



# HERE HD mapping technology utilized by Deutsche Bahn for digital rail project

- *New private mapping offering from HERE enables creation of HD maps for railways with proprietary data from Deutsche Bahn*
- *Sensors4Rail project is a collaboration between Deutsche Bahn, Bosch, Ibeo, HERE and Siemens Mobility and will be showcased at ITS World Congress 2021 in Hamburg*

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CES 2021 – HERE Technologies, the leading location data and technology platform, is providing HD mapping technology to Deutsche Bahn, one of the world's leading mobility and logistics companies, via the [HERE location platform](#). Germany's railway company will utilize the technology for its new "Sensors4Rail" digital rail project. The aim of this pilot project is to test sensor-based train localization and environment recognition in order to increase railway system capacity, efficiency and reliability. Other project partners include Bosch, Ibeo and Siemens Mobility.

Deutsche Bahn will equip a train with modern sensor technology to sense and survey its surroundings as well as locate itself accurately in real time. Ultimately, this technology set-up will enable Deutsche Bahn to keep more trains running on the tracks simultaneously.

A critical component for this test is an HD map, a digital map of high-definition quality. It enables the train to pinpoint itself precisely on the tracks, and, by sensing and surveying its surroundings, the train can recognize and classify obstacles. These can be accurately localised on the HD map so that in the future, the control centre can react even faster.

Based on proprietary LiDAR-based data provided by Deutsche Bahn, the HD map for this project is built on the HERE location platform, leveraging HERE HD mapping technology. The data includes objects along the route, such as buildings, poles, or platform edges, which serve as a reference to detect changes in the environment. In effect, the map becomes the digital twin of the railway and its immediate surroundings. Through its location platform, HERE provides Deutsche Bahn with a private development environment to independently manage its data. The data remain fully under the ownership and control of Deutsche Bahn.

Dr. Kristian Weiland, Head of Program Digital Rail for Germany said, "At Deutsche Bahn, we are going to use the advantages of digital technologies to increase the capacity and quality of the railway system. The HERE HD map helps us to locate our trains more precisely. This way we can run more trains, at shorter intervals, on our existing infrastructure."

"With our new private mapping offering, HERE's location platform allows customers like Deutsche Bahn to create their own maps from proprietary sensor data, making use of the rich technical and operational mapmaking capabilities we have built and integrated into it," said Jørgen Behrens, Chief Product Officer at HERE Technologies. "As HD mapping



pioneers, it's particularly good to see the concept of an HD map adding value in a different environment, beyond automated driving.”

The partners will present the results of the project at the Intelligent Transport Systems (ITS) World Congress in Hamburg from 11 to 15 October 2021, including live demonstrations of the test train.

**Media Contact**

Dr. Sebastian Kurme

+49 173 515 3549

[sebastian.kurme@here.com](mailto:sebastian.kurme@here.com)

**About HERE Technologies**

HERE, a location data and technology platform, moves people, businesses and cities forward by harnessing the power of location. By leveraging our open platform, we empower our customers to achieve better outcomes - from helping a city manage its infrastructure or a business optimize its assets to guiding drivers to their destination safely. To learn more about HERE, please visit [www.here.com](http://www.here.com) and <http://360.here.com>.