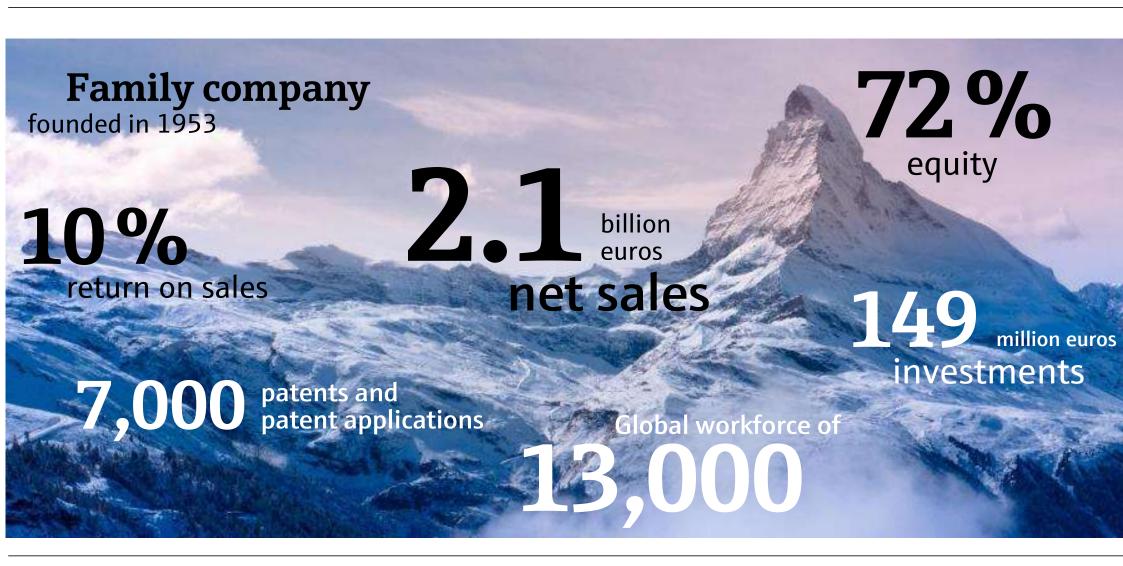
First applications



Facts and figures 2016



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What we stand for



With our products, solutions and services, our customers gain **valuable information** from their processes



Relying on our **industry knowledge**, we collaborate with our customers to find the best solution for every application



As a family company, we act as a **reliable partner** for our customers, employees and shareholders



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Company history milestones

1957

Name changed to Endress+Hauser





1970 Endress+Hauser expands to the United States

and Japan

1976/77

Company adds flow measurement technology, liquid analysis and data acquisition to the portfolio



1989

Asia focus with new sales centers in Hong Kong, Malaysia, Singapore, Thailand, China, Korea and India

2000s

Continuous expansion of manufacturing in the US, China, India and later also in Brazil

2014Matthias Altendorf becomes CEO



1955

First patent submitted for a level Instrument developed in-house

1960

First foreign sales centers in the Netherlands and France



1975

Co-founder Ludwig Hauser passes away; the Endress family becomes sole shareholder

1980s

Growth accelerates through innovations such as the Liquiphant, Coriolis flowmeters, pressure measurement technology and early digital instruments

1995

Klaus Endress assumes Group management



2008

Company founder Georg H Endress passes away at the age of 84

2012/13

SpectraSensors and Kaiser Optical Systems strengthen the analytical business; Analytik Jena opens the door to the lab market

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Applications of Mixed Reality at the moment



http://www.pcgames.de/Pokemon-GO-Spiel-56108/News/Update-0750-mit-sinnvollen-Aenderungen-1238578/



https://www.darfdesign.com/blog/category/aug mented-reality-gaming



https://www.microsoft.com/de-de/store/p/power-media-player-mr/9nw2qvwkjz8z?cid=msft web cha



http://www.breedcommunications.com/2014/07/ret ail-ity-bites-how-augmented-reality-is-changing-the-customer-journey/



https://digiday.com/marketing/ikea-usingaugmented-reality/



https://www.youtube.com/watch?v=5CRlJaA9X00

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The value for Process Automation in the project phase

Greenfield

Transform 3D data into Mixed Reality and walk the plant before it even exists physically

Brownfield

Put the device virtually into the existing plant to ensure...

- all needed accessories are available and at the right place
- device dimensions fit
- spaces for installations are okay



Planning for greenfield and brownfield becomes reliable and difficulties can be realized in advance.

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Benefits in the start-up phase

Installation and Commissioning

- Step by step guides for installation and commissioning to ensure that all is done
- Additional training possibilities with each step to increase knowledge of the workforce while doing their job
- While installing the device the position data is stored for later navigation





Increase the quality and reduce time for installation and commissioning while training the workforce without sending them off-site.

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The value for Process Automation during operation

Overview

- Get an overview of the plant by simply looking at it
- Additional information like status can be shown



- Include Safety Zones into the 3D data.
- Ensure the safety of your staff and let them find the quickest way to their destination.





Quick and safe navigation through your plant and always knowing the status of the plant.

58873

Status

PV 1.25 m

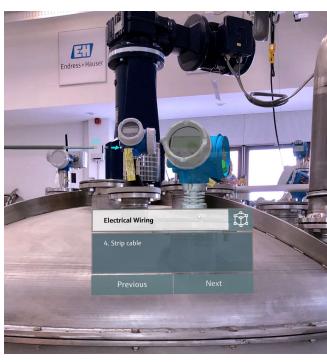
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Benefits for maintenance

- Navigate safely to the device, which needs maintenance
- Once at the device get a step by step guidance to fulfill the task
- Get additional information to ensure a fast device repair
- If needed connect to a specialist for help







Increase your plant availability with the help of step by step guides and remote maintenance.

Benefits in regards of spare parts and replacements

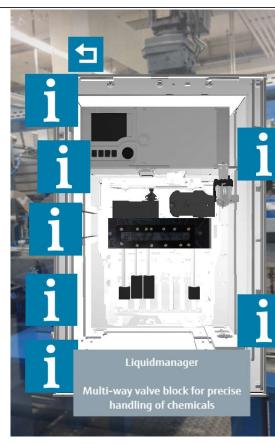
Spare part selection

Find the required spare part in case of a failure

Replacement selection

Easy guide to the right replacement device

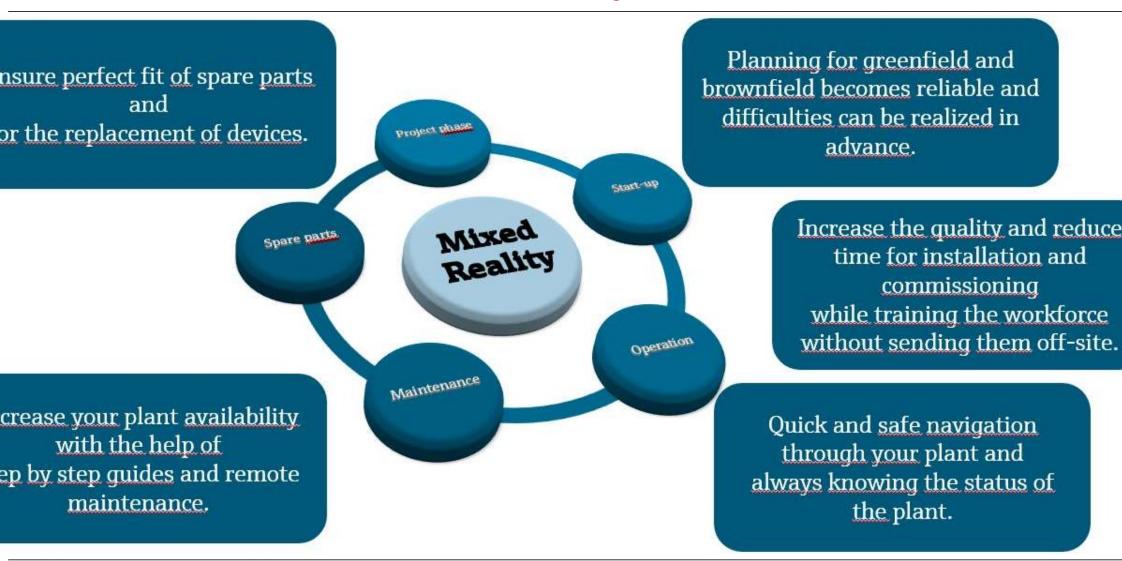




Ensure perfect fit of spare parts and for the replacement of devices.

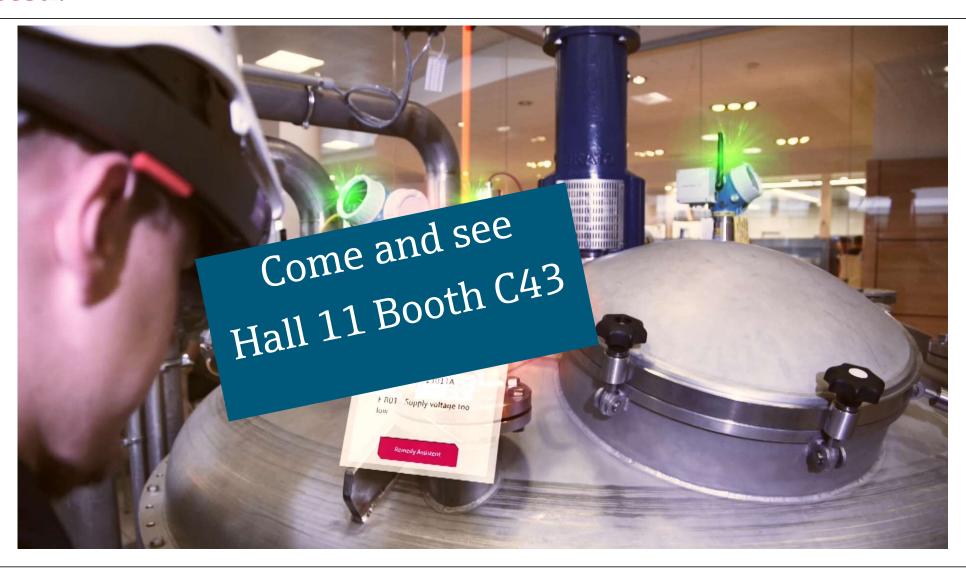
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Value for Process Automation – What do you think?



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Interested?



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Questions?



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Thank you very much for your attention



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