

## SCAPE TO MARKET

Welcome to *SCAPE to Market* – a quarterly update on the key market and policy developments relevant to the power converters for electric vehicles. Keep your ear to the ground and make sure your research & innovation matter!

### MARKET

- This year's **CES exhibition** in Las Vegas showcased several new products from the power electronics industry leaders: Infineon, Intel, Texas Instruments, Analog Devices, and Panasonic. Some of the innovations include vehicle-to-grid bidirectional chargers and intelligent edge systems. → [READ MORE](#)
- Power converters have so far mainly been used in consumer electronics and renewable energy systems, although their biggest growth potential lies in EVs. Market agencies estimate that the whole **power electronics market size** is 37.4 billion, where the automotive sector accounted for 5.5 billion in 2021 alone. → [READ MORE](#)
- The last years have seen the industrial emergence of **power converter types** based on Silicon Carbide (**SiC**) and Gallium Nitride (**GaN**), which together account for 884 million in revenue in 2021, with projected growth in the order of magnitude around 7-15 billion by 2032. Of the two, GaN seems the most promising since it is cheaper, and allows for smaller and lighter high-performance devices. → [READ MORE](#)
- The semiconductors industry experienced **shortages** during the COVID-19 pandemic. According to a recent report by Accenture, 76% of semiconductor executives expect the industry's supply chain challenges to **ease**. Some of the key companies to follow in the sector are presented on the right. → [READ MORE](#)



### POLICY

- The European Union has put its political will behind the semiconductor industry. In December 2022 the Council adopted its position on the proposed regulation establishing a framework of measures to strengthen Europe's semiconductor ecosystem, better known as the '**Chips Act**'. The Chips Act addresses the current **shortage** of semiconductors in Europe. With the Chips Act, the EU aims to **double** its global market share in semiconductors from 10% to at least 20% by 2030 to ensure the EU's future technological sovereignty. → [READ MORE](#)
- In September 2022 the European Centre for Power Electronics (ECPE) published a **position paper** summarising recent developments and trends in key applications of power electronics: renewable energies, electronic grid systems, e-mobility, industrial manufacturing, smart homes, and data centres. → [READ MORE](#)

