

PRESS RELEASE

Introducing Pods4Rail: a European Research Project exploring the future of rail transportation.

What could rail transport look like in the future? How can intermodal transport options be strengthened and expanded? How can we generate a seamless and sustainable mobility system for all and eliminate today's hurdles?

In September 2023 15 partners from seven European countries launched "Pods4Rail", a research collaboration funded by the European Union. Over the 30 months of its duration the project that brings together top-level research institutions and highly innovative industry partners, is intended to substantiate the concept for a digitalised, decentralised mobility service with multimodal interfaces to different transport modes in order to carry out a concept for a door-to-door transport chain based on rail by 2025 and thus contribute to the necessary transformation of the European rail network.

In a changing world the transport sector faces complex challenges for the future: climate change and the need for environmental protection, demographic change and urbanisation, shifting mobility behaviour as a whole, a shortage of skilled workers for rail operations and a growing need for operational efficiency. In particular, the demand for sustainable solutions for transporting people and goods forces us to rethink and find new approaches and innovations. Pods4Rail aims to harness advances in connectivity and automation and the existing rail infrastructure to push the concept of intermodality beyond established ideas.

Developing a new kind of mobility system.

The railway-based intermodal pod system should be autonomously operating, electrically driven vehicle and the homologated transport units should be designed for people or goods respectively and separated from a specific carrier unit. Together with an pods coordination and mobility management system for operations and logistics as well as all aspects of a mobility-on-demand offer across diverse transport modes, this represents a completely new form of mobility experience.

Moving towards a sustainable future.

By making optimal use of existing transport systems and reducing the need for new infrastructure to a minimum, land scarcity can be addressed and ecosystems protected for future generations. Rail transportation, with its efficiency, but also with the associated infrastructure, is set to be the backbone technology for a pod mobility system that is uncompromisingly geared towards people's needs and at the same time has extremely resilient capacity. Pods could be used to better adapt rail transport to the needs of users through greater flexibility, customisation and efficiency and to realise needs-based rail transport, using existing or to be reactivated railway infrastructure in combination with other modes of transport, like road or ropeway. This will improve the quality of life in urban and rural areas and contribute to a more sustainable and efficient future of mobility.

Partners

Siemens Mobility GmbH, Hacon, DLR German Aerospace Center, Trafikverket Swedish transport administration, Swedish Royal Institute of Technology (KTH), European rail Research Network of Excellence (Eurnex), Technical University of Madrid (UPM), Prorail BV, Netherlands organisation for applied scientific research (TNO), University Gustave Eiffel, University of West Bohemia (UWB), moodley strategy & design group, Railenium, Delft University of Technology

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