ETAS is the AUTOSAR partner for Safe4Rail-2

European project for safe, future-oriented railway applications

The goal of the research project Safe4RAIL-2 funded by the Shift2Rail European rail initiative, is to develop a common platform for E/E architectures and wireless traffic networking (V2X) with high safety requirements for future trains.

Working together with the complementary project CONNECTA-2, Safe4RAIL-2 supports the development of railway demonstrators where next-generation E/E architectures and components for the Train Control & Monitoring System (TCMS) will be integrated. Furthermore, the project addresses how to run the TCMS functions in a simulated environment in order to minimize the need for expensive and time-consuming field tests.

Safe4RAIL-2 aims to reduce the complexity and cost of electronics and thus put European rail suppliers in the lead worldwide. Software prototypes will be developed by 2021 and integrated into railway demonstrators. ETAS, in cooperation with Bosch Engineering GmbH as a third-party, is contributing software architecture expertise and safety consulting as well as components of the RTA-VRTE (Vehicle Runtime Environment) Early Access Program, a ready-to-go AUTOSAR Adaptive development environment that works with POSIX operating systems (see page 12).

The project is led by a European consortium of six industrial partners and two research institutions (see picture). ETAS supports the project partners in building AUTOSAR Adaptive competence. This expertise from other mobility areas is one of the key strengths in the project. Safe4RAIL-2 is financed entirely from EU funds.

"Safe4RAIL-2 is the future when it comes to interoperability in train systems," says Dr. Núria Mata, ETAS Project Leader. "We see a huge potential to improve railway applications and focus on efficient interconnections, standardized interfaces, and an enhanced safety level of distributed train systems and applications."

* Safe4RAIL-2 means "Safe architecture for Robust distributed Application Integration in roLling stock 2"

The Safe4RAIL-2 partners aim to use new technologies to make trains and their transport infrastructure safe and future-proof. You'll find more information at www.safe4rail.eu

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