

## ***“Digital and AI-supported passenger assistance systems in rail passenger transport”***

Digitalisation and the use of artificial intelligence offer new opportunities to support passengers in rail passenger transport. Digital assistance systems can support travellers, especially in planning their journey, selecting and booking tickets, and during the journey itself. In particular, they can provide up-to-date information and suggest individual courses of action in the event of disruptions. With “Kiana”, Deutsche Bahn is currently testing an AI-supported passenger assistance system. Similar systems are also already being deployed or tested internationally.

The aim of this thesis is to identify and analyse existing digital and AI-supported passenger assistance systems in rail passenger transport. First a literature analysis including systems from Germany and selected other countries must be performed. Specifically, the areas of application, forms of provision, functions, technologies used and data sources of the selected systems are to be compared. Previous experience gained from pilot projects and regular operation is also to be examined. Based on this analysis, the benefits of the systems for passengers and railway undertakings as well as the challenges and limitations associated with their use are to be identified and evaluated.

Finally, the systems considered are to be assessed regarding their potential applications. Based on the findings, requirements and recommendations for the integration and further development of digital and AI-supported passenger assistance systems in rail passenger transport are to be derived.