

Ingredient automation is our world.

Welcome to AZO!



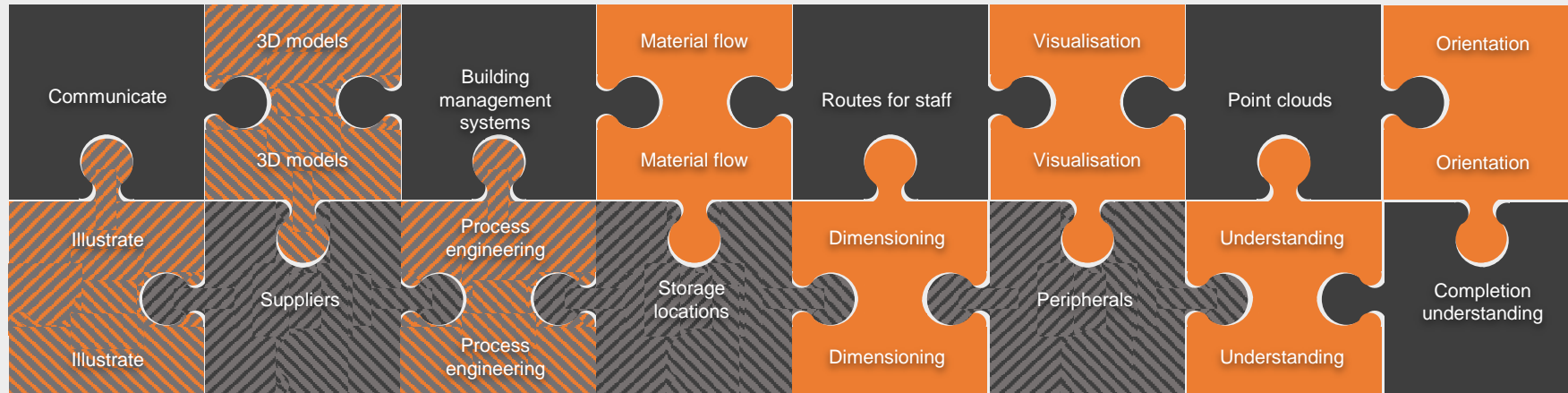
## REQUIREMENT / SITUATION / DESIGN CRITERIA

*The current state of the art increasingly involves the use of CAD to design and document installations. Exporting different drawing views from the 3D model gives the customer an understanding of the installation situation and components.*

**Being able to see the individual structures and backgrounds for the installation makes it easier for designers and project managers to get a mental image of the overall system. However, it is difficult for many of our customers to imagine the respective dimensions and components.**

**Therefore, at AZO we frequently ask the following questions:**

- How do I communicate the contents in “layman’s terms” (for work colleagues, partners etc.)?
- How do I communicate the contents to “third parties” (subsuppliers, construction, etc.)?
- How do I communicate the contents to “decision makers” (management, investors, etc.)?



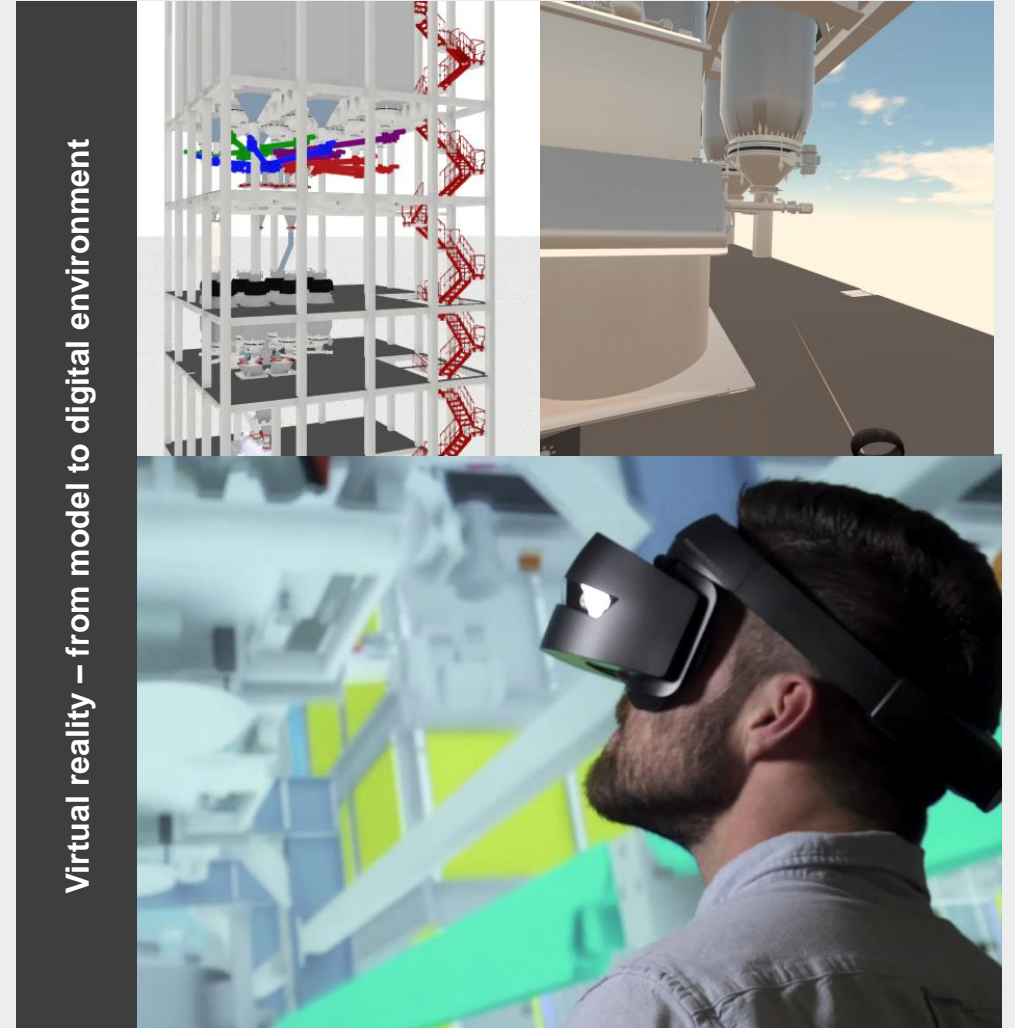
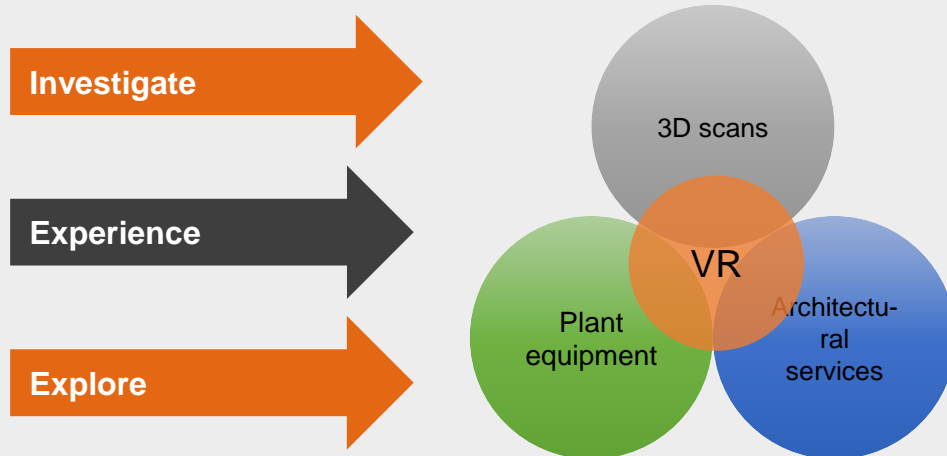
## THE SOLUTION

Using our VR technology, it is possible to load and visualise many 3D formats using a mobile or stationary unit.

- Dimensioning of components and plants
- Completion understanding for production processes
- Orientation in the plant and in own production area
- Planning of material flows, personnel routes and general production

By generating a virtual environment on the basis of real dimensions, you can visualise the content of the installation and its environment more accurately.

- Investigate installations/components/buildings etc.
- Experience plant technology/process technology etc.
- Explore



## THE HARDWARE & SOFTWARE

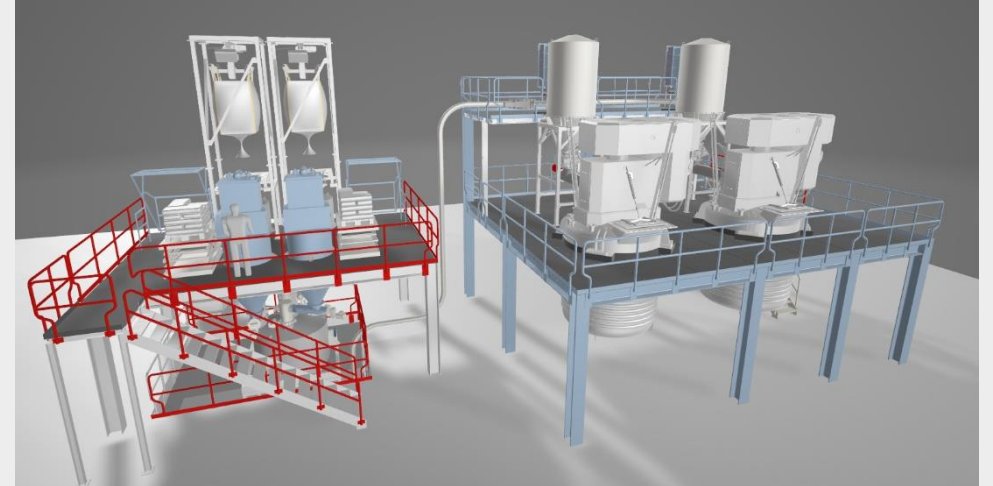
Owing to ever increasing enquiries and use of VR technology, AZO has three different types of VR goggles:

- HTC VIVE PRO SPEC (stationary, wireless version at AZO's premises)
- HP Windows Mixed Reality headset (portable, wired version)
- OCULUS QUEST (portable, wireless version)

Each of these units has an associated Mixed Reality controller for movement, inspection and control in the virtual environment.

**The models can in some cases be loaded directly into CMC ViewAR software or converted into the right format using various programs. Even the depiction of point clouds from 3D scans can in some cases be loaded directly and combined with our models.**

To keep our customers safe during their individual VR tours, we use automatic boundary detection in the range of movement in order to avoid real-world obstacles such as tables and chairs.

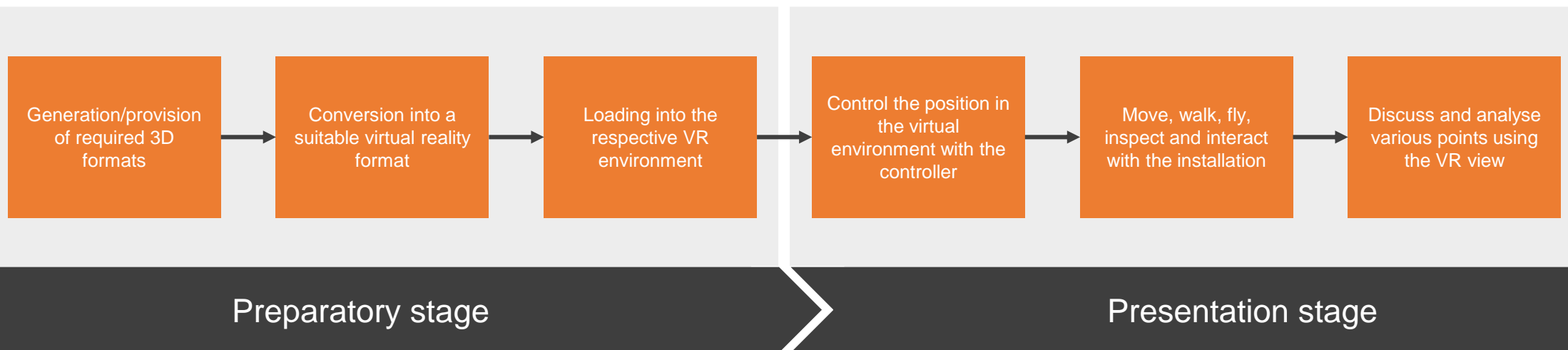


## INTEGRATION PROCESSES

The process map shows how integration of the 3D models into virtual reality works. In principle, it is possible to incorporate different CAD files, including those without AZO components.

- Architectural services
- Processing plants (other project participants)
- Systems for peripheral processes
- Main and additional components (space requirement)
- Point clouds from 3D scan (actual status of your installation/building/equipment)

**This equipment is the perfect tool for illustrating and presenting, and generally as a visual basis for discussion independently of the value creation chain. The cross-process visualisation allows you to see the overall extent of your designs.**



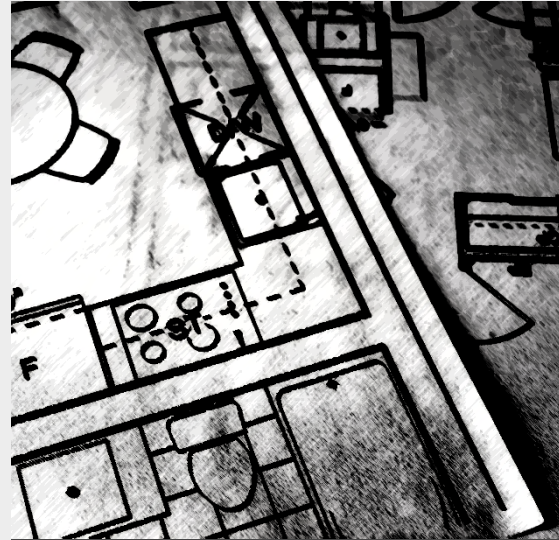
## ADDED VALUE FOR STAKEHOLDERS

### Benefits for our customers:

- Mapping/assessment of installations and operating concepts
- Timely and informative involvement of own employees (regardless of workplace)
- Promotion of internal acceptance in the case of potential new investments
- Counteracts potential (negative) preconceptions

### Benefits for AZO:

- Improved customer understanding with direct communication
- “Comfort zone” for the customer
- Ideal basis for project
- Ideal basis for discussion for all project participants (and other stakeholders)
- Range of variants
- Basis for determining requirements
- Rapid reaction time
- Location-independent





**THANK YOU FOR YOUR INTEREST!  
ANY QUESTIONS?**