October 2023 including first FP5 feedback via Polarion)
5. Confirmation or deletion of requirements in Polarion (November 2023)

“fast lane process” was decided WP3 to report in PB 01/24 (initial target dates were delayed)

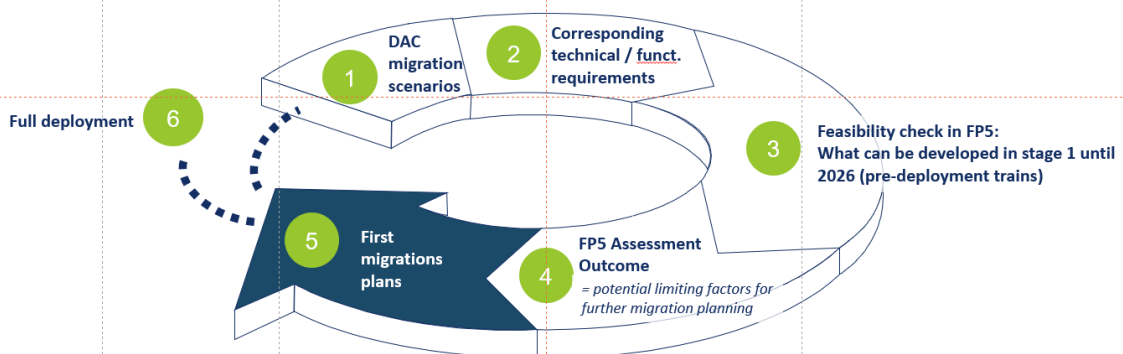
14

Figure 19. Reminder on the taken “fast lane” decision

### 5. Results from WP3 migration meeting on requirements to FP5

Reminder: why have we done this exercise?

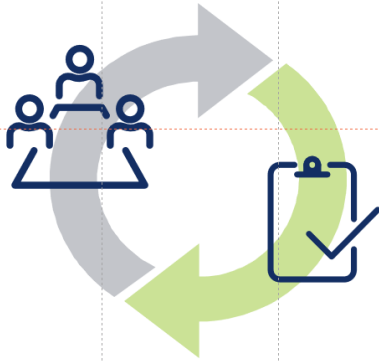
#### Development process migration plan (iterative)



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Figure 20. Reminder on the rationale for the process step

## 5. Results from WP3 migration meeting on requirements to FP5 – 24 subjects handed over to FP 5 via Polarion



- › The aim of the meeting was **coordinating migration requirements on DAC with many WP3 assignees for handover to FP5**
- › 42 EDDP WP3 Migration participants from 30 companies (thereof 4 manufacturers) and 12 countries attended, meeting @ 18 Jan 2024
- › Detailed vote by objection took place for **24 subjects (10 “parent features” & 14 respective “child features”**, following the Polarion structure of elements) of collected requirements on DAC sent in advance to all EDDP WP3 participants
- › With some comments and adjustments **all discussed requirements were accepted**
- › all changed requirements have been **already submitted in Polarion to keep the milestones within FP5**
- › The detailed list with collected requirements including the results of the meeting is **documented in the Cooperation Tool**

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Figure 21. Report on the result of the sector feedback loop to the EDDP Programme Board

## 5. Results from WP3 migration meeting on requirements to FP5

### Next steps

- › Assessment of the delivered inputs from 18/01 WP3 meeting in FP5
- › Feedback to EDDP WP3
- › Report in next Programme Board, potentially decision

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Figure 22. Programming of the subsequent steps for feedback from FP5 to EDDP

## 6. Conclusions

In the first DACcord project year M1 to M12, it was possible to set-up and refine the DAC migration roadmap at least in a first step and to go deeper into the planning of the different work areas that have been installed in replacement of the very general “work packages” of the previous EDDP structure.

Those former EDDP work packages were not sufficiently sub-planned, causing a certain variability of the results expected and delivered. All this could now be oriented in a more structured way, linked to workstreams and deliverables, which will continue to be filled and refined in the next reporting period.

It will also constitute the indispensable basis for any kind of progress monitoring. Due to the waiting for the launch of important supporting projects, e. g. on fleet and workshop analysis, some substantial work results from work area C will only be achieved after the start of the second DACcord reporting period (M13-M24).

Due to the specific difficulties in the Work Area D (economics) to identify resources for substantial funding & financing and to structure the work accordingly, further work needs to be done as well, where possible.

The work on the definition of the so called “DAC Basic Package” was a parallel exercise to the EDDP work area structuring, in order to provide a decision on to what to start with in migration and on what to focus in the development work of the EU-Erail Flagship Project 5 TRANS4M-R (where the DAC technology development takes place).

All works done will feed into the regular monitoring and risk management of the second reporting period.

The next steps in the DAC migration roadmap management in the upcoming reporting period are consequently:

- › Further completion and refining of the migration roadmap planning in the different work areas
- › Seamless integration of new EU-Rail projects supporting the migration roadmap work areas
- › Developing further the EDDP programme and DAC migration roadmap planning towards a risk management system, with interface management to EU-Rail FP5 TRANS4M-R project and System Pillar Task 4 and an organised, structured, regular exchange
- › Integrating the wider European Rail Freight Sector in the works of the DAC migration work areas via participation of the work areas’ workstreams at the upcoming DAC Fora in the different European countries/regions, organised by the EDDP Stakeholder managements
- › Refining the EDDP work area D regarding funding/financing workstreams and driving the CBA with benefit cases studies and potentially regional CBAs

This work will be continued in the DACcord WP7 in the project months M12 to M24 and be summarised in the DACcord deliverable D7.1.



## 7. References

For an overall information on the programme and its related work areas, refer to:

<https://rail-research.europa.eu/european-dac-delivery-programme/>

All project deliverables can be found in the related parts of the Europe's Rail Cooperation Tool IT environment (programme members only).

## 8. Appendices

### EDDP Programme Board agendas

Draft PB agenda		EUROPEAN DAC DELIVERY PROGRAMME <small>Enabled by Europe's Rail</small>	
1. Introduction, Welcome, adoption of the Agenda			[ER JU]
2. Review of actions since the last PB			[ER JU/PM]
<b>EDDP and migration roadmap</b>		<i>point type</i>	
3. <a href="#">DACcord</a> project & PM reconfirmation		<b>decision point</b>	[PM/ER JU]
4. Allocation of former EDDP WPs 1-8 to EDDP neo			[ER JU/PM]
5. Further detailed DAC draft master plan		<b>action point</b>	[PM/ER JU]
6. EDDP work programme 2023		<b>action point</b>	[PM]
7. DAC migration roadmap: DAC "starter package" / way forward		<b>action point</b>	[PM/WP3]
8. Stakeholder management / Sector statement			[ER JU/PM]
9. Dissemination & events 2023			[PM]
<b>FP5-TRANS4M-R/FDFTO</b>			
10. <a href="#">Important topics</a>			[FP5]
11. OPE <a href="#">sounding board</a> 23/03/2023: <a href="#">results</a> , <a href="#">feedback</a>			[FP5]
<b>System Pillar (Task 4)</b>			
12. --			[SP Task 4]
13. AOB and closing			[all]

Figure 23. EDDP Programme Board agenda 25/04/2023

Draft PB agenda		EUROPEAN DAC DELIVERY PROGRAMME <small>Enabled by Europe's Rail</small>	
1. Introduction, Welcome, adoption of the Agenda			[ER JU]
2. Review of actions since the last PB			[ER JU/PM]
<b>EDDP and migration roadmap</b>		<i>point type</i>	
3. new WP3 Co-Lead		<b>decision</b>	[ER JU/WP3]
4. Further detailed DAC draft master plan		<b>decision</b>	[PM/ER JU]
5. Critical issue 3 - fleet retrofit preparedness: state of play		<b>action</b>	[PM/WP3]
6. DAC migration roadmap - DAC "starter package": state of play		<b>information</b>	[PM/WP3]
7. Sector statement: state of play		<b>information</b>	[PM/ER JU]
8. CBA update		<b>information</b>	[ER JU/WP5]
9. Overall DAC initiative SPOCs		<b>information</b>	[ER JU/PM]
<b>FP5-TRANS4M-R/FDFTO</b>			
10. <a href="#">Important topics</a> : Interface A		<b>information</b>	[FP5]
11. <a href="#">Sounding boards</a> : indicative time plan 2023		<b>information</b>	[FP5]
<b>System Pillar (Task 4)</b>			
12. General Status		<b>information</b>	[SP Task 4]
13. AOB and closing			[all]

Figure 24. EDDP Programme Board agenda 01/06/2023

Deep dive agenda (draft)		 <small>Enabled by Europe's Rail</small>	
› Introduction, <u>welcome</u> , adoption of the Agenda	09h00 – 09h10	ER JU/PM	
› Kick-off the reflections: presentation of VTG thoughts	09h10 – 09h30	M. Knüpling	
› Discussion, amendments, additional points, ...	09h30 – 10h15	all	
› Potential graphical improvement: options, discussion, decision	10h15 – 10h45	PM / all	
› Wrap-up / summary; next steps	10h45 – 11h00	PM/ER JU	

Figure 25. EDDP Programme Board agenda (GMP deep dive session)-29/06/2023


Draft PB agenda		 <small>Enabled by Europe's Rail</small>	
1. Introduction, Welcome, adoption of the Agenda		[EU-Rail/EC]	
2. Review of actions since the last PB		[EU-Rail/PM]	
<b>EDDP and migration roadmap</b>			
3. Task Force on DAC for Intermodal Wagons	<i>point type</i>	[EC/EU-Rail/WP5]	
4. DAC migration roadmap - "starter package": state & decision crit.	<b>decision</b>	[PM/WP3]	
5. Critical issue 3 - fleet retrofit preparedness: state of play	<b>decision</b>	[PM/WP3]	
6. DAC General Master Plan 01: positive communication	<b>information</b>	[PM/EU-Rail]	
7. Sector statement: next steps	<b>information</b>	[PM/ EU-Rail]	
8. Communication/dissemination 2023 + <u>EU-Rail</u> website update	<b>information</b>	[PM/ <u>EU-Rail</u> ]	
<b>FP5-TRANS4M-R/FDFTO</b>			
10. FDFTO major open topics	<b>information</b>	[FP5]	
11. <u>Sounding boards: target OPE proced.</u> (13/09), tech (16/10, 11/12)	<b>information</b>	[FP5]	
<b>System Pillar (Task 4)</b>			
12. Pre-info: draft OTA architecture + cloud/platforms	<b>information</b>	[SP Task 4]	
13. EDDP PB and SB planning 2024 (save-the-dates)	<b>information</b>	[EU-Rail]	
14. AOB and closing		[all]	

Figure 26. EDDP Programme Board agenda 12/09/2023

<b>Draft PB Agenda</b>			
1. Introduction, Welcome, adoption of the Agenda			[EU-Rail/EC]
2. Review of actions since the last PB			[EU-Rail/PM]
<b>FP5-TRANS4M-R/FDFTO &amp; EDDP</b>			
3. FDFTO <u>updated</u> planning + decision "DAC basic package"	<b>decision</b>		[FP5/EU-Rail/PM]
4. Call for 100 pre-deployment trains	<b>information</b>		[PM]
5. <u>Sounding boards</u> 2023	<b>information</b>		[FP5]
<b>EDDP and migration roadmap</b>		<i>point type</i>	
6. Overview on <u>EU-Rail</u> calls (fleet analysis + engineering)	<b>information</b>		[EU-Rail]
7. EDDP overall planning 2023-2027: state of play	<b>information</b>		[PM/EU-Rail]
8. DME concept: meeting with SESAR DM	<b>information</b>		[PM/EU-Rail]
9. Stakeholder management plan: state of play	<b>information</b>		[PM/EU-Rail]
10. Communication/dissemination 2023/24	<b>information</b>		[PM/EU-Rail]
<b>System Pillar (Task 4)</b>			
–	<b>information</b>		[SP Task 4]
11. AOB and closing			[all]
- ERA concept paper "in-service tests with DAC prototypes"	<b>information</b>		[ERA]

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Figure 27. EDDP Programme Board agenda 21/11/2023

<b>Draft PB Agenda</b>			
1. Introduction, Welcome, adoption of the Agenda			[EU-Rail/EC]
<b>incl. report on state of play on installation of NCPs</b>			
2. Review of actions since the last PB			[EU-Rail/PM]
<b>EDDP and migration roadmap</b>		<i>point type</i>	
3. EDDP overall planning 2024-2027: state of play	<b>information</b>		[PM/EU-Rail]
4. Request for expression of interest for 100 pre-deployment trains	<b>information</b>		[EU-Rail]
5. Result from WP3 migration meeting on requirements to FP5	<b>information</b>		[EDDP WP3]
6. DME concept: meeting with SESAR DM	<b>information</b>		[EU-Rail]
7. Communication/dissemination 2024 + Stakeholder mgmt. plan	<b>information</b>		[PM/EU-Rail]
<b>FP5-TRANS4M-R/FDFTO</b>			
8. FP5 <u>general status</u> report	<b>information</b>		[FP5]
9. <u>Intermediate report « modularity/interchangeability » subgroup</u>	<b>information</b>		[FP5]
10. <u>Sounding boards</u> 2024	<b>information</b>		[FP5]
<b>System Pillar (Task 4)</b>			
11. Status Overview of the System Pillar	<b>information</b>		[SP Task 4]
12. AOB and closing			[All]

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Figure 28. EDDP Programme Board agenda 30/01/2024

## EDDP Supervisory Board agendas


Draft SB agenda	Proposed agenda before SB members input	
1. Introduction, Welcome, adoption of the Agenda 2. Review of actions since the last PB 3. information on Destination 8/topic 7 call		[ER JU] [ER JU/PM] [ER JU]
<b>EDDP and migration roadmap</b> 4. DAC Sector Statement 5. (loco) fleet data – state of play of survey (Critical issue 3) 6. Next steps (Q1-Q2/2023), incl. needs 7. European Investment Plan study (results) 8. Dissemination & events 2023		[PM/ER JU] [EDDP WP3] [PM] [ER JU/EY] [PM]
<b>FP5-TRANS4M-R/FDFTO</b> 9. Brief report state of play FP5 (FDFTO) 10. DAC SPEC: coupler height/e-coupler/bridge plates (critical issue 1a)		[FP5] [suppliers]
<b>System Pillar (Task 4)</b> 11. Brief report state of play SP Task 4		[SP Task 4]
12. AOB and closing		[all]
14/02/2023 PB slides attached		

Figure 29. EDDP Supervisory Board agenda 23/03/2023

Draft SB agenda		
1. Introduction, Welcome, adoption of the Agenda 2. Review of actions since the last SB		[EC/JU] [EC/JU/PM]
<b>EDDP and migration roadmap</b> 3. New Supervisory Board member: AERRL 4. DACcord project & PM reconfirmation 5. Allocation of former EDDP WPs 1-8 to EDDP neo 6. new WP3 Co-Lead 7. Further detailed DAC draft master plan 8. Critical issue 3 - fleet retrofit preparedness: state of play 9. DAC migration roadmap - DAC “starter package”: state of play 10. Sector statement: state of play 11. CBA update	<i>point type</i> <b>decision</b> <b>decision</b> <b>information</b> <b>decision</b> <b>decision</b> <b>action</b> <b>information</b> <b>information</b> <b>information</b>	[EC/JU] [PM/JU] [EC/JU/PM] [EC/JU] [PM/JU] [PM/WP3] [PM/WP3] [PM/JU] [EC/JU/WP5]
<b>FP5-TRANS4M-R/FDFTO</b> 12. Sounding boards: indicative time plan 2023	<b>information</b>	[FP5]
<b>System Pillar (Task 4)</b> <del>13. General Status</del>	<b>information</b>	[SP Task 4]
14. AOB and closing		[all]

Figure 30. EDDP Supervisory Board agenda 29/06/2023

 <b>Draft SB Agenda</b>			
1.	Introduction, Welcome, adoption of the Agenda		[EU-Rail/EC]
2.	Review of actions since the last PB		[EU-Rail/PM]
<b>EDDP and migration roadmap</b>			
3.	Summary of the exchange in the last Programme Board	<i>point type</i> <b>information</b>	[EU-Rail/PM]
4.	<b>Decision points</b> (recommendations agreed by the PB)		[EC/EU-Rail]
	4.1 (Informal) Task Force on Intermodal Wagons	<b>decision</b>	
	4.2 DAC "starter/basic package": state & decision criteria	<b>decision</b>	
5.	Communication/dissemination 2023 + EU-Rail website update	<b>information</b>	[PM/ EU-Rail]
<b>FP5-TRANS4M-R/FDFTO</b>			
6.	FDFTO major open topics + sounding boards	<b>information</b>	[FP5]
<b>System Pillar (Task 4)</b>			
7.	Pre-info: draft OTA architecture + cloud/platforms	<b>information</b>	[SP Task 4]
8.	EDDP PB and SB planning 2024 (save-the-dates)	<b>information</b>	[EU-Rail]
9.	AOB and closing		[all]
<i>12/09/2023 PB slides attached</i>			

Figure 31. EDDP Supervisory Board agenda 25/10/2023

 <b>Draft SB Agenda</b>			
1.	Introduction, Welcome, adoption of the Agenda <b>incl. report on state of play on installation of NCPs</b>		[EU-Rail/EC]
2.	Review of actions since the last SB		[EU-Rail/PM]
<b>EDDP and migration roadmap</b>			
3.	EDDP overall planning 2024-2027: state of play	<i>point type</i> <b>information</b>	[PM/EU-Rail]
4.	Request for expression of interest for 100 pre-deployment trains	<b>information</b>	[EU-Rail]
5.	Communication/dissemination 2024 + Stakeholder mgmt. plan	<b>information</b>	[PM/EU-Rail]
6.	Summary of further topics from the last Programme Board	<b>information</b>	[PM/EU-Rail]
<b>FP5-TRANS4M-R/FDFTO</b>			
7.	FP5 general status report	<b>information</b>	[FP5]
8.	Intermediate report « modularity/interchangeability » subgroup	<b>information</b>	[FP5]
9.	Sounding boards 2024	<b>information</b>	[FP5]
<b>System Pillar (Task 4)</b>			
10.	Status Overview of the System Pillar	<b>information</b>	[SP Task 4]
11.	AOB and closing		[All]

Figure 32. EDDP Supervisory Board agenda 14/02/2024