



# Capital Market Event 2024 Electrification

**Stephan May**, CEO Electrification & Automation  
**Sabine Erlinghagen**, CEO Grid Software

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Due to rounding, numbers presented throughout this and other documents may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

# The global megatrends of decarbonization and electrification drive secular growth in our market

Electrification  
EA GridSW



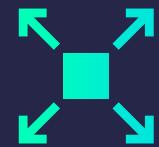
**Power consumption**  
By 2050

**2X**



**Decarbonization**  
Renewables by 2030

**3X**

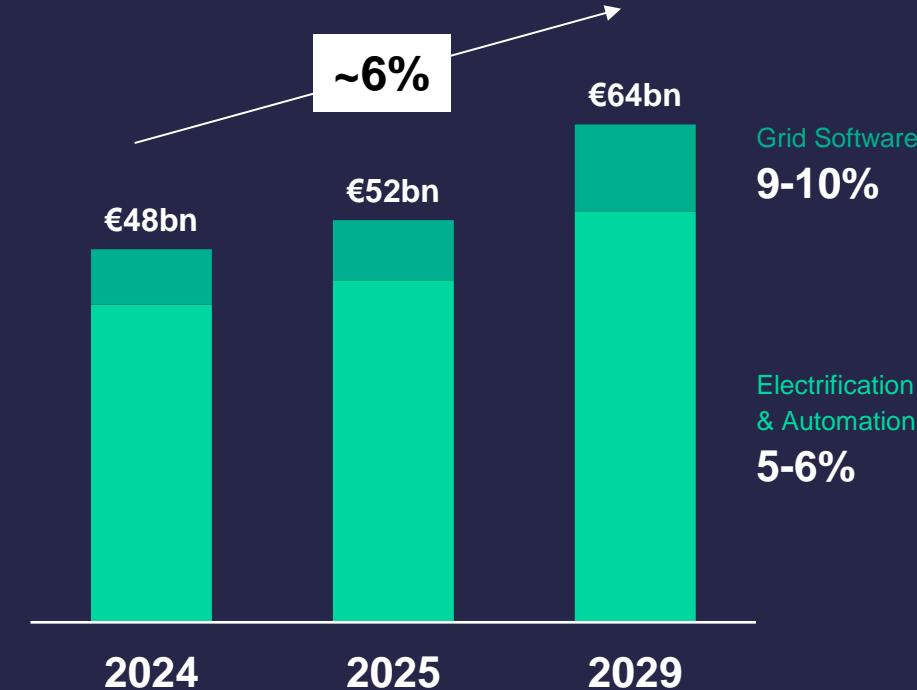


**Grid expansion**  
Grid capacity by 2035

**2X**

## Electrification market

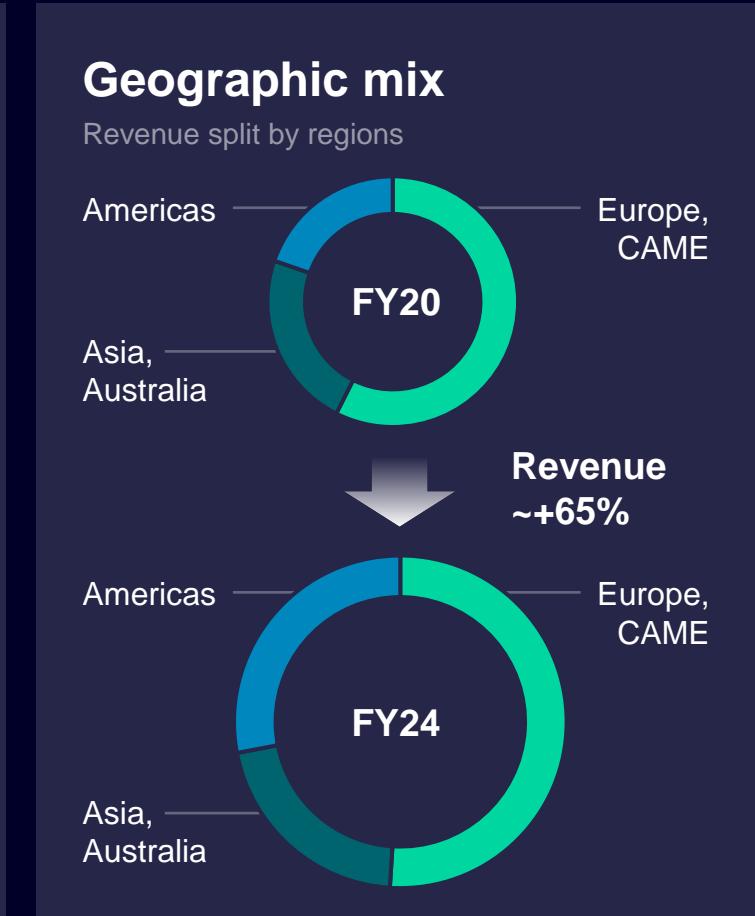
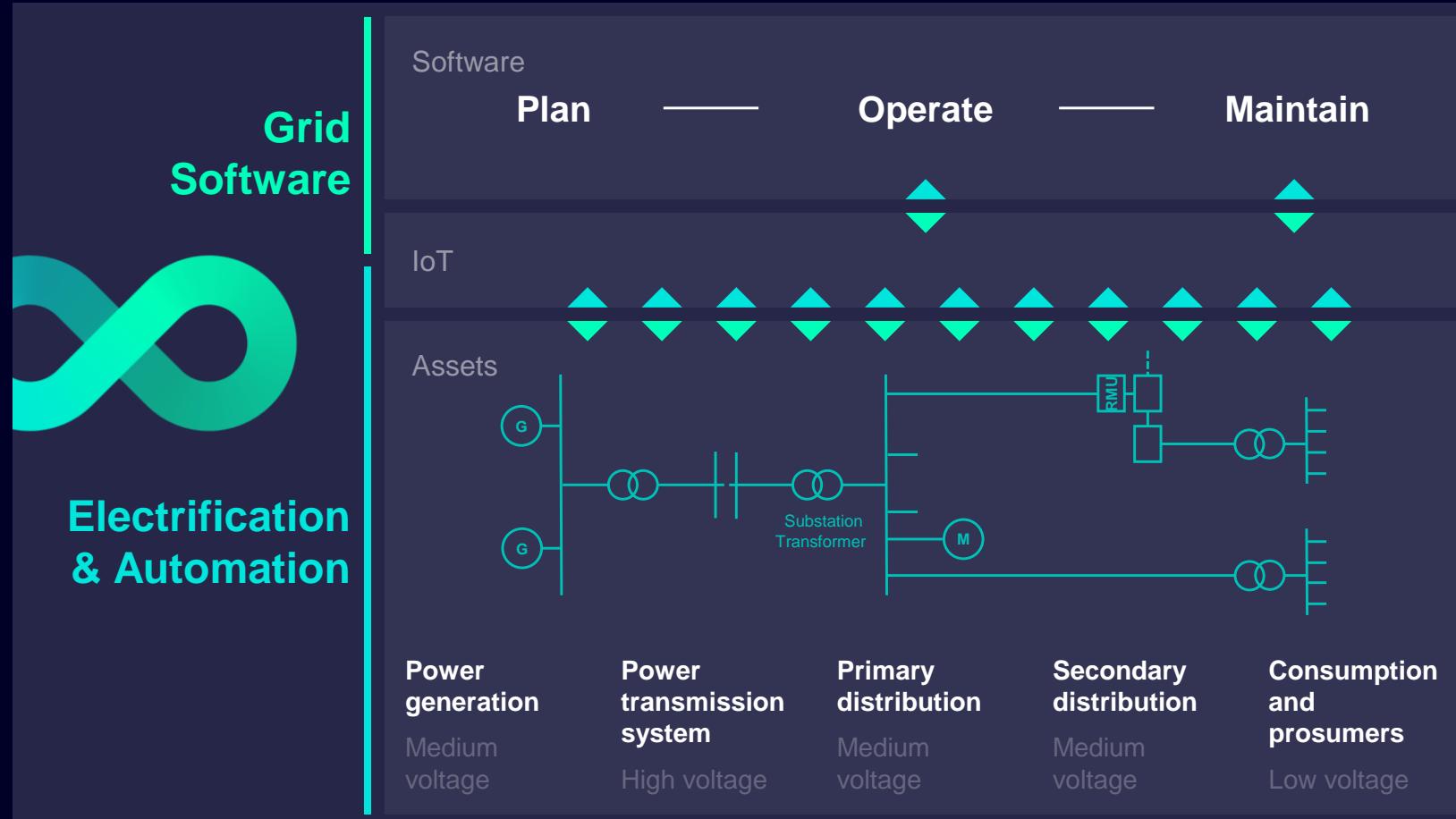
FY24–29 CAGR (comp.)



# SI Electrification combines the real and the digital worlds

## Balanced global presence – strategic regional focus

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EA GridSW



By forming a global player in electrification and automation  
we have established a strong track record in our industry

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GridSW

## Electrification & Automation – Achievements since FY20



### Leading products in highly dynamic markets

- Market leading F-gas-free blue GIS
- First and unique digital twin of a protection relay



### Stringent execution

- Initiated capacity expansions at right time
- Global production base across regions with resilient supply chain



### Scalable solutions

- Data center solutions (Orders growth ~8x)
- Smart substations for EV charging

**~2X** Orders

**~2X** Profit margin

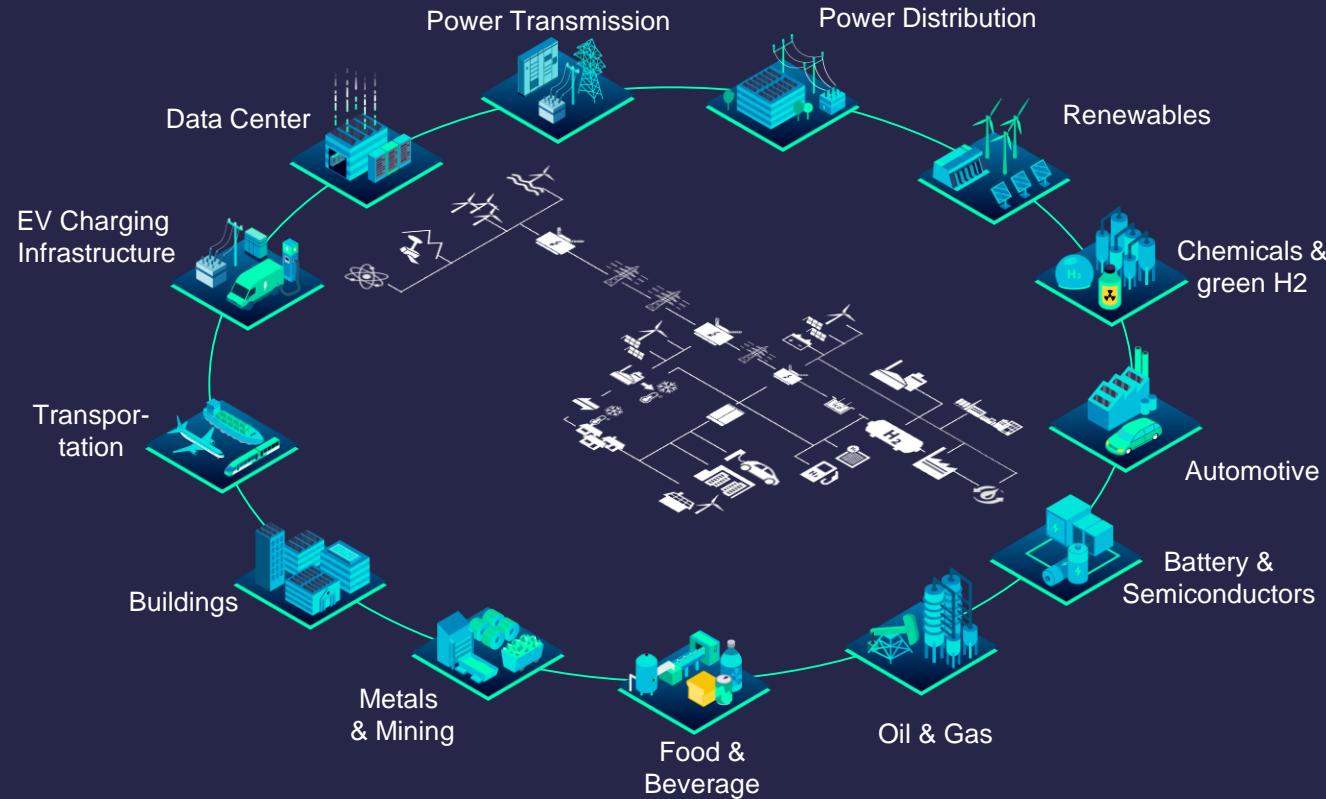
**>1** cumulated CCR

# We scale electrification of everything across all verticals

## All electrical grids drives demand

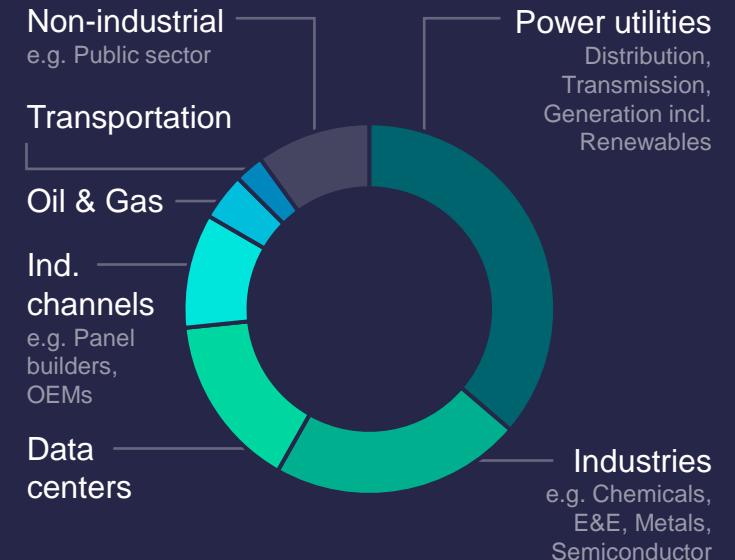
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Enormous expansion of public and private grids in progress



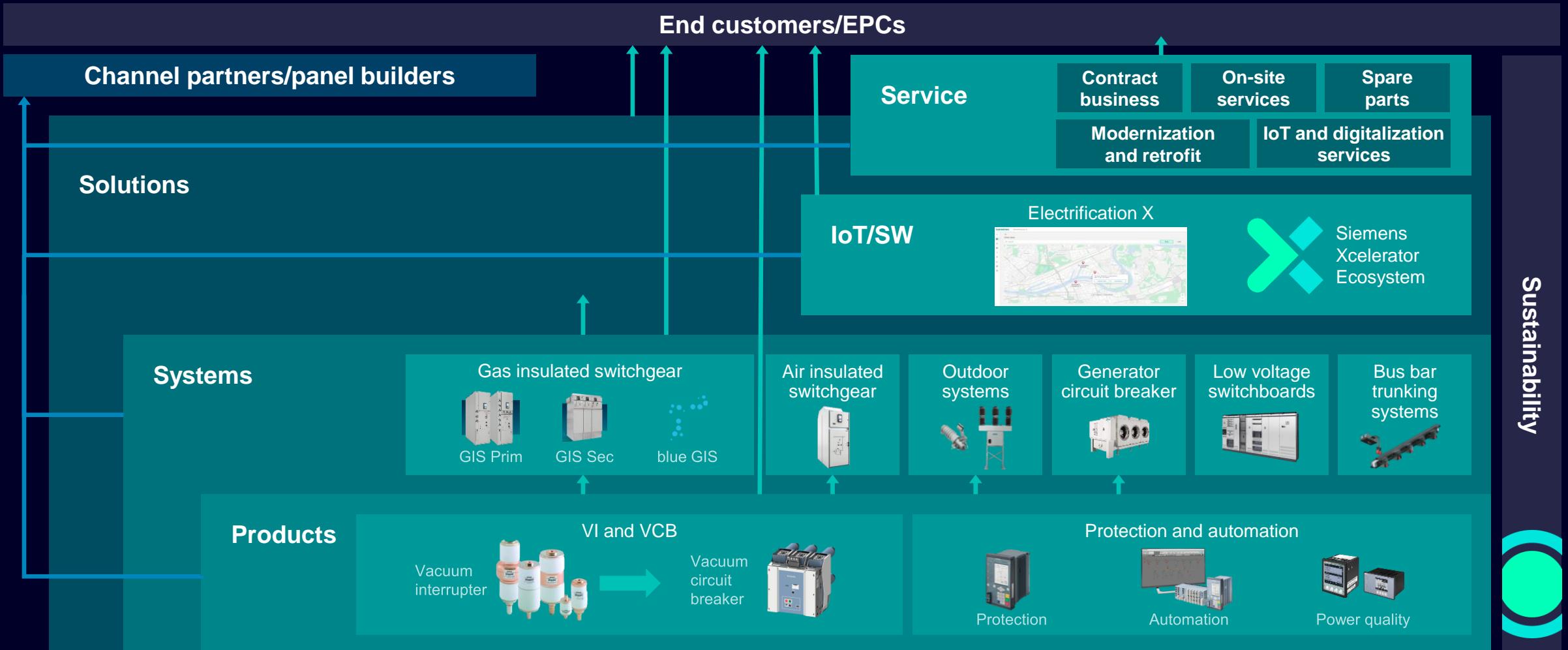
**Well balanced mix across verticals**

Revenue FY24



# Our comprehensive portfolio based on relevant technology supports multi-channel go-to-market and a balanced business mix

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## blue GIS and SIBushing

### blue GIS with eco-efficient design

- Majority of our gas insulated MV switchgear will be based on **sustainable blue technology by 2027**
- **Reduced efforts** in engineering and planning
- **Simplified** supply chain
- **Market leader** with blue GIS
- **Hit rate** for blue GIS is **>60%**



## SIPROTEC Digital Twin

### SIPROTEC digital twin, the digital replica of a protection relay (part of Siemens Xcelerator)

- **Hardware-free** testing supporting all SIPROTEC 5 devices and firmware
- Pre-testing configurations with up to **50% savings** for device trainings, up to **80% faster** fault analysis
- The **first and unique** digital twin of a relay in the industry



## Electrification X @ Siemens Xcelerator

### Integrated IoT suite to master the key challenges of the energy transition

- **Increase asset uptime** while reducing OPEX and CAPEX
- **Reduce energy cost** and CO<sub>2</sub> emission
- Manage rapidly growing **EV charging networks**
- Keeping distribution **grid stable**
- Localize and manage **network faults**
- Ensure **cybersecurity**

# We have initiated investments at the right time to capture growth opportunities – supported by a growing backlog

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Reliable partner with [global network](#) of >30 factories & workshops and [strong regional presence](#)

Substantial progress in [adding capacity at existing sites](#) for minimum ramp up time and maximum impact:

North America	~€110m	
Europe	~€250m	
India	~€45m	
China	~€70m	



Resilient supply chain across all regions

**#1 in Medium Voltage Switchgear**

**#1 in Protection and Automation (IEC)**

IEC = International Electrotechnical Commission

## Outgrowing market in booming times

Revenue CAGR FY22–24

	Market	EA
U.S.	~+30%	~+45%
Germany	~+10%	~+20%
India	~+20%	~+35%
China	~+3%	~+8%

Acquisition of [Trayer Engineering](#) extending portfolio with submersible and padmount MV switchgear

# We are the partner of choice for industry and infrastructure customers on their journey to electrification of everything

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GridSW

## ARAL and BP

Siemens and Aral/BP partner to deliver 650 intelligent substations incl. Electrification X and cybersecurity in Germany.



## E.ON Drive

Joint agreement with **E.ON Drive Infrastructure** to support decarbonization of European road transport with smart infrastructure and services.

### EXAMPLE

## Intelligent EV charging infrastructure

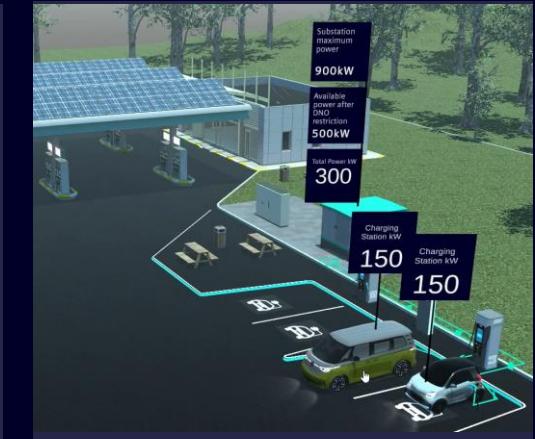
### Optimized grid utilization

- Dynamic load management from grid to charger
- Full integration of renewable sources
- Remote control, reset and operation – real time

### Scalable solution

- Reduced lead times
- Reduced engineering
- Flexible architecture
- Global availability
- Proven solution

### Reduced CAPEX up to -15%



Electrification X  
Dynamic Load Management



Scalable solution:  
intelligent EV charging substation

## Our portfolio

### SIPROTEC 5 Digital Twin

### SIPROTEC 5

protection and automation platform as key for digital substations to digitize analog signals in switchyards

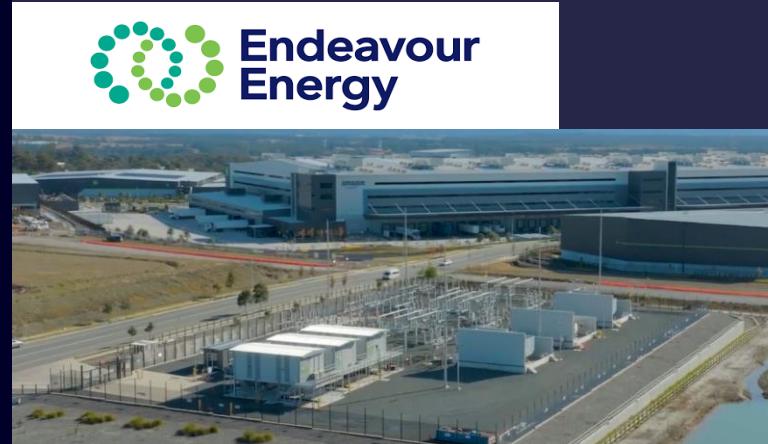
### RuggedCom communications

solutions from Siemens DI

### Local engineering & solution capabilities

## Endeavour Energy

Supplies power to over 2.7 million people in Australia and is transitioning from a traditional “poles and wires” business to a distributed system operator.



## Customer value

- **30% cost** savings compared to traditional substation setup
- Construction time reduced to **15 months** (typically ~3 years)
- **Control room size** reduced by **~50%**
- **Improved safety** for staff due to removal of voltages and currents from control room
- **Improved reliability and reduced maintenance**

## Sustainability impact

- **~90%** fewer copper cables (~7.5km)
- **370m<sup>3</sup>** less concrete, **600m<sup>3</sup>** less soil excavation

# Siemens Grid Software has outgrown the market from an already strong position

## Portfolio

### Grid Planning software

#1 position

### Grid Control software

Key player, with strong customer base, globally

### Meter Data Management software

#1 position

### Power system consulting

Advising clients on most complex energy transition challenges



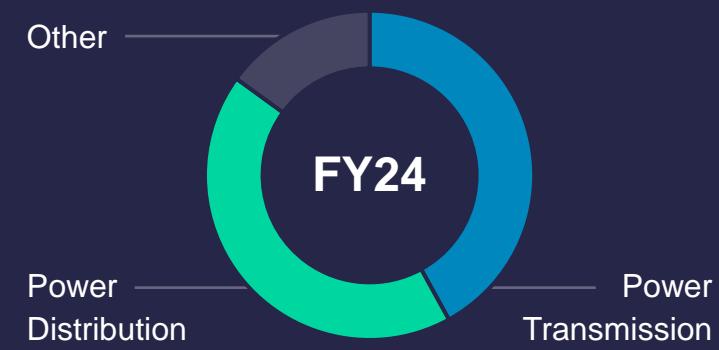
## Performance

### +25% CAGR

in software revenue over 4 consecutive years (FY20–24)

>50% of software revenue already **ARR**

## Revenue by verticals



## People

### Management team

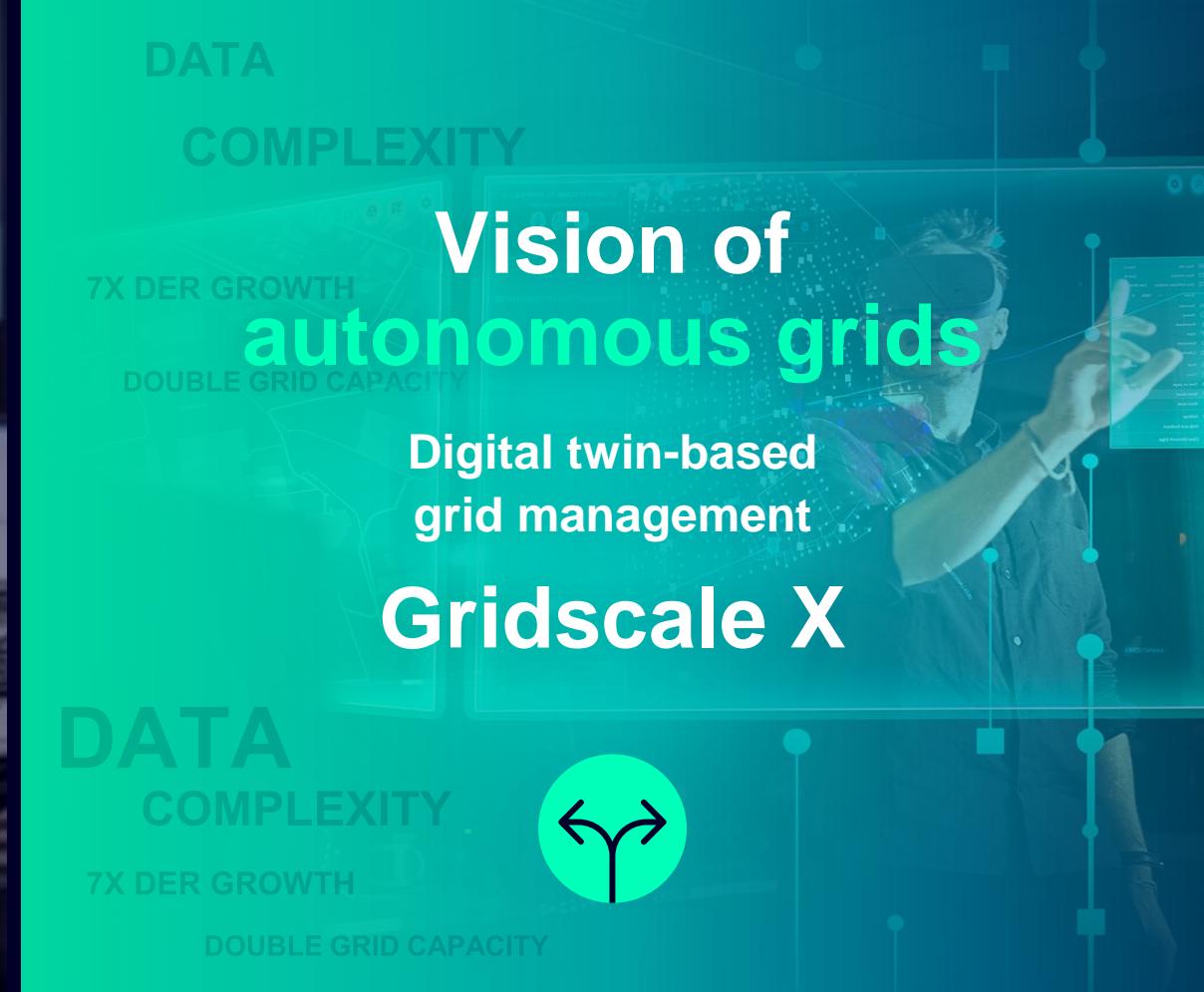
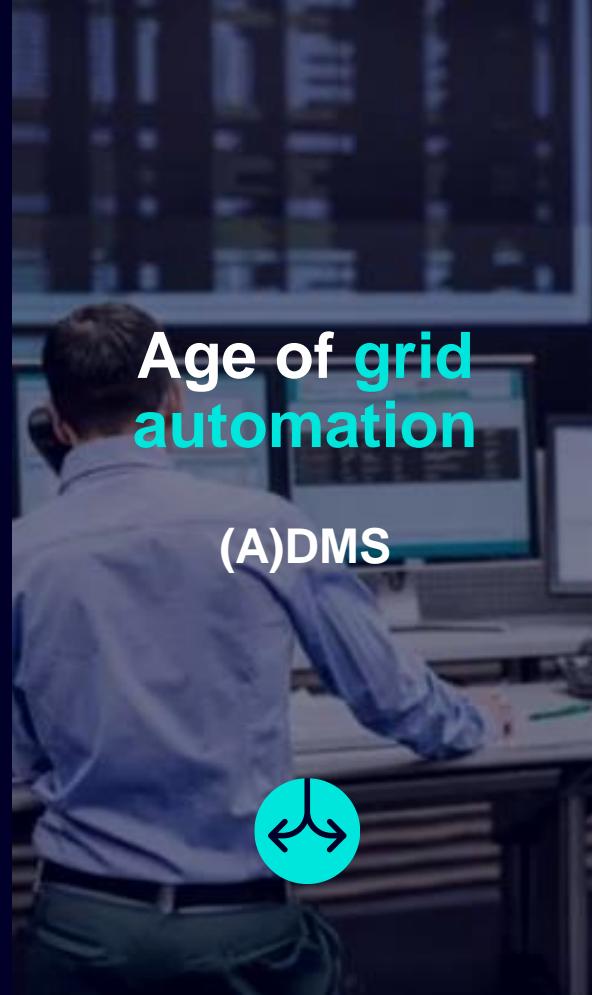
experienced leaders from native software companies, e.g., Oracle, Salesforce and DI SW

### Sales

>200 dedicated software sales professionals carrying quota

### R&D

40% of total invest already allocated to cloud developers



# Gridscale X innovates the approach to grid planning and operation based on Digital Twin

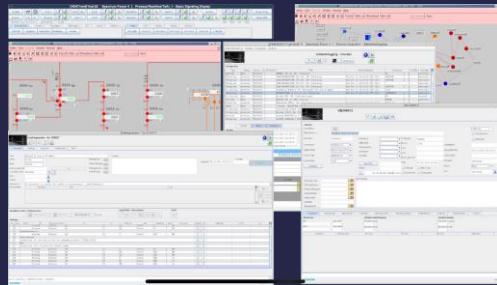
Electrification

EA

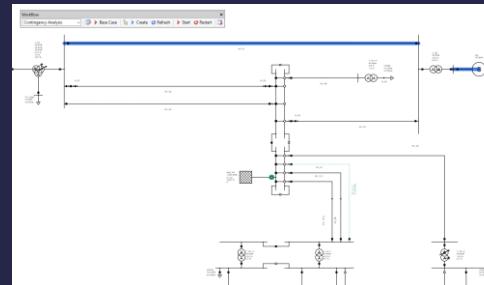
GridSW

From siloed expert applications ...

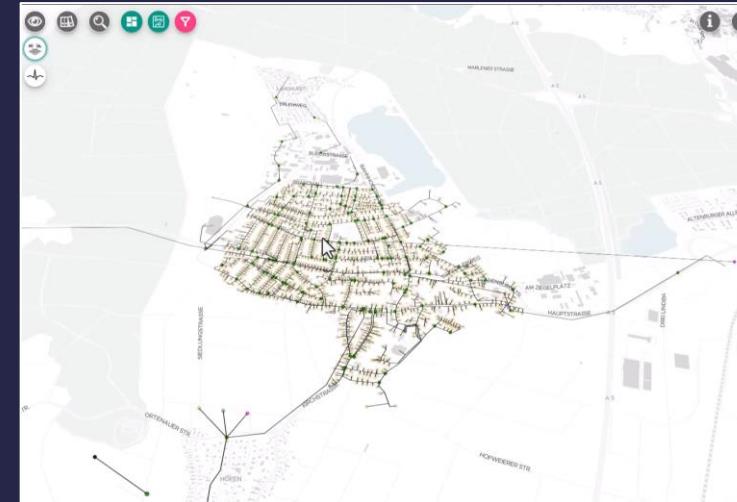
Grid Operation



Grid Planning



... to an open and modular SW platform



- Enhance usable grid capacity by up to **30%**

- Manage **7x** DER growth

- Optimize hardware investments by up to **45%**

separate expert tools ...

From

assumption driven ...

human reactions to alarms ...

To

... intuitive modular platform

... data driven

... autonomous grid management

DER = Distributed Energy Resources

## Strong opportunities for continued growth

**Scaling Gridscale X** across system operators in Europe and US based on **strong proof points**, leveraging strong installed based

Significant **long-term double-digit growth** opportunity for **Grid Planning** due to 2x grid expansion and integration of renewables

**Significant expansion** potential from AMI 2.0 and with installed base of **Meter Data Management** customers (+70% of meters yet to be rolled out)

### EXAMPLE

#### Strategic partnership with Alliander



- Largest energy network company in the Netherlands
- Recognized leader in digital transformation in Europe
- Increase electrical grid usage in the owned grid **up to 30%** (customer estimation)
- Mitigate societal economic **impact of €10-40bn p.a.** by admitting more connection requests to the grid much faster (bringing an enormous backlog down to ~0)



**We share the same vision and key principles of open, modular and interoperable software.**

Daan Schut, Chief Transition Officer Alliander

# How we contribute to the new SI targets



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EA GridSW

## 1 We are in the sweet spot of a secular market growth.

Electrification and digitalization  
of everything, decarbonization,  
grid expansion

## 2 We are market leaders.

#1 in MV Switchgear, Protection &  
Automation IEC, Grid Planning and  
Meter Data Management

## 3 We are technology and thought leaders.

blue GIS, Digital substations, Digital  
transformation for grid management,  
Gridscale X, Electrification X

## 4 We invest to capture global growth opportunities.

Capacity extensions, Siemens  
Xcelerator ecosystem, NextGen grid  
management with autonomous grids

## 5 We continue our profitable growth.

Continuously outgrowing the market,  
execute on record backlog,  
increasing software ARR