



THE FUTURE BELONGS TO

Hyperloops transport people and goods at high speeds. The technology has the potential to revolutionise future transport

GREENER MOBILITY

Climate change is one of the greatest challenges of our time. How can we meet this challenge? With courageous and innovative concepts that make our lives more sustainable. Mobility must also do its part here. That is why **Hypermotion Frankfurt** focuses on the question: What pioneering solutions are already in existence?

Alternative drive systems are one of the answers to this question. These have the potential to be game-changers, not only for cars, but also for rail, air and truck transport. Electromobility in particular has gained momentum here recently, with more and more electric vehicles on the road in urban spaces. Yet electricity is not the only power source that can help us achieve a zero-emission mobility mix: synthetic fuels – also known as e-fuels – and hydrogen can also play an important role in future. E-fuels are produced from water and carbon dioxide using electricity and can be used in either gaseous or liquid form to power vehicles. Although they require a great deal of energy to produce, there are powerful arguments in their favour: be it for their transport, storage or use, e-fuels can utilise the very same infrastructures that serve combustion engines. This means not only that the existing transport and storage systems for oil can continue in use, but also that filling stations and fuel distribution networks can remain in operation. Hydrogen is a new fuel that promis-

es to bring changes to heavy and long-distance transport in particular. Even so, the question as to whether hydrogen will really serve as a key energy source for future mobility depends on how efficiently it can be stored and transported.

Hyperloops could revolutionise personal and goods transport

Another solution that has the potential to fundamentally change future mobility is hyperloop technology. Here, people and goods are placed in a capsule and transported at high speed through a vacuum tube. Unlike conventional trains, the capsules do not travel on rails, but rather in a vacuum. Magnetic fields are used both to drive the trains and to stop them. This eliminates friction, allowing hyperloops to reach speeds of up to 1,200 kilometres an hour. It sounds like something out of science fiction, but it may soon be reality. Virgin Hyperloop has already conducted the first successful test runs with passengers in the Las Vegas desert. The Hyperloop has a lot going for it: people can travel quickly and flexibly –



Experts believe that hydrogen has potential for long distance transport in particular

What is the best way to integrate hyperloop technology into existing transport systems? How can we create an international infrastructure? And, finally: How can their social relevance be increased?

ideally without any transfers whatsoever. Goods can be transported quickly from A to B – something that is very important in an age of same-day delivery. Nor should we forget that hyperloops have markedly smaller carbon footprints than do aircraft, for instance. There are still some questions to be answered before hyperloops can be rolled out on a large scale: What is the best way to integrate hyperloop technology into existing transport systems? How can we create an international infrastructure? And, finally: How can their social relevance be increased?

Hypermotion Frankfurt is where tomorrow's mobility takes shape

Alternative drive technology and hyperloop technology are one of this year's topics of focus at Hypermotion Frankfurt. From 14 to 16 September 2021, the multimodal innovation platform will bring together all modes of transport. This is where experts, innovators and pioneering thinkers from the automotive, transport and logistics fields engage in discussions aimed at driving the energy and mobility transition.

The Hypermotion Frankfurt concept features a conventional exhibition that shares many characteristics with a conference. This year's participants can look forward to three high-profile conferences. The smc – Smart Mobility + Green Cities conference serves as a future forum for multimodal concepts and sustainable mobility in networked cities and regions. At the scalex – Supply Chain + Logistics Excellence conference, the focus is on the topics of resilience, innovation and performance. On 16 September 2021, the Hyperloop Conference will take place for the very first time. This conference brings international players in the hyperloop ecosystem together to discuss the latest developments in this revolutionary technology.

Another new feature this year: Hypermotion is being held alongside Automechanika Frankfurt, an event where everything revolves around the automotive service industry, creating promising synergies. Danilo Kirschner, Show Director of Hypermotion Frankfurt: "Developers from the fields of mobility and logistics will be brought together with users from the automotive aftermarket. This creates valuable synergies for participants of both events for topics such as alternative drive systems, fleet management, IoT systems and the creation and optimisation of resilient international supply chains, to name but a few."

Hypermotion Frankfurt 2021 is taking place as a hybrid trade fair. The exhibition and conferences will be held in person on the exhibition grounds and supplemented with an array of digital features. Danilo Kirschner detailed some of the advantages: "With this concept, we are able to place the in-person programme in Frankfurt online as well. Exhibitors present their products in their own profiles, the supporting programme is streamed live, people can communicate via chat and video, and digital matchmaking generates contact recommendations tailored to each participant."



Hypermotion brings companies, start-ups, researchers, policymakers and investors together in one place. The focus is on networking

Quality Precision Turned Parts

WITON ENGINEERING OFFERS A PREMIUM QUALITY SERVICE FOR ALL TYPES OF PRECISION TURNED PARTS UTILISING TRADITIONAL AS WELL AS MODERN MACHINERY AND TOOLING.

Witon Engineering is unique. Not only does the business possess an enviable reputation that spans decades, it is now into its third generation as a family-run company having been founded by Len Sheldon in 1948 and now run by his daughters Gemma Courtney and Hayley Neate alongside son-in-law Tom Courtney.

Based in Barnstaple, North Devon, Witon manufactures precision turned parts, utilising both traditional as well as modern machinery and tooling. Boasting a diverse client base, the company has leveraged its vast knowledge and experience to cater for and support a number of industries from leisure and industrial to aerospace and automotive.

Many of these clients, says Hayley proudly, have remained loyal to Witon for many years. Communication goes hand-in-hand with the ability to adapt to need, provide a competitive price, and deliver quality consistently,



Our work ethic has not changed as the years have passed and we feel that this puts us in a great position to excel and continue to work with our newer customers for many more years to come."

she adds. "We see our relationships with our customers as a partnership rather than 'us and them'. We are a 'one stop shop' and we have many decades of skill and experience here. Whilst we don't design our own products, we are always happy to work alongside our customers to find the best way of producing their components to assist their processes.

"We have always needed to ensure that we are competitive with our pricing, so it is essential that our business is run as efficiently as possible to enable us to continue to work effectively with our long-term customers. Our work ethic has not changed as the years have passed and we feel that this puts us in a great position to excel and continue to work with our newer customers for many more years to come."

Witon's core capabilities include the ability to be a single source for clients for all precision CNC turning needs. With a size scope ranging from 16mm to 32mm diameter for sliding head and 16mm to 60mm for fixed head, its vast range of precision turning machinery allows it to accommodate a huge variety of needs.

This is complemented by fast cycle times that maintain the high degree of accuracy Witon is recognised for. Its CNC machinery software is also state of the art and has been designed to tackle multiple types of CNC machines, providing the ability to quickly develop intricate detail and have the production process running promptly.

Additionally, Witon has invested heavily to remain at the forefront of precision CNC multi-spindle turning. Its combination of equip-