

Press release

Pullach, April 2017

Interview with Philipp Karmires, Head of Digitalisation at The Linde Group

“We have to use our data creatively”

At Gastech 2017 in Tokyo, Linde is unveiling a virtual reality application that allows users to explore the finer details of industrial-scale plants first hand. This technology can be used to train future operators while the facility is still being built. The application was developed at Linde’s Digital Base Camp in Pullach, Germany under the management of Philipp Karmires, Head of Digitalisation at The Linde Group. In this interview, the former Google manager explains how Linde is driving digitalisation across the company.

What role does virtual reality (VR) play in The Linde Group’s digital strategy?

Virtual reality is one of many applications that can be rapidly developed and delivered when we implement our strategy systematically. It took us just three months to create the solution we are showcasing now at Gastech. It’s important for us to show that virtual reality isn’t just a video game for engineers but that it can add real value to our customers.

What benefits does VR bring to your customers?

It enables them to train their future operators before a plant has even been finished. The Amur gas processing plant featured in our VR application at Gastech is still under construction. But we can already take a detailed look at every valve, every compressor and every pipe – from any angle. Users can squeeze themselves into narrow spaces to find out where they will have to duck in future so they won’t hit their heads. Taking a virtual trip through the plant feels so real that employees will be able to intuitively navigate their way around the real facility later. Some VR testers even felt a bit dizzy looking down from the top of the coldbox.

Do you also want to use virtual reality to support sales?

It certainly is a possibility. We’ve made the VR application so mobile that it now fits into a case our

Press release

employees can take on the road. We call it our “plant in a box”. They could then use this technology when visiting customers to assemble standard plants in the virtual world using premanufactured modules.

What is at the heart of your digitalisation strategy?

Everything we do or consider here is centred on one question: How can we use the data that Linde already has to help our customers and create new business opportunities? We are lucky at Linde because we have a vast treasure of digital assets. For example, we have detailed CAD files for every project, and we were able to use these to develop the virtual reality application. In addition to this, many thousands of sensors in our plants across the globe have been gathering extremely detailed data on the status of components for many years now. In future, we want to harness this information to develop predictive maintenance capabilities. In other words, we want to make forecasts that accurately predict when a component is likely to fail. We have the data and we can access the computing power – we just have to use this data creatively.

About The Linde Group

In the 2016 financial year, The Linde Group generated revenue of EUR 16.948 bn, making it one of the leading gases and engineering companies in the world, with approximately 60,000 employees working in more than 100 countries worldwide. The strategy of The Linde Group is geared towards long-term profitable growth and focuses on the expansion of its international business, with forward-looking products and services. Linde acts responsibly towards its shareholders, business partners, employees, society and the environment in every one of its business areas, regions and locations across the globe. The company is committed to technologies and products that unite the goals of customer value and sustainable development.

For more information, see The Linde Group online at www.linde.com

Further information:

Dr Thomas Hagn
Technical Communications
Phone: +49-89-35757-1323
E-mail: thomas.hagn@linde.com