

# Rittal and Eplan:

Your strong partners for  
sustainable panel building and  
switchgear manufacturing



# Digitalisation Is a must

# 83 %

of companies envisage having value chains with an **advanced level of digitalisation** in 2020\*

Failing to digitalise now leaves others to benefit from the added value.

The digital revolution has really taken off. It has changed not only the way we obtain information and communicate, but also our consumption habits and production methods. Panel building and switchgear manufacturing companies are driving the digital transformation in a number of areas. Some production and organisational processes have already been digitised, but the complexity of many production systems is preventing a rapid transition in some cases. Individual items of machinery and equipment have different life cycles, which means certain processes are already automated, while others are still completed manually. In addition to this, many process steps use data from different sources. Despite these challenges, digitalisation also offers a whole host of opportunities, with Industry 4.0 paving the way for smart factories and predictive maintenance. Sensors in machines and their components process data in real time and communicate with one another, which supports the ongoing optimisation of production processes. Ignoring the digital revolution has now become impossible.

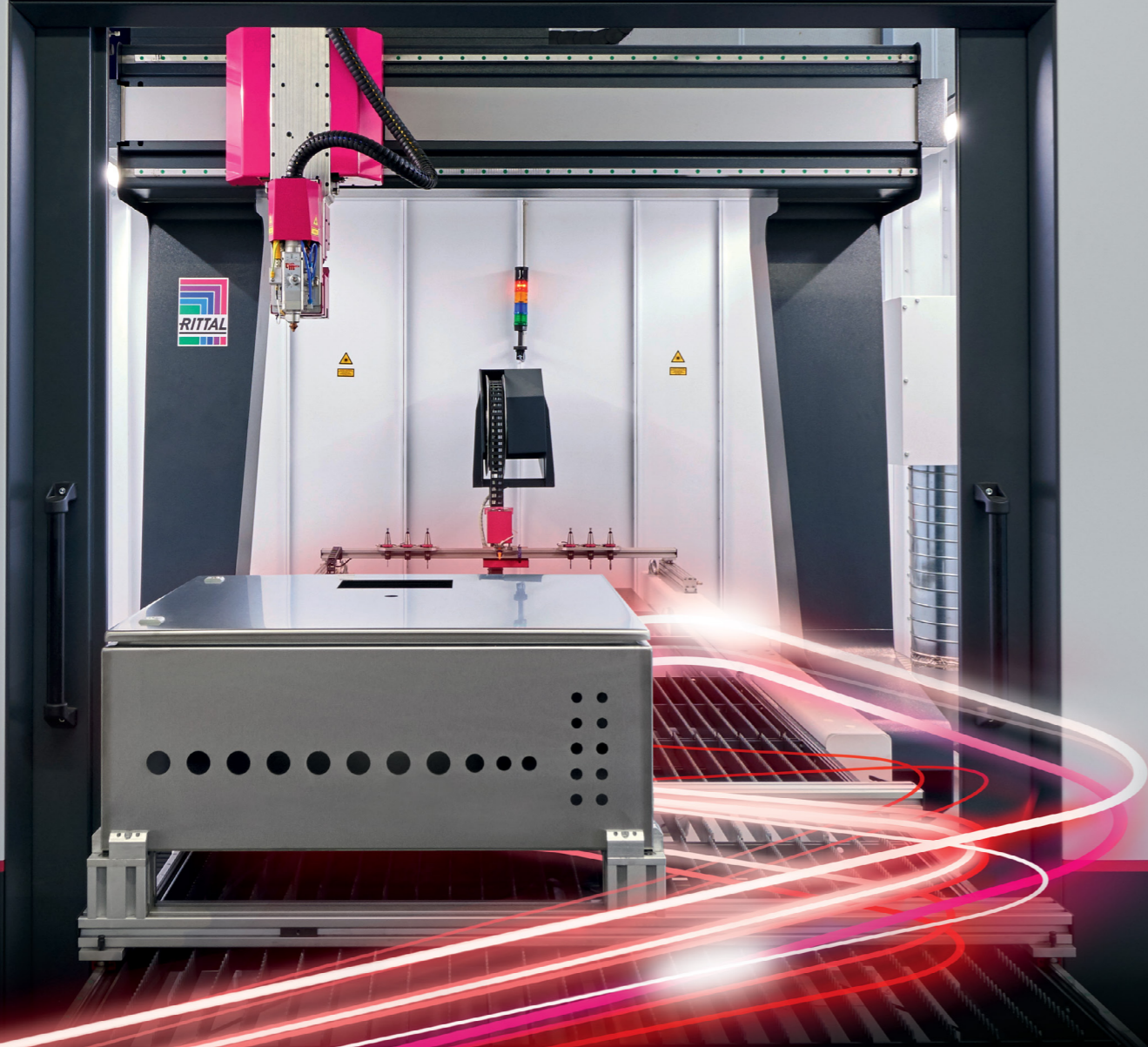
\*According to the German Federal Ministry for Economic Affairs and Energy (BMWi) in an article about industry's digital transformation.



# Perforex >>

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## Digitalisation and integration Sustainable efficiency



Panel building and switchgear manufacturing cycles are now incredibly tight. Huge time and cost pressure is the norm, with increasingly complex systems having to be produced in ever shorter timeframes and at lower costs.

The quality of products and services used to be the key success factor, but having the most efficient process is now just as important as a high-quality product in gaining a vital edge over the competition. Switchgear manufacturers that focus on the entire value chain – from planning and designing a product through to the placing of orders, production, delivery and service operations – will increase their throughput, boost their efficiency and achieve crucial competitive advantages.

Combining engineering solutions from Eplan with system and automation expertise from Rittal optimises and industrialises your panel building and switchgear manufacturing processes. Harness the potential that comes with consistently digitalising and networking configurators, engineering platforms, production plants and digital assistance/test systems.

We offer tailored, integrated solutions for companies of all sizes.

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In the future, business success will only be sustainable if it goes hand in hand with the complete digital integration of products, processes and the data they generate.

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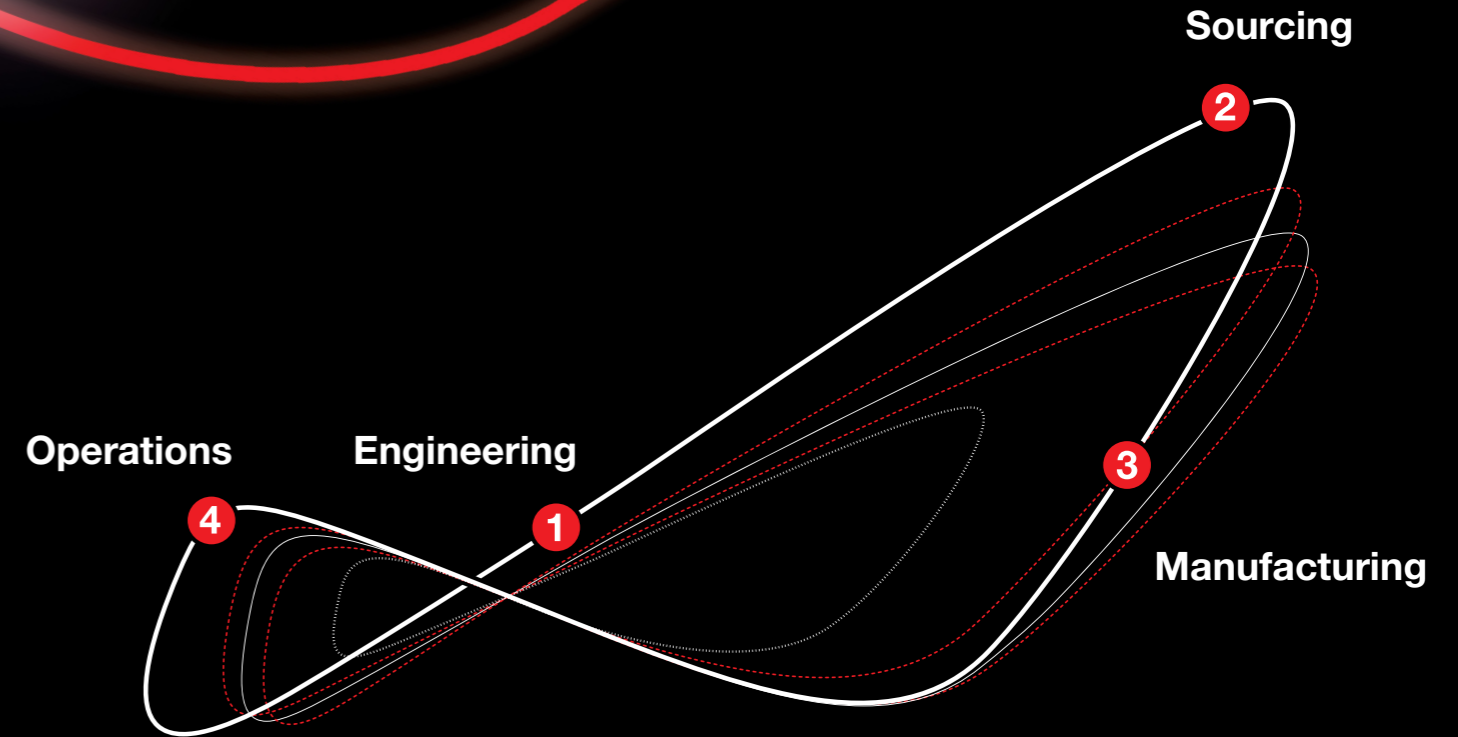
Dr. Karl-Ulrich Köhler,  
CEO of Rittal



# The digital twin

## The basis for enhanced efficiency

Digitalisation, standardisation and automation are key success factors. They also help prevent errors, boost productivity and save both time and money. The digital twin is at the heart of this workflow and is created during the engineering process to link all downstream process steps – from sourcing and manufacturing through to operations. It is an important basis for production and also for the subsequent maintenance and repair of finished products, ensuring consistent data retention throughout the entire life cycle of an enclosure.



### Engineering 1

During the engineering process, Eplan software is used to plan and design the enclosure, creating the digital twin of the real-life product in the form of a consistent data model. Planning is based on high-quality 3D data that maps the enclosure and its accessories and is complemented by project-specific component and wiring information.

### Sourcing 2

Data from the digital twin is also accessed during commercial processes and can be connected to the ERP system. Generated at a single central point, it is then used on a decentralised basis, and can also be added to and edited. This makes media discontinuity a thing of the past. If data needs to be modified, this is done just once for the whole system and the entire process adapts accordingly.

### Manufacturing 3

A comprehensive portfolio of solutions from Rittal supports all steps in the manufacturing process. The data from the digital twin enables a great many processes to be automated during this phase, too, including panel machining, cable fabrication and the cutting of cable ducts or support rails. This is made possible by using manufacturer-neutral standards for data and data communication, which improves interoperability between the various systems.

### Operations 4

Many data enclosures and components such as climate control units are now equipped with sensors that generate a continuous flow of data. This data is used to offer service and energy management activities as required during ongoing operation, which improves the availability and efficiency of machinery and equipment.

# Engineering solutions from Eplan Automation expertise from Rittal

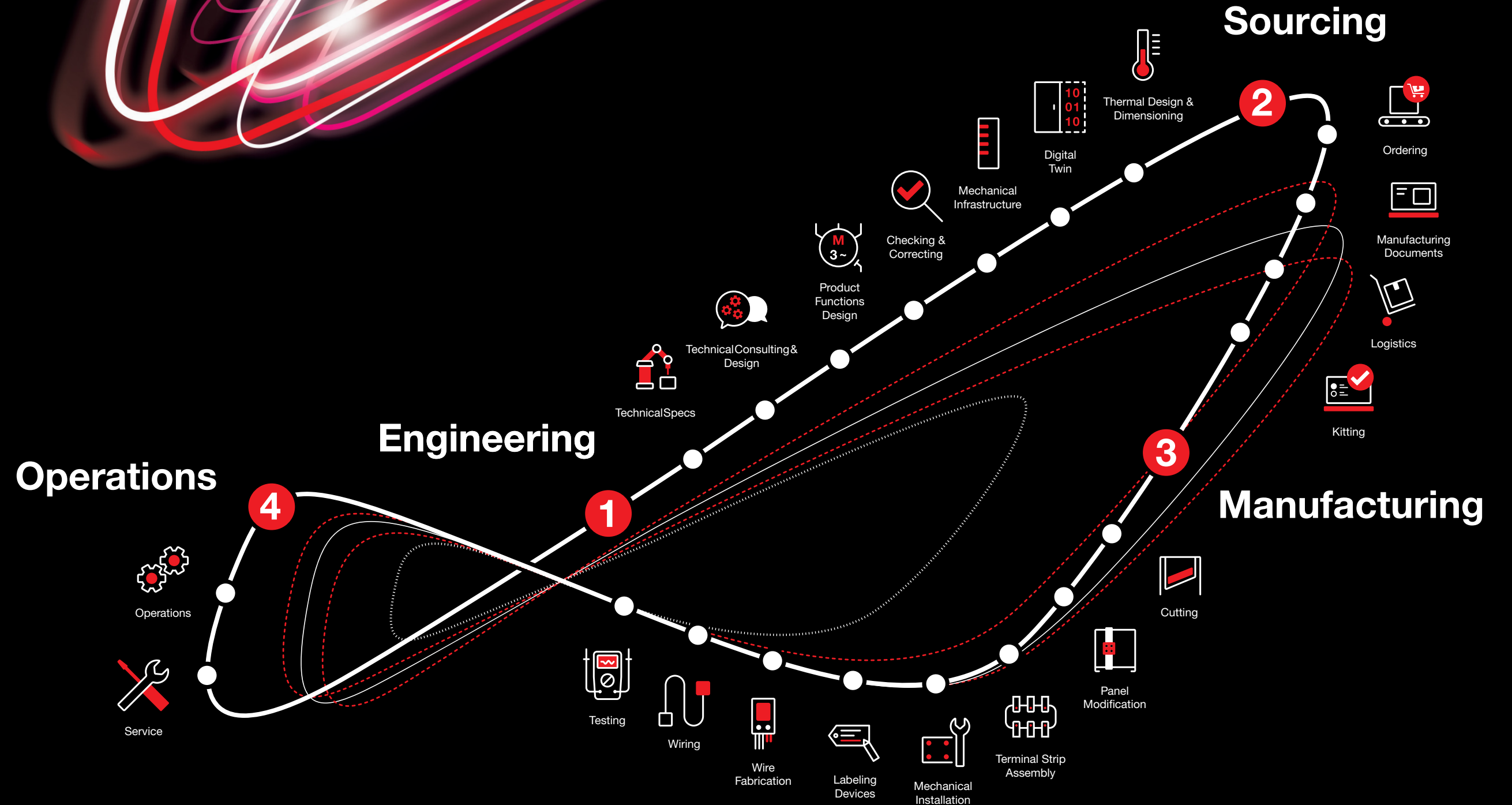
The Eplan platform links the company's high-performance solutions. All applications access the same functions and basic data, which significantly improves the quality of projects. Eliminating the need for manual data comparisons also makes processes faster, placing the focus back on essential engineering tasks.

Rittal supplies all the automation support required to make enclosure assembly quicker, easier, more accurate and more reproducible. When combined with Eplan solutions, this makes it possible to link all enclosure assembly steps to create a highly efficient and digitally seamless automated process. Rittal and Eplan can supply all the necessary software tools, machinery and equipment.



Perfectly coordinated software solutions, system technology, machinery and services deliver unique competitive advantages in panel building and switchgear manufacturing.

Sebastian Seitz,  
President of Eplan and Cideon





Digitalisation has helped

95 %

of companies **boost productivity**,  
while also **improving their  
products and services\***

\*According to the Digital Value 2018 survey of 200 decision-makers from a variety of sectors in Germany, Austria and Switzerland.

## Discover what's possible



Engineering solutions from Eplan are perfectly complemented by system and automation expertise from Rittal. This high-performance, customisable package solution supports the sustainable optimisation and industrialisation of panel building and switchgear manufacturing.

### Shorter throughput times

Manual work is still often the norm in panel building and switchgear manufacturing workshops. In addition to cable fabrication and wiring, enclosure machining in particular is also a very labour-intensive operation. Semi-automated and fully automatic equipment from Rittal completes these steps far faster, especially when controlled using data from Eplan engineering tools.

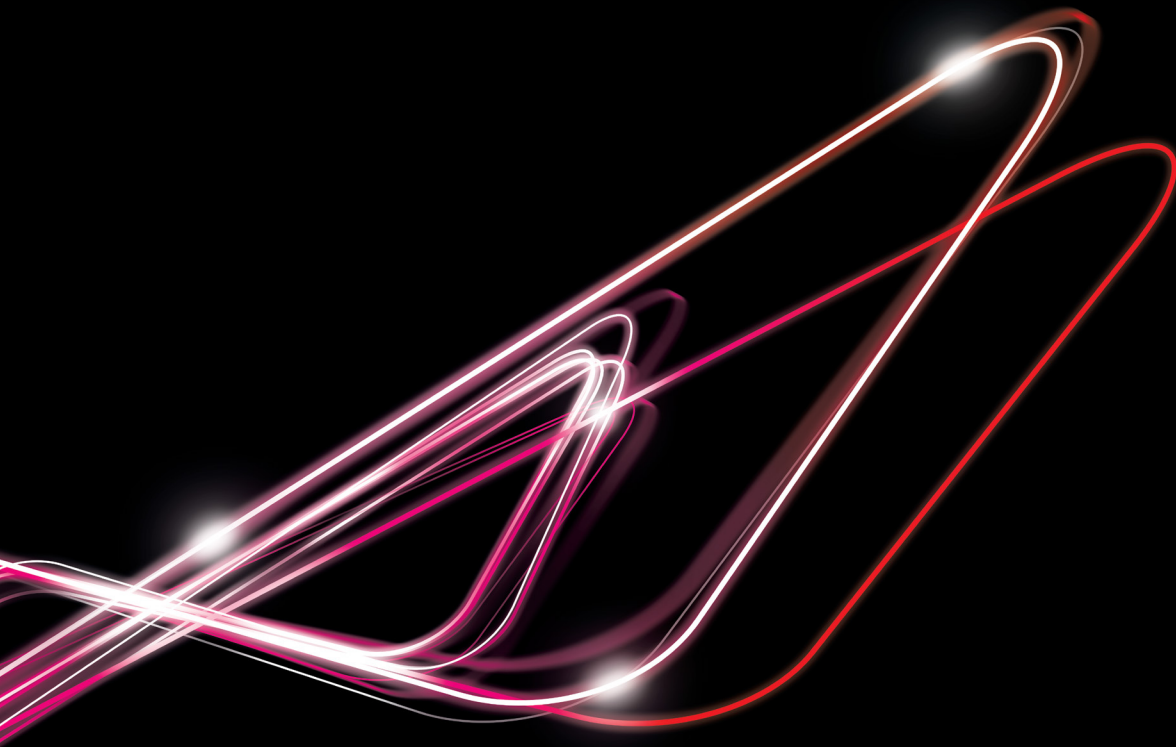
### Lower costs

The digital twin's end-to-end database helps save you time and money. All data is supplied in one central location and can then be used on a decentralised basis in the various process steps. This makes time-consuming media discontinuity a thing of the past.

### Enhanced productivity

You can carry on adding data to an enclosure's digital twin during operations and use it to expand your portfolio, offering completely new services such as smart or predictive maintenance.

Rely on **Eplan and Rittal** – your strong partners for sustainable panel building and switchgear manufacturing.



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for sustainable panel building and switchgear  
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plan-software.com/valuechain">www.plan-software.com/valuechain

