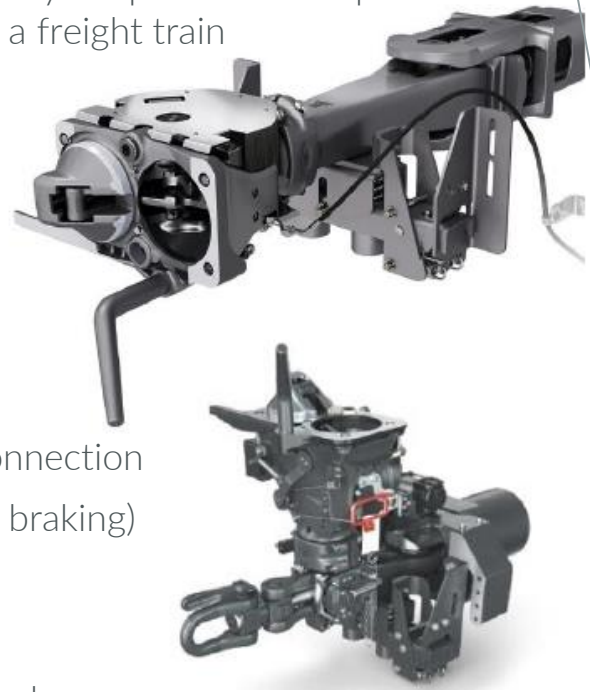# DP-RAIL/DAC

Information for RFF IT Archi Fullteam

08 March 2022

14:00-15:30

Collaboration between the Rail Freight Forward (RFF) gamechangers is an opportunity to create synergies

DAC – Digital Automated Coupling

Goal:: to automatically couple and decouple the rolling stock in a freight train
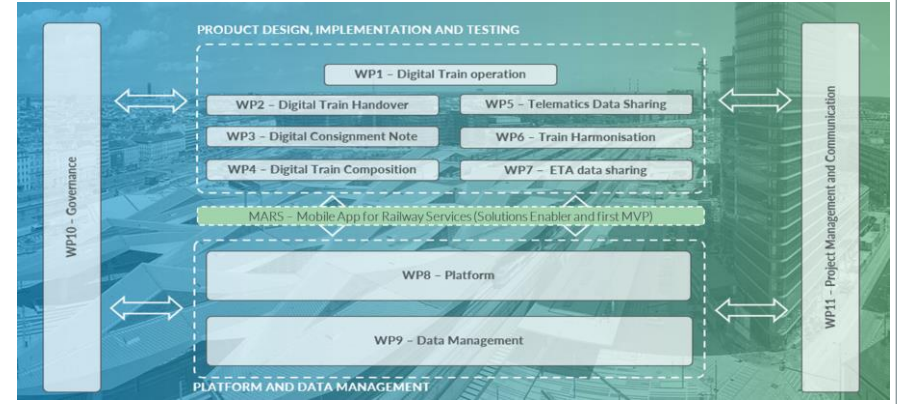
both **physically**

(the mechanical connection

and the air line for braking)

as well as **digitally**

(electrical power and

data connection).

„WIN-WIN"

DP-RAIL (Digital Platforms for Rail)

Goal:: to provide a "one-stop-shop" for operational data for a seamless data journey across Europe

PRODUCT DESIGN, IMPLEMENTATION AND TESTING

WP1 – Digital Train operation
WP2 – Digital Train Handover
WP5 – Telematics Data Sharing
WP3 – Digital Consignment Note
WP6 – Train Harmonisation
WP4 – Digital Train Composition
WP7 – ETA data sharing

MARS – Mobile App for Railway Services (Solutions Enabler and first MVP)

WP8 – Platform
WP9 – Data Management

WP10 – Governance
WP11 – Project Management and Communication
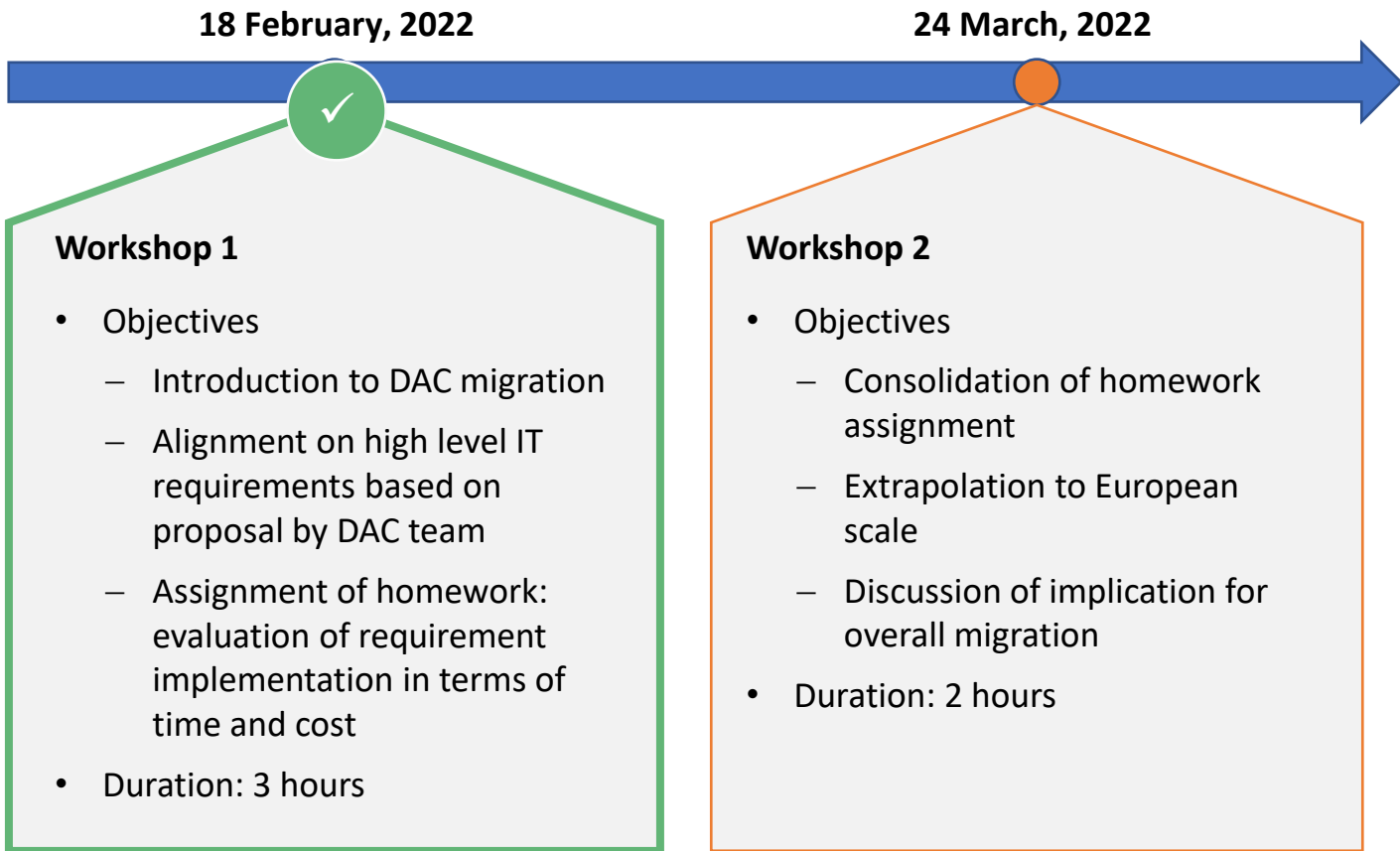
PLATFORM AND DATA MANAGEMENT

Opportunity for DP and DAC initiatives for close collaboration as DP-Rail ...

– Bundles the IT expertise of the rail freight sector

– May benefit in terms of practical use cases (e.g. digital train composition)

We held a first DAC/DP-RAIL workshop to address IT requirements for the DAC migration scenario

- EDDP WP3 Migration to work out the following aspects in Q1/2022
  - IT requirements for DAC migration
  - Approximate time required to prepare IT systems
  - Order of magnitude of required IT investments
- Opportunity for DP and DAC initiatives for close collaboration as DP-Rail …
  - Bundles the IT expertise of the rail freight sector
  - May benefit in terms of practical use cases
- Lean workshop based approach proposed

18 February, 2022

24 March, 2022

Workshop 1

- Objectives
  - Introduction to DAC migration
  - Alignment on high level IT requirements based on proposal by DAC team
  - Assignment of homework: evaluation of requirement implementation in terms of time and cost
- Duration: 3 hours

Workshop 2

- Objectives
  - Consolidation of homework assignment
  - Extrapolation to European scale
  - Discussion of implication for overall migration
- Duration: 2 hours

Participants were asked to guesstimate the required budget and time to realize the requirements

Scope
- Includes the realization of the above IT-requirements in the planning and operations IT of your own company
- Excludes potential further IT requirements for DAC migration planning/execution (e.g., simulations, capacity planning tools, etc.) and for the integration of the digital capacities of DAC

Aspired accuracy
- We aspire to develop the first guesstimate for IT costs of DAC migration on sector level – so far no information is available at all
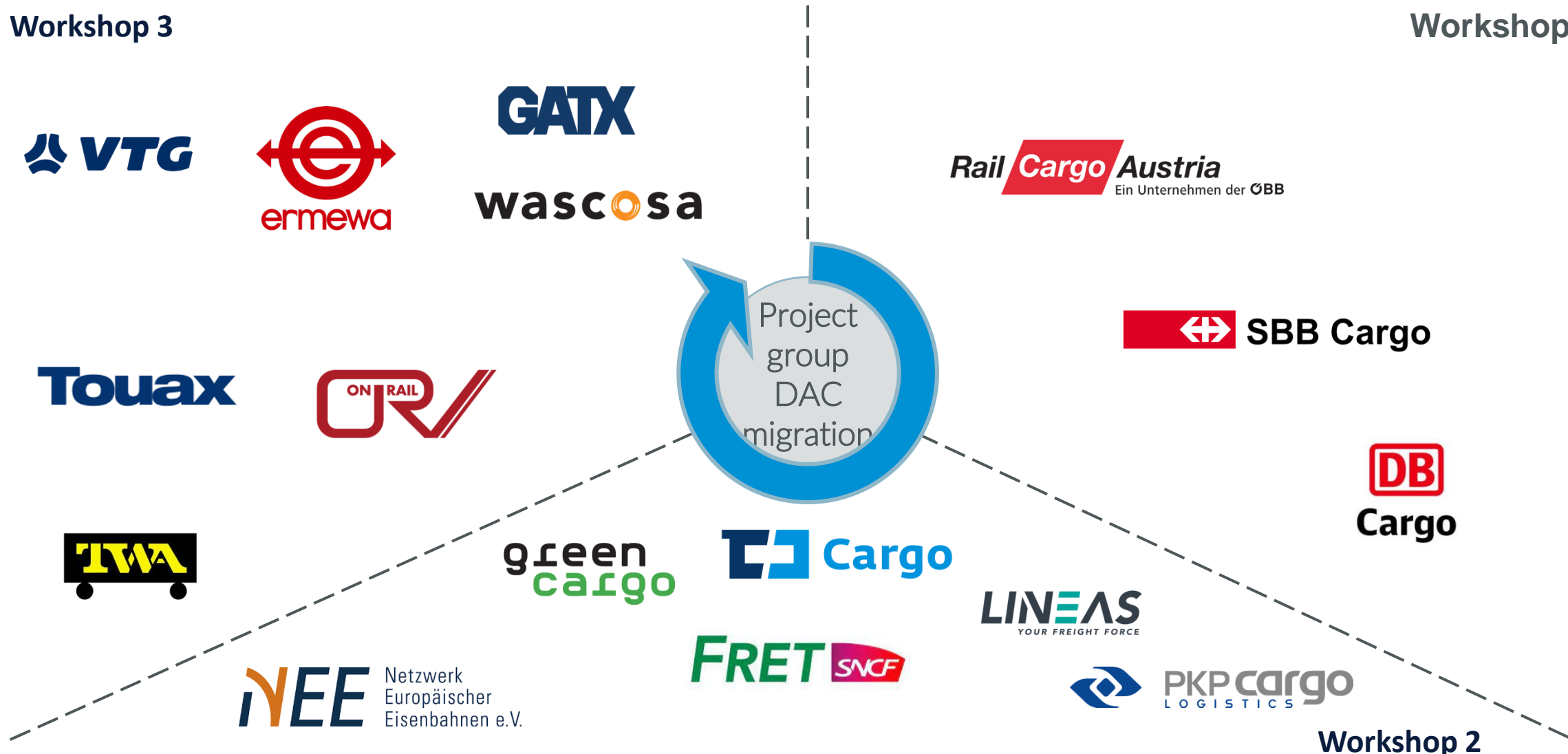- We will aggregate the feedback of the various stakeholders

Required information on company level

- Overall IT budget need for all parties involved in DAC
- Overall realization timeline (assuming budget is available)

Methodology
- You are free to choose a process to develop your guesstimate. Potentially, the following methodology could serve as guidance
  - Domain analysis for each IT requirements to identify IT applications impacted
  - Develop high level understanding of required changes
  - Estimate budget / time requirement based on analogy to previous projects
- Please provide estimates per requirement so that we can check completeness. We will not differentiate the resulting budget need on sector level by IT-requirement since we expect accuracy to be too low. Your estimates should focus on the cost of IT-development which we expect to be dominant

Going forward, we will continue to collaborate on an operative level and leverage know-how and resources

DP-RAIL

Working Model
Information for RFF IT Archi Fullteam
08 March 2022
14:00-15:30

DP-RAIL Consortium

10 partners from 8 countries with networks covering Europe at large
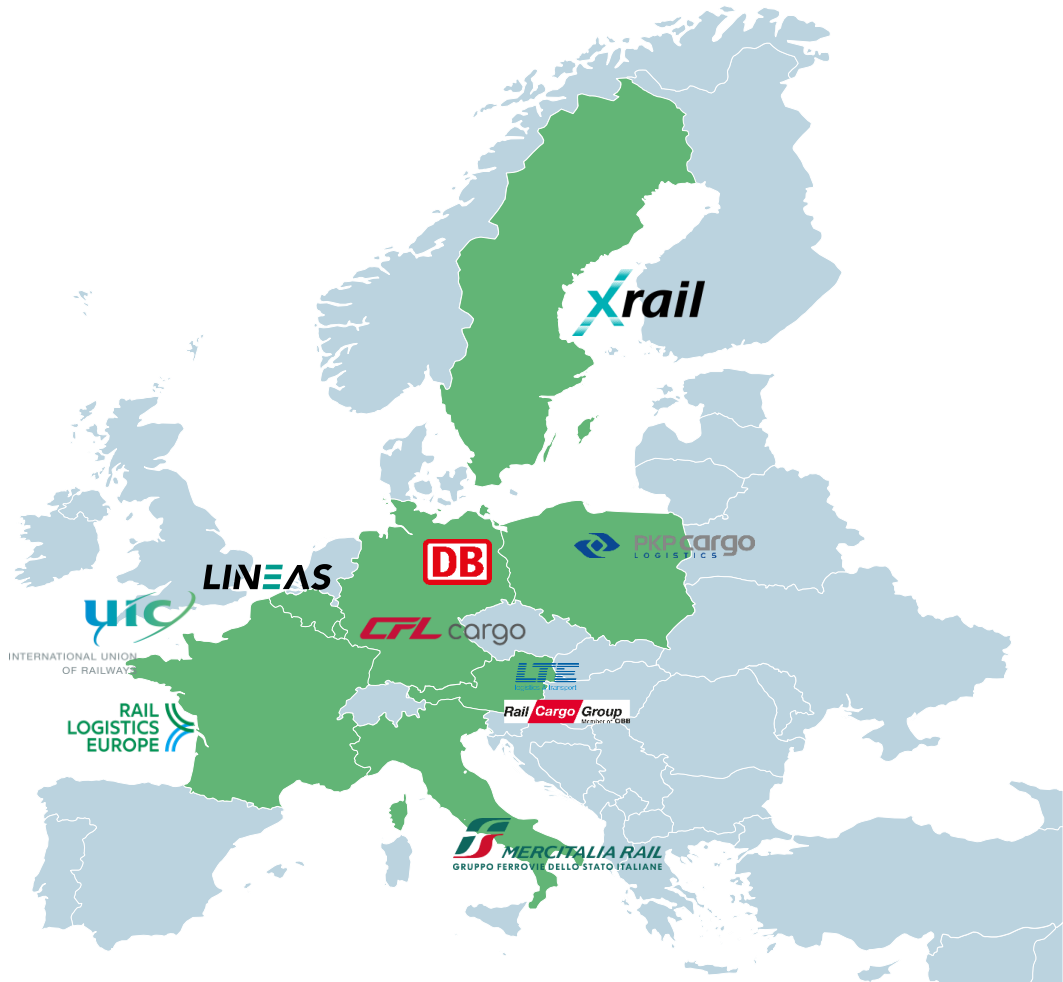
- **CFL Cargo**, Luxemburg
- **DB Cargo**, Germany
- **Lineas**, Belgium
- **LTE**, Austria
- **Mercitalia Rail** and its affiliate **FS Technology**, Italy
- **PKP Cargo**, Poland
- **SNCF Fret** and its affiliate **RAIL4LOGISTICS**, France
- **Rail Cargo Group**, Austria
- **UIC** and its **Raildata** group of experts, France
- **XRAIL**, Sweden

Recap: We strive to deliver 7 solutions for market uptake by 2025 by digitizing core rail operations

Recap of DP-RAIL
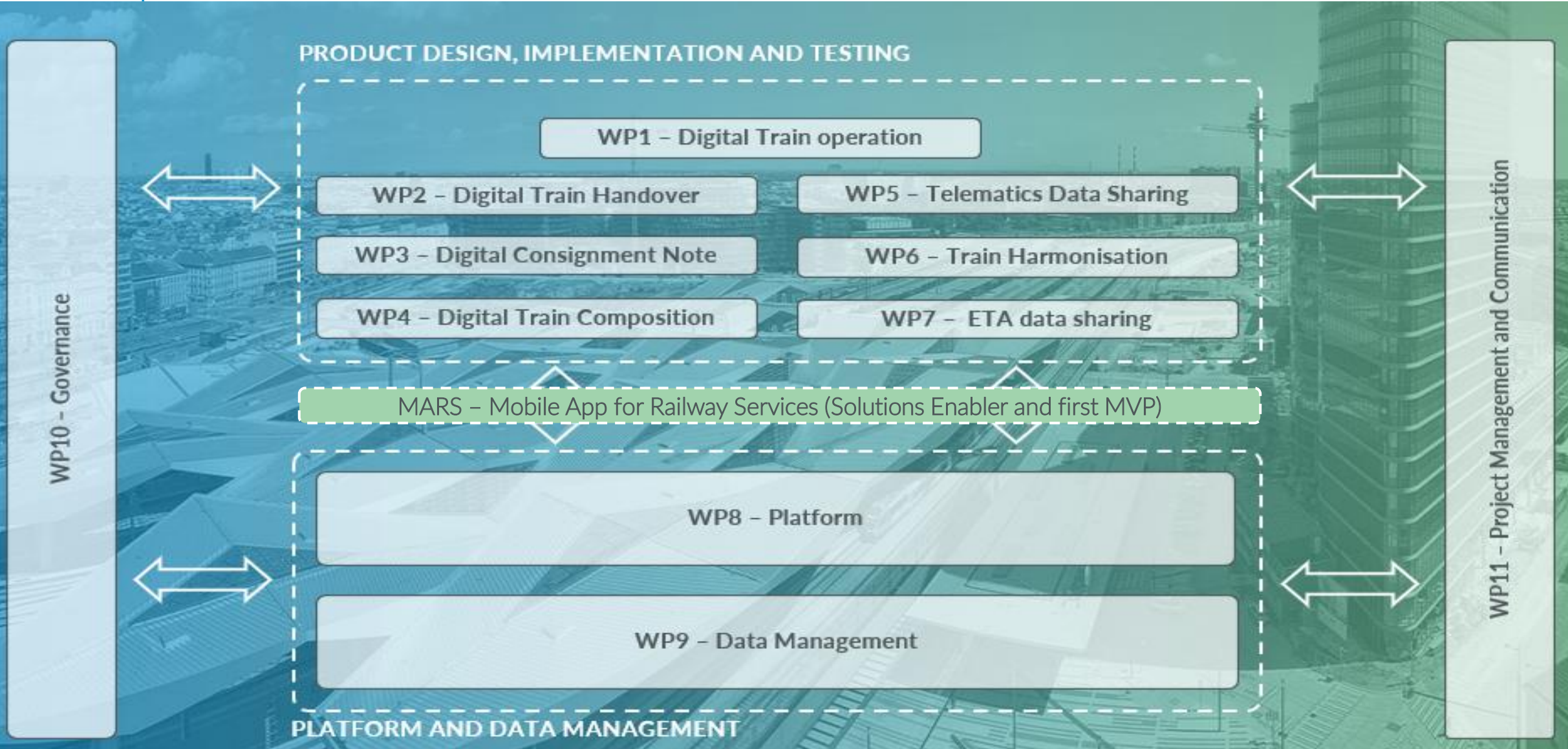
Agenda

Work organization paving the way for agile set up relying on DDT as main hands-on body

Proposed Work Organization - Overview

STEERING LEVEL

Advisory Board

RU Board
CEO level – Plenary RFF until funding

4x per year (and on request)

Steering Committee DP-RAIL

Consortium meeting

1x per month (and on request)

Digital delivery team (DDT)

1x per week and on request

OPERATIVE LEVEL

Agile product Team #1

Agile product Team #2

Agile product Team #N

Use cases development, data management and platform work

DTO   DTH   DCN   DTC   TDS   THS   ETA   PFM   DMGT   GOV

Work packages 1 to 10

- Roles?
  - Product Owner(s) (1x pro Product Team) – Req. Eng.
  - Dev Lead(s) – Dev Team
  - User Community / Reps (Reflecting business value)
  - Architects
  - Transformation/Rollout Mgr.
  - Scrum Master
- Ceremonies and Process
  - Daily Standups
  - Sprint Review
  - Sprint Planning
  - Program Increment
  - Releases?
  - Big picture (how does it all fit together) SAFe Leitbild – DP Rail Variante
- Cross-Product Sync (Standards and Learnings)

The Digital Delivery Team (DDT) prioritizes work, tracks value creation and provides a unified view on project

Proposed Work Organization – Digital Delivery Team

Responsibilities	Members
• Prioritizing work E2E • Managing dependencies, risks • Project Roadmap building • Tracking activities and value creation • SteCo reporting	• T. Noël (Lead) • M. Bhatter (DBC) • M. Lund (Xrail) • C. Jonckheere (Raildata) • S. Gehenot (UIC) + additional guest contributors

STEERING LEVEL

Advisory Board

RU Board

CEO level

Steering Committee DP-RAIL

4x per year (and on request)

1x per month (and on request)

Consortium meetings

Digital delivery team (DDT)

OPERATIVE LEVEL

Agile product Team #1   Agile product Team #2   Agile product Team #N

Use cases development, data management and platform work

DTO   DTH   DCN   DTC   TDS   THS   ETA   PFM   DMGT   GOV
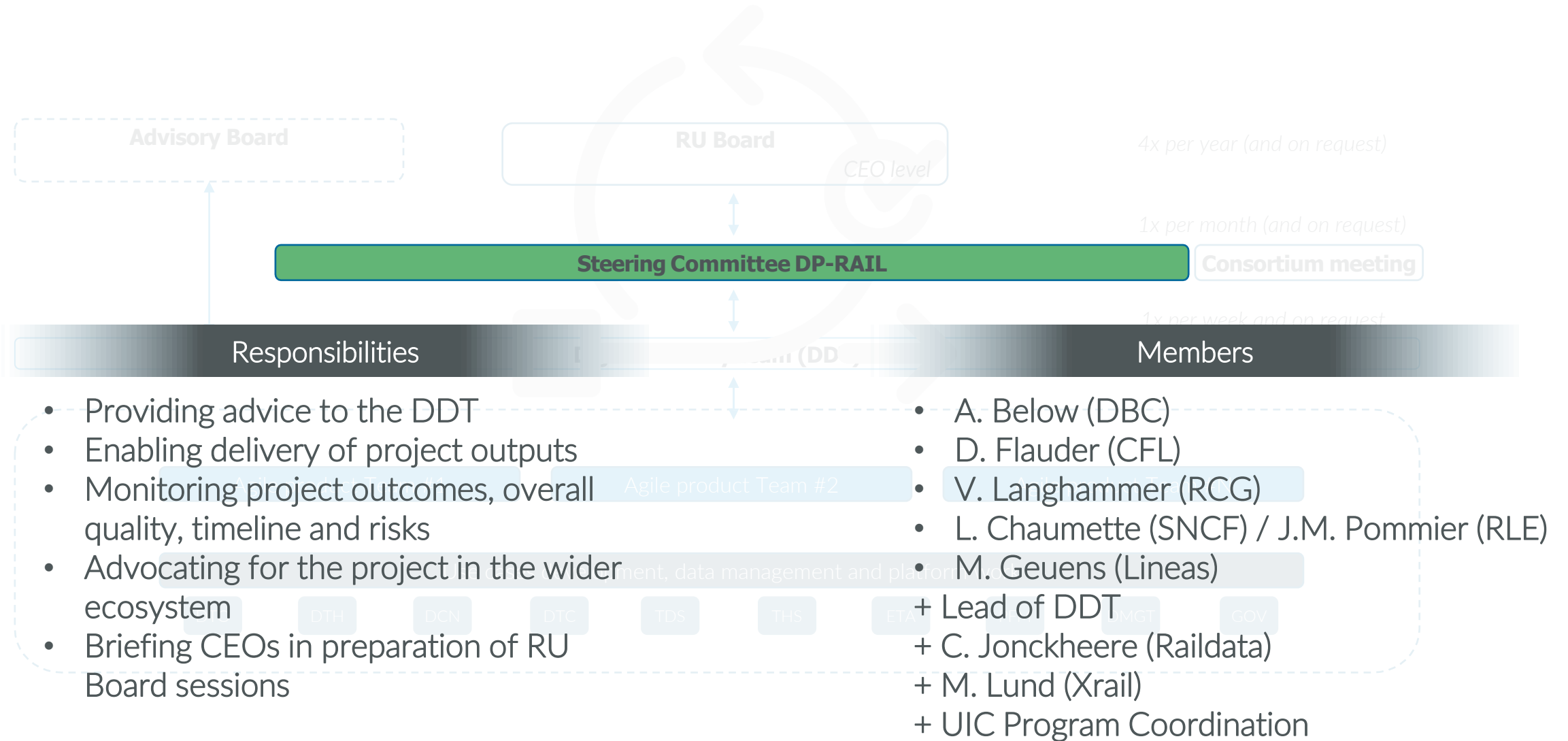
The DP-RAIL SteCo provides guidance and strategic direction and evaluates proposals made by the DDT

Proposed Work Organization – SteCo DP-RAIL

STEERING LEVEL

Advisory Board

RU Board

CEO level

4x per year (and on request)

1x per month (and on request)

Steering Committee DP-RAIL

Consortium meeting

1x per week and on request

(DD

Responsibilities	Members
• Providing advice to the DDT • Enabling delivery of project outputs • Monitoring project outcomes, overall quality, timeline and risks • Advocating for the project in the wider ecosystem • Briefing CEOs in preparation of RU Board sessions	• A. Below (DBC) • D. Flauder (CFL) • V. Langhammer (RCG) • L. Chaumette (SNCF) / J.M. Pommier (RLE) • M. Geuens (Lineas) + Lead of DDT + C. Jonckheere (Raildata) + M. Lund (Xrail) + UIC Program Coordination

Agile product Team #2

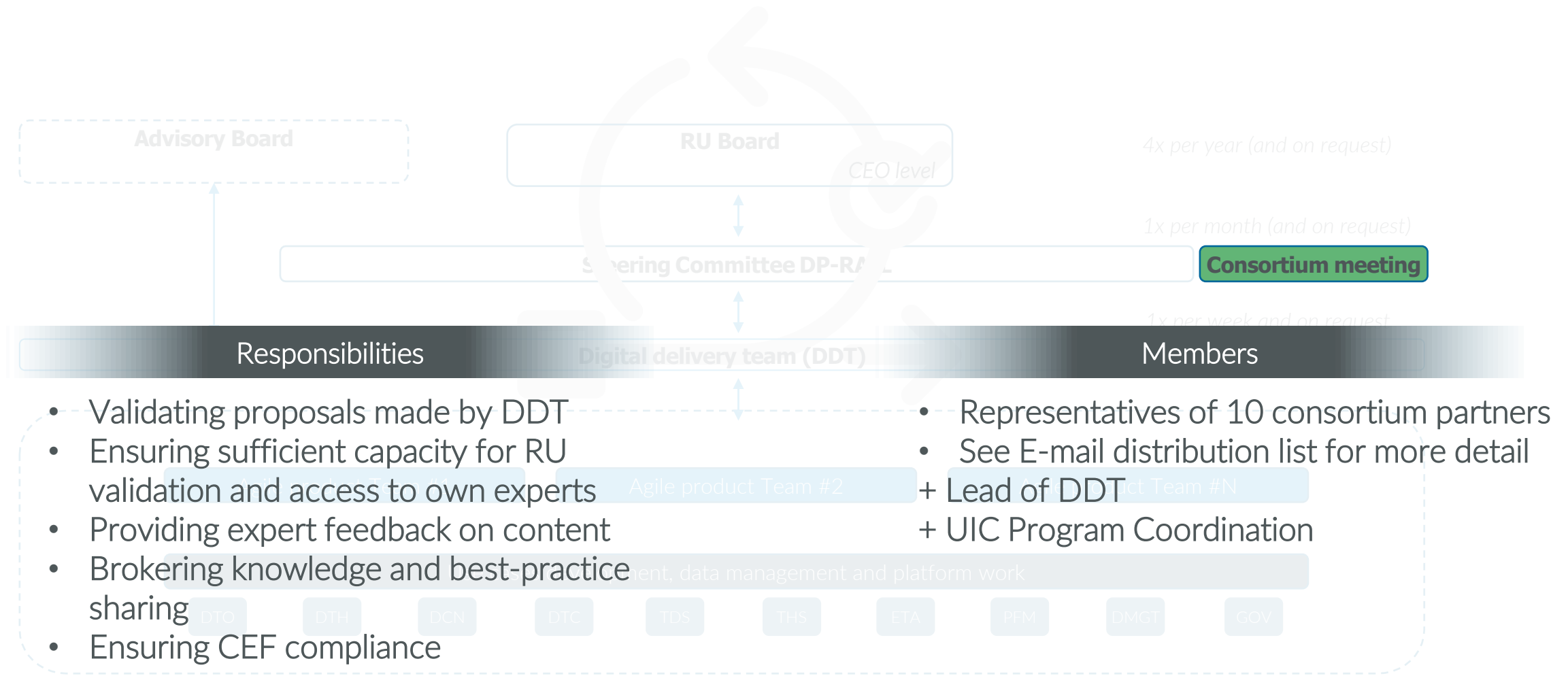DTH   DCN   DTC   TDS   THS   ETA   DMGT   GCV

The DP-RAIL Consortium meetings is the primary sounding board for alignment on content and CEF admin

Proposed Work Organization – Consortium meeting

STEERING LEVEL

OPERATIVE LEVEL

Advisory Board

RU Board

CEO level

4x per year (and on request)

1x per month (and on request)

Steering Committee DP-RAIL

Consortium meeting

1x per week and on request

Digital delivery team (DDT)

Agile product Team #1 Agile product Team #2 Agile product Team #N

...ment, data management and platform work

DTO DTH DCN DTC TDS THS ETA PFM DMGT GCV

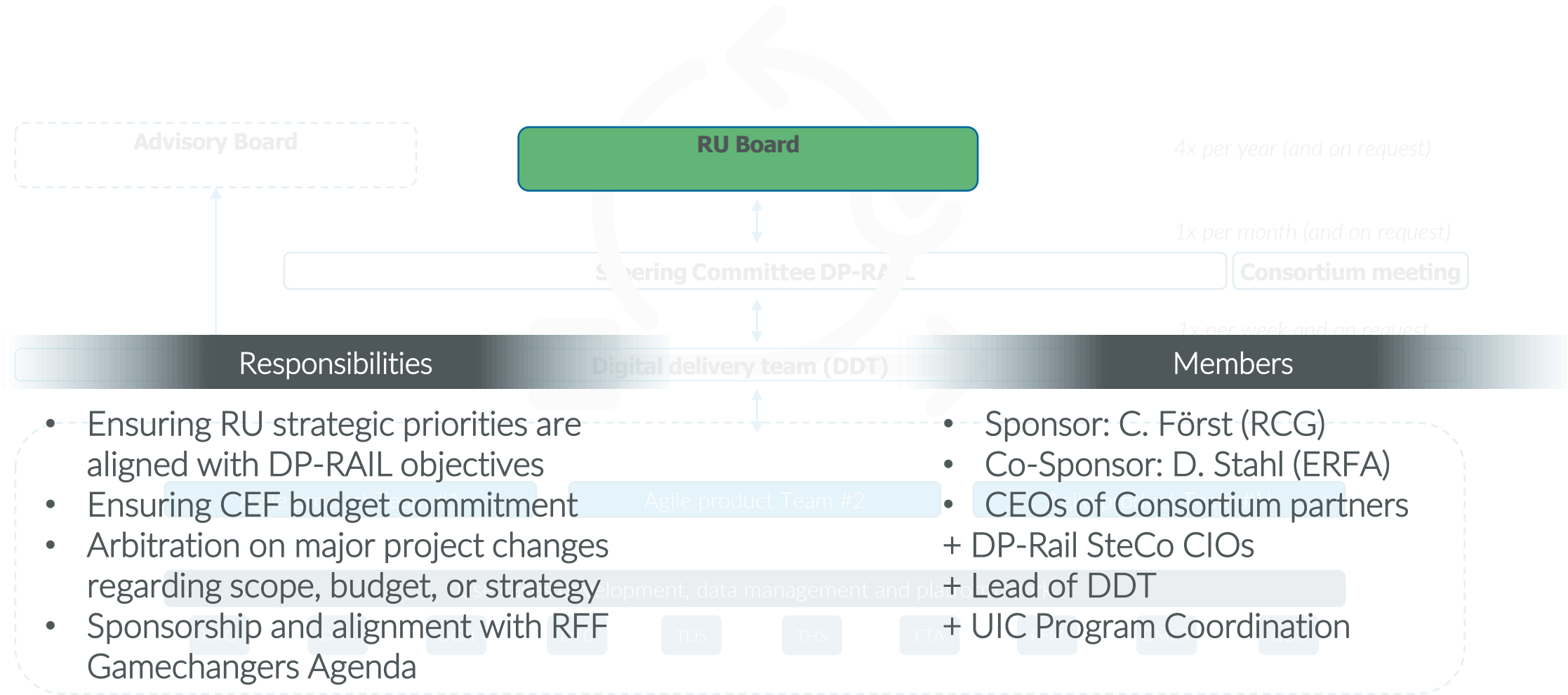| Responsibilities	Members
• Validating proposals made by DDT • Ensuring sufficient capacity for RU validation and access to own experts • Providing expert feedback on content • Brokering knowledge and best-practice sharing • Ensuring CEF compliance	• Representatives of 10 consortium partners • See E-mail distribution list for more detail + Lead of DDT + UIC Program Coordination

The RU Board is the CEO-level forum for long term strategic orientation and high-impact decision making

Proposed Work Organization – RU Board

STEERING LEVEL

OPERATIVE LEVEL

Advisory Board

RU Board

4x per year (and on request)

1x per month (and on request)

Steering Committee DP-RAIL

Consortium meeting

1x per week and on request

Digital delivery team (DDT)

Agile product Team #1

Agile product Team #2

development, data management and platform

TDS

THS

ETA

Responsibilities	Members
• Ensuring RU strategic priorities are aligned with DP-RAIL objectives • Ensuring CEF budget commitment • Arbitration on major project changes regarding scope, budget, or strategy • Sponsorship and alignment with RFF Gamechangers Agenda	• Sponsor: C. Först (RCG) • Co-Sponsor: D. Stahl (ERFA) • CEOs of Consortium partners + DP-Rail SteCo CIOs + Lead of DDT + UIC Program Coordination

Agenda

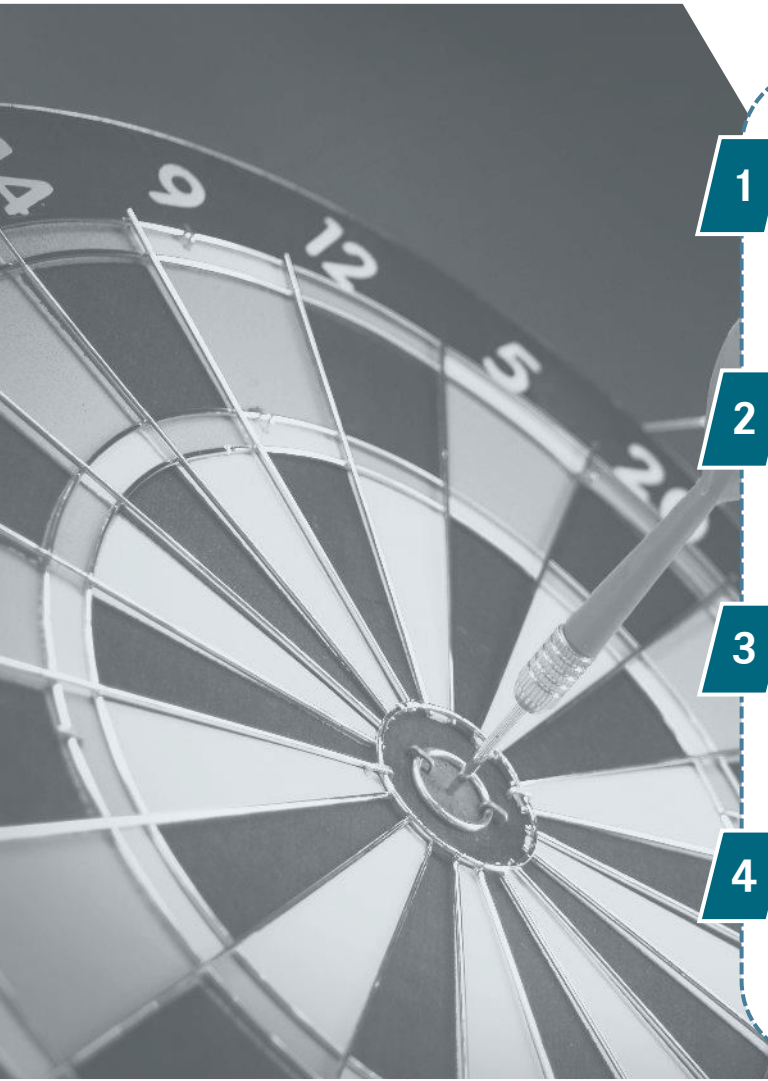|	
Work organization until funding received	**01**
Targets until funding	**02**
Next Steps	**03**

"Beginning with the end in mind"; we believe a proper initiation phase for DP-RAIL is vital for success

Desired outcomes for PHASE II until Summer 2022

1 Achieve **shared understanding** within consortium of overall **DP-RAIL strategy**, agile **working mode** and **governance** (solutions, platform, data, consortium)

2 Have **foundations** for **product teams** in place: groomed **backlog** (at least epic level structures), solution purpose and "problem space" properly documented

3 Have an **architecture blueprint** for DP-RAIL documented including a description of core services, legacy integration and migration scenarios

4 **Manage existing meetings** such as RFF IT architecture full team and walk-in meetings to ensure we keep a **proper dialogue / communication** with experts and the wider community
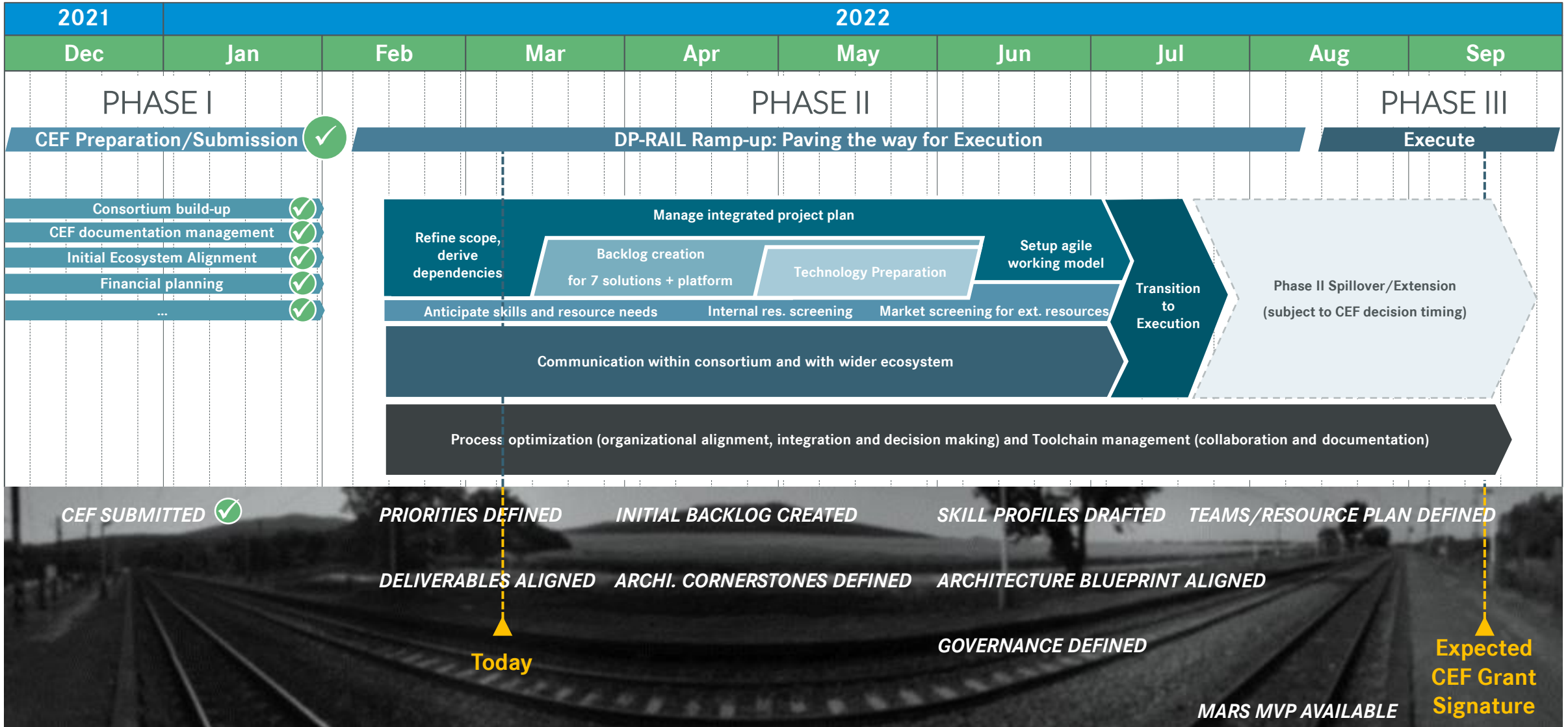
Outcomes of Project Ramp-up Phase

We now fully shift our focus to preparing for project execution and scaling in 2022

Approach until Summer 2022

2021	2022								
Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep

PHASE I   **PHASE II**   **PHASE III**

CEF Preparation/Submission ✓   DP-RAIL Ramp-up: Paving the way for Execution   Execute

ACTIVITIES

- Consortium build-up ✓
- CEF documentation management ✓
- Initial Ecosystem Alignment ✓
- Financial planning ✓
- ... ✓

Manage integrated project plan

Refine scope, derive dependencies

Backlog creation for 7 solutions + platform

Technology Preparation

Setup agile working model

Transition to Execution

Phase II Spillover/Extension (subject to CEF decision timing)

Anticipate skills and resource needs   Internal res. screening   Market screening for ext. resources

Communication within consortium and with wider ecosystem

Process optimization (organizational alignment, integration and decision making) and Toolchain management (collaboration and documentation)

MILESTONES

CEF SUBMITTED ✓   PRIORITIES DEFINED   INITIAL BACKLOG CREATED   SKILL PROFILES DRAFTED   TEAMS/RESOURCE PLAN DEFINED

DELIVERABLES ALIGNED   ARCHI. CORNERSTONES DEFINED   ARCHITECTURE BLUEPRINT ALIGNED

GOVERNANCE DEFINED

Today

MARS MVP AVAILABLE

Expected CEF Grant Signature

Agenda

Work organization until funding received **01**

Targets until funding **02**

Next Steps **03**