

Innovative transport systems

19 October 2022

TÜV SÜD certifies TUM hyperloop demonstrator

Munich. The Technical University of Munich (TUM) has launched the next stage of its ambitious hyperloop project. Construction of its passenger-size hyperloop demonstrator officially started on 30 September 2022. Europe's first full-scale hyperloop test track is being built in Ottobrunn near Munich. TÜV SÜD will provide certification of the tube and pod prototypes on the basis of the world's first guideline for hyperloop technologies.



“Hyperloop” is the umbrella term for innovative high-speed transportation systems moving passengers and goods over long distances. The concept envisages electrically powered transport pods, propelled at travel speeds of over 800 km/h within sealed vacuum tubes. The TUM Hyperloop research project was established in the wake of

TUM students' successful participation in several international competitions. The construction of the hyperloop demonstrator now moves the enterprise into the realisation stage. At TUM's Ludwig-Bölkow-Campus in Ottobrunn/Taufkirchen, a tube 24 metres long and approximately 4 metres wide is being built to test transport pod travel under realistic conditions. The ground-breaking ceremony for the demonstrator took place on 30 September 2022, and the first tests are scheduled to commence early next year.

TÜV SÜD will support TUM Hyperloop by supplying certification for the tube and transport pod. This certification will be performed on the basis of the relevant machine safety standards and the world's first Guideline for Hyperloop Systems, in which TÜV SÜD defined the key safety requirements for the planning, building and operation of such systems. When drawing up the guideline, TÜV SÜD considered existing regulations and experience in fields spanning rail, metro systems, cable cars, amusement rides, aviation and the process industry, and aligned them to the specific requirements of hyperloop

technologies. Taking a holistic approach, the guideline defines a host of aspects including the essential safety requirements for the transport pods, the drive system, the environmental control and life support system (ECLSS), the tubes, and the evacuation procedure in case of emergency. “TUM will build and operate the first hyperloop demonstrator in accordance with European standards in Ottobrunn”, says Dr Georg Schober, Department Manager Transportation at TÜV SÜD Industrie Service GmbH. “We are looking forward to supporting this ambitious project and contributing to the advancement of this innovative system with our certification services.”

TÜV SÜD seeks to drive the standardisation of hyperloop systems and the development of harmonised regulations for approval on national and regional markets, such as the EU Single Market, as well as the certification of individual components and complete systems. To further this aim, the company offers a free PDF download of the guideline:

<https://www.tuvsud.com/en/resource-centre/white-papers/hyperloop-guideline>

Note for editorial staff: The press release and high-resolution photo are available on the Internet at www.tuv-sud.com/newsroom. Picture credits: TUM Hyperloop

Media Relations

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