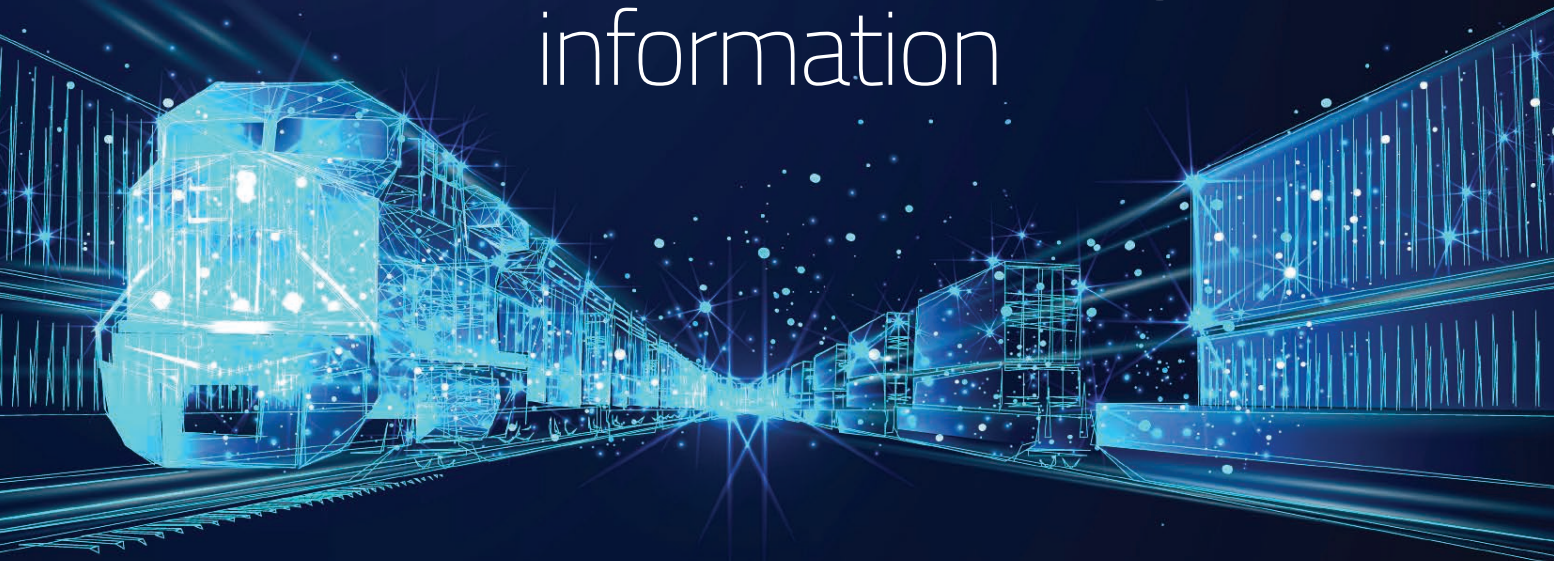


Knowledge hub: ESEP4Freight's contribution to rail freight information



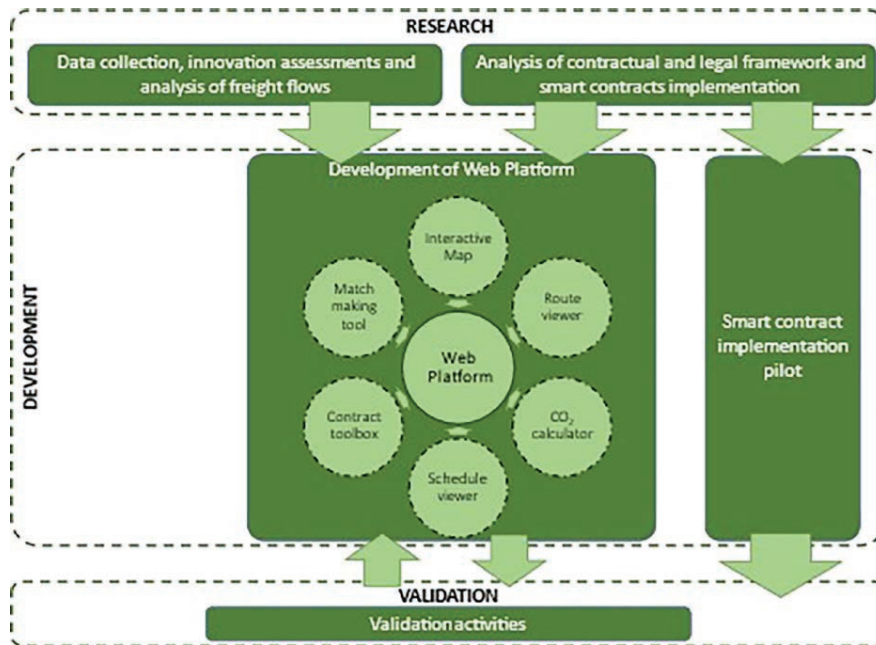
The 24-month project European Shift Enabler Portal for Freight (ESEP4Freight) is taking its first steps in its contribution to boost the modal shift to rail in the European rail sector. To do this, ESEP4Freight will focus its efforts on providing high-quality and user-friendly static information to the actors of the supply chain in form of an openly accessible Web Platform (WP). In addition, the project will also examine innovative solutions, such as the implementation of smart contracts, and will analyse the contractual and legal framework of the European multimodal sector.

THE RESEARCH stage started at the beginning of the project in September 2023 and comprises the gathering and production of inputs to be later included in the WP. In the first months of the project, the main sources of data for the WP have been mapped, a preselection of relevant KPIs for the different modules of the project has been carried out, and

a number of key innovations in rail freight have been identified and will be later assessed focussing on their impact on rail freight transport. Concerning the contractual and legal analysis, the current legal ecosystem on intermodal transport liabilities is being examined. In addition, a selection of intermodal contracts is being gathered to identify common general conditions. These clauses are planned to

FIGURE 1

BELOW SHOWS THE CONCEPTUAL STRUCTURE OF ESEP4FREIGHT AND ITS THREE MAIN STAGES: RESEARCH, DEVELOPMENT AND VALIDATION.



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be used later in the contractual layer of the smart contract pilot. As part of this activity, already existing solutions on smart contracts are being surveyed and a webinar on document digitalisation on freight transport is currently under preparation.

To conclude the first quarter of the project, an event bringing together representatives of relevant actors of the logistic sector involved in ESEP4Freight's Stakeholder Group will be organised by Gruber and ZAI in Verona (Italy) at the end of February. This event will be the starting point of the conceptual development of the WP and its architecture and will serve to provide valuable inputs for the research stage that will be finished by mid-year 2024. Once the architecture is finished and the Research stage has concluded, the modules shown in *Figure 1* will be developed and integrated in the WP during the Development stage. They will include the following modules:

- An interactive map of the existing rail freight infrastructure and terminals in Europe
- A route viewer of a selection of rail freight services
- A CO₂ calculator based on SGKV tool SYSLOG+
- A schedule viewer of a selection of routes based on a standardised timetable model from EifA project
- A contract toolbox with examples of harmonised intermodal contracts and legal conditions
- A match-making tool in form of a catalogue of services provided by logistics companies.


ESEP4Rail will primarily focus on providing

information on the TEN-T corridors but, for specific geographic areas, the modules are planned to be complemented with additional information, such as first and last mile services from/to terminals.

In a parallel manner to the development of the WP and the modules, a proof-of-concept for the implementation of smart contracts will be tested. The pilot will include an informative layer to serve as specification for the smart contract integration and a contractual layer with a generalised set of clauses which could be tailored by the users depending on their needs.

Finally, ESEP4Freight will validate both the WP and the smart contract pilot with the support of the project Stakeholder Group. The validation will take place by testing the outputs in six predefined business cases, simulating different transport situations. The feedback gathered from this process will serve to refine the outputs and to issue recommendations for a further development of the WP and smart contract proof-of-concept.

Disclaimer:

The project is supported by the Europe's Rail Joint Undertaking and its members. Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Europe's Rail Joint Undertaking. Neither the European Union nor the granting authority can be held responsible for them. 



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