

## Press release

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### On the right track

Evaluation of wayfinding systems and architectural designs using virtual reality

The key to a well-designed airport is to understand how passengers interact with their environment and how visual information influences their orientation and navigation behavior. Of particular importance is wayfinding information, which often competes with other visual stimuli such as advertising. Wayfinding has to be an integral part of the design process to create more intuitive architectural spaces where passengers navigate instinctively. Evaluating the design from a passenger's wayfinding perspective already in the planning phase can prevent wrong design choices which might result in higher costs at later stages.

**EXPERIENCE is a consulting service based on virtual reality technologies which offers a novel method for an interactive exploration and analysis of architectural models and designs before they are built.** It uses a test environment allowing persons to walk through virtual 3D models of airports while measuring their movement, visual attention and relevant behavioral characteristics. For a high level of realism, EXPERIENCE combines immersive visual computing technologies, characteristic soundscapes and cutting-edge crowd simulations – based on the framework SIMULATE, which is also used for evacuation and capacity analysis of infrastructures. As a result, the passenger wayfinding experience can be evaluated by quantifying several passenger-oriented aspects (detailed passenger-route-analysis, visibility of static and dynamic signage, etc.) in customized scenarios with a representative cross-section of user groups (age, nationality, etc.).

EXPERIENCE was developed by experts from the AIT Austrian Institute of Technology Center for Mobility Systems in close cooperation with Fraunhofer Austria Research GmbH. This collaboration enabled the development of an ideal solution for architects, operators of large infrastructures and public spaces, transportation planners and consultants. It effectively supports the evaluation of architecture and identifies issues ahead of time, resulting in reduced need for re-work and project cost savings. As such it revolutionizes wayfinding planning processes and enables to test the acceptance of the terminal visibility as a whole or of its subsystems and components. **EXPERIENCE improves pedestrian flows – as well as the performance of designs – and increases customer satisfaction leading to greater**

**usage and turnover.** EXPERIENCE was successfully used in the planning phase of Vienna's new Central Railway Station to improve the guidance of people through the facility.

**How to find us at Passenger Terminal Expo 2017:**

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**About AIT**

The AIT Austrian Institute of Technology is Austria's largest non-university research institute. With its eight Centers, AIT regards itself as a highly specialised research and development partner for industry. Its researchers focus on the key infrastructure issues of the future: Energy, Health & Bioresources, Digital Safety & Security, Vision, Automation & Control, Mobility Systems, Low-Emission Transport, Technology Experience and Innovation Systems & Policy. Throughout the whole of Austria – in particular at the main locations Wien Tech Gate, Wien TECHbase, Wien Muthgasse, Seibersdorf, Wiener Neustadt, Ranshofen and Leoben – around 1,300 employees carry out research on the development of those tools, technologies and solutions that will keep Austria's economy fit for the future in line with our motto "Tomorrow Today".

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