



Driving decarbonization and digitalization. Together.

Dr. Rutger Wijburg, COO



**We address the defining trends of this decade
and set clear priorities**



DECARBONIZATION

DIGITALIZATION



Infineon serving all target markets as leader in Power Systems and IoT

Supported by ...

From product thinking to
system understanding



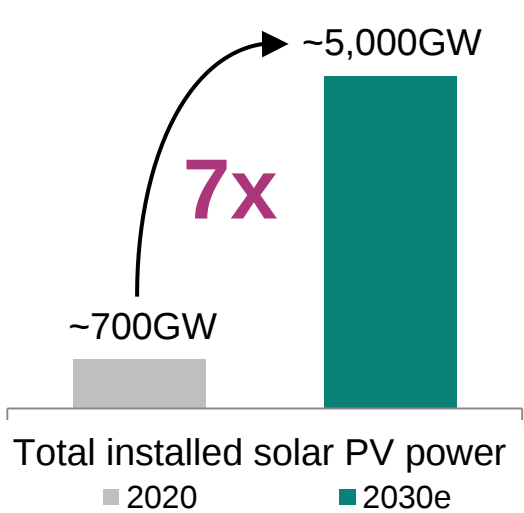
Software capability



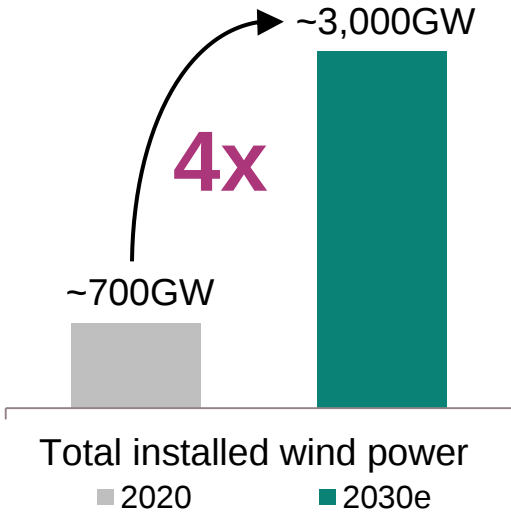
Digital marketing and sales
Eye-level strategic partnerships



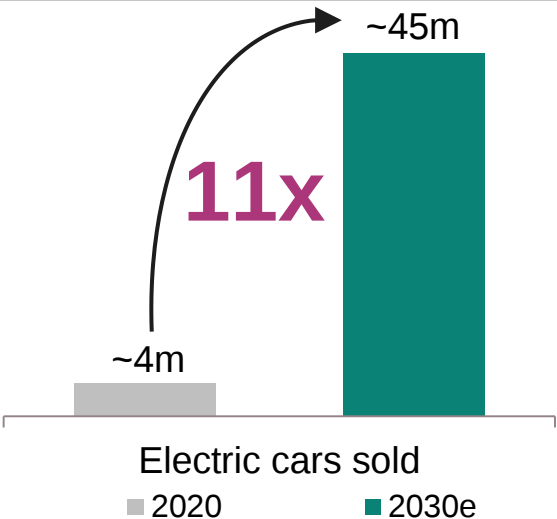
Decarbonization and Digitalization will strongly drive growth in many of our key markets



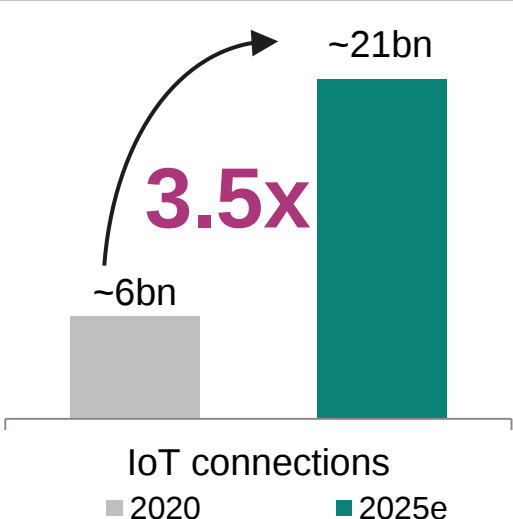
IEA: NET Zero by 2050 – A Roadmap for the Global Energy Sector, May 2021



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Based on or includes content supplied by S&P Global (former IHS Markit Automotive) September 2022



ABI Research: IoT Market Tracker Worldwide Q2 2022 Update



Infiniteon is the world leader in automotive semis and looking forward well positioned through strong content growth drivers



Several structural trends fueling our growth

xEV

- Strong volume growth of BEVs and PHEVs
- Increasing share of SiC in traction inverters
- Larger batteries lead to higher BoM in BMS

ADAS/AD

- Need for functional safety, redundancy
- More sensors, more computing performance

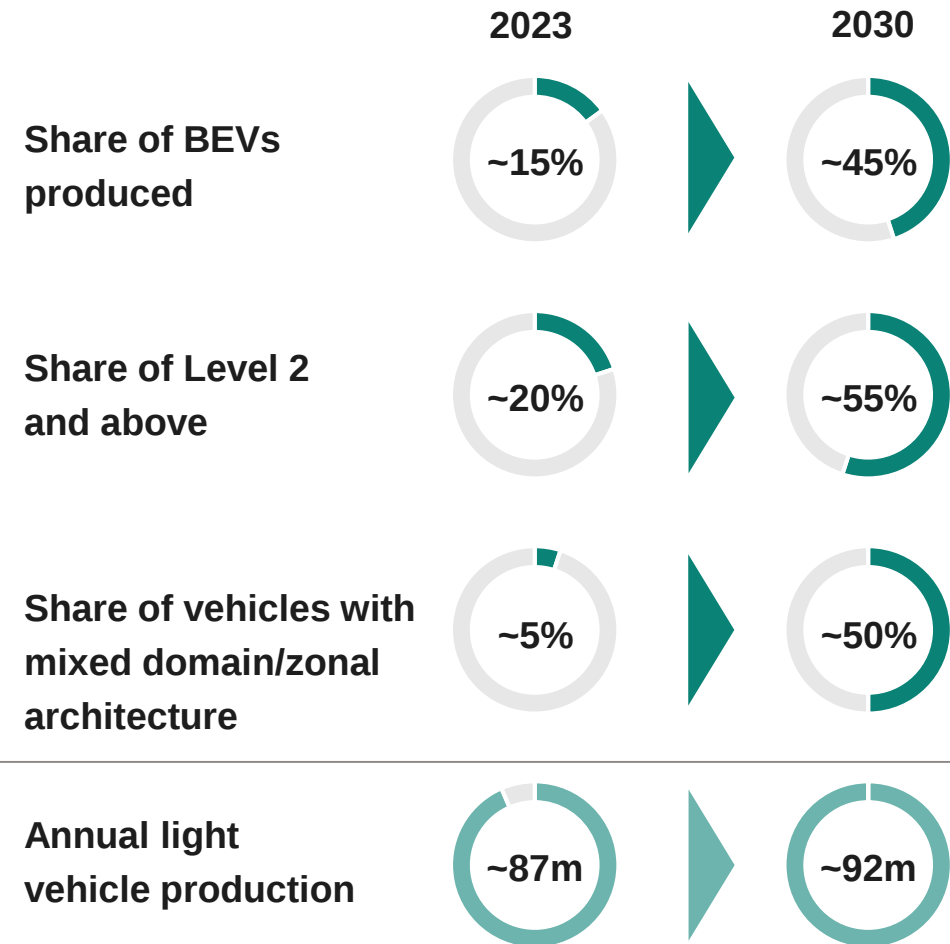
E/E architecture

- SW-defined cars with higher need for connectivity
- Centralized signal processing by zone computers
- Smart switches for decentralized power distribution

Comfort and premium features

- More loads (motors, heating, cooling etc.)
- Elaborate interior and exterior lighting

Overview of growth vectors until 2030

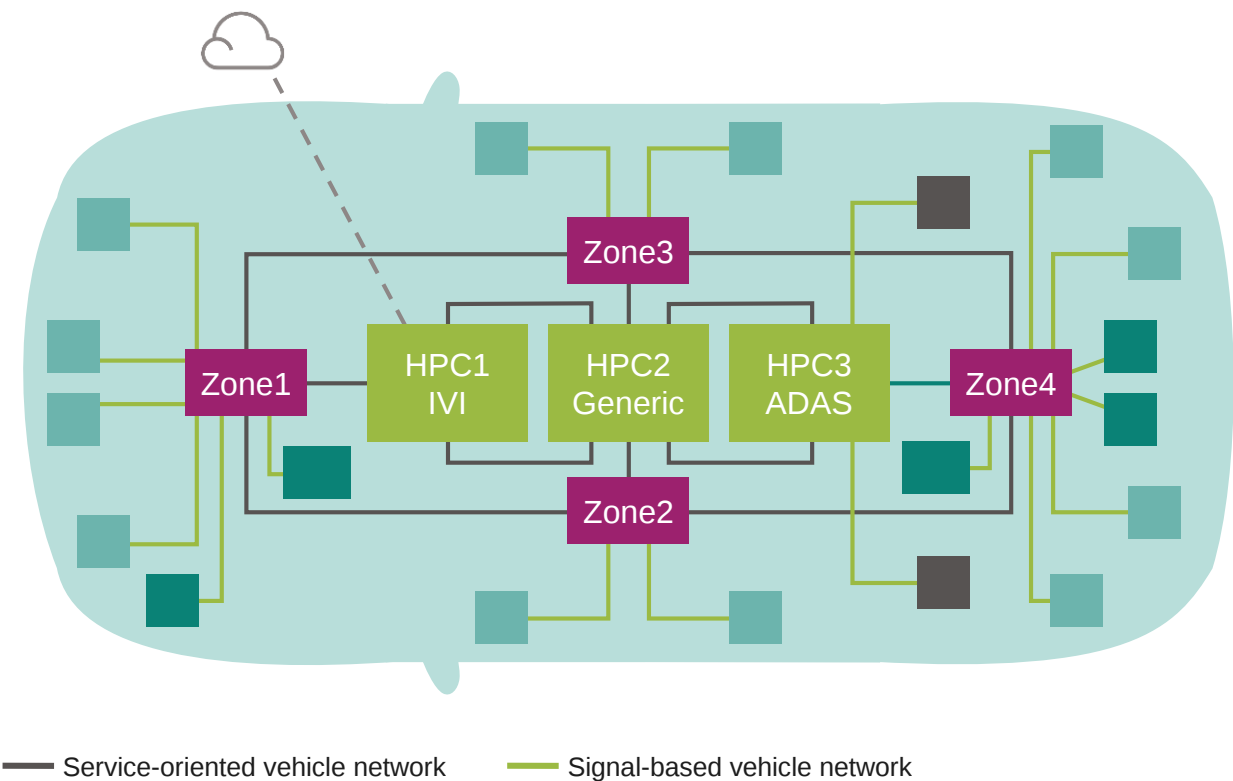


Infiniteon estimates

Infiniteon strongly benefits from new E/E architectures that drive centralization of data and decentralization of power distribution



E/E architecture in a software-defined vehicle



High Performance Computing (HPC)

Safety companion MCU for service-oriented SoCs, secure trust anchor, fail-safe power supply

Zone

Zone controller, gateway controller, incl. protocol translation, smart power distribution

Control

Smart real-time mechatronics (e.g. transmission, motor control, power steering, braking), BMS

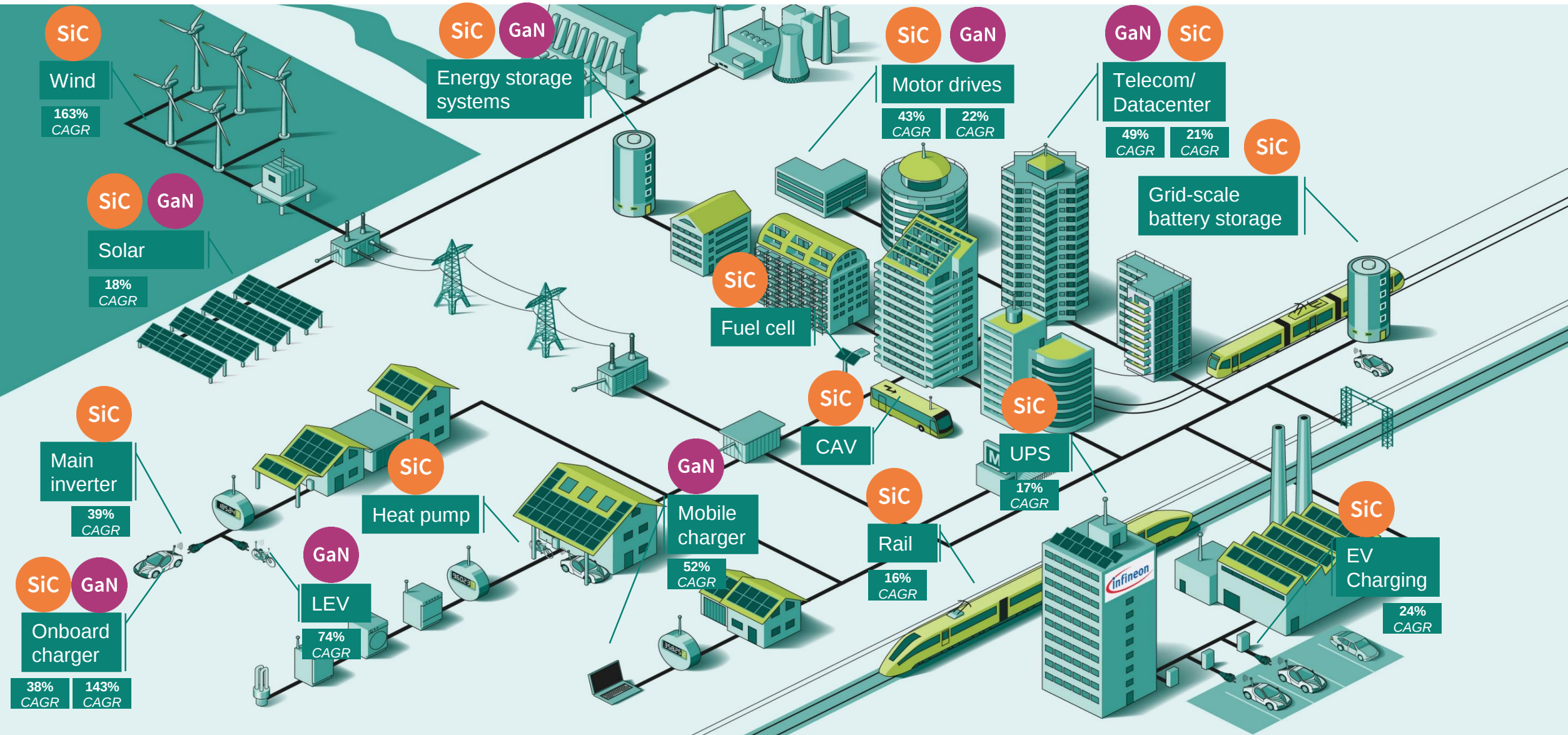
Complex sensors and actuators

Radar, incl. signal pre-processing, bus connections, dedicated AI accelerators, camera

Simple sensors and actuators

Smart functional ECU (e.g. seat adjustment, power window, central lock, wiper), touch pad

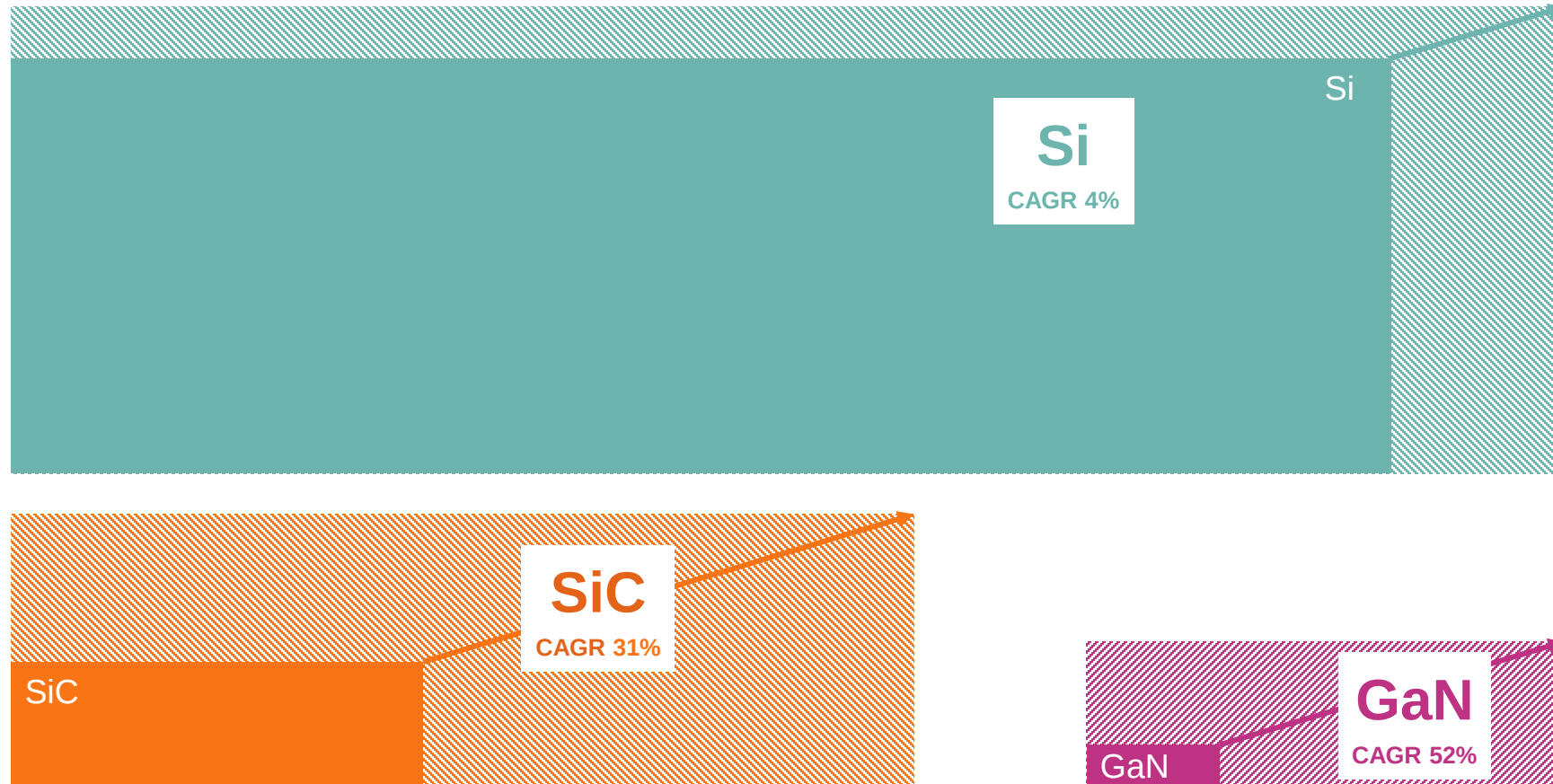
From energy generation to conversion to final usage: wide bandgap materials bring advantages along the whole chain



Growth with existing and new technologies: Infineon is leveraging its leadership in Si and strengthens its position in wide bandgap



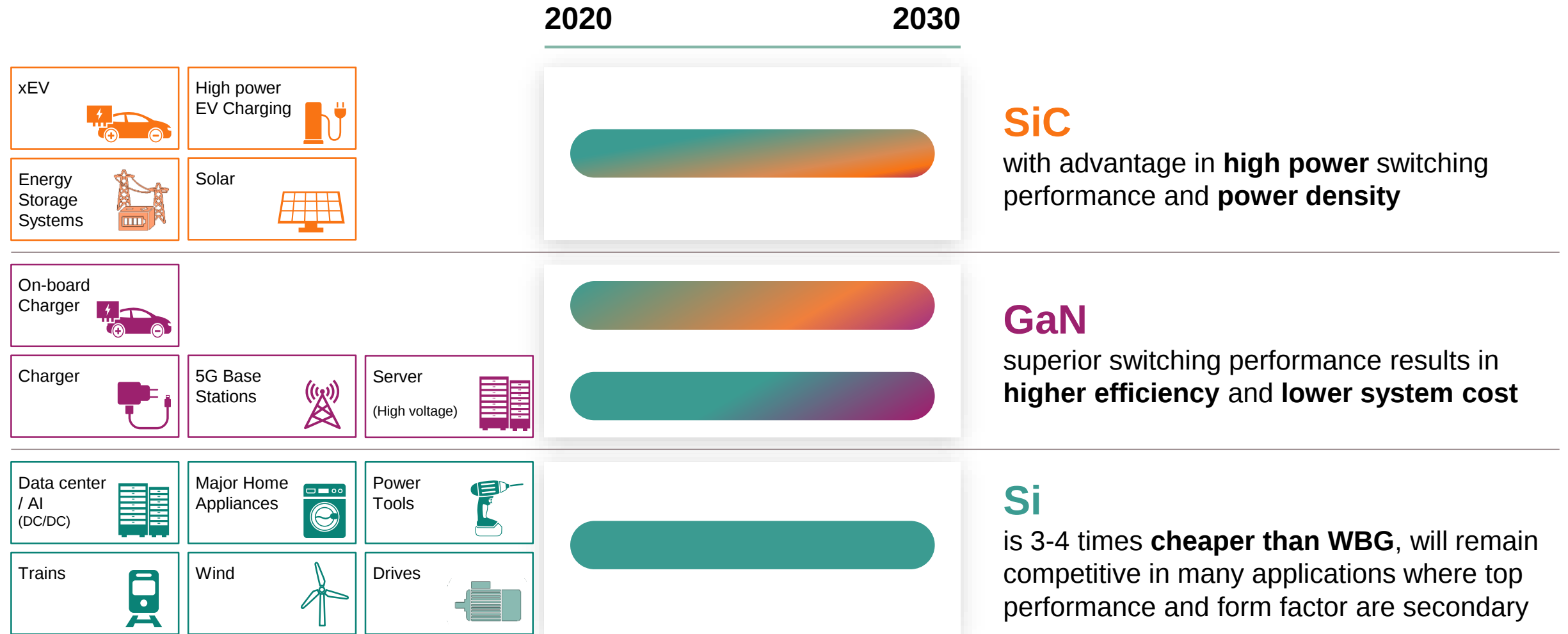
Market size (2022 vs. 2028)



- Different applications require different solutions
- Infineon offers the broadest portfolio in silicon, silicon carbide and gallium nitride
- The wide bandgap technologies SiC & GaN grow significantly faster than Silicon and will increase their market share significantly.

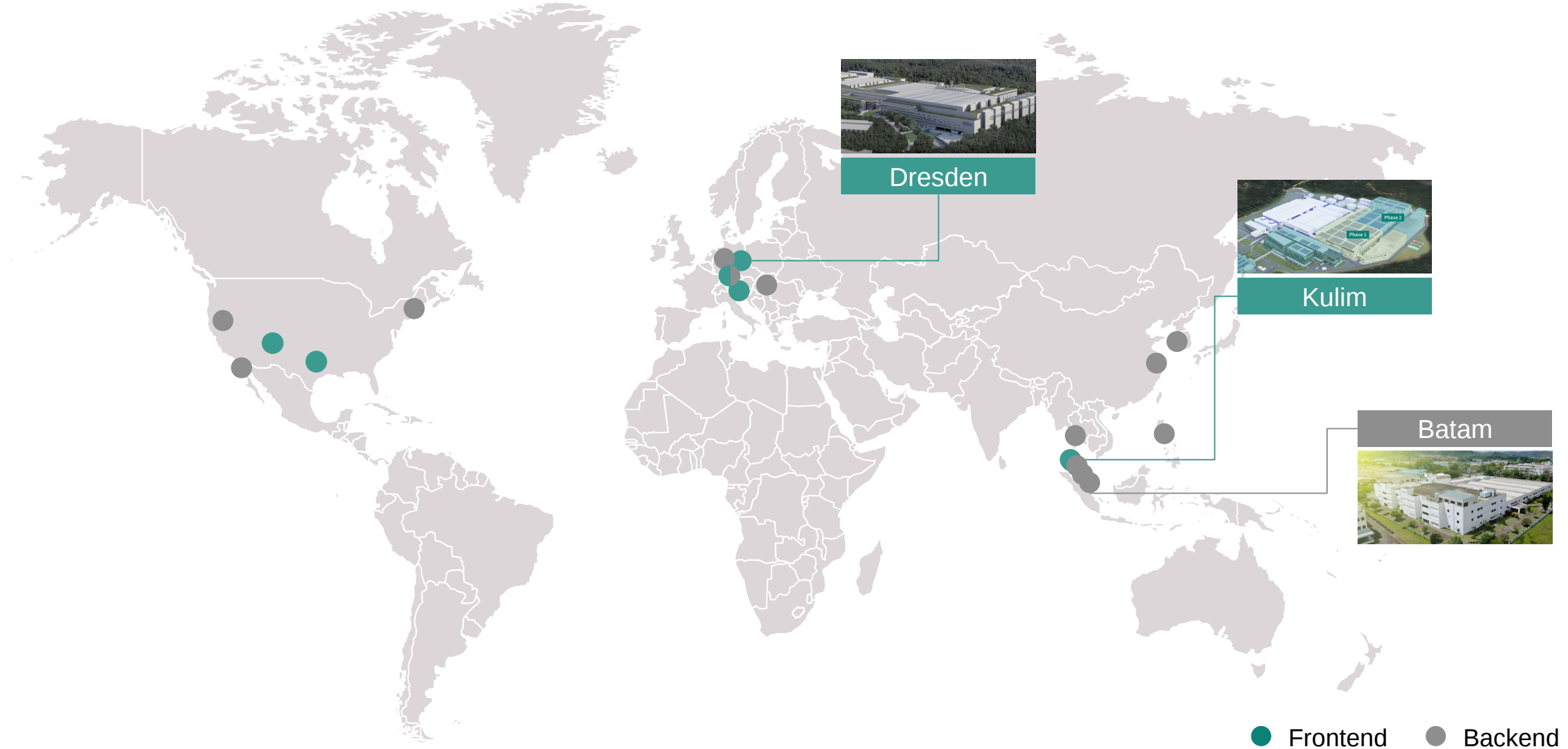
The boxes' area represents 2022 (solid) and 2028 (shaded) market size;
Yole Intelligence: Compound Semiconductor Market Monitor-Module 1 Q2 2023.

Transition to WBG will vastly differ by application with GaN expected to be the preferred technology in multiple core applications by 2030



■ Si ■ SiC ■ GaN

As Key markets grow, we extend our inhouse manufacturing fabs to continue our success story and profitable growth: SCALE MATTERS.



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Dresden, Germany – Modul 4

€5 billion investment for new **analog/mixed signal semiconductor** fab on 300mm that enables energy-efficient and intelligent system solutions



● Frontend ● Backend

As Key markets grow, we extend our inhouse manufacturing fabs to continue our success story and profitable growth: SCALE MATTERS.



Kulim, Malaysia – Modul 3

World's largest 200mm silicon carbide Power Fab will support **Infineon's SiC market share target of 30%** towards the end of the decade



Batam

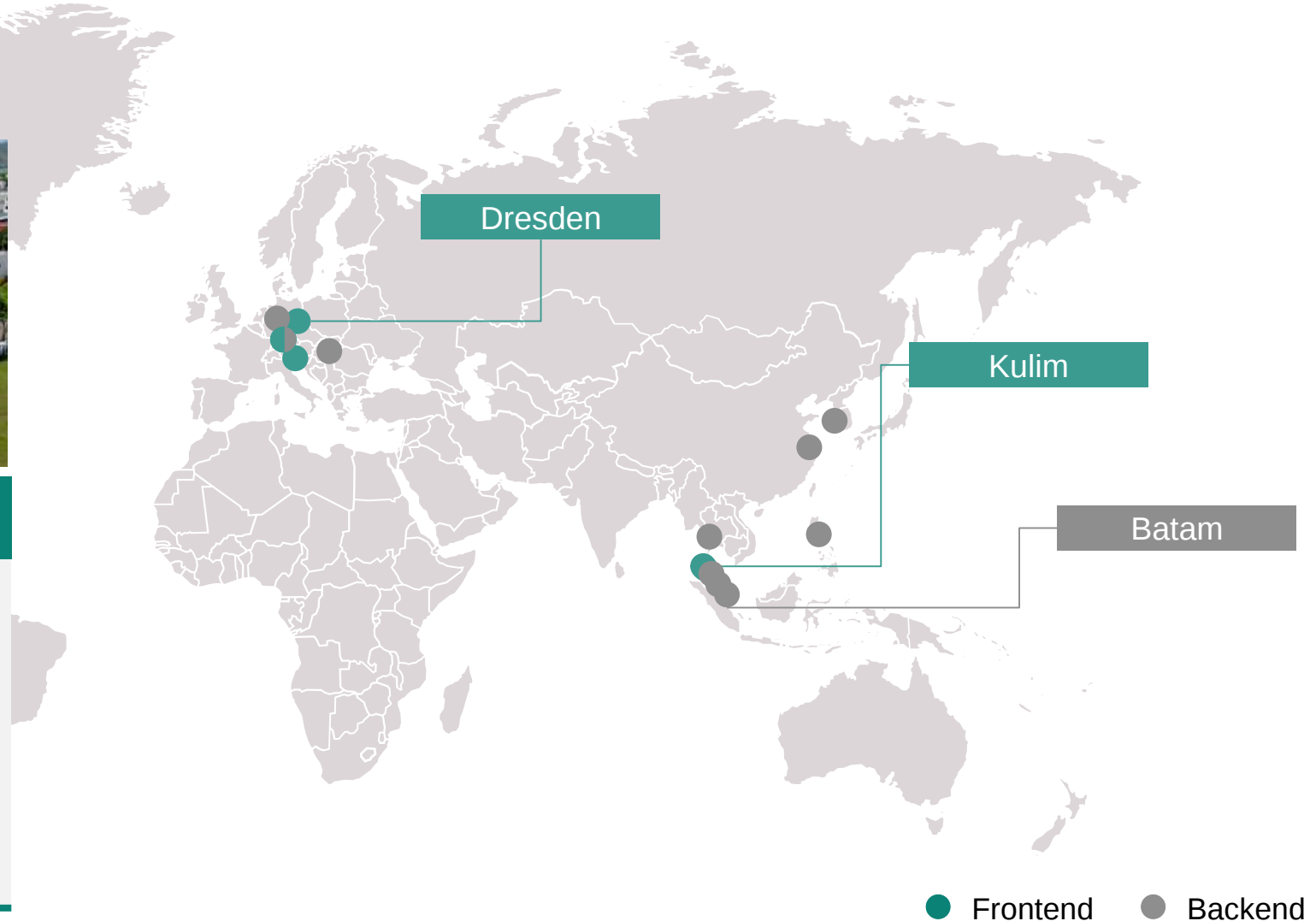
● Frontend ● Backend

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Batam, Indonesia

Expansion will **double Infineon's production area** in Batam and increases its focus on the **assembly and test of automotive products**





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Summary

- Spending efforts in decarbonization and digitalization will tackle challenges of our time
- Growth in key markets accelerates semiconductors development
- Wide bandgap materials will replace silicon in various fields of application and thus offers opportunities