



Effective production audit

in the automotive industry
with HoloLens 2

Lear Corporation

The primary goal of using smart glasses was to improve remote support and make communication between the production plants around the world, people working from home, the expert centre and suppliers more efficient.

Year of realization

2022

Industry

Automotive industry

Country

Global solution

Customer's website

[lear.com](https://www.lear.com)

Key benefits

- > Saving travel costs for an expert from abroad
- > Efficient remote collaboration between individual production plants
- > Possibility to communicate with the customer remotely (production audit, technology acceptance)
- > Improving the quality of employee training

Also Lear Corporation, a global supplier for the automotive industry, has decided to start using smart glasses in its plants. With more than 100 years of existence and 257 offices in 40 countries, the prominent OEM supplier for the automotive industry and global leader in the production of luxury and efficient seating is among the main drivers of the industry's technological transformation, setting up the future of mobility. Thanks to AYES, the company has available an up-to-date solution in about 50 of its plants, which puts the communication in the company at a new level, making work more efficient.

Augmented reality with an impact on business

Before Lear started using smart glasses more, they had tested them in 12 plants across Europe for 6 months. What they wanted to do was to test their use under different conditions and by different users. The company collected feedback from all stakeholders



Microsoft HoloLens 2 is the world's leader in the mixed reality technology.



Visualization of 3D models in real environment.

(OHS, IT, etc.) and after assessing it, they started a broader implementation in other plants.

Based on initial consultations with the client, we proposed a combination of Microsoft HoloLens 2 smart glasses and Microsoft Dynamics 365 Remote Assist software as the best solution, with extra services tailored to fit the client's needs, including consultations, expertise, service plans with defined response time and, last but not least, a comprehensive client support.

Tomáš Vravko, sales manager at AYES, explains: "A thorough introductory analysis of the client's needs is the most important thing to be able to choose the best technology for them. Thanks to this, we were able to recommend to Lear smart glasses that can be used primarily for expert support for critical processes in production plants and remote audits as well as for other activities, such as 3D model projections in real environment."

Microsoft HoloLens 2 are currently the most convenient equipment for work with mixed reality in industrial production. Their low weight and a headband with an adjustment wheel make wearing them extremely comfortable. The glasses can be easily lifted up so it's not a problem to repeatedly enter and exit mixed reality. The wide field of view highlights the authenticity of screened material and enables the user to see a great number of 3D objects simultaneously.

Troubleshooting in real time

Lear uses the Microsoft Dynamics 365 Remote Assist software. This is useful not just for remote support and troubleshooting when it allows to make records of material flows and working processes, but it can also be used for communication with important clients and suppliers during consultations. This solution can be used also for audits and for setting up quality processes. "The reason why we went for this solution was the easy control, the quality of the transmitted image and sound and, last but not least, the overall attitude and support provided by AYES. Users were able to work on their own after one or two hours of training and they really enjoyed this attractive technology," says Martin Grejták, Digital Twin Leader JIT & Structures EU at Lear Corporation.

Already during the testing phase, one practical problem related to the production of Lear was solved flexibly. It was necessary to use the glasses with a protective hardhat. Martin Grejták explains: "Wearing a protective hardhat is mandatory in some parts of our production plants, so we were looking for ways to fix the glasses to the hardhat. At the end, AYES developed and manufactured special accessories for us – clips for fixing the helmet and straps that go under the chin and improve the comfort and safety while wearing the glasses. This also reduces the risk of damaging the glasses."



Significant decrease in travel expenses has been achieved thanks to the efficient communication and remote support.

Economies already during the testing phase

The system's demonstrable advantage is the significant decrease in travel expenses thanks to the efficient communication and remote support. "Before the implementation of smart glasses we used physical visits and phone calls. So it was almost impossible to get expert assistance outside standard working hours, in the evening or at night. Moreover, the specialist we needed was far away. The AYES solution brought flexibility and immediate and significant decrease in travel expenses.

It is a highly operative solution that minimizes the risk for us and our clients," Lear's Martin Grejták points out. The company has used the solution on a very generous scale – it is being implemented in 44 production plants and 5 technology centres with more coming in the future.

Vision and plans

Remote communication with expert teams is only just starting. The technology is planned for use in many other fields, such as training sessions for employees, quality control, working with 3D CAD models and more.

"The cooperation with Lear is unique both in its extent and in how diverse the project is. After a half-year pilot operation when various aspects were analyzed, including OHS and IS systems used in the company, we are now looking for ways to expand this cooperation. Our solution also supports digitization, which complies with the requirements of Industry 4.0 and helps reduce the carbon footprint. So it is fully in line with the latest requirements on industrial companies," adds Tomáš Vravko, sales manager at AYES.

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AYES

AYES specialises in the supply of smart glasses and the use of augmented reality in the digitalisation of industrial production. We provide a wide range of hardware and software solutions and we are also a full service partner to our customers in service, consulting and additional services, such as content development for smart glasses or 3D data visualization.

We improve working conditions especially for service and maintenance teams and increase the efficiency, speed and quality of processes resulting in cost savings. Our services are an important cornerstone of the digitalization of any industrial production and contribute to reducing the carbon footprint.

For more information about AYES, please visit [eyes.cz](https://www.eyes.cz).
You can also follow us on [LinkedIn](#).