YOUR RELIABLE PARTNER FOR DIGITAL SOLUTIONS

From idea to design, implementation, testing and successful delivery!

13.04.2023 Mikko Luukkonen / Solution Sales

XR Customer stories from Industrial and Medical manufacturers

1. **Customer case: Lumon Oy –** Customized Unity 3D based VR training of new installers of balcony glazing

2. **Customer case: Baker Company –** Customized Unity 3D based Virtual Laboratory experience

3. **Customer case: Sandvik Mining and Rock Technology –** XReach video based Remote Support

4. **Customer case: Finnish International Industrial manufacturer –** Customized Unity 3D based work instructions on HoloLens 2 smart glasses

5. **How to Get Started with XR Technologies?**

Customer story:

Lumon Oy

Customized Unity 3D based VR training of new installers of balcony glazing

Lumon: Meta Quest 2 VR app for Training of New Installers of Balcony Glazing

- Lumon is a Finnish company focused on the sale, manufacture and installation of balcony facade and terrace products.

- The balcony glazing installation work involves multiple phases with lots of task to remember. Mistakes are costly.

- In Lumon's case, new employees had to shadow experienced employees for a long time before they were allowed to install balcony glazing independently.

- To save training resources and improve installation work efficiency and quality, Lumon wanted to try out virtual reality to make the induction of new employees more effective, safe and consistent.

- During 2021 – 2022 Softability developed a VR app for Lumon for training of new installers of balcony glazing.

- *Further development ideas included to use VR to train presales tasks and installation of other Lumon products.*

- The app was developed with Unity 3D platform for Meta Quest 2 headset and hand controllers.

SOFTABILITY

Lumon: Meta Quest 2 VR app for Training of New Installers of Balcony Glazing

- Solution:

  - The new employee goes through each phase of a balcony glazing installation.

  - The scenery and working conditions have been created realistically and mimic a real building's balcony, where tools can even "fall off", if the trainee is careless.

  - In addition to the user seeing the work instructions for each phase, they have to choose the right tools, use them correctly, and confirm each phase as complete.

  - This provides the user with as immersive an experience as possible, and leaves a better memory trace of the work they have practiced.

  - *Further development ideas included multiuser support for trainer and trainee to practice together.*

SOFTABILITY

Lumon: Meta Quest 2 VR app in Training of New Installers of Balcony Glazing

https://youtu.be/bnPH2JK5Ioo

Customer story:

Baker Company

_____

Customized Unity 3D based Virtual Laboratory via web browser and mobile app

Baker Company: Customized Unity 3D based Virtual Laboratory via web browser and mobile app

- Baker Company is an American medical device manufacturer that helps to advance science, discovery, and clinical care by developing innovative solutions that facilitate medical workflow.

- In 2021 Baker wanted a new, future-oriented approach to presenting its products at events using tools based on immersive 3D graphics technology.

- The goal was to:
  - Save in logistics costs of sales & marketing.
  - Become more eco-friendly as a company which leads to sustainability.
  - Create consistency in sales & marketing across the globe.
  - Connect with the next generation of scientists.

- During 2021 – 2022 Softability developed a virtual laboratory for Baker, The Baker Virtual Reality Lab.

- As a result of COVID-19 the experience needed to be easily shared and experienced by customers.

- Thus the app was first developed with Unity 3D platform for computer web browsers (WebGL) and later also for iPad tablet (native app).

Baker Company: Customized Unity 3D based Virtual Laboratory via web browser and mobile app
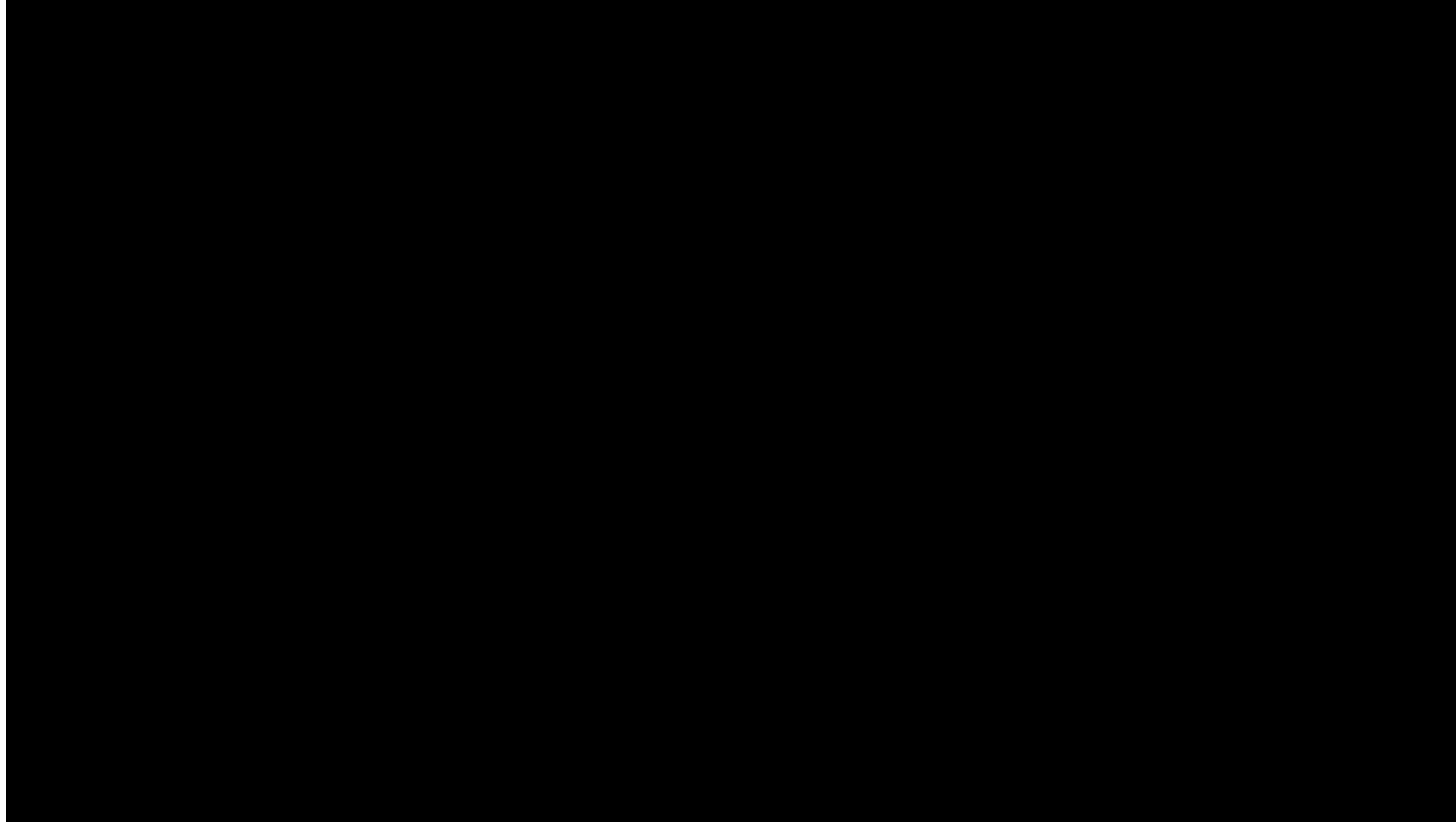
- The solution:

  - A real-time 3D virtual laboratory with Baker's equipment where user is free to move.

  - An avatar, Dr. Kara Held, to guide the user in the virtual lab.

  - Animations to showcase the cutting edge features of Baker's devices.

  - *Further development ideas included virtual meetings in the lab between Baker Sales and customers.*

Baker Company: Customized Unity 3D based Virtual Laboratory via web browser and mobile app

https://experiencebaker.com/vrlabs/

Customer story:

Sandvik Mining
and Rock Technology

**Softability's video based XReach Remote Support
Solution for After-Sales Services**

XREACH REMOTE SUPPORT

XReach provides expert help for troubleshooting in after-sales services

- Support through online video call where the expert can see all what the field technician sees and guide by speech and other tools.

- Sharing of pictures, video, audio and documents between a technician on the field and an expert via a ticketing system.

- Storing interactive data in the cloud for knowledge sharing, reporting and analysis:
  - Expert in a pocket: searchable knowledge base of solutions to known problems.
  - Identifying gaps in competence and focusing training efforts to solve those.
  - Managing and developing the service business based on data from the field.

- XReach is a platform for iOS/Android/smart glasses to offer customized versions for companies with Expert access on web and mobile.

XREACH REMOTE SUPPORT

Smart tools for problem solving

- Making annotations and pointer guidance to the video call.

- Share Expert's computer screen to technician on the field and resolve issues together with the field worker or a larger group via teleconference.

- Supports offline creation of tickets with attachments in challenging environments.

- Support partners and end-customers easily with Ad hoc access to video call without the need to download an app or register a user account.

- Share email link to Ticket in read-only mode with ability to comment and add attachments for Sandvik organisation's internal and external members.

SOFTABILITY

XReach Remote Support Solution with RealWear smart glasses and mobile app

https://youtu.be/ry2lIeEvZSs?list=TLGGHTFEms5-JcYxMzEyMjAyMg
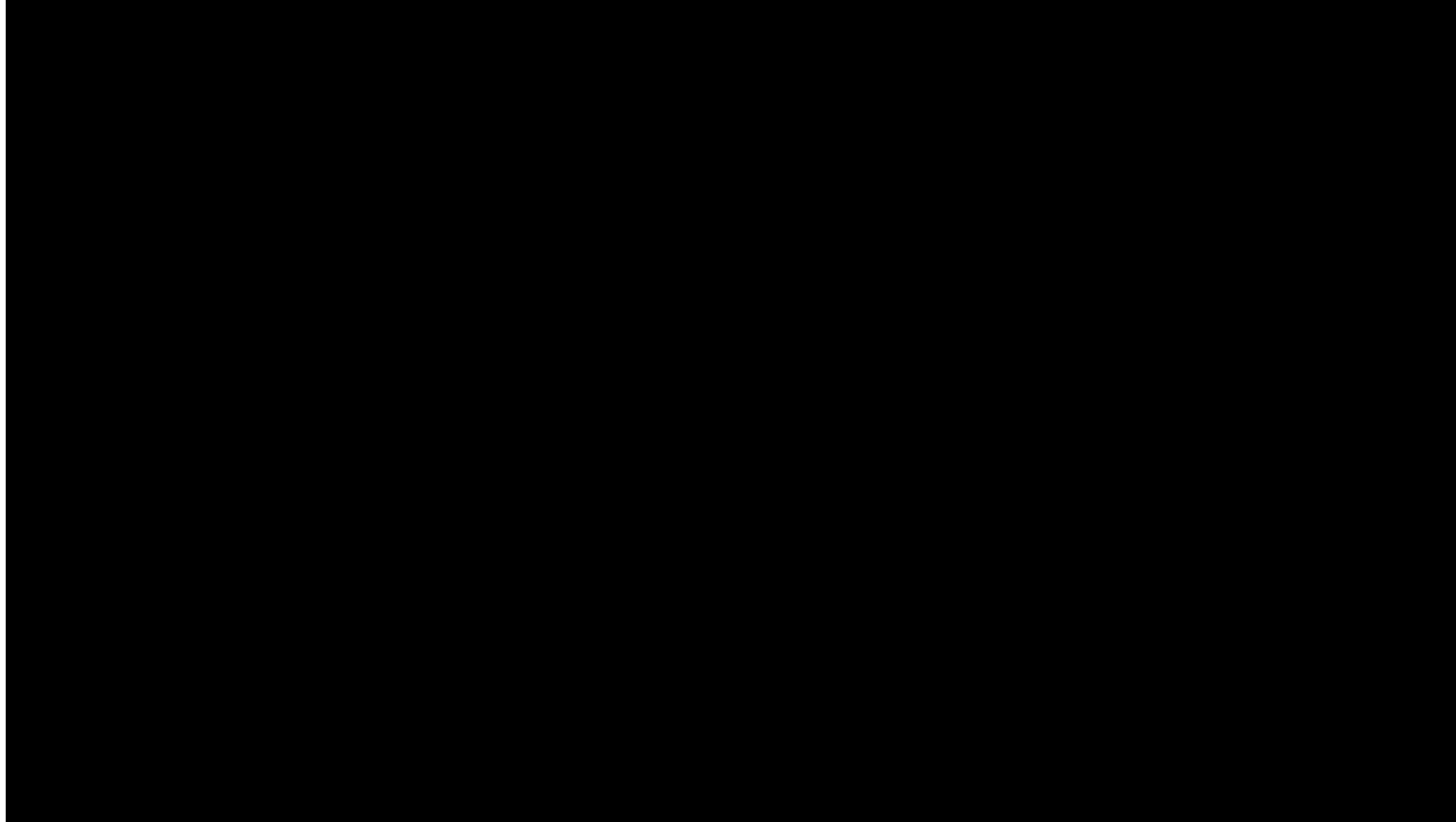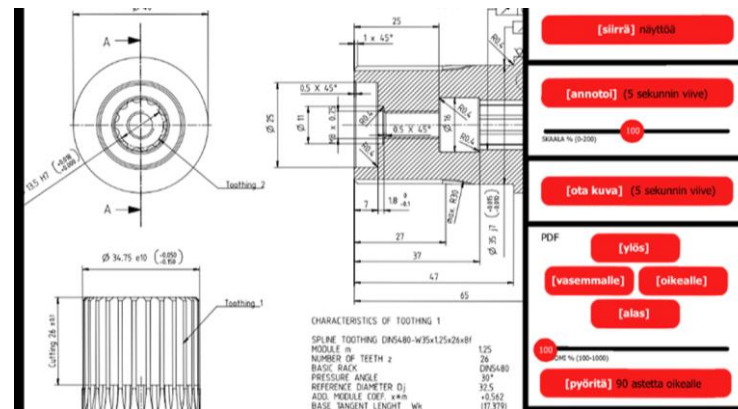
Customer story:

Finnish International Industrial Manufacturer

Customized Mixed Reality Quality Check application with HoloLens 2

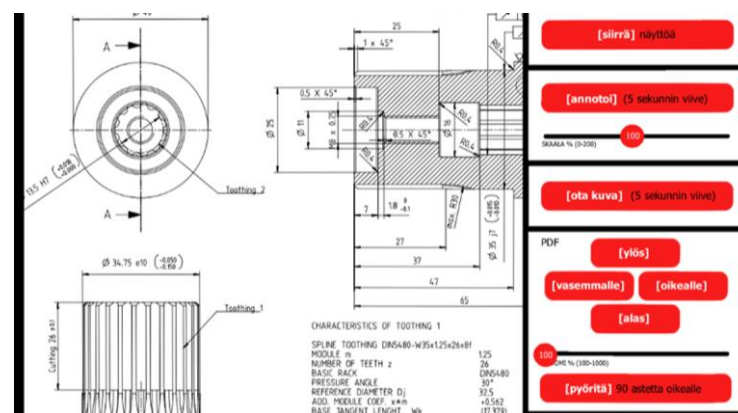# Customer: Customized Mixed Reality Quality Check application with HoloLens 2

- Customer is a listed company that manufactures cranes and offers maintenance services, whose customers include engineering and process industries, shipyards, ports and terminals in various parts of the world. Product development is a very important part of Customer's business, and the company uses technology innovatively to serve its customers continuously better.

- Softability developed a MR app for Customer during 2020 - 2022 supporting the measurement of materials according to inspection instructions at factory's goods receiving with the aim of improving process productivity and quality.

- The app was developed with Unity 3D platform for Microsoft Hololens 2 smart glasses.

16

SOFTABILITY

Customer: Customized Mixed Reality Quality Check application with HoloLens 2

- The solution:

  - Inspection instructions are easily available by reading a QR code on the material receiving work order.

  - Measuring is easier when the employee can work hands-free with the inspection instructions directly projected into the user's field of vision.

  - The app can be controlled by hand gestures, speech and Bluetooth keyboard.

  - The solution supports annotating the inspection instruction and taking a screen shot which is stored on the device for later use.

  - Successful inspections can be reported via ERP on the device web browser.

  - Defects can be reported directly to Purchasing via Outlook email on the device web browser.

Customer: Customized Mixed Reality Quality Check application with HoloLens 2

- Benefits:
    - **Increased productivity**: lead time KPI was below 12 min for data processing, measurement work and result reporting. Results: clearly under 1 minute for data processing, 1 – 3 minutes for measurement work and 1 - 2 minutes for result reporting.

    - **Better quality:** digital inspection instructions are more up-to-date than paper versions.
    - **Faster training** of new employees to inspection work.

    - **Secure solution:** Hololens 2 device is protected by user specific six (6) number pin code and the app supports Single Sign-On (SSO) to customer network.

    - The solution supports Customer's goal of achieving a **paperless factory**.

    - **Development of Customer employer image**: innovative high-tech company that attracts also the new generation of workers to join the company.

→SOFTABILITY

How to Get Started with XR Technologies?

Experience XR at our Showroom in Vantaa!

- **Smart glasses based Work Instructions** with Mixed Reality (MR):
  - Microsoft Hololens 2 smart glasses.

- **Training** with Virtual Reality (VR):
  - Meta Quest 2 headset.

- **Real-time video remote support** with XReach product:
  - Mobile devices, computer web browser and RealWear Navigator 500 smart glasses and thermal camera.

- **Sales and Marketing** with mobile Augmented Reality (AR), MR, VR and WebGL:
  - Mobile devices, Hololens 2, Meta Quest 2 and computer web browsers.

X-REALITY REFERENCES

Smart glasses based work Instructions (e.g. assembly or maintenance)

- Finnish International Industrial manufacturer: Quality Assurance app with SAP ERP integration, HoloLens 2.

- Savonia AMK: Microsoft D365 Guides and Remote Assist app in Teaching and Work, HoloLens 2, HUS Diagnostics lab as a user organization.

Training

- Lumon: VR training for device installation at site, Meta Quest 2.

- Perho Culinary, Tourism and Business College: MR learning environment with Web based Content Management, HoloLens 2.

- MS D365 Guides app in Teaching, HoloLens 2: TAMK University of Applied Sciences, KEUDA & SEDU Groups.

- Gradia Group: Training electricians, Mobile AR.

- Helsinki Education Division: Mozilla Hubs web based training VR, PC and mobile.

Real-time video based Remote support (XReach product)

- Sandvik – Mining and Rock Technology: iOS/Android mobile, RealWear smart glasses and web portal.

- Large Finnish Logistics company, remote maintenance, pilot project.

- Large Finnish Infrastructure company, remote installations, pilot project.

- Multiple pilot projects for remote audit (work safety), installation and training.

Sales and marketing

- Baker Company: Virtual Laboratory via web based real-time 3D and mobile app.

- HeadPower: Mobile AR with dynamic loading of 3D models from Cloud.

- CTN Group: Mobile AR and multi-user VR.

- Mobile AR and VR/MR: Tehomet/Valmont & FCG.

SOFTABILITY

21

SOFTABILITY

OUR CUSTOMERS

SW Development & Testing

XReach & X-Reality

X-Reality for Education

SOFTABILITY IN BRIEF

Innovative, growing and profitable Finnish
software consulting company.

- Established 2002, privately owned, Finnish

- Located at Vantaa

- International customers

- Revenues in 2022 6,7 MEUR (2021 5,7 MEUR)

- 65+ highly skilled experts

- Microsoft Mixed Reality Partner

- Great Place to Work certified 2017-2022

- Customer Satisfaction Rate 2021: 4,1 / 5

SOFTABILITY

CONTACT US

Mikko Luukkonen

Solution Sales

+358 50 554 3652

mikko.luukkonen@softability.fi

Mikael Bowellan

Art Director

mikael.bowellan@softability.fi