

European High-Speed Rail Demand Forecast 2050



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The European Union (EU) has defined targets to increase travel demand by high-speed rail (HSR) for the horizons 2030 and 2050. These targets are part of the goals set for the EU Green Deal. In this project, Europe-wide travel demand forecasts were developed for several scenarios of HSR network extension. For this purpose, a multimodal travel simulation model was developed and applied. The German Rail Long-Distance Traffic Corporation (DB Fernverkehr AG) – in collaboration with nine other European Rail Corporations – published the results of the project with the aim to contribute to the political and technical discussion about future European transport policies.

Services Provided by MOVENTES:

- Design of the model architecture
- Development of the socio-economic database for 41 European countries – on a system of 1500 zones
- Establishment and calibration of travel demand tables for rail, coach/bus, and car in the base year (2019)
- Parameter estimation and calibration for: trip generation, natural growth, induced demand, traffic assignments road
- Quality control of the following modules: mode choice, air demand, network models, overall results
- Report, thematical maps and graphical renderings
- Final presentation at the client
- Lead-author, European Transport Conference (ETC)

Contracting Entity

DB Fernverkehr AG

Lead Contractor

PTV

Project Duration

2022-2023

Countries

Member states of the European Union

Contact

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Publications

2025 Design of a high-speed rail network and demand forecasting to test European policy targets

2024 Modellierung einer neuen EU-Hochgeschwindigkeitsinfrastruktur

2023 How Much High-Speed-Rail is Needed to Meet the EU Green Deal Targets?

2023 Deutsche Bahn: Metropolitan Network: A strong European railway