
**More than 25 companies worldwide have established
dedicated SiC device manufacturing capabilities,
finds Yole Développement**

ISiCPEAW 2015 - From May 27 to 28, 2015 in Stockholm, Sweden

LYON, France – May 19, 2015 – *New wide band gap (WBG) materials are changing the power electronics industry landscape. Silicon carbide (SiC)-based devices are intended for high voltage, up to 1.7 kV, high frequency and high temperature applications. These include rail, power factor correction (PFC), electric and hybrid electric vehicle (EV/HEV) inverters, electricity grid applications and wind and photovoltaic (PV) inverters. “The performance of SiC-based devices clearly adds value compared to silicon device technology”, comments **Dr Hong Lin, Technology & Market Analyst at [Yole Développement](#)**.*

“Moreover, the WBG penetration makes efficient packages mandatory, so that devices’ high frequency, high voltage or high temperature capabilities can be best exploited”, she adds. (Source: [Power Packaging Technology Trends and Market Expectations](#) – Mar. 2015).

In two of its technology and market analyses, [Status of the Power Electronics Industry](#) (Feb. 2015) and [SiC Modules, Devices and Substrates for the Power Electronics Market](#) (Oct. 2014), Yole confirms the commercialization of SiC-based devices in the rail traction segment, for example with Mitsubishi Electric in Japan. In parallel, PV inverters have already been launched based on WBG devices. What will be the next step?

For the third time, the “More than Moore” market research and strategy consulting company, Yole, is collaborating with lead organizer the [SiC Power Center](#) and [Enterprise Europe Network](#) to establish a high added value program at [ISiCPEAW 2015](#) on May 27 and 28 in Stockholm, Sweden. “At Yole, we remain convinced about SiC technology’s benefits. ISiCPEAW presents a good opportunity for the key SiC industry players to share their vision of the technology, analyze current applications and envision emerging uses”, asserts **Pierric Gueguen, Business Unit Manager at Yole**. Including two workshop days, a one-day tutorial session, a poster session, exhibition area and business-to-business (B2B) matchmaking, ISiCPEAW is one of the leading conferences dedicated to SiC applications. It gathers the leaders of the industry together with well-known R&D centers. The organizing committee has already announced more than one hundred

participants and fifty attendees for the B2B meetings. Read the [agenda](#), then [register right now](#) to make sure you will be there!

According to Yole's analysis, there are more than 30 companies worldwide that have established a dedicated SiC device manufacturing capability with related commercial and promotion activities. *"Infineon and Cree are still leading the SiC device market, followed by Rohm, STMicroelectronics and Mitsubishi Electric, who are also in mass production,"* explains Dr Hong Lin. *"Fuji Electric is catching up as well"*. In Asia, besides Japanese firms, such as Rohm Semiconductor, Mitsubishi Electric, Fuji Electric, Panasonic, Toshiba, Hitachi, Chinese companies are now entering the SiC playground:

- Global Power Technology became the first company in China to commercialize SiC power devices with a capacity of 1000 wafers per year.
- SGCC and CSR are developing SiC technology for grid and rail applications, respectively.
- The leading Chinese EV/HEV player, BYD, showed clear interest in using SiC technology in its cars and has tested devices from Cree.

In Taiwan, a fabless SiC company called Hestia Power is emerging and has started to commercialize SiC diodes. In Korea, Maple Semiconductor and Hyundai have signed an agreement to develop SiC devices. (Source: [SiC Modules, Devices and Substrates for the Power Electronics Market](#)). *"We can reasonably expect Asian players to be more important in the SiC business in coming years"*, comments Pierrick Gueguen, Yole.

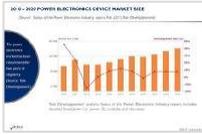
At ISiCPEAW 2015, Yole's team will present its latest results on the SiC market and detail the market structure, supply chain, industrial leaders and technology evolution. Yole's presentation, entitled *"SiC market and prospects"*, will happen on May 28 at 2:00 PM. It will also participate in a panel discussion dedicated to the reliability of SiC devices on May 27 at 3:00 PM. During this session, Yole will explore market needs and technical challenges with Rohm, GE, Cree, Infineon Technologies and the US Army research lab. For more info visit the [ISiCPEAW 2015](#) website. [Registration](#) is open until May 25.

About ISiCPEAW 2015

From May 27 to 28, 2015 in Stockholm, Sweden

ISiCPEAW 2015 is a three-day event, consisting of two workshop days, preceded by one tutorial day on May 26. The event will cover the latest results and innovations in power electronic applications of SiC technology. It has the overall aim of promoting the use of the latest SiC research and development results, by bringing together the foremost experts from both academia and

industry. It focuses on using SiC technology in power electronics applications, components, modules, packaging, reliability and benchmarking versus silicon power electronics. The program is defined by SiC experts and reflects the status of SiC from an industrial viewpoint. For more information about tutorial session, exhibition and poster session, click [here](#) or go to: <https://www.b2match.eu/isticpeaw2015>

About Yole Développement's reports:

About the [Status of Power Electronics Industry 2015](#) report

Growth is back - New technologies are finding their way to implementation - The supply chain is being reshaped by M&A and vertical integration.

Publication date: Feb.2015 – Detailed description: [Here](#)



About the [SiC Modules, Devices and Substrates for Power Electronics Market](#) report

SiC propagates over all industrial segments. Contagion has begun...

Publication date: Oct. 2014 – Detailed description: [Here](#)

Also : [Energy Management for Smart Grid, Cities and Buildings: Opportunities for battery electricity storage solutions](#) (May 2015) – [Power Packaging Technology Trends and Market Expectations](#) (Mar. 2015) - [Power Electronics in Electric and Hybrid Vehicles](#) (Nov. 2014) – [Inverter Technology Trends & Market Expectations](#) (Nov. 2014). And coming soon in 2015: WBG report collection (2 volumes) – Battery report collection (2 volumes).

For further information about our reports, please contact David Jourdan (jourdan@yole.fr).

About Yole Développement

Founded in 1998, [Yole Développement](#) has grown to become a group of companies providing marketing, technology and strategy consulting, media and corporate finance services. With a strong focus on emerging applications using silicon and/or micro manufacturing, the Yole Développement group has expanded to include more than 50 collaborators worldwide covering MEMS, Compound Semiconductors, LED, Image Sensors, Optoelectronics, Microfluidics & Medical, Photovoltaics, Advanced Packaging, Manufacturing, Nanomaterials and Power Electronics. The group supports industrial companies, investors and R&D organizations worldwide to help them understand markets and follow technology trends to develop their business.

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