

Information for journalists and media representatives “Participating in construction – virtual reality (VR) as a communication platform”

Fraunhofer IAO supports digital transformation in the construction industry. Through its participation, it creates new forms of communication by pooling competencies from virtual engineering, digitalization in construction, and the social sciences.

Future users of the building as well as the public (citizen participation) are the primary target groups considered here. Visualizations that convey valid content taken from current planning data (building information modeling, BIM) efficiently (workflows and data interfaces) and clearly (virtual reality, VR) are the main focus. When included in planning and participation procedures, even laypeople can better understand the complex issues involved and thus make informed decisions and offer valuable input to improve planning. It’s a great way to turn affected parties into stakeholders!

Overall, the result is a planning process that orients itself better to future needs, while also recognizing and documenting optimization opportunities at an early stage – in other words, when there is still time to make changes.

In terms of public participation, the result is greater acceptance and a goal-oriented and objective discussion of the construction project.

Further information can be found under:

<https://www.es.iao.fraunhofer.de/de/forschungsfelder/immersive-bauwerksmodelle.html>

<https://www.es.iao.fraunhofer.de/de/labors/immersive-engineering-lab.html>

Our contact partners on the topic of “Participating in construction – virtual reality (VR) as a communication platform” are:

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Photo material

The following pictures may be used free of charge as part of reports on “Participating in construction – virtual reality (VR) as a communication platform.” Requests for high-resolution images should be sent to presse@iao.fraunhofer.de. All photos used must be accompanied by the appropriate source reference, and we kindly request a copy of the published material. The photos are to be used exclusively for editorial reporting and under no circumstances in advertising or sales materials. Further circulation, copying, editing or use on websites that is not for the purposes of editorial reporting is not permitted.

Building information modeling (1):

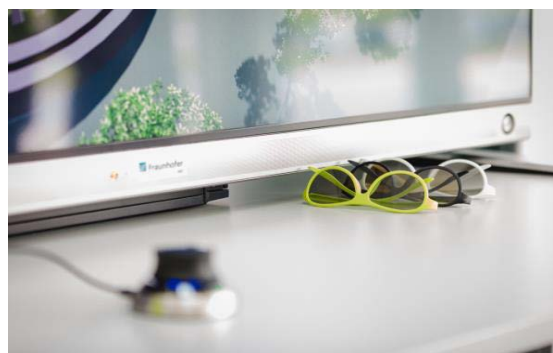
Digital building models from the planning phase form the basis for an up-to-date, valid and cost-effective visualization. Such models are produced using the building information modeling (BIM) method, and they can be linked directly to visualization systems via interfaces.



VRfx Screenshot © Fraunhofer IAO

Digital planning and experience (2):

It is not always necessary to use expensive CAVEs for visualization from the outset. The market already offers a wide range of reasonably priced, portable immersive systems. The image shows a 3D TV set, which is used as an interactive 3D system in the participation at Fraunhofer IAO.



Ludmilla Parsyak © Fraunhofer IAO

VR is child's play (3):

Clear visualization helps reach even special participating target groups. Children view the world differently than adults. Unfortunately, this is often not taken into account in planning.



Ludmilla Parsyak © Fraunhofer IAO

Virtual city planning (4):

Even complex issues such as noise distribution in cities can be discussed with laypeople using immersive visualization systems.



Thomas Ernsting © Fraunhofer IAO

Public participation in construction planning (5):

User-centric planning with virtual building models makes it possible to connect with future users early on to reach agreement on plans.



Bernd Müller © Fraunhofer IAO

Immersive planning meeting (6):

An installation supervisor gives the planning team valuable information on process optimization in a virtual planning meeting.



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