

Press release: TSB Cargo Demonstrator

Hamburg, August 5, 2021

From vision to reality in record time



In the presence of Rüdiger Kruse (Chief Rapporteur for Transport and Digital Infrastructure at the Budget Committee and Commissioner for the Maritime Economy of the CDU/CSU parliamentary group in the German Bundestag, second from the right), Dr Anjes Tjarks (Senator for Transport and Mobility Change, third from the left), Jens Meier (CEO of the Hamburg Port Authority, second from the left), Johann Bögl (Shareholder and Chairman of the Supervisory Board of the Max Bögl Group, first from the right), Dr Bernd Rittmeier (Head of the E1 subdivision of the Federal Ministry of Transport and Digital Infrastructure, first from the left), the groundbreaking ceremony for the TSB Cargo demonstration project at the Port of Hamburg was held yesterday at the invitation of Dr Bert Zamzow (Managing Director of Cargo Maglev Demonstrator GmbH, third from the right). Picture credit: CMD / Sebastian Engels

The future of sustainable low-noise container transport has arrived

Yesterday, Wednesday August 4, 2021, saw the official groundbreaking ceremony launching the construction of the TSB Cargo demonstration system for the 2021 ITS World Congress. The German government is funding the project which focuses on the development and testing of an alternative technology for environmentally friendly, sustainable and efficient freight transport. The go-ahead for the construction of the system was given in May of this year after the Ministry of Transport and Digital Infrastructure had issued the funding decision for the project in March.

TSB Cargo is an efficient and flexible solution for track-guided individual container transport. The system moves containers on a fully automated basis at very low noise levels. Maximum speeds are 150 kilometers per hour and containers are transported in 20-second cycles. In the past few years, the



Max Bögl Group has already developed its TSB (Transport System Bögl) technology for local passenger transport to the point of serial production and is using the system with great success both on its in-house test track in Sengenthal (Bavaria, Germany) and on a demonstration track in Chengdu, China. The demonstration project for the ITS World Congress marks the adaptation of the technology to freight transport. In this context, the newly established Cargo Maglev Demonstrator GmbH is responsible for implementing the TSB Cargo demonstration project in Hamburg and is setting the course for the development of the system to the point of market and serial production viability.

The demonstration track, which measures around 120 meters and is currently under construction on the Cruise Center Steinwerder compound, will show the system in action, including automated driving, switch-based changing between tracks and, in particular, container transfer between TSB Cargo and other modes of transport. In the future, the system will be capable of efficiently moving individual containers of up to 45 feet below maximum weight. The short project duration of just six months from planning to commissioning underlines the benefits of modularized construction for infrastructure even before the start of the trade fair. From October 11 through October 15, 2021, the demonstration system gives trade fair visitors the opportunity to check out the new technology for themselves. After the trade fair, the system can be inspected by appointment until the end of November.

Aside from the demonstration system in the Port of Hamburg, information about the project, the technology and its possible applications will also be available at the joint "ITS Deutschland" stand on the Hamburg Fair Site.

Among the technology's potential applications are the distribution of goods between busy logistic hubs, for instance port terminals, as well as hinterland connections between port terminals and so-called dry ports. With trucks currently moving the lion's share of individual container transport, the shift to a fully electrical system such as TSB Cargo will cut carbon volumes in the transport chain and relieve pressure on port infrastructure. TSB technology involves an electromagnetic levitation system, which reduces wear and tear on vehicles and infrastructure. Operating costs and fine particulate emissions will be significantly lower than in conventional systems. Container transport will be much more efficient from both a business and an economic perspective. Based on initial analysis, potential savings may be as high as 50 percent of the current costs. Streamlined elevated tracks prevent land fragmentation and are suitable for integration into existing transport corridors.

Says Rüdiger Kruse, Rapporteur for Transport at the Budget Committee of the German Bundestag:
"The Port of Hamburg, Europe's third largest container port, is one of the most important freight hubs serving the supply and international transport of goods worldwide.

To ensure that we remain competitive at the international level, it is of crucial importance that we continue to revolutionize and develop the transport of goods by container.

Thanks to transport speeds of up to 150 km/hour, the maglev railway can move up to 180 containers in sixty minutes.

On top of this, costs and emissions can be cut by up to 50 percent compared to truck haulage.

As well as financing the presence at the ITS World Congress, the six million euro funding therefore also lays the groundwork for the future ecological and cost-efficient transport of goods in the Port of Hamburg. In connection with the deepening of the Elbe river and the removal of Köhlbrand bridge, which is to be replaced with a new underpass, we are thus back on course as a global competitive force!"

Comment by Johann Bögl, Shareholder and Chairman of the Supervisory Board of the Max Bögl Group:

"The implementation of this demonstration project at the Port of Hamburg represents an important step towards installing the first operational track for Transport System Bögl. Having planned and built our modular concept in just a few months, we have demonstrated the system's potential as a rapidly deployable solution to the challenges posed by sustainable, efficient goods and passenger transport. The funding provided by the Federal Ministry of Transport is setting a clear sign, both at the national and the international level. As a next step, it is crucial to build a first operational track to demonstrate that, aside from the development of new technologies, Germany also intends to play a leading role when it comes to their introduction.



The Max Bögl Group is working to achieve this aim in conjunction with all relevant stakeholders. We are proud that this demonstration plant will already produce its first visible achievements in October of this year.”

Comment by Dr Bert Zamzow, Managing Director of Cargo Maglev Demonstrator GmbH:

“Thanks to the financial support of the Federal Ministry of Transport, we have the opportunity to demonstrate the efficiency of the TSB technology live in the Port of Hamburg to an audience of international experts at the ITS Congress. In regular consultation with the port, the city and the Federal government, we will work hard to ensure that a pilot system serving commercial container transport will subsequently be installed in the port area. “

Comment by Jens Meier, CEO of the Hamburg Port Authority:

“I am delighted that we can offer the Steinwerder compound in the heart of the port for this innovative demonstration project. As a next step, we will commission a feasibility study in conjunction with the Max Bögl Group to investigate various options for the technology’s real-life application.”

Comment by Dr Bernd Rittmeier, Head of the E 1 subdivision “Innovations, Digitalization, Connectivity” at the BMVI:

“Among other objectives, the Federal Ministry of Transport and Digital Infrastructure aims to raise the share of rail freight traffic in total German goods transport from the current 19 percent to 25 percent in 2030. To reach this target, aside from a further expansion of the railroad network, we need smart transport systems that deliver efficient and environmentally-friendly regional distribution and supply of goods.

TSB Cargo is an innovative technology that can make a key contribution to this objective. Our Ministry is funding the TSB Cargo Demonstrator with a view to testing the technology and presenting it to a wider public at the ITS in Hamburg.”

Press contact

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