



## How crowded is the train?

The SAFIRA project from the German Federal Ministry of Transport and Digital Infrastructure (BMVI) promotes safety and spacing by providing passenger guidance for local public transportation.

When it comes to optimizing the capacity utilization of transportation, the question of passenger guidance also arises — an issue for transportation companies and associations as well as for passengers themselves. After all, what passenger wants to sit in an overcrowded train, especially if there is a more comfortable alternative?

To give passengers a safer feeling during times of coronavirus concerns by ensuring trains are not overcrowded, Hacon developed a load forecast solution with Siemens Mobility in 2020 that is, for example, used by the RMV.

In view of post-pandemic times and the design of the envisaged mobility transformation, a future increase in passenger numbers is to be expected. To regain trust in public transport after the "pandemic dip," to increase its attractiveness and to provide passengers with a comfortable travel experience, peak volumes, in particular, should be more effectively distributed in the network. After all, spacing in the passenger compartment provides safety. The approach to solving this: capacity-based routing that recommends modes of transport with high (residual) capacity as an alternative, especially in the event of disruptions, and thus distributes passenger flows more effectively among the available transportation services.

The SAFIRA project aims to contribute to a resilient public transportation system. In this context, Hacon will expand the load forecast derived from HAFAS.analytics to be able to integrate the increasingly available real-time utilization data along with historical count data and HAFAS queries. The goal is to enable a short-term forecast that can also identify unexpected peaks in volume and make them available for HAFAS routing. This allows passengers to choose their connection in terms of time and space, taking into account the current and expected load.

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