



HÜBNER presents innovations for windows and doors

How holographic applications are revolutionizing public transport

Kassel / Brussels (11 September 2025). Passenger information of the future: At Busworld Europe 2025 in Brussels, the HÜBNER Group will be presenting innovative holographic applications for buses in cooperation with ZEISS Microoptics. Transparent holographic displays and the touchless *Holo-Button* are novel, future-oriented solutions that will provide greater passenger comfort and convenience in public transport. Visitors can get a firsthand impression of these applications at Busworld from 4 - 9 October 2025 in Hall 7, Booth 755.

Smart solutions for the passenger experience

Up-to-date, clearly visible travel information is essential for passengers in public transport. Even with the widespread use of smartphone apps, there continues to be a high demand for direct onboard information displays.

Transparent holographic displays are a clever solution in the passenger area of vehicles that raise the quality of information delivery to a new level: With a glance out the window or through the door, passengers receive information on upcoming stops and real-time travel updates directly in their field of vision.

Holography makes it possible: Projecting content directly onto windows

"The holographic technology is integrated directly into the window glass, allowing for simple and highly flexible projection of content," explains **Konrad Brimo, Vice President Global Sales Material Solutions at the HÜBNER Group**. In addition to timetable information, other content such as shopping options or tourist attractions along the route can also be displayed.

The technology requires less space and less energy than conventional solutions such as OLED systems – while still delivering high image resolution. In addition, through their direct integration into the windowpanes, the transparent holographic displays are optimally protected from external influences, which works to significantly enhance vehicle design.

No-contact door opening with the *Holo-Button*

Another product innovation being showcased by HÜBNER in cooperation with ZEISS Microoptics is the *Holo-Button* – a contactless sensor surface for opening bus and train doors. *"The Holo-Button combines high functionality with futuristic design,"* says **Konrad Brimo**. *"At Busworld Europe we are making new applications of holography in public transport into a hands-on experience with the Holo-Button and transparent holographic displays."* Together with its partner ZEISS Microoptics, HÜBNER is setting new standards for how passengers and vehicles interact.



A versatile partner for the mobility of tomorrow

As part of a long-term cooperation, ZEISS makes use of tunable lasers from HÜBNER Photonics for the production of holographic optical elements. These, in turn, are integrated by HÜBNER into solutions and systems for use in public transport. *“With this holographic display technology, we are bringing the expertise of our Photonics division into HÜBNER’s core business field of public transport for the first time and creating dynamic synergies within our Group,”* remarks **Ingolf Cedra, Managing Director of the HÜBNER Group.**

In this way, the HÜBNER Group’s versatility as a partner brings distinctive benefits to bus manufacturers and transit operators. The company combines innovative strength with years of experience and more than 100,000 systems that have been delivered to markets around the world. These include customized articulation systems, chassis components, door safety systems, material solutions and much more. *“Our goal is to continuously improve performance and efficiency in public transport. With innovations such as holographic display technology, we are able to enhance the travel experience and raise the satisfaction level of passengers,”* says **Ingolf Cedra.**

Find out more about the HÜBNER Group’s activities at Busworld Europe online at: www.hubner-group.com/busworldeurope/

HÜBNER Group

Mobility. Materials. Photonics. | united by passion.

The HÜBNER Group is a global provider of systems and solutions for the mobility sector, the manufacturing industry, and for the life sciences and research applications. With its four divisions **Mobility Rail, Mobility Rail, Material Solutions** and **Photonics**, HÜBNER is setting standards worldwide and covers a broad spectrum of products and services.

As the world’s leading manufacturer of articulation and gangway systems for buses and railway vehicles, HÜBNER ensures safe and flexible connections. In addition, the Group of affiliated companies is a leading developer of chassis technology, cockpit display solutions as well as door safety and sealing systems. The company is also an internationally recognized specialist for sophisticated solutions making use of elastomers such as silicone and EPDM, Polyurethanes as well as for insulation and composite materials and industrial textiles such as coated fabrics. With advanced laser technology products, HÜBNER is successfully active in pioneering fields such as holography, cancer diagnostics, quantum physics and spectroscopy. In 2024, the company generated sales of about €476 million with a staff of approximately 3,500 employees. In addition to its headquarters in Kassel, Germany, HÜBNER is operating at approximately 30 locations around the world.

www.hubner-group.com

About ZEISS

ZEISS is an internationally leading technology enterprise operating in the fields of optics and optoelectronics. In the previous fiscal year, the ZEISS Group generated annual revenue around 11 billion euros in its four segments Semiconductor



Manufacturing Technology, Industrial Quality & Research, Medical Technology and Consumer Markets (30 September 2024).

For its customers, ZEISS develops, produces and distributes highly innovative solutions for industrial metrology and quality assurance, microscopy solutions for the life sciences and materials research, and medical technology solutions for diagnostics and treatment in ophthalmology and microsurgery. The name ZEISS is also synonymous with the world's leading lithography optics, which are used by the chip industry to manufacture semiconductor components. There is global demand for trendsetting ZEISS brand products such as eyeglass lenses, camera lenses and binoculars.

With a portfolio aligned with future growth areas like digitalization, healthcare and Smart Production and a strong brand, ZEISS is shaping the future of technology and constantly advancing the world of optics and related fields with its solutions. The company's significant, sustainable investments in research and development lay the foundation for the success and continued expansion of ZEISS' technology and market leadership. ZEISS invests 15 percent of its revenue in research and development – this high level of expenditure has a long tradition at ZEISS and is also an investment in the future.

With over 46,000 employees, ZEISS is active globally in around 50 countries with more than 60 sales and service locations, around 40 research and development facilities, and 35 production facilities worldwide (30 September 2024). Founded in 1846 in Jena, the company is headquartered in Oberkochen, Germany. The Carl Zeiss Foundation, one of the largest foundations in Germany committed to the promotion of science, is the sole owner of the holding company, Carl Zeiss AG.

Further information at
www.zeiss.com

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