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# Industrie 4.0 and the new transparency in power supply

Energy and data successfully put on track

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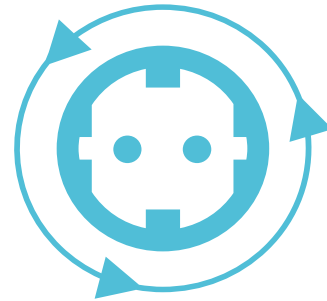
# Today's main challenges of the energy system



## Economic efficiency

“Over the past century, affordable energy has been a significant component of global economic growth and development.”

World Economic Forum



## Reliable power supply

“Inefficient, antiquated energy supply stifles productivity.”

United Nations Foundation,  
“Achieving Universal Energy Access”



## Climate protection

“Europe will cut its greenhouse gas emissions by 40% by 2030 and will produce 27% of its energy from renewable sources.”

The Guardian

# Key drivers of change – The journey to a new, better energy economy

## Key drivers of change

## Central areas of action



# Be energy-intelligent!



## Economic intelligence

- Optimize energy costs
  - Optimize energy mix
  - Reduce energy consumption
  - Increase energy efficiency
- Reduce grid fees
- Create additional revenue



## Supply intelligence

- Improve reliability and availability of power supply
- Ensure power quality
- Implement resilience
- Safeguard your processes
- Become future-proof and scalable

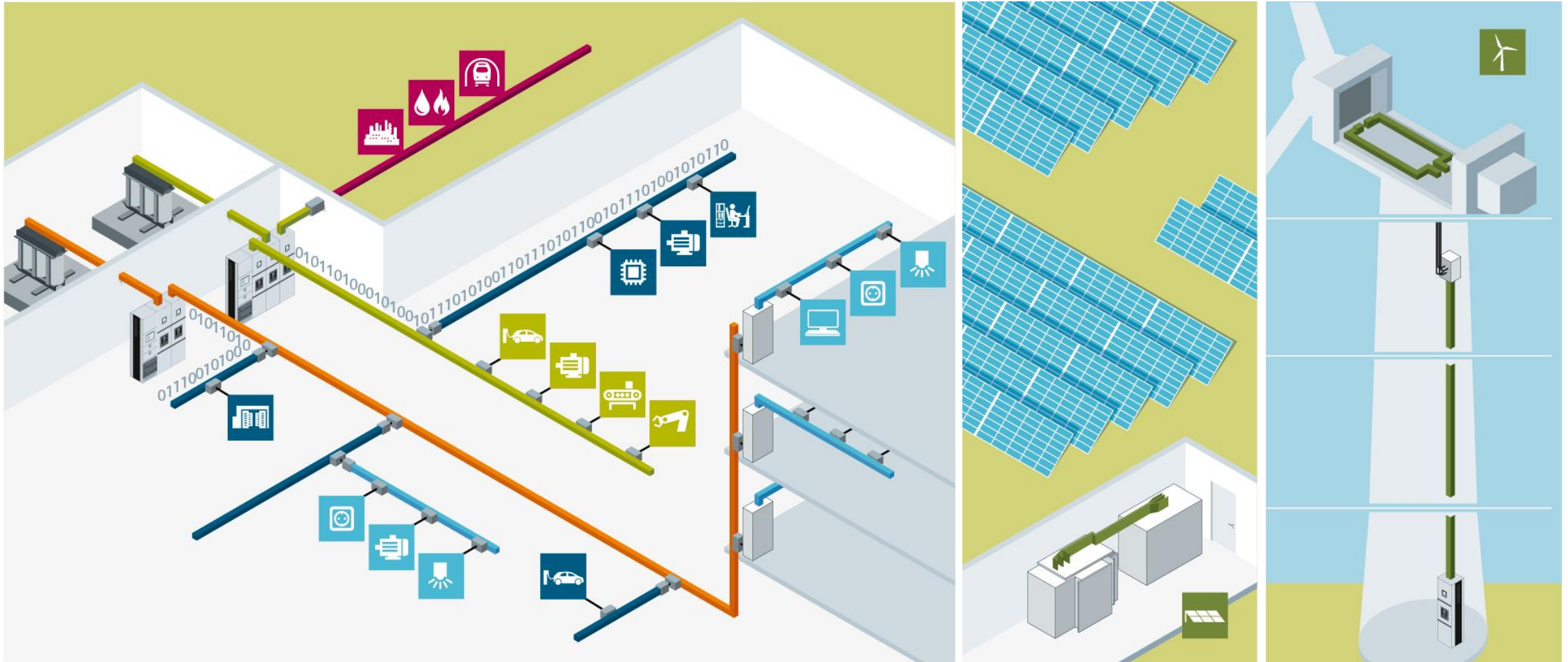


## Sustainability intelligence

- Reduce emissions
- Use green sources
- Save energy
- Save resources
- Improve image and increase brand value

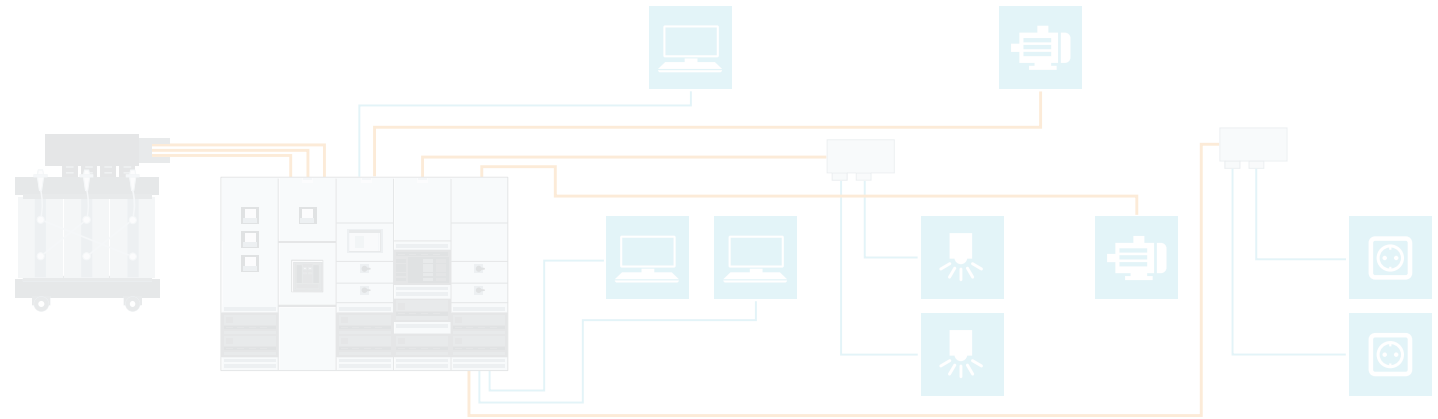
# Interaction for flexible application SIVACON 8PS busbar trunking systems

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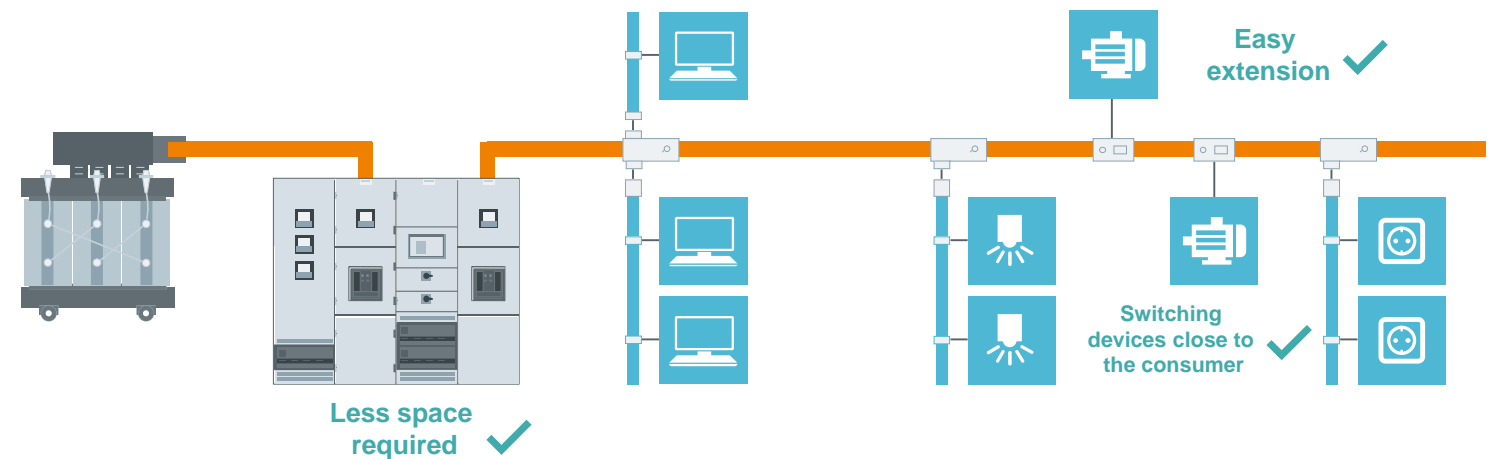


# SIVACON 8PS busbar trunking systems – The clear alternative to cables

Centralized power distribution  
with **classical cables**



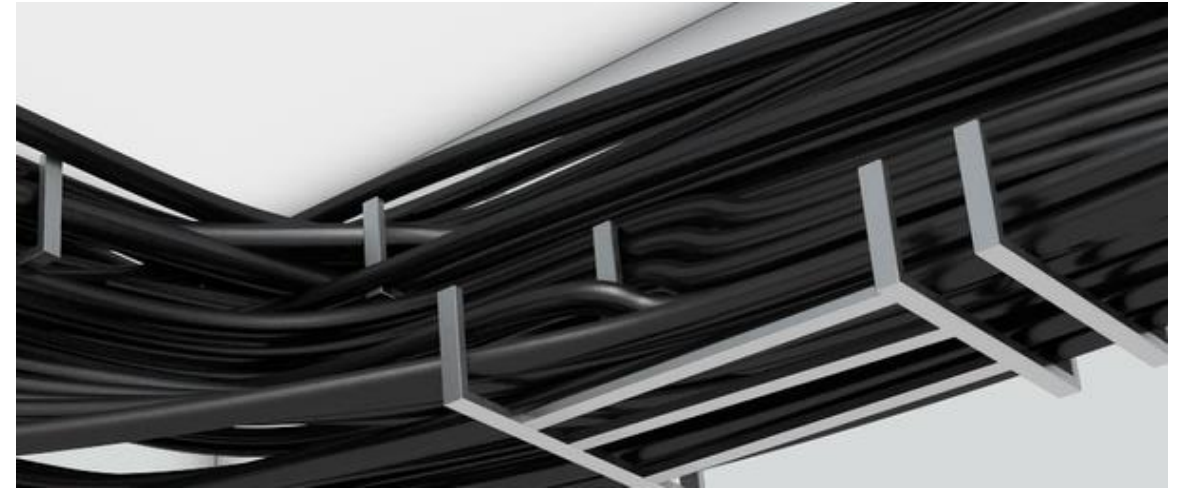
Decentralized power distribution  
with **innovative busbars**



# SIVACON 8PS busbar trunking systems – The space-saving alternative to cables

## Low space requirements

- Compact design, with contours matching the building structure
- Optimum utilization of corners due to design
- The higher the currents to transport, the greater the benefit



# SIVACON 8PS busbar trunking systems – The flexible alternative to cables

## High level of flexibility if the use changes

- Fast and flexible implementation or extension with tap-off units on an energized run<sup>1</sup>
- Re-use of already mounted runs possible at another location if the use changes, or in case of relocation
- No shutdowns and very short retrofitting times



<sup>1</sup> In accordance with DIN EN 50110-1 (VDE 0105-1); please always observe national regulations/standards



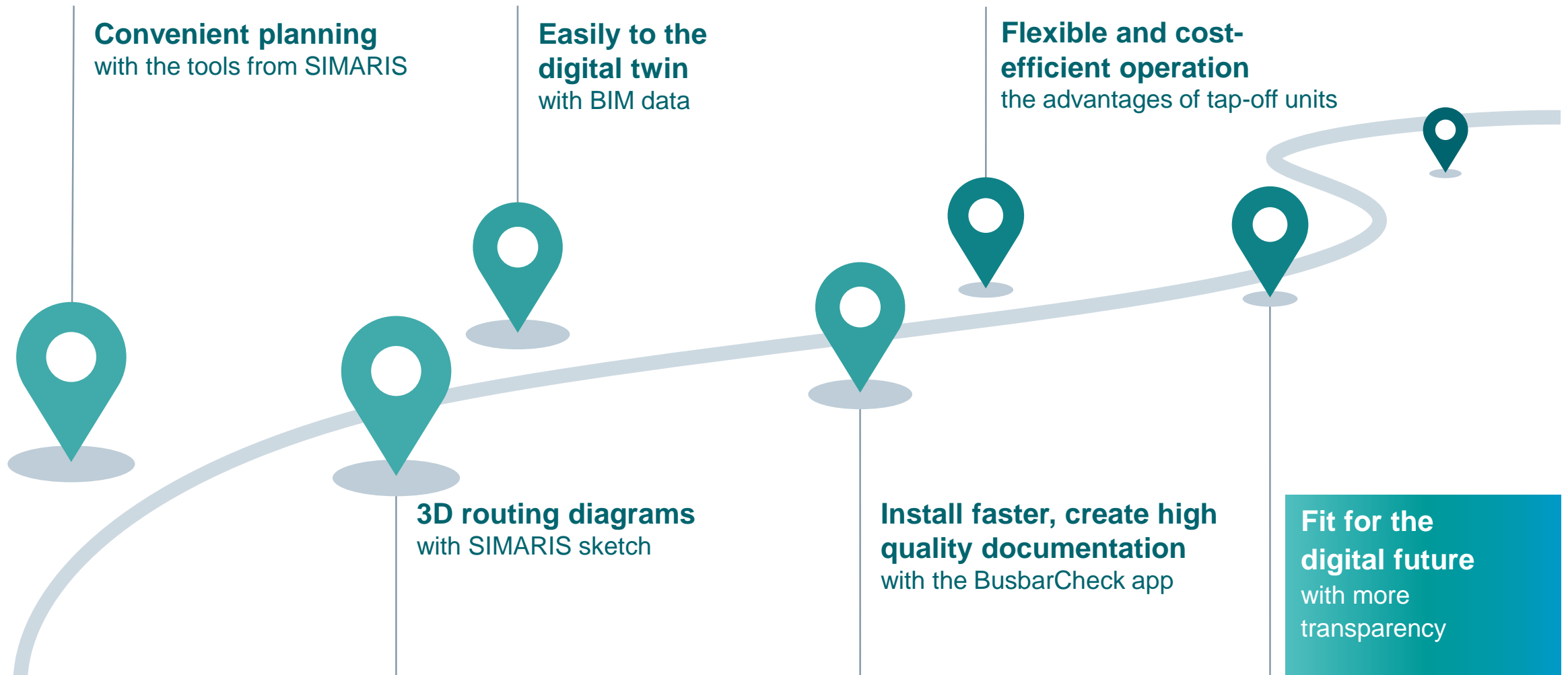
In the **digital age**, SIVACON 8PS busbar trunking systems can transport more than just energy safely and reliably to consumers.

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They also make a contribution to **digitalization.**

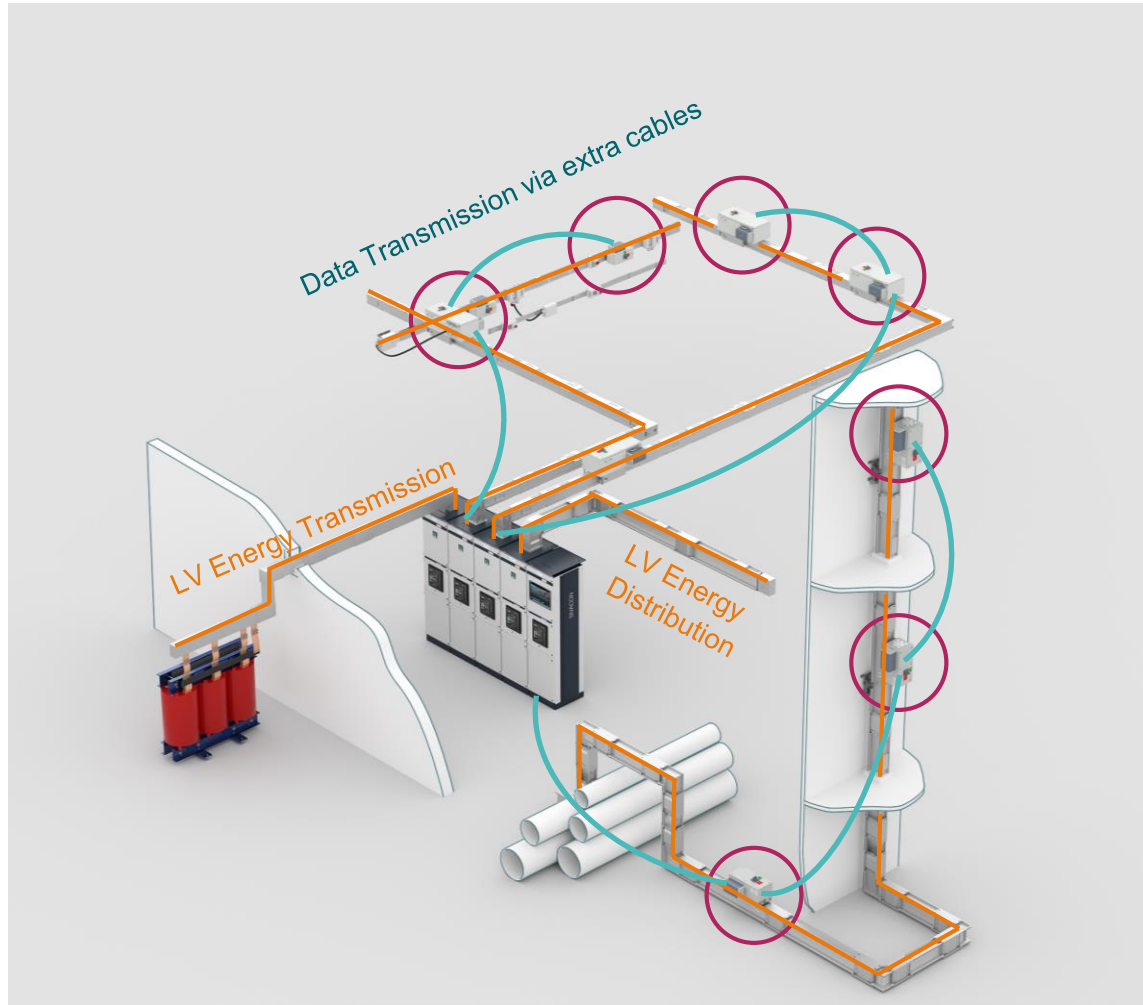


# Sustainable system advantages for your success with the SIVACON 8PS busbar trunking systems



# Simple and reliable transmission of energy with the SIVACON 8PS busbar trunking systems

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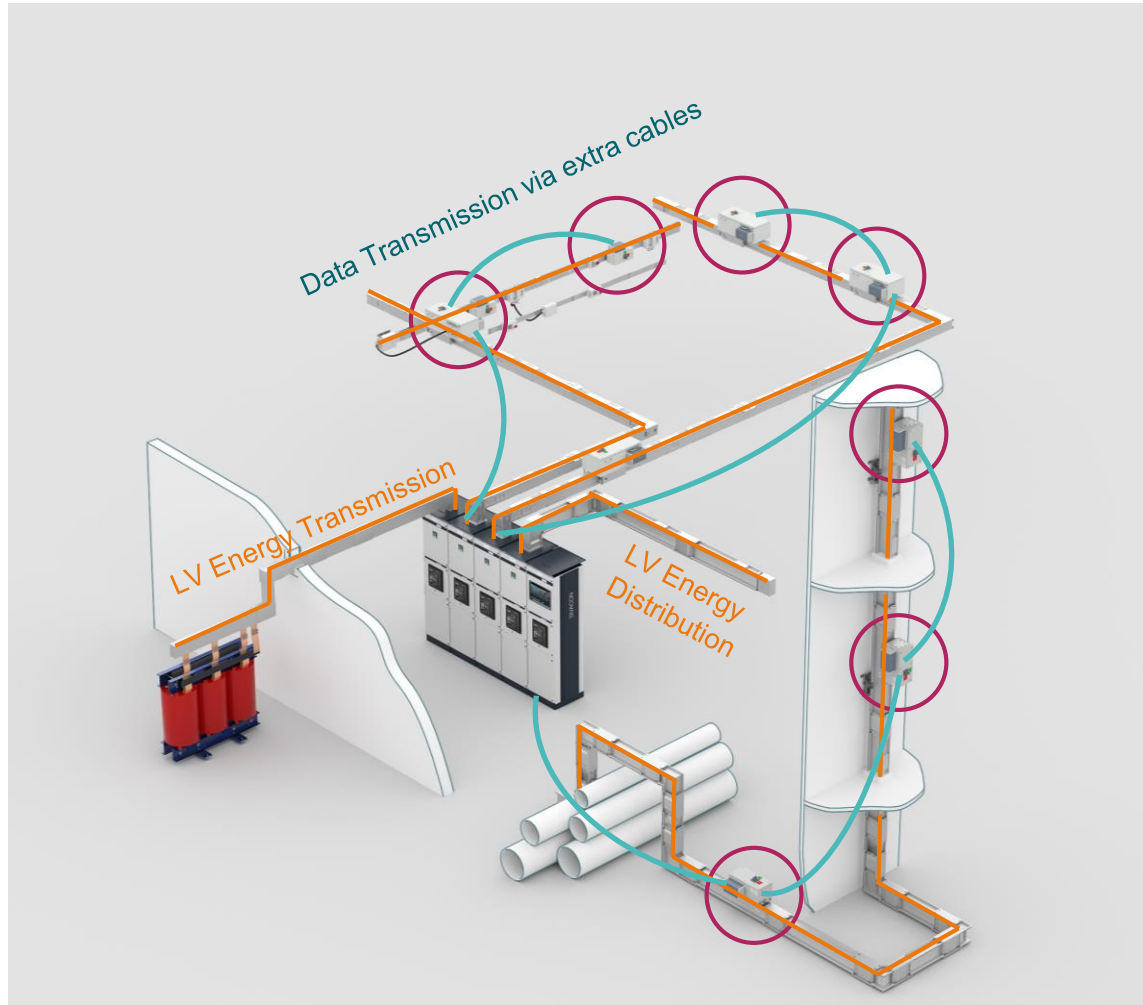


High installation effort and costs

Low flexibility in case of layout changes

# Simple and reliable transmission of energy with the SIVACON 8PS busbar trunking systems

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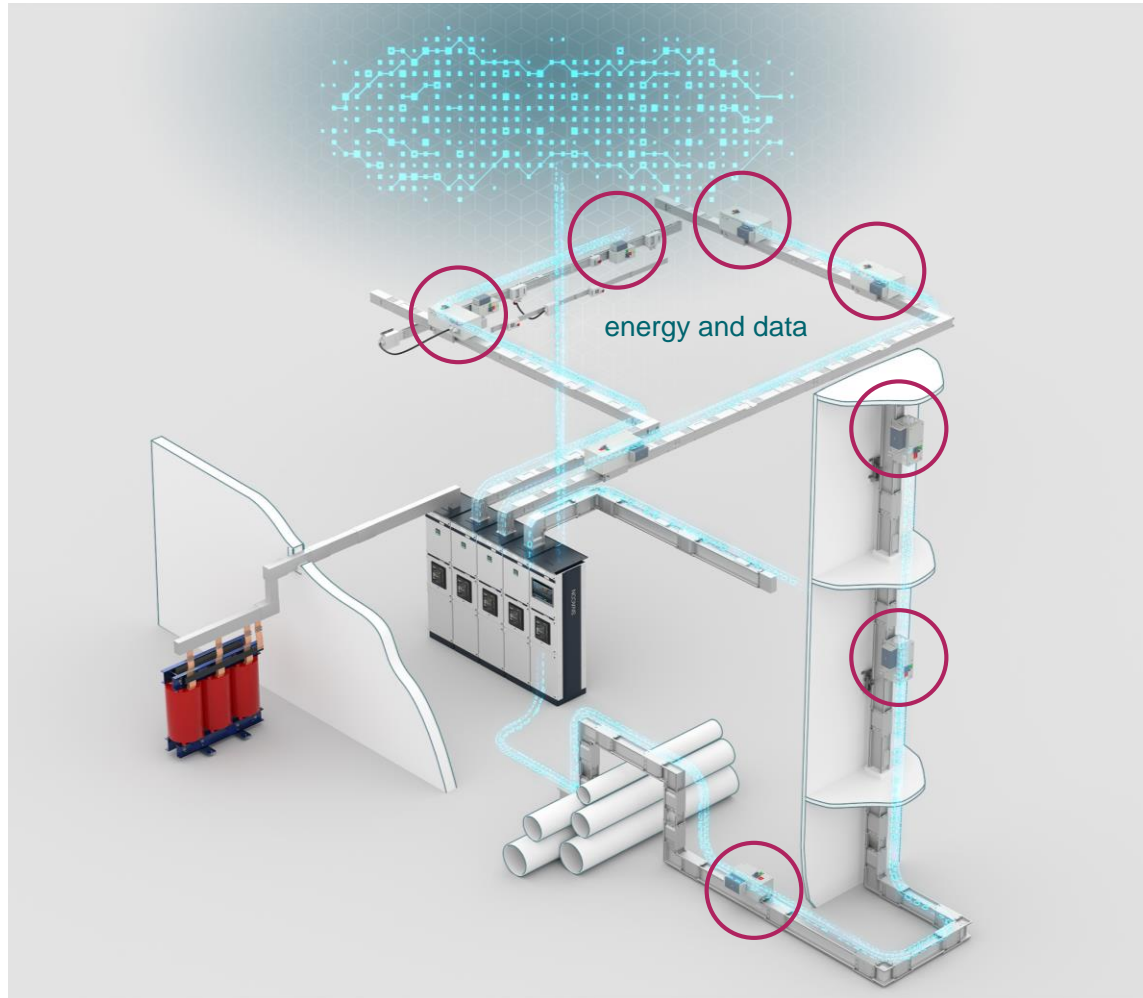


High installation effort and costs

Low flexibility in case of layout changes

# Simple and reliable transmission of energy & data with the SIVACON 8PS busbar trunking systems

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**No additional data cables necessary  
=> Efficient and fast commissioning**

**High flexibility in case of layout  
changes (plug & play)**

**Suited for greenfield and brownfield  
applications (retrofit able)**

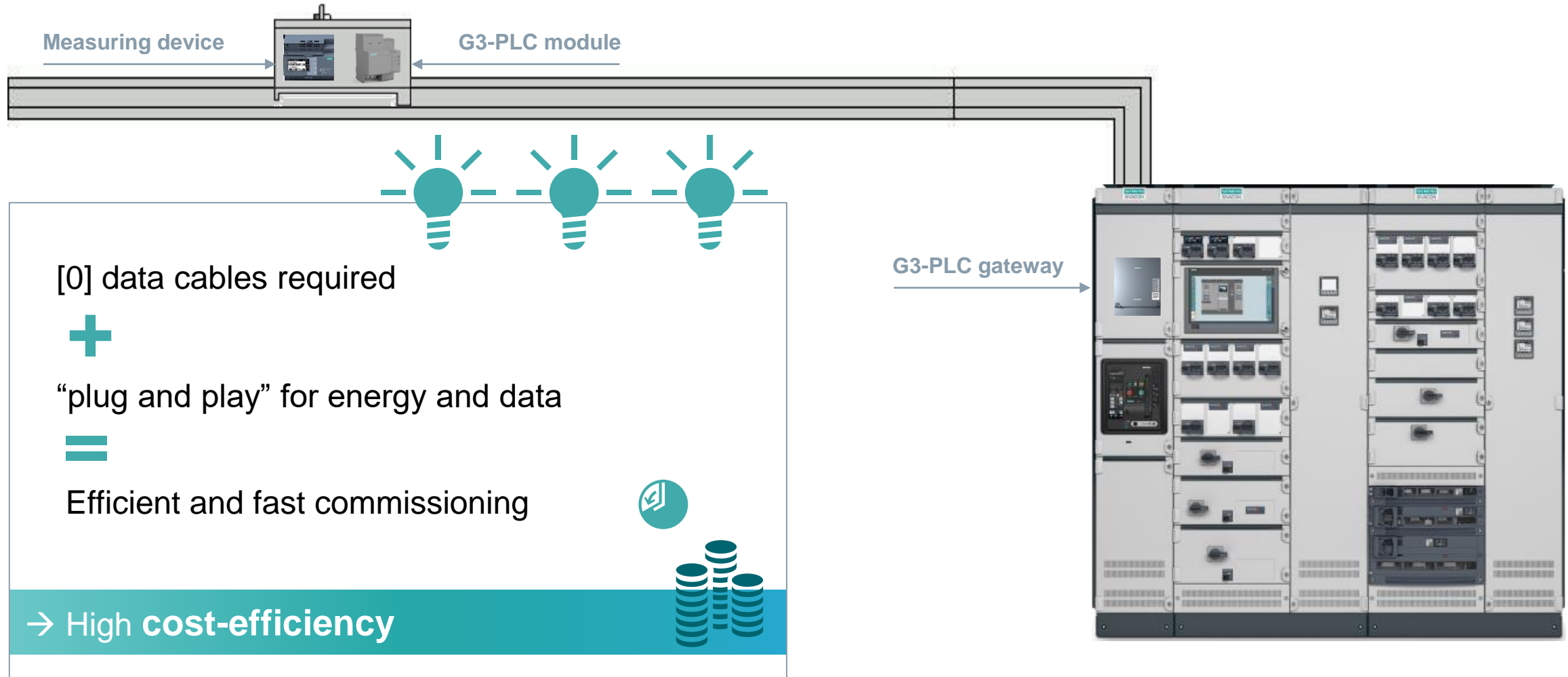
# Simple and reliable transmission of power and data with the SIVACON 8PS busbar trunking systems

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**G3-PLC**  
Alliance

# What is the technical solution?



# Energy and data successfully put on track – Pilot project – Siemens plant in Cologne, Germany

- Retrofitting LD tap-off units with powerline box
- Installation of G3-PLC gateway in the SIVACON S8 switchboard including diagnostic station SIMARIS control

=> On-site visualization via SIMARIS control

=> Remote visualization on IT infrastructure and smartphone

=> Data transmission to cloud-based IoT operating systems



G3-PLC  
gateway



Switchboard  
SIVACON S8

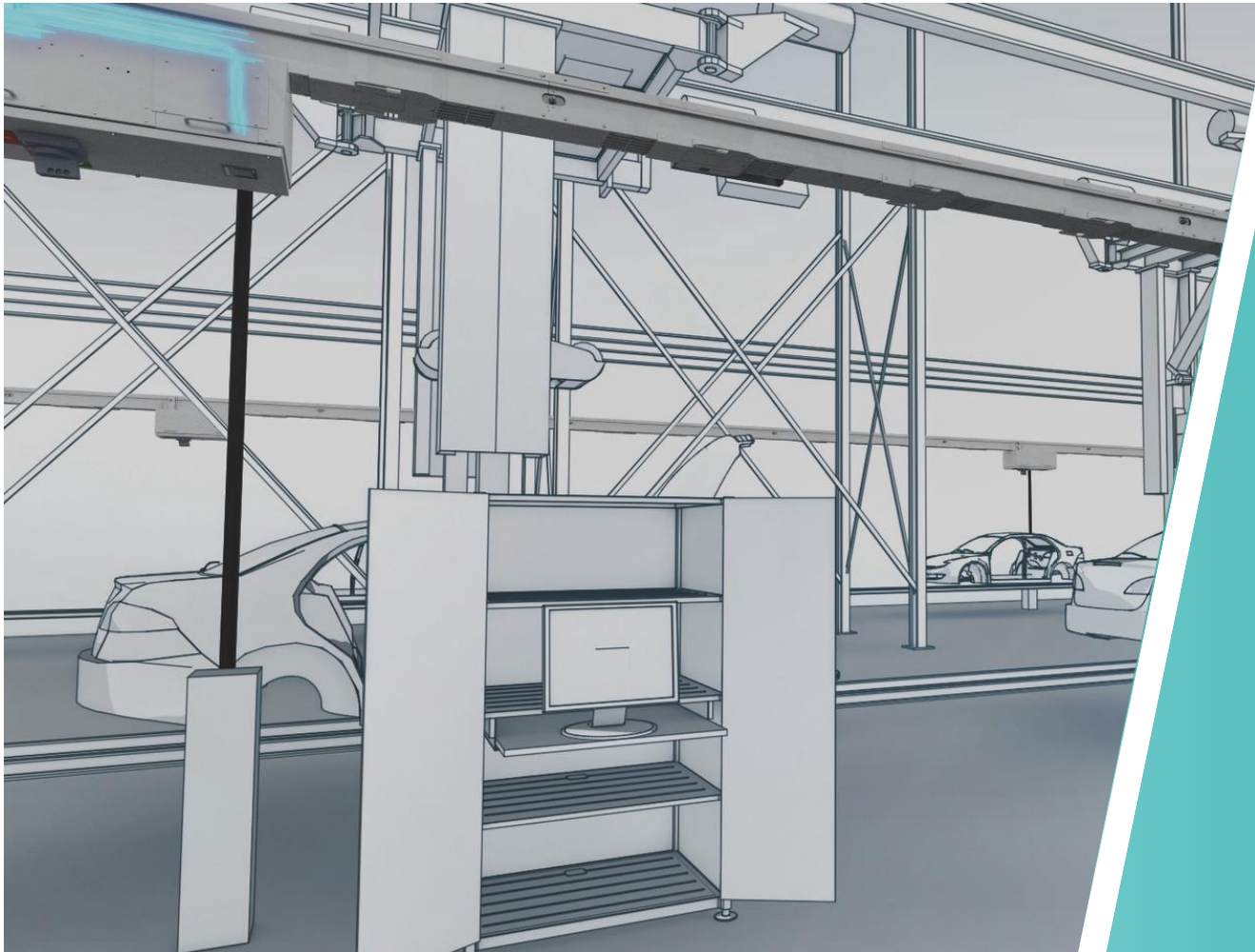
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# The cost-efficient busbar trunking systems for the automotive industry – LD and BD2 systems with powerline technology

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Up to 80% cost savings  
for risk analysis

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Flexible application for greenfield  
and brownfield applications

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Basis for ISO 50001/3 (re-) certification

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Future-oriented through cloud connection



# Energy and data – Fit for the digital future with the smart SIVACON 8PS systems



Simple and space-saving installation by plug and play



Clear installation and switching devices "close to the consumer"



Reliable data transmission



Basis for asset management and cloud services



High operating flexibility – for changes and enhancements



High operational transparency – covering potential savings



# Energy and data – Fit for the digital future with the smart SIVACON 8PS systems

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## Hall 9, booth D35



Thank you very much!

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