Chinese players are increasingly competing internationally

LYON, France – March 1st, 2015: The Chinese power electronics market used to be dominated by foreign players. That situation is rapidly changing. Local players with different business models are emerging in different sectors, challenging the established ones, not only in China but also internationally.

“Local players are presented all along the supply chain,” announces Dr Hong Lin, Technology & Market Analyst, Power Electronics & Compound Semi. at Yole Développement (Yole). “However it is often in the inverter market the competition comes the fiercest.”

Yole, the “More than Moore” market research and strategy consulting company released last November a new report dedicated to the Chinese power electronics industry. This report entitled “Status of the Chinese Power Electronics Industry” proposes a comprehensive overview of the industry, its players and its supply chain. Aim of this analysis is to describe the possible evolution of this industry and understand the impact of the China’s economy slow down on the power electronics market. What are the key drivers of this industry? What is the strategy of the Chinese government? How foreign players can penetrate the Chinese market?... Under this new study, Yole’s analysts give the insights of the Chinese power electronics world…

On the Chinese market, once “made in China” is possible”, explains Zhen Zong, Technology & Market Analyst, Power Electronics & Compound Semi. at Yole. And he adds: “Chinese suppliers have much bigger chance to win the market over foreign suppliers. But the competition between local suppliers is very intense and the industry reshuffle is possible.” For foreign brands, joint venture is the most frequently adopted method to enter the market. The acquisition of local brand can be another method.
Under this new report, Yole’s analysts provide a relevant understanding of the power electronics supply chain in China and the related players. They propose a detailed description of the power electronics leaders in China and their activities:

- **ABB**: the group includes 39 companies in China with operations in 126 cities and 19,000 employees. According to Yole’s estimations, the accumulated investments reached about US$1.9 billion since 1992. “Almost 90% of the domestic sales are locally made products, solutions and services”, details Dr Hong Lin from Yole Développement.

- **Siemens**: according to Yole’s report, has today about 33,300 employees in total. China represents the 2nd largest Siemens overseas market, including 76 joint ventures and wholly owned enterprises.

- **General Electric** has 18,000 employees; Yole’s team identified 8 business units, 55 offices, 27 manufacturing facilities across 37 cities. According to the analysts, General Electric invested US$ 1 billion within R&D activities. The company announced more than 1,300 Chinese patents since 2003.

Yole’s report includes more details about Mitsubishi Electronic, Infineon Technologies … and more players.

From a market segment point of view, the Chinese railway industry has evolved from an importer to a net exporter within 10 years. The recent government-directed merger of CSR and CNR created a new state-owned rail giant CRRC, which is bigger than Siemens, Alstom and Bombardier together. Beside its dominating position in China, CRRC has already begun to compete with its former teachers by offering cheaper solutions as it is the case of Boston’s subway contract.

In a more liberal market, such as photovoltaic, the current market leader in China, Sungrow, is also famous outside of China. Newcomers like Huawei, a global information and communication technology (ICT) solutions provider, have brought new business concepts. They are likely to challenge Sungrow’s leading position in China and become known worldwide, as they have done in ICT.

The Chinese government and private companies are investing in power semiconductors, aiming to catch up with more developed countries. Local players in China are making progress at the end application and inverter levels. Some of them are capable of competing with established players in the international market. However, when moving down to the power semiconductor level, the technology gap between Chinese players and established players grows. For example, China still imports more than 95% of the IGBTs it uses.
In this context, China is investing to catch up with developed countries. Several recent news items, such as the opening of CSR Times Electric’s 8-inch IGBT wafer and module production base and the 6500V/200A IGBT module co-developed by Yongji and ASMC, show China’s progress in power semiconductors.

Besides investing in silicon-based semiconductors, the Chinese government also gave significant funding to WBG\(^1\) semiconductor development and industrialization. The number of companies involved in the WBG area has grown continually since 2006. Chinese companies cover the entire value chain from WBG material to applications, both for GaN\(^2\) and SiC\(^3\).

As in other countries, different factors contribute to market dynamics and influence the market adoption of WBG power devices. Therefore the WBG industry China is targeting to have a strong position for next generation devices.

The Chinese power electronics market is going through a rapidly changing period. In this unsettled market, all companies – both foreign and local – need to find their own position. Status of the Chinese Power Electronics Industry gives a detailed description of the power electronics environment and value chain in China. A detailed description of this report is available on i-micronews.com, power electronics reports section.
About Status of the Chinese Power Electronics Industry 2015 report:

Government initiatives and private companies are boosting power electronics market opportunities, enabling Chinese players to compete internationally.

Rates: Euros 5,990.00 (Full report - Multi user license). For special offers and the price in dollars, please contact David Jourdan (Phone: +33 472 83 01 90).

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- Companies cited in the report:

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, Advanced Packaging, Manufacturing, Nanomaterials, Power Electronics and Batteries & Energy Management.

The “More than Moore” company Yole and its partners System Plus Consulting, Blumorpho and KnowMade support 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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