

Case for a **Global Vehicle Manufacturer**

# An Interactive VR Learning Platform for a Global Vehicle Manufacturer\_

Development of a multi-user VR learning platform for immersive digital training sessions

Industry: Manufacturing

Location: Sweden

Employees: 11,000+



## Client Background

Our client is one of the largest providers of medium and heavy-duty trucks in the world, offering truck production, servicing, financing, rental, and other services to customers in more than 130 countries. Ensuring the utmost quality, safety, and sustainability of transport solutions is the central part of the client's brand identity.

## Business Challenge

The client puts immense efforts and investments into training their technicians across Europe, APAC, and the Americas. The process involves the construction of an automotive training stand and its delivery to different regions along with the dedicated personnel who host on-site training sessions.

Due to the uncertainty and restrictions caused by the pandemic, organizing on-site workshops for onboarding and training 20,000+ technicians became even more complex, costly, and time-consuming. This challenge had to be rapidly addressed, as the client was preparing for the global launch of a brand-new electric truck model, which substantially increased the demand for training service technicians.

Moreover, as the client is committed to driving innovation within the transportation industry, improving occupational safety, and reducing their environmental impact, the company was on the lookout for a solution that would:

- Substitute on-site training workshops and video tutorials with a more engaging and memorable learning experience

- Create a safe learning environment where employees can practice their skills with no real-life health risks
- Significantly decrease the CO2 emissions and help to keep up with the United Nations' sustainability goals.

To resolve the pressing business challenges and achieve the desired business objectives, the client partnered with Infopulse to develop a cutting-edge VR learning platform that enables immersive online training sessions for its technicians.

## Solution

The cooperation of Infopulse and the client started with a series of intensive discussions to gain a solid understanding of the expected project outcomes. As the client already had previous experience with immersive technologies, the client's team included a product owner and a subject-matter expert who had a vision of the VR solution and how training sessions could be integrated into the platform.

Initially, the teams formed three learning scenarios – commissioning, decommissioning, and insulation testing of the truck parts. The client supplied Infopulse with video recordings of the automotive training stand and real-life learning scenarios, which served as the basis for future immersive VR training sessions. After eliciting the key technical and business requirements, assessing the client's IT landscape, and confirming the scope of the work, Infopulse proceeded to develop an MVP of the VR learning platform.

Infopulse applied the Agile development methodology, which became one of the key factors that ensured the

successful implementation of the project. Each week, our experts developed and released a small build of a virtual room that was assessed and modified based on the client's team feedback. Over time, the virtual space was furnished with 3D objects, which gradually grew in volume and complexity, and eventually transformed into a fully-fledged VR learning environment. The iterative development, along with the continuous feedback loop from the client, allowed making rapid adjustments and finding better options to implement the training scenarios in the VR environment.

In four months, Infopulse developed an MVP of the VR platform with three preliminary learning scenarios. To test the capabilities and the global availability of the solution, the client formed a reference group of ten trainers from different countries, who participated in the immersive digital training sessions. After verifying the anytime-anywhere accessibility of the platform, analyzing the feedback of the client's trainers, and discussing new potential capabilities that could be implemented further, Infopulse continued to develop a full-scale solution.

As a result, the client received an interactive, multi-user VR platform that enables collaborative training sessions for service technicians and includes the following features:

- Technicians can interact not only with a training stand but with virtual models of entire vehicles, including the client's new electric truck model, as well as dump trucks, refrigerators, etc.
- Option to showcase hazardous scenarios, such as electric arcs, to help technicians avoid potential injuries
- Ability to outline and highlight specific vehicle components to demonstrate their functionality and interrelation in detail.

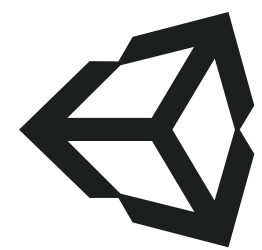
### A Glance into the Immersive VR Training Environment



## Technologies



**Oculus Quest**



**Unity**

## Business Value

Infopulse developed a state-of-the-art VR learning platform, which is a revolutionary solution not only for our client but for the industry in general. Now, the client's technicians can come together in a realistic multi-user VR world and train how to assemble and fix vehicles regardless of their location or time zone.

As a result, the implementation of the VR learning platform has provided the following business benefits to the client:

- Improved engagement and knowledge retention with an immersive training environment, where technicians learn by doing
- Enhanced occupational safety and mitigation of potential injuries, as the VR platform can simulate hazardous situations with no health risks
- Optimized costs for traveling and organizing on-site training sessions for service technicians

- Minimized deterioration risks of expensive truck parts since all repair work training is performed in a virtual space
- Notable reduction of carbon footprint, which is the key objective of the client's sustainability strategy.

Satisfied with the project outcomes, the client plans to extend the use of immersive VR training sessions across their organization. The client has purchased and delivered 300+ Oculus Quest devices to trainers across different countries, who are now mastering the VR platform and preparing to train service technicians in a new digital environment.



## About Infopulse

Infopulse, part of the leading Nordic digital services company Tietoevry, is an international vendor of services in the areas of Software R&D, Application Management, Cloud & IT Operations, and Cybersecurity to SMEs and Fortune 100 companies across the globe. Founded in 1991, the company has a team of over 2,300 professionals and is represented in 7 countries across Europe and the Americas.

Infopulse is trusted by many established brands, such as BICS, Bosch, British American Tobacco, Credit Agricole, Delta Wilmar, ING Bank, Microsoft, Offshore Norge, OLX Group, OTP Bank, SAP, UkrSibbank BNP Paribas Group, Vodafone, Zeppelin Group, and others.

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