



## Company profile

### Overview

Unity Studios provides development and consultancy services within interactive 3D, focusing on the technologies of Virtual Reality, Mixed Reality, and Augmented Reality. The company creates tailor-made solutions in order to fulfill specific client requirements.

### Industry focus

Manufacturing, Medico, Retail, Finance, Oil & Gas, Construction, Maritime, etc.

### Services

Strategic & Solution Consulting, Application Development & Implementation

### Solutions

Virtual Training, Real-Time Data Visualization, Remote Assistance, Interactive Visualizations, Configurators, Tools, Sales & Marketing

### Customers

Grundfos, P&G, Volkswagen, Agilent Technologies, AkzoNobel, MLB, Velux, Novo Nordisk, Microsoft, Total, Nilfisk, GSK, Kongskilde, and more

## Unity Studios empowers employees through data-driven Mixed Reality and AI

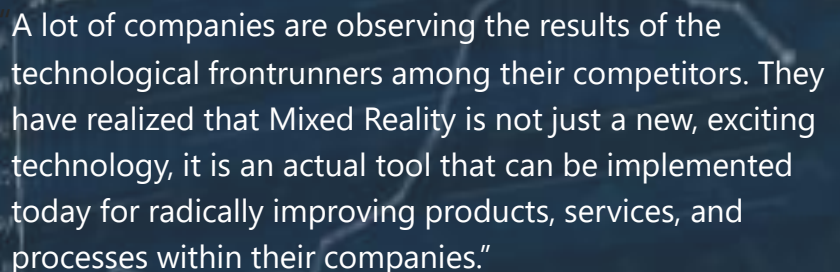
Unity Studios was created by the founders of Unity Technologies in 2008, as a development and consultancy company of interactive 3D applications.

Unity Studios started in the gaming industry by assisting game developers and publishers worldwide to develop emerging games.

Today, Unity Studios is providing expert development and consultancy services for companies worldwide. Their award-winning solutions create value for both individuals and successful businesses by improving decision-making processes, time-to-market solutions, communication, learning, job satisfaction, lowering costs, and improving efficiency.

Unity Studios was proud to be announced as the first Microsoft HoloLens Partners in Scandinavia 2017. Their partnership has led to many exciting HoloLens projects with different companies throughout Northern Europe.

One of these is Grundfos—the world-leading pump manufacturer.



A lot of companies are observing the results of the technological frontrunners among their competitors. They have realized that Mixed Reality is not just a new, exciting technology, it is an actual tool that can be implemented today for radically improving products, services, and processes within their companies."

— Mads Troelsgaard, CEO, Unity Studios

“Grundfos is one of the most innovative companies in their industry, and we are proud to be a part of their digital journey.”

— Sune Wolff, CTO, Unity Studios



## The solution

The Grundfos remote support solution is powered by a combination of Mixed Reality and Artificial Intelligence.

### Hands-free access to real-time data

The Mixed Reality technology is used to present the information at the right time and place to an on-site technician through HoloLens. Real-time data is constantly gathered from the different systems and installations and stored in the Microsoft IoT Hub. Then HoloLens retrieves the data showing it in real time to the user in holographic data dashboards, as well as a time series data of historic data.

In addition, datasheets, service manuals, instructional videos, and animated 3D models can be shown to the on-site technician to assist in routine checks and troubleshooting.

### Artificial Intelligence

AI is used to assist the on-site service technician in troubleshooting. Service technicians can communicate with an AI chatbot and through the LUIS Natural Language Processing. The system will recognize the intent of the question and provide the employee with an answer that matches the question asked.

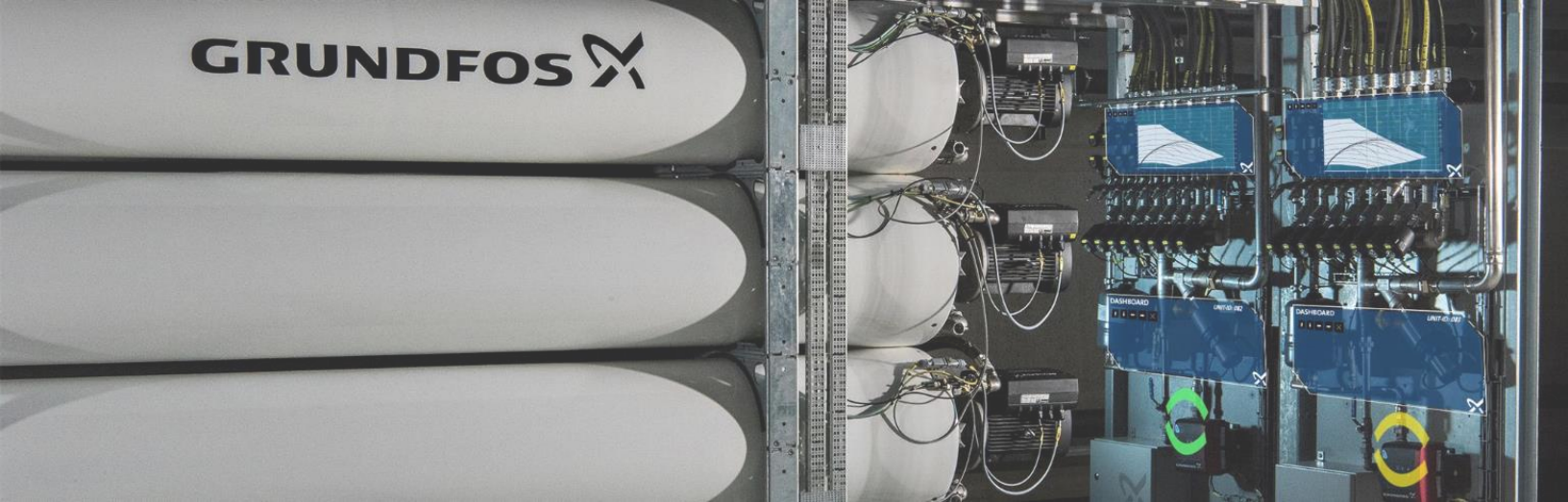
Using an AI solution, the on-site technician can find the correct information without spending valuable time searching for the information manually.

### Customer Profile – Grundfos

The Danish company Grundfos is a global leader in advanced pump solutions. High quality sets them apart from the competition, as they are always sensitive to the individual customer's need and remain innovative in their approach to pump solutions.

Installation service and maintenance has always been expensive and time consuming for Grundfos, because an expert is required to travel to the customer's location to diagnose and maintain the system on-site. Therefore, to maximize customer value and solve these issues, Grundfos initiated a project in cooperation with Unity Studios to develop a solution for remote support by applying AI and Mixed Reality technology.

Grundfos BioBooster delivers solutions for wastewater treatment and water re-use. It will be among the first within Grundfos to offer this solution to their customers. The solution is not limited to BioBooster, as it is a service solution that is ready for a variety of Grundfos customers.



## Remote expert support

Using Microsoft HoloLens, the on-site service technician can receive remote support from an expert located anywhere in the world. The remote expert has an “in-person” view of the on-site technician guiding them to solve the task at hand while communicating using VoIP technology.

The remote expert can also choose to follow the on-site technician in a top-down view as the tech walks around in a 3D scan of the location generated by Microsoft HoloLens. The expert can use directional beacons to guide the on-site technician to the correct installation location.

## An indispensable tool

The solution can be used as an everyday tool for routine checks, as applicable due to its handsfree nature and as it presents an easy overview of installation status. The user receives potential warnings, ensuring actions can be taken in a timely manner.

The remote expert feature ensures that expert help is always available for the on-site technician.

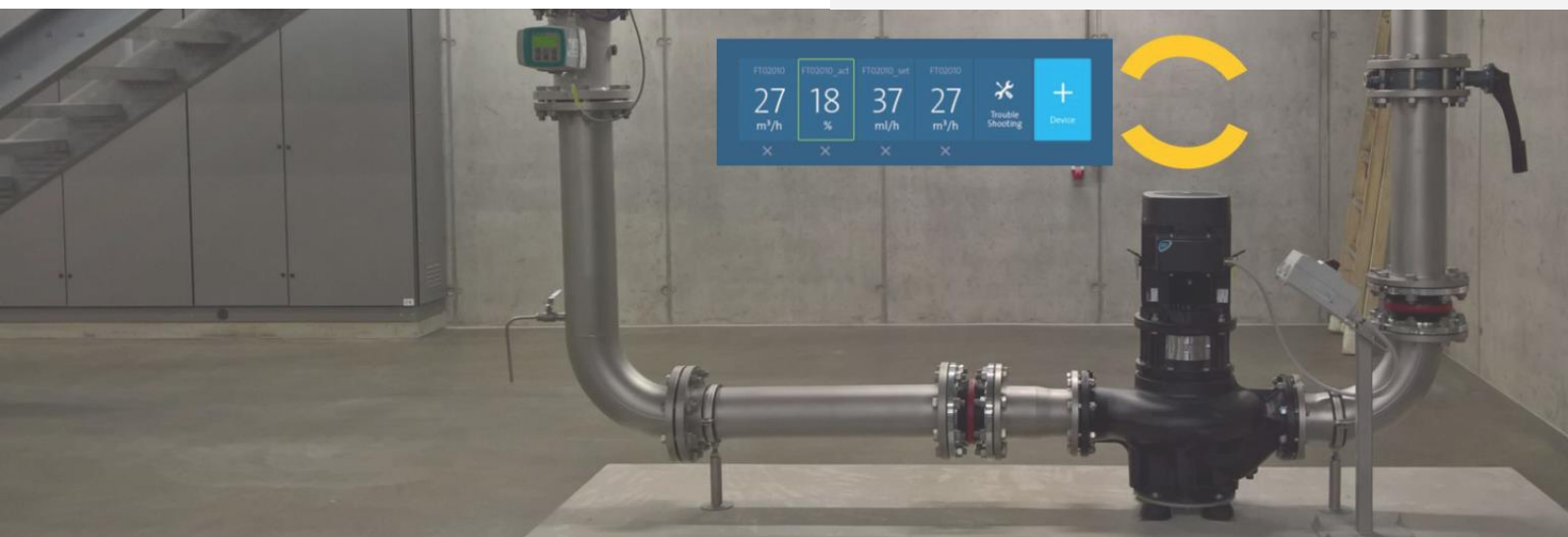
## Customer value

The remote service solution provides several benefits to Grundfos customers, such as:

- Fast access to expert knowledge
- A reliable solution
- Minimal downtime
- Speed to resolution
- Peace of mind

When an expert must travel to be on-site, it can take several days. The remote service application eliminates this travel time, as the knowledge can be accessed right away, reducing downtime significantly for the customer.

Customers are offered a reliable solution that will reduce the time to resolution greatly, which can lead to peace of mind for the stakeholders involved.



## Creating value with Mixed Reality

An overview of four main sources of MR value creation, emphasized by the Grundfos case, are presented below.

### **Knowledge sharing and visualization**

MR provides companies with an easy way of transferring and visualizing knowledge across locations. While performing a task, service technicians can access and visualize the knowledge of experts located anywhere in the world through HoloLens.

### **Reducing costs**

By improving service efficiency, MR implementation can significantly reduce expenses connected to traveling. When installation service can be performed remotely, downtime-related expenses are also reduced, as time to resolution decreases.

### **Reducing distance and time spent**

Distance becomes irrelevant when people can collaborate through Mixed Reality, because it doesn't matter where in the world the installation is located. The customer will have quick service without the need for an on-site expert.

### **A valuable tool for employees**

MR provides employees with an easy, applicable tool that can improve performance for the task at hand. It offers guidance and presents essential information as a digital layer on top of the physical installation.

"The partnership between Unity Studios, Grundfos, and Microsoft has led to the development of a state-of-the-art solution that can train service technicians and offer remote service to customers. By utilizing the benefits of Mixed Reality, cloud, and AI technologies, it is now possible to take the geographical distance out of the equation when servicing customers, making it possible for Grundfos to optimize the support process and time to solution for their customers".

— Nana Bule, COO & CMO, Microsoft Denmark

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