



INTERNATIONAL UNION  
OF RAILWAYS

# Questions and Answers

## Tender “DP-RAIL”

### Reference: DP-RAIL-20232026-RFP

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Document history		
Revision	Date	Description
1	13/11/2023	First publication, questions and answers from n°1 to n°10.
2	14/11/2023	Second publication, addition of question and answer n° 11.
3	20/11/2023	Third publication, questions and answers from n°12 to n°50.

#### Questions and answers – Tender “DP-RAIL” reference DP-RAIL-20232026-RFP

N°	Question	Answer
Q1	Does the entire budget of LOT 1 and LOT 2 also cover change requests or further feature implementation in case of remaining funds?	Budgets for EU co-funded projects (such as DP-RAIL) must be used for realising the actions agreed with the EU. Any changes to this scope need to be treated with care. If change requests are in line with the objectives and deliverables of the action, they could be eligible content-wise, and the budget may be used for their implementation. Therefore, we encourage bidders to submit competitive and robust offers covering all elements of the scope described in LOT1 and LOT2.



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Q2	Do bidders need to provide a cost estimation for both the full scope and the prototype or just the prototype?	Naturally, bidders can provide an estimate for both the prototype and the full-fledged data platform costs. However, only the prototype is eligible for co-funding under the CEF project agreement. Therefore, the prototype costs will be used as a main basis for comparison between the different bids. Any other pricing indications for development and/or usage costs of a full-fledged solution will be treated as informational only.
Q3	Can bidders propose their own phasing and specified scope of the project? Is there a priority regarding the use cases?	The phasing and timing of the development of the use cases is the one detailed in the project GANTT chart (see attachment at the last page of the document). Bidders are encouraged to reflect agile and DevOps methodologies to stimulate communication, collaboration as well as integration of design, development, and testing activities.  The scope of the project revolves around TAF-TSI functions and the use cases DTO, DTC, TT, DCN. No deviations or reductions of this scope are intended.
Q4	How do LOT 1 and 2 differ, as LOT 1 includes solution design and refinement of requirement and LOT 2 includes experts such as product owner and solution architect?	LOT1 and LOT2 are interrelated but of different nature. LOT1 focuses on the development, testing, and integration work, whereas LOT2 revolves around agile steering and conceptual work required to architect, plan, and oversee the successful delivery of the prototype and its use cases. The intention is to look for different resources required in LOT1 and LOT2 working together as a team on a daily basis.  Should bidders see an integrated approach as the best setup, they may also respond to the tender in that manner. But please be advised that separate pricing indications for the different lots is still required to ensure comparability of offers.
Q5	How do the DTO and DTC work packages deviate from the Train Information System that RailNetEurope (RNE) has developed?	As laid out in the overall platform architecture the DP-RAIL platform shall integrate both RailData (wagon specific data/messages) and RNE systems (train & infrastructure specific data/ messages). DP-RAIL intends to extend the user base for existing services by lowering barriers of entry and to develop new services providing additional value compared to the existing possibilities, whilst ensuring established industry standards (TAF TSI).
Q6	There seems to be a contradiction: features listed in the requirements documentation implicate a frontend users will interact with, whereas for the prototype a frontend is stated to	There will be a frontend for the full-fledged version of the DP-RAIL platform. However, frontend-related development is not eligible for financing under the current CEF call.



	be not relevant, no DP-RAIL specific frontend will be provided. What is the concrete requirement?	We are hence looking for a robust prototype which can be showcased with RUs to adjust its usability before developing the frontend outside the CEF financing. Therefore, the prototype shall provide rudimentary frontend functionality for use case testing and demo purposes only (e.g., single HTML page providing fields for input/output).
Q7	Different data formats (XML, JSON, CSV, SOAP XML) are to be supported by the platform. Is there a list of all connections the platform needs to cover incl. name, format and content?	As laid out in the platform architecture and in chapter 4.8 of the requirements documentation, the platform needs to support different formats: <ul style="list-style-type: none"> <li>- to ensure TAF TSI compliance also using the Common Interface (4.8.1) with links to spec.</li> <li>- to interact with existing RailData and RNE applications (4.8.5), e.g., via FTP, XSD</li> <li>- to allow for easier ways of techn. integration based on REST APIs (JSON) (4.8.2)</li> <li>- to enable data export for reports (XML, CSV)</li> </ul> With these options most of all required connections supposed to be covered. This shall enable the platform to both ensure compliance with existing standards as well as offering new options for connecting with the platform.
Q8	The use case “Digital Train Composition” shall enable the creation and exchange of train composition messages between RUs and other involved RUs and IMs for cross-border transports. Does this mean that a user can create and alter a train composition directly on the DP-RAIL platform with an UI/frontend interaction?	No, the DP-RAIL platform will solely act as a data/message broker bringing together two views: wagon data (via RailData) and train data (via RNE) enabling better or additional services around DTC. The UI interaction will happen in the user’s application for DTC also allowing integration of other necessary systems for individual use.
Q9	How does the new platform relate to existing RailData or RNE services? Shall those services be replaced or used as a data source?	DP-RAIL is relying on data sources from RailData and RNE to realise a platform where even companies with little IT capability can send and receive data as well as messages necessary for their operations. For the prototype it will be the integration of existing RailData (and RNE) systems to use them as a data source but also as an extended transaction engine for established message processing. The prototype will – in the sense of a feasibility study – show future options for value-added services to the railway freight sector.
Q10	Analytics and reporting: Does this functionality need to be simply enabled or is development for	Requirements for future reports, dashboards, and analytics functionality will be defined by the 4 use cases. The prototype needs to enable reports based



	a set of reports, dashboards, and analysis required? If the latter, which reports or dashboards are in scope for development?	on data stored by the platform, e.g., number of rejected messages based on errors detected, number of transactions handled/messages exchanged via DP-RAIL, by providing data export functionality in file format (e.g., xml- or csv-files).
Q11	Can you provide a general presentation of DP-RAIL?	A general presentation of DP-RAIL is provided in Annex 2 of the present Questions and Answers document.
Q12	Is the quantity structure detailed in section 5.3.2 applicable to each Railway Undertaking individually or to all collectively? What is the time period for which the quantities apply? What is the average size of a message being exchanged? Is it correct that these figures have to be considered for the prototype?	As stated in section 5.3.2 RailData and its systems ISR and ORFEUS provide services to numerous companies. Therefore, the quantity structure applies to all users, not to one company or RU individually. The figures shown in chapter 5.3.2 for ISR and ORFEUS represent the daily volume of messages currently exchanged in operations – numbers and size of messages. This also needs to be reflected in the prototype at least for load testing to ensure stability and scalability of the prototype during testing and to futureproof the platform.
Q13	As the solution should be a pure message broker without any advanced end user interfaces (in the POC phase) -> how do the mentioned 4000 users expected by 2026 fit into this picture?	The 4000 users are to be understood as an “ideal scenario” / upper limit for the scope of the prototype. The platform architecture should account for the future state because for the prototype tests it will be checked if the platform would be capable of coping with high volumes to be expected for a production go-live.  The overall goal of this project is to provide a hands-on tool for decision making for further scaling.
Q14	What is the total number of different data sources that should be taken into account when designing the platform’s data services?	This cannot be stated at this point in time. The use cases will define their need for specific data (sources) and the platform needs to reflect that providing necessary interfaces.  As of now the following systems and sources for data/ messages are in scope for integration: <ul style="list-style-type: none"> <li>• RailData: ISR, ORFEUS</li> <li>• RNE: TIS</li> <li>• Reference Databases: <ul style="list-style-type: none"> <li>○ RINF (infrastructure)</li> <li>○ ERATV (vehicle type)</li> <li>○ RSRD<sup>2</sup> (rolling stock wagons)</li> <li>○ CRD (locations, companies)</li> <li>○ GCU Broker (wagon keeper, damages)</li> </ul> </li> </ul> For implementation and testing it does not mean that every data source will be integrated “physically”, but maybe set up locally to enable use



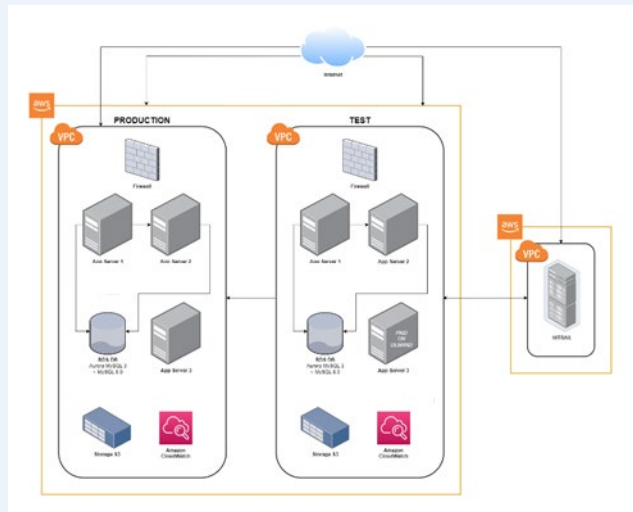
		case requirements and allow validation of business value – see also Q42 for testing.
Q15	As the platform (in PoC phase) should integrate data from RailData and RNE - are there also any quantity structures (per message type) available for the RNE system?	ISR and ORFEUS are closely connected and represent the vast majority of messages exchanged for wagon-related status information as well as electronic consignment note. The exact need for accessing TIS system will be evaluated in the current phase of detailing out use case requirements. TIS handles over 7.2 million single train runs per year, 27 000 trains per day on average. For more information see <a href="https://rne.eu/it/rne-applications/tis/">https://rne.eu/it/rne-applications/tis/</a>
Q16	What are the technical details of the RailData systems (ISR, ORFEUS) mentioned in chapter 5.3.2?	For both, a given XSD schema is the basis for all messages exchanged (ensuring also TAF TSI compliance). The protocol for both ISR and ORFEUS used for message exchange is currently FTP. Service provider is asked to bring in relevant knowledge regarding various interfaces and protocols to support setting up modern platform architecture, also including APIzation.
Q17	For better planning the architecture and the sizing, what are the requirements (a rough estimate) for required duration for data retention within the prototype?	<i>5.5.3.4 Data Retention (general)</i> Data retention policies and archiving requirements will be settled throughout the prototype based on concrete requirements from the use cases. In any case all data in transit and at rest needs to be stored within EU territory.  Retention period for data processed by ISR and ORFEUS are given in Req. Definition Document. The prototype also needs to reflect this.
Q18	What is the system's approach to manage invalid messages?	On the one hand, the platform (prototype) will act as a message/data exchange and therefore also ingest and forward messages to connected partners, like RailData, RNE. Systems of those partners already implemented validation rules for incoming messages, such as XSD schema validation for ISR or ORFEUS. These conformity checks could be executed also on the platform side to only forward compliant messages. Therefore, the platform shall reflect those checks.  On the other hand – based on new services defined by the use cases – rejection rules will be defined solely for the platform to ensure high level of data quality. Also in this case the platform shall enable at least conformity checks, and where possible, also content related checks and rejection rules.



Q19 As the DP-RAIL platform needs to integrate data/messages from RailData and RNE and also needs to account for its current AWS infrastructure - are more details available regarding the IT Architecture of RailData?  
Regarding Common Interface: what is the architecture and how will the prototype cope with different versions of the CI being used?

Currently RailData systems operate within propriety framework of its service provider incl. micro-services for running the system.

Current setup for RailData:



For CI see link provided in Req. Specification ([The Common Interface \(CI\) - RNE – RailNetEurope | Association For Facilitating Traffic On European Rail Infrastructure](https://www.rne.eu/en/association-for-facilitating-traffic-on-european-rail-infrastructure)).

The prototype platform shall integrate an application of the Common Interface to be installed as SaaS exchanging data especially with RNE systems (e.g. TIS).

It is planned to implement a CI with the latest version but ensuring downward compatibility. In which the CI is supposed to do mapping between different versions. As for Wagon Status Messages in ISR and Electr. Consignment Note in ORFEUS, no older versions exist; the latest version is 100% TAF compliant.

As the CI is currently in renewal phase the project seeks to use the newest version supposed to be launched in Q1 or Q2 2024. See <https://rne.eu/announcing-ccs-new-common-interface/>

Q20 What are the requirements for the target architecture of the prototype, including cloud infrastructure, connection types, security message dispatching, CI/CD pipeline etc.?

The detailed system architecture and required IT infrastructure will be worked out in the first phase (design) for each use case and the platform in general.

The service provider needs to develop the target solution architecture for DP-RAIL together with the central lead architect to best realize requirements from use cases and enable data services of platform.



		<p>The target architecture needs to prepare the future solution whilst being sized for realizing a prototype not being publicly available.</p> <p>The IT Infrastructure should be cloud-based and account for the existing AWS infrastructure RailData is currently using. No on-prem solution is targeted.</p> <p>The service provider is asked to bring in his know-how and experience to appropriately set up and size required cloud infrastructure incl. tools e.g., for security, load balancing as well as to automate deployments (CI/CD).</p>
Q21	Could the prototype also be hosted in the cloud of the service provider?	Yes. Assuming portability at any stage is ensured and supplier hosting is in EU, so no data is processed or stored outside EU.
Q22	Is it possible to use an existing platform as the basis and build the necessary functionalities on top of this platform? In this case, how will IP-rights be treated? Will the IP-rights stay with the creator of the existing platform or does it have to be transferred to the UIC?	<p>It is possible and allowed to build on existing software and even bring in an existing solution as a potential service provider. This should be reflected in the commercial offer for the duration of the project.</p> <p>From Invitation to Tender, chapter 6. INTELLECTUAL PROPERTY RIGHTS:</p> <p>The following intellectual property rights shall apply to all outputs of work conducted under this contract:</p> <ul style="list-style-type: none"> <li>• The copyright of all source code produced under this contract shall be owned by the Consortium</li> <li>• Third party software: IP rights will remain with the software provider</li> <li>• Free and Open Source Software (FOSS): If FOSS is used the licenses coming from this need to be made transparent to the Consortium.</li> </ul> <p>In case of using an existing platform the source code for the existing platform functionality will remain with the 3<sup>rd</sup> party. All additional functionality developed under the tender contract (source code, IP) will be owned by the consortium and cannot be used otherwise if not covered by a separate contractual agreement.</p>
Q23	Is the assumption correct, that bidders – as part of pricing for Lot 1 – need to include all costs for technology infrastructure (hardware, software, cloud, ...) for the duration of periods 1 and 2 (end of project)?	Yes, infrastructure costs incl. hosting, software licenses, etc. need to be included bearing in mind to develop a prototype whilst also at least testing the fit for purpose regarding future quantity structure of users, messages, system integrations, etc.





		Service providers are free to state assumptions as a basis for their cost calculation.
Q24	How many years of technical management and operations are expected after June 2026 (end of DP Rail Platform development)? Are there any service levels intended to apply for the technical management/support?	<p>As stated in Q22, the offers of bidders should include costs for setup and maintenance of IT infrastructure for the course of the project. Operations and maintenance incl. support of the platform needs to be ensured by the service provider until end of project in a DevOps fashion and therefore also be reflected in the commercial offer.</p> <p>Support service levels have not been defined in detail for the prototype. As laid out in section 5.4.1 the prototype platform must be available during European working hours, Monday – Friday. Operations services are to be provided within same time frame (GMT+1 time zone).</p> <p>Platform operations and maintenance beyond DP-RAIL project need to be agreed and contracted separately. Rollout topics (i.e. dealing with all matters related to the stages beyond PoC) will also be handled in Task 8.3. which is out of scope for this tender.</p>
Q25	During the process of building the platform, who will be responsible for handling functional requirements from the stakeholders, e.g., UIC? Lot 2 covers the personnel required to realize the platform; how about the counterparts from the interested parties? How will this be coordinated?	<p>The project consists of different work packages (especially use cases) with representatives of the consortium and its data partners (RailData, RNE). Each work package has a dedicated WP lead and will be supported by the future Product Owners to act as a coordinator of requirements coming from each work package (use case). The product owner will work closely together with the service provider responsible for developing the platform and realizing the requirements set by the work packages. In addition to the product owners, roles like the solution architect and project manager are to ensure coordination of requirements across all work packages.</p>
Q26	<p>Non-functional requirements are mostly expressed in qualitative terms, but quantitative measures would be beneficial to best size for pricing.</p> <p>Are bidders expected to provide a solution design plan and pricing by taking assumptions, also including that changes may occur and requirements shall be refined and adapted during a technical scoping phase?</p>	<p>Yes, bidders are asked to state their assumptions made for basis of their cost calculation and project planning.</p> <p>NFRs will be defined in detail within use cases and refined for the platform acting across all use cases.</p>





Q27	<p>Functional requirements: Is there an extensive definition of the scope of the 4 use cases in scope for the prototype with more details e.g. on business objective(s), relevant data, actors/users?</p>	<p>The functional requirements will be worked out by each use case. Scope for each use case incl. required process and system support, actors and data (quality) needed is currently worked out for each use case and the platform.</p> <p>Based on this, detailed requirements for the realization of each use case and supporting (data) services of the platform will be defined together with the service provider(s) selected as a first step, before implementing them in an agile fashion, taking into account changes that might occur during implementation.</p> <p>We also kindly refer to the <a href="#">dp-rail</a> website for more information on the objectives and context of the use cases.</p>
Q28	<p>Physical Mobility required during the project will influence costs. What assumption shall we take in terms of percentage of working time involved personnel is travelling through EU?</p> <p>Travel expenses have to be included in the offer. Therefore we'd like to ask how much travel (how many days) is required throughout the project? To which destinations would the project team have to travel for meetings and workshops?</p>	<p>We foresee a total of 10-15 on-site meetings/workshops for the duration of the project. Typically, these on-site meetings last 1-2 working days and take place in European major cities, with office infrastructure provided by one of the consortium members.</p>
Q29	<p>Is it allowed to involve non-EU staffs working outside of the EU, including for key roles such as Product owners / Scrum Master / Agile Coach / Solution Expert?</p> <p>Are there any restrictions for the location of project resources?</p> <p>Is the delivery partially remote, fully remote, or do you expect to adapt to the bidders' proposals?</p>	<p>This is possible, as long as no sanctions from EU are applied to the corresponding countries. In case non-EU staff are planned in the resources, the corresponding countries should be indicated in the proposal for the sake of transparency.</p> <p>The core project team consists of the coordinator, RailData resources, the WP leads staffed by the RUs, the dev lead, and the lead architect. All team resources are not located on UIC premises, residing in the locations of their respective organizations. The delivery is hence mostly remote, with on-site meetings only organized for important milestones or workshops. See also Q27.</p>
Q30	<p>Is it possible to split the tender into a Fixed Price and a Time &amp; Material-based part, depending on delivery in respective periods?</p>	<p>Fixed price offers are preferred. Should bidders want to include T&amp;M components in their offer, they should clearly indicate how these are related to the fixed price offer and what deliverables are included in the fixed-price offer.</p>



Q31	What are the EU reporting requirements for the service provider that is awarded with the contract? How are the EU grant reporting responsibilities divided? How much costs can be associated with it and can it be also factored into the price?	The coordinator (UIC) manages all EU reporting duties. This is included in WP 1 and WP8, both work packages which are out of scope for this tender. Hence, no costs can be associated to these tasks.
Q32	Joint team setup: Do Product Owners will have to exchange separately with every relevant consortium member (DB cargo, Lineas, ...) or will it be possible to organize (in person and or remote) workshops with all relevant stakeholders when addressing specific topics?	Product_Owners will have access to a pool of experts and will be working in teams per work package. Joint sessions with all RUs will be possible to avoid meeting fragmentation and information redundancy. Moreover the solution architect and project management are to ensure coordination and communication across all work packages.
Q33	Why is the overall project plan divided into two periods? Period 1 : from Jan/Feb 2024 (as per previous question answer to end 2024, and period 2 from beginning 2025 to June 2026).	No specific rationale. The two-period logic allows for increased business control and serves supplier performance management purposes.
Q34	Is there a formal approval or acceptance test planned at the end of period 1?	The coordinator and consortium board shall assess the overall the state of play of the project and the achievement of milestones and objectives vs. the given plan. A meeting with the representative(s) will be organized in anticipation of the period 1 closure date to formalize the next steps.
Q35	LOT 2 requires 1 FTE of "Scrum Master or Agile Coach" profile. If both profiles may appear similar, their roles and activities pursued can be quite different. What will be the main role of that profile?	Main task for the Scrum Master or Agile Coach is to ensure that all teams in all use cases and for the platform development are able to work in an agile way, supporting each team and especially the product owners. This encompasses training, adherence to guidelines set for agile development work as well as ensuring the application of agile techniques and methods.
Q36	The planning shared in the previous Q&A document (14/11/2023) shows beginning of developments as early as Feb 2024. Does this plan take into account a minimal and required phase of business and architecture scoping ?	Yes, part of that will be covered in the onboarding phase planned for February to make the service provider familiar with the results worked out in the work packages (use cases) until end of January and the target architecture. The solution architect from Lot 2 is supposed to ensure common architecture scope for the platform across all use cases.



Q37	Your previous Q3 answer regarding the planning and GANTT chart detailing the expected activities indicates that there is limited to no flexibility on the timing. Is it correct ?	As we operate under a grant agreement with pre-defined deliverables and milestones, the project duration and timing need to be respected by the consortium.
Q38	Is it possible to extend the submission deadline?	No. The critical path for our project does not allow us to extend the deadline.
Q39	We find the award criteria for Lot 1, but not for Lot 2. Can you please provide us with / clarify the award criteria for Lot 2?	Same award criteria apply for both lots.
Q40	What are the vendor selection steps following the submission of offers on 24.11.2023? Will there also be an offer presentation round?	<p>The timeline for the tender is as follows:</p> <ul style="list-style-type: none"> <li>• 16.11.23: closing Q&amp;A.</li> <li>• 24.11.23: closing bids, submission deadline.</li> <li>• 15.12.23: closing evaluation &amp; projected decision.</li> <li>• After 15.12.23: negotiations and signature of contract(s).</li> </ul> <p>In addition to this, no extra offer presentation is planned.</p>
Q41	Can topics related to the contract already be discussed?	Contractual topics will be discussed with the provider(s) selected by the consortium after 15.12.2023.
Q42	<p>The GANTT chart shows test phases of several months (between 6 and over 12 months depending on the use case).</p> <p>Are the prototype test workstreams subject to specific test procedures that the provider would have to comply with?</p>	<p>See also Q43 regarding test strategy.</p> <p>The testing phase is about demonstrating the compliance with TAF-TSI standards (also in alignment with ERA), and demonstrating the value add of the developed services in terms of increased service reliability, accuracy, data quality, etc.</p> <p>To ensure quality of the solution development, the tests will both run for each use case (services) as well as for the overall platform as an “integration layer” across all use cases. All defects detected will be documented and planned for fixing to allow for defect tracking and max. transparency regarding dev. quality.</p> <p>A detailed test concept will need to be defined and operationalized by the supplier as part of the development work under LOT1.</p>
Q43	Beside the selected supplier, which external resources (organisations, people & external systems) will be involved during testing activity and if there is a need for the selected	The project consists of different work packages (especially centred around the 4 use cases) with representatives of the consortium (members) and its data partners (RailData, RNE). Each work package has a dedicated WP lead and a team consisting of



	<p>supplier to also interface with those external resources, in addition to interfacing to the RFF consortium members?</p>	<p>representatives from the consortium as well as data partners RailData and RNE. It will be supported by the future Product Owners to act as a coordinator of requirements (incl. use of additional 3<sup>rd</sup> party data sources or applications) and for the tasks for work package (use case).</p> <p>The product owner will work closely together with the service provider responsible for developing the platform and testing the requirements set by the work packages including 3<sup>rd</sup> parties.</p>
<p>Q44</p>	<p>What is the test strategy for DP-RAIL taking into consideration the extent of the projected ecosystem with numerous users (RUs, IMs), data partners (RailData, RNE), data bases and platforms to be integrated?</p> <p>How is the integration of 3<sup>rd</sup> party systems planned?</p> <p>What are the criteria and levels of integration required for the prototype – end-2-end integration test, testing based on mocked services?</p>	<p>As DP-RAIL is planned as a prototype under the current co-funded study, it will not go into production immediately after CEF project administrative end.</p> <p>An end-to-end integration test is out of scope for the prototype due to the high number of parties to be involved. Testing with mock systems in a test environment will be the minimum (baseline) for all prototype tests. The project nevertheless aims to enable tests coming as close to reality as possible. Therefore, the main data partners (RailData, RNE) are asked to provide access to their non-productive environment to test data &amp; message exchange with their test systems also using the Common Interface (see also the info regarding CI being renewed in Q18).</p> <p>A connection directly to an RU system for integration is not foreseen for the prototype. This is why the prototype shall provide rudimentary frontend functionality for use case testing and demo purposes only - see Q6 for details.</p> <p>Reference data bases need to be mocked and set up locally by the service provider based on the requirements defined by the use cases.</p> <p>All bidders are expected to not only develop mock-up systems for those in scope but also to be able to integrate with existing systems from RailData and RNE using the common interface through the prototype test environment. The integration will also include support for onboarding parties to the prototype platform.</p>
<p>Q45</p>	<p>The non-functional requirements clarify that the "Prototype Platform and use cases will be developed based on Epics and User Stories containing acceptance criterias.</p>	<p>Please see also Q43 for the general test strategy.</p> <p>A test concept will need to be defined and operationalized by the supplier as part of the development work under LOT1. It will encompass not only the use case specific test requirements but</p>



	<p>Integration tests will be performed also together with data exchange partners and prototype users of the platform. The platform therefore must provide basic tooling to document test cases and scenarios as well as test results."</p> <p>Are specific PoC requirements defined, e.g. thresholds, additional penetration tests for security?</p>	<p>also the integration of external partners and users with their individual application using the interfaces provided by the prototyped platform.</p> <p>Although integration will be part of the tests, it should be taken into account that the prototype will not be a productive system, as explained in Q14 and Q44. Therefore, the concept for security tests (e.g. penetration) needs to reflect that.</p> <p>For load tests representative numbers of users, messages and data to be exchanged, etc. will be defined based on the outcomes from the use cases.</p>
Q46	<p>Are there any specific requirements regarding IT compliance such as API governance, Cloud security or GreenIT standards ?</p>	<p>No specific requirement besides applying industry best practice and compliance with stand-of-the-art technology standards.</p>
Q47	<p>Do policies for user management, e.g. allowed authenticating delegations exist that need to be integrated?</p>	<p>For the prototype no specific user authentication delegation method has been defined and is to be checked within the security architecture, if necessary/relevant. The service provider is asked to bring in security expertise which is best matching the platform requirements (security) and user experience.</p>
Q48	<p>Routing Rules for Messages: The criteria and rules based on which the system routes/distributes messages from senders to receivers require definition for the prototype. What rules exist the future solution needs to accompany?</p>	<p>The use cases will define products/services and the data and messages required to enable them. Therefore, also the routing rules for data and messages will be defined during the course of the project regarding which data/message is needed from or to be exchanged with RNE, RailData or 3<sup>rd</sup> party data sources.</p> <p>Regarding the existing message types the rules have already been defined and will be applied also for DP-RAIL, e.g.:</p> <ul style="list-style-type: none"> <li>• in ORFEUS for ECN: check on listed carriers for transport; messages are provided only to those listed.</li> <li>• ISR: rules are applied to message received also to cross-check with train information from RNE.</li> </ul>
Q49	<p>Message View vs. Overall Train View: Will the prototype focus on individual messages or the complete train view, e.g., for Digital Train Composition?</p>	<p>Will be defined by the respective use cases. The combination of wagon and train data (RailData, RNE) as well as possible 3<sup>rd</sup> party data shall enable new services, views, etc. If a complete train view is seen as a value-added service, the prototype shall enable it. The service provider is asked to bring in knowledge based on past experience to best design and realise innovative and data-driven services.</p>



Q50	<p>Network Topology / Train Path: As e.g. Train Composition messages specify a start and an end location for the validity of the provided data, the train path (as well as the related network topology) might be also relevant for processing in the prototype? Will the prototype need to make use of train path information and/or network topology (e.g., primary locations and interconnections)? What data sources would be used for it in this case?</p>	<p>Train path information will be used to support use cases for the schedule and operational processes. Therefore, the project also foresees integration of RNE data.</p> <p>The concrete need for data and sources accordingly is up for the use cases to define.</p>
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## QUESTIONS AND ANSWERS ANNEX 1: DP-RAIL TIMETABLE



Co-funded by the  
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DP- RAIL is an EU funded project, Grant number 10112265



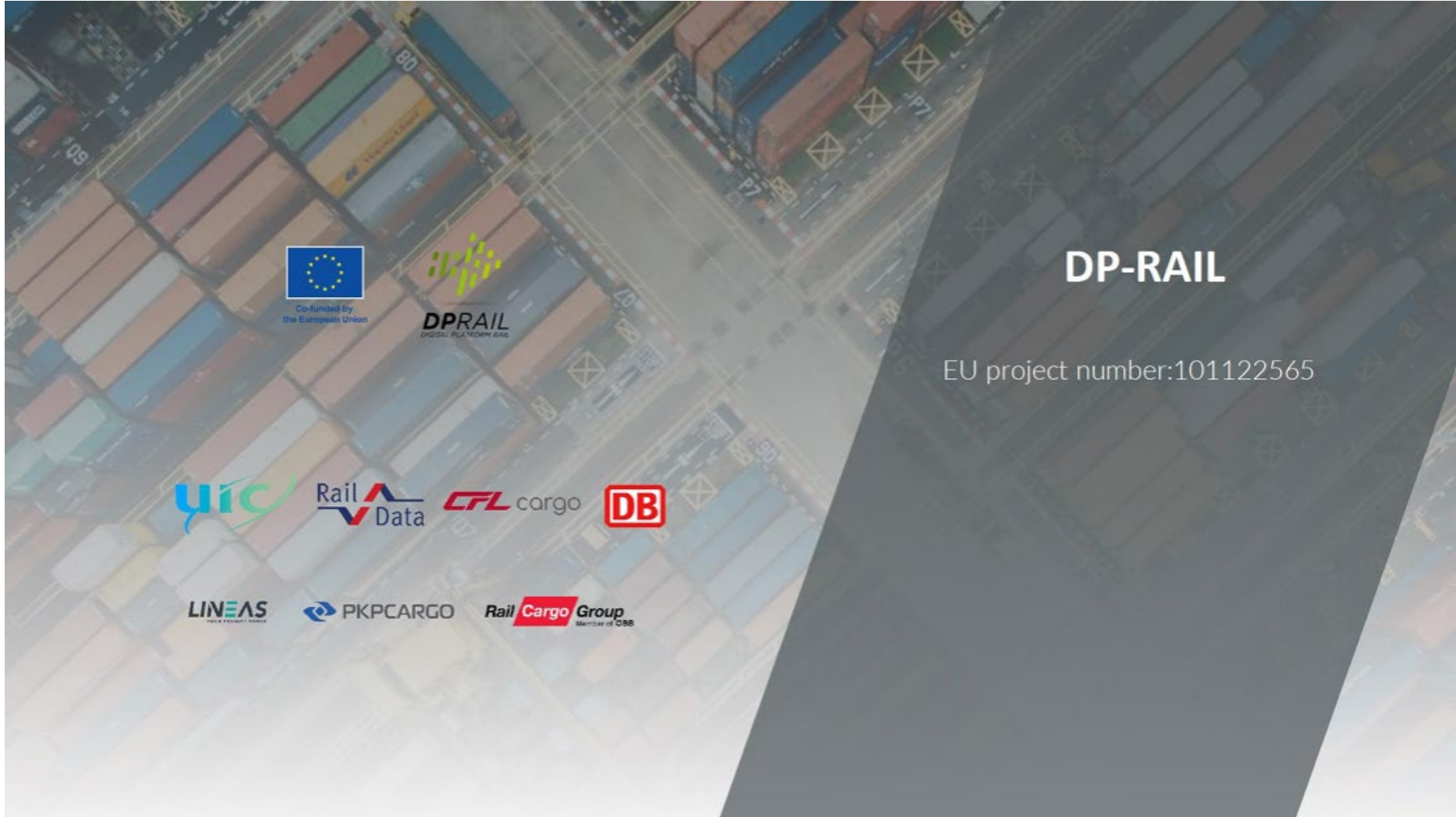


## QUESTIONS AND ANSWERS ANNEX 2: DP-RAIL GENERAL PRESENTATION



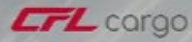
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DP- RAIL is an EU funded project, Grant number 10112265



# DP-RAIL

EU project number:101122565



Co-funded by the European Union

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# DP-RAIL CEF Project

A data platform project BY and FOR the rail freight sector



Facilitate **seamless, interoperable information flows with operational data** between all rail freight entities across Europe.



Transform the fragmented data exchange landscape into a **standardized message exchange process** compliant with the EU Technical Specifications for Interoperability (TAF TSI).



Provide central tools to enhance standardization and **support RUs with limited or no IT capabilities to become TAF TSI compliant.**

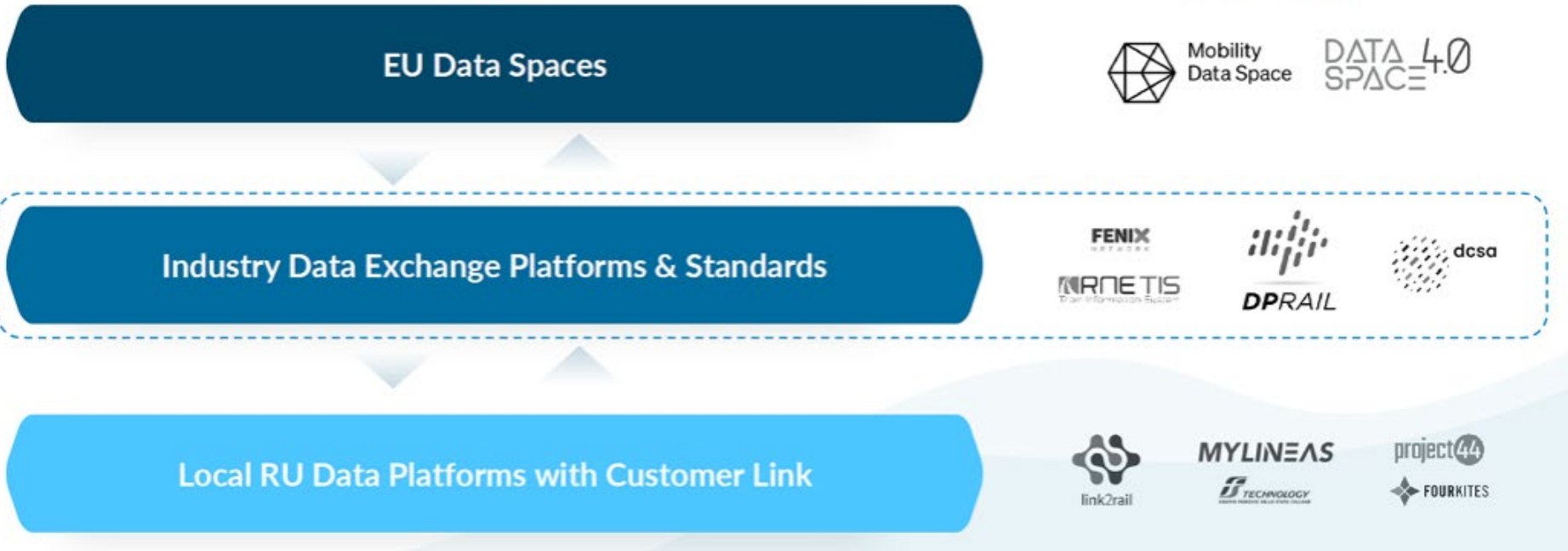


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# DP-RAIL is fully aligned with the EU vision for data spaces and **completes the missing link** for rail freight

FEDERATED DATA SHARING  
(SIMPLIFIED)


EXAMPLES  
(NON-EXHAUSTIVE)





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# How are we doing this? Our first Use Cases...

- **1** **Digital Train Operation (DTO)**

Enable all stakeholders (including non-incumbent RUs and operative staff) to participate in [standardized TSI compliant data exchange](#) regarding [train operations](#) completing [wagon movement](#) messages
- **2** **Digital Consignment Note (DCN)**

Provide digital tool enabling all RUs, especially those without connection to existing platforms such as Orfeus, to [deliver and access TAF TSI COM](#) messages
- **3** **Digital Train Composition (DTC)**

Enable RUs to create [Train Composition Messages](#) easily and [share digitally](#) with other involved RUs and IMs.
- **4** **Track & Trace / Telematic wagon data (TT)**

[Boost data quality](#) in tracking related fields by implementing a sharing logic and rulebook on the digital platform. On this basis, high-quality telematic data is shared with RUs for their disposal enhancing wagon movement messages



# DP-RAIL will pursue horizontal and vertical scaling, starting with the realization of CEF-scope as a first step

TODAY: 13 RUs via CEF Consortium & Rail Data



HORIZONTAL SCALING  
New clients, new members



VERTICAL SCALING  
New capabilities, new services



Digital Automatic Coupling

Autonomous Train Operations

Artificial Intelligence (e.g. for route optimization)

=

DP-RAIL  
GRAVITY + GROWTH

\* With initial 4 use cases Digital Train Ops, Digital Consignment Note, Digital Train Comp, Track / Trace





# Big picture planning – Official Project GANTT

10



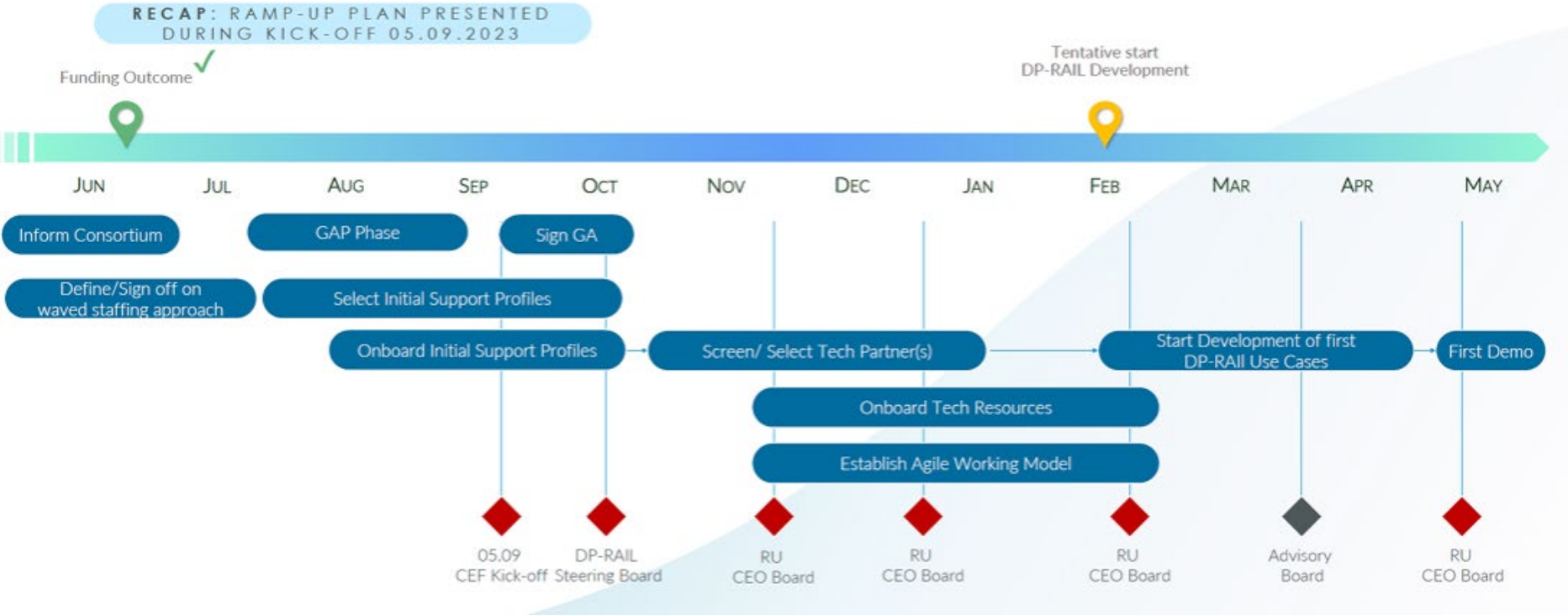
OUR  
MACRO  
PLAN



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# Tendering is a main consortium priority to allow for swift start of DP-RAIL development by Feb 2024



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# THANK YOU



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