

Enhancing Customer Understanding with an Immersive Experience

Synopsis: Equipment suppliers struggle to showcase complex bioprocess systems at events due to space, logistics, and lack of real process context, which limits customer understanding and sales impact. Immersive Virtual/Mixed Reality (MR/VR), together extended reality (XR), bridges this gap by turning digital twins into realistic, in-context product experiences that clarify how equipment fits into actual facilities and workflows. Platforms like HakoBio use these capabilities as commercial storytelling tools across the full lifecycle—from marketing and trade shows to training and operations—creating both economic efficiencies and strategic differentiation for suppliers.

If only I could have “....”, because the customer was really looking for our technology

At trade shows and customer meetings, equipment suppliers are limited by booth size, shipping logistics, and the physical availability of systems. The constraint is most severe for large-scale equipment, custom solutions, broad portfolios, and products still in development, where flyers, slide decks, and videos rarely deliver the same impression as seeing the equipment in person, especially outside its natural habitat in the lab or manufacturing suite.

When that context is missing, customers struggle to understand how equipment actually functions in detail and how it will behave in operation. They also find it harder to visualize how new technologies will fit into existing or planned suites, labs, and workflows, or how they integrate into a coherent end-to-end process. As a result, buyers may fail to recognize that a solution fits their needs, leading to missed opportunities where a different, more immersive experience could have revealed a better match between the technology and their requirements.

Products deserve to be experienced in their native environment



Figure 1: Immersive experience of integrated and fully connected bioprocess equipment at an event.

Mixed reality (MR) makes it possible to place virtual equipment into the real world so prospects can experience it almost as if it were physically present. This enables suppliers to showcase systems that would otherwise stay at home, and to combine physical exhibits with virtual assets to demonstrate how equipment is actually used in the laboratory. The effect is even stronger in full virtual reality (VR), where prospects can step into different lab set-ups and see how the exhibited equipment operates across multiple configurations.

Immersive product experiences improve understanding within minutes and generate more qualified leads. Reports from other industries suggest that well-executed VR/MR, together extended reality (XR), booths typically deliver on the order of 30–60% more leads or lead opportunities, often via 40–60% increases in booth traffic and substantially higher conversion of that traffic into captured contacts^{1–3}. Also, the quality of the leads is improved, with cases showing a 25–30% uplift in lead qualification and 2–6x higher downstream conversion rates in strong XR implementations, depending on context and follow-up discipline^{4–6}. Research on VR training shows long-term knowledge retention of around 70–86% vs. 5–20% for lectures, slides, and reading, implying roughly 4–10x better retention of complex procedural or technical content when learned in VR rather than via passive media^{7–9}. Experiential and XR marketing data similarly report 34% better recall for VR campaigns than 2D media and around 70% better memory encoding for MR experiences, indicating that immersive encounters stick in memory more strongly than standard visuals or ads^{10–13}. Hence, the most persuasive commercial environment for equipment suppliers is a hybrid one: physical equipment provides trust and tactile proof, while XR supply the missing context; process flow, room fit, utilities, automation logic, maintenance access, and adjacent technologies, shifting the focus from merely “showing equipment” to “selling the future state.”

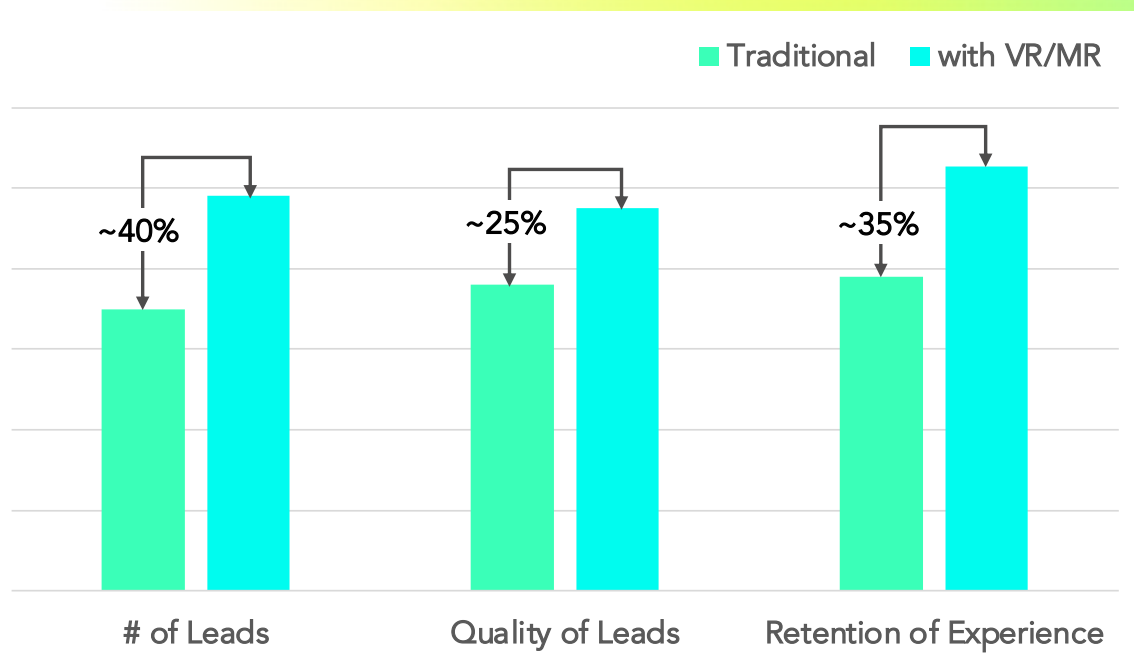


Figure 2: Normalized representation of the percentage changes in generated leads, lead qualification and retention of campaign based on data from references^{1–6,10–13}.

The economic case is equally strong. Large equipment is costly to ship, stage, insure, and display, and trade-show logistics can absorb a substantial portion of total exhibition spend. For suppliers with broad portfolios, custom systems, or products still in development, relying on physical hardware alone imposes a structural limit on what can be shown and, ultimately, what can be sold.

HakoBio: immersive storytelling in bioprocess equipment.

HakoBio is a mixed and virtual reality (MR/VR) platform for bioprocessing that delivers life-size digital twins of equipment, animated process behavior, embedded technical content, immersive end-to-end process views, and mixed-reality placement of systems in the customer’s real environment. These capabilities translate directly into commercial impact: clearer product understanding, stronger stakeholder alignment, more confident purchasing decisions, increased cross-selling, higher booth engagement, and shorter sales cycles.

For equipment suppliers, this means immersive technology goes far beyond engineering review; it becomes a reusable marketing and sales asset that supports every stage of the funnel. The same digital twin can attract visitors at trade shows, enable qualification discussions in the booth, support follow-up meetings with technical buyers, and provide a compelling narrative tool for account teams during strategic deal pursuits.

Viewed this way, HakoBio is not just a visualization layer but a commercial storytelling platform for complex equipment, helping suppliers convert technical differentiation into buyer understanding far more effectively than static media.

Traditional material & set-up	Experience with XR
Product brochure	Interactive equipment
Static images	Immersive experience
One stakeholder	Entire team
Product view	Process view
Equipment	Solution

Marketing is where the story starts, but it doesn’t end with sales.

The customer story begins with “Once upon a time (OUAT)” in marketing, but virtual equipment can support the entire lifecycle of the relationship. Training on virtual equipment has been shown to deliver knowledge retention comparable to traditional, hands-on or classroom-based training, while improving engagement and scalability. This means the same virtual asset used to introduce a product can later be reused to help operators master procedures more efficiently.

Beyond training, immersive technologies extend into daily operations. MR guidance for maintenance, calibration, and changeover can provide step-by-step overlays on the real equipment, reducing dependence on long manuals and lowering the risk of error. VR layouts allow process and facility teams to validate equipment placement before installation by checking clearances, hose routing, material and personnel flows, and safety distances; this kind of immersive review can reveal ergonomic issues, contamination risks, and logistics bottlenecks early, avoiding costly rework and reinforcing the supplier's role as a true process partner.

Pilot immersive selling on one high-value equipment story

Begin with one commercial use case, perhaps one where conventional selling is weakest, and deal value is high. Typical pilots include a flagship single-use bioreactor, a downstream skid family, a modular process platform, or an integrated workflow that is difficult to exhibit physically but important for differentiation.

The pilot should be built not as a novelty experience alone, but as a sales asset with clear commercial metrics: qualified leads generated, average engagement time, number of stakeholders engaged per meeting, cross-sell conversations initiated, and time from first demo to qualified opportunity.

The strategic question is no longer whether immersive technology is technically possible. The more relevant question is which supplier will make complex bioprocess equipment easiest to understand and experience. In a category where products are sophisticated, the supplier that best contextualizes the equipment is likely to win disproportionate commercial attention.

Authors:

Sirine Om Ezzine, Max Abeillon, Moritz von Stosch, Nicolas Vertommen

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