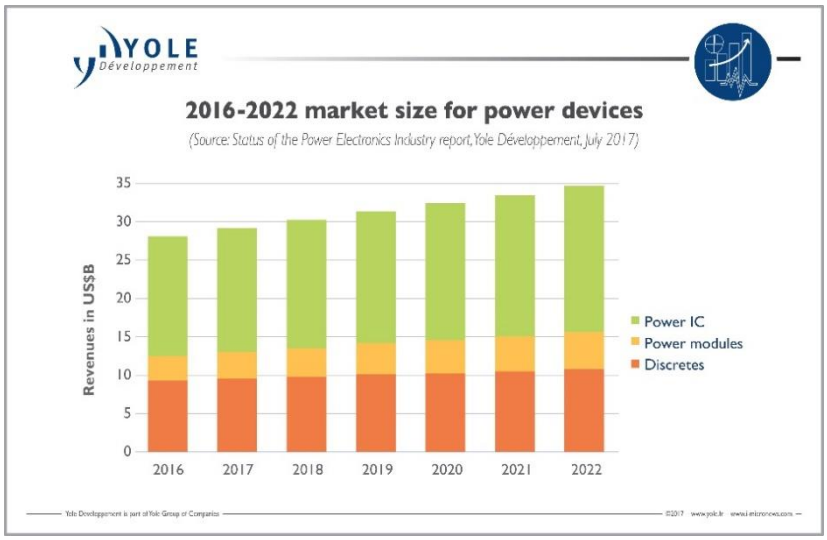
FOR IMMEDIATE RELEASE:

The power electronics industry is showing steady growth and high dynamism

Status of the Power Electronics Industry report –July 2017 - Yole Développement

LYON, France – July 26, 2017: The power electronics industry is a key part of the semiconductor history. Power electronics markets are steady evolving and are continuously diffusing its innovations through the overall semiconductor industry. Numerous mergers & acquisitions (Fairchild Semiconductor and On Semiconductor, Linear Technology and Analog Devices, both in 2016,), the emergence of GaN[1] technology, the adoption of SiC[2] solutions (BYD is now proposing a SiC-based on-board chargers) illustrate quite well the dynamism of the power electronics industry.

This evolution starts with the development of new active devices and goes through the new packaging techniques up to the performance improvement of the power systems.



Yole Développement (Yole) releases today its Status of the Power Electronics Industry report. In its fourth edition, the "More than Moore" market research and strategy consulting company, Yole reviews the latest technical & market trends and proposes a comprehensive overview of the power electronics markets. Its "Top-down" and Bottom-up" methodologies, industry knowledge and technical expertise enable its analysts to cover the whole power electronics supply chain. The power converter field, the EV/HEV[3] industry, the power IC[4] market and more… are part of the 2017 edition.

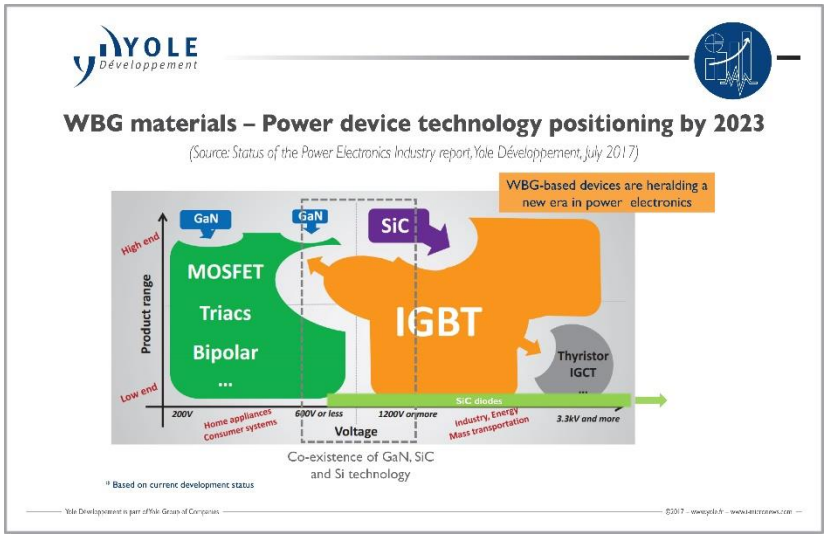
What is the status of the power electronics industry? Yole's analysts offer you today a snapshot of the markets and highlights the business opportunities.

[1] GaN : Gallium Nitride
[2] SiC : Silicon Carbide
[3] EV/HEV : Electronic Vehicle/Hybrid Electric Vehicle
[4] IC : Integrated Circuits

"The power electronics sectors continue to expand their presence almost everywhere," announces **Mattin Grao Txapartegi, Technology & Market Analyst at Yole**. *"Renewable energies and e-mobility, including EV/HEVs, are especially boosting this market. Both solar and EV/HEV converter markets grew by over 20% between 2015 and 2016."*

At the semiconductor level, the power semiconductor market grew by 3.8% compared to 2015. This year, Yole has enlarged its power semiconductor market analysis to all types of power ICs including power management ICs, linear regulators and switching regulators, representing a total market of US$28 billion.

Among all the different types of power devices including thyristors, MOSFETs, IGBTs and power ICs, IGBTs made the greatest progress, with around 8% growth.



Power devices fuel and enable industry mega trends reaching almost US$35 billion in 2022. *"Today, much power device novelty comes from a new family of WBG semiconductors, SiC and GaN"*, says Ana Villamor **Technology & Market Analyst at Yole**. And he adds: *"WBG benefits such as the performance and market needs accelerate their adoption in more and more applications. At Yole, we expect an increase of WBG market revenues reaching with over 30% CAGR[5] between 2016 and 2022."*

Besides WBG devices, many other innovations are also emerging, as in power module packaging. Needs for higher power density and more highly integrated products have made some traditional technologies and materials outdated. Package evolution is responding to stricter requirements at the system level, and as ever here the automotive industry is driving innovation and growth.

Key results of the Status of the Power Electronics Industry report will be presented at the POWER FORTRONIC conference, taking place on Sep. 20&21. **Dr Milan Rosina, Sr Technology & Market Analyst at Yole** will review the key technology trends and strategies of the leading power electronics companies. Program & Registration are now available.

A detailed description of this report is available on i-micronews.com, power electronics reports section.

[5] CAGR : Compound Annual Growth Rate

About Status of the Power Electronics Industry report

Power devices fuel and enable industry mega trends reaching almost US$35B in 2022… This report has been performed by Yole Développement (Yole) part of Yole Group of Companies.

- Companies cited in the report:

ABB, Alpha and Omega Semiconductor (AOS), Amkor, Analog Devices, ASE Group, AT&S, BMW Group, Bosch, BYD, Continental, CRRC, Danfoss, Delphi, Denso, Dialog Semiconductor, Diodes Incorporated, DuPont Teijin Films, Dynex, EXAGAN, Fairchild, Fuji Electric, GaN Systems, General Electric, GeneSiC, Global Wafers, Goldwind, Hitachi, Huawei … Full list

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Dr Ana Villamor serves as a Technology & Market Analyst | Power Electronics at Yole Développement. She is involved in many custom studies and reports focused on emerging power electronics technologies at Yole Développement, including including device technology and reliability analysis (MOSFET, IGBT, HEMT, etc).
Previously Ana was involved in a high-added value collaboration related to the robustness enhancement of SJ Power MOSFETs, within the CNM research center for the leading power electronic company ON Semiconductor. During this partnership and after two years as Silicon Development Engineer, she acquired a relevant technical expertise and a deep knowledge of the power electronic industry.
Ana is author and co-author of several papers as well as a patent. She holds an Electronics Engineering degree completed by a Master in micro and nano electronics, both from Universitat Autonoma de Barcelona (SP).
Jonathan Liao is a Senior Analyst & Business Development Manager at Yole Développement. Jonathan is leading the quarterly power management market updates. In addition, he performs technology & market reports for gate driver, discrete, module and compound semiconductors.
Before joining Yole, Jonathan served as a power electronics Sr. Analyst at IHS Markit. Within a global semiconductor business ecosystem, financial analyses and power management scouting were part of his mission.
Jonathan Liao earned his Master of Science (AZ, USA) and graduated with a Bachelor of Science (PA, USA).
Mattin Grao Txapartegi is a Technology & Market Analyst | Power Electronics at Yole Développement. He is engaged in many custom studies and reports dedicated to the evolution of inverters architecture, power packaging technologiesand passive components. He is daily driving technology and market scouting, roadmap definition, disruptive technologies and market opportunities identification and competitive landscape analysis.
Previously Mattin acquired a comprehensive expertise at Renault.
Mattin is graduated from Grenoble INP (FR) and has an advanced master from the Arts & Métiers ParisTech (FR).

About Yole Développement – www.yole.fr

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, RF Electronics, Solid-state lighting, Displays, Image Sensors, Optoelectronics, Microfluidics & Medical, Advanced Packaging, Manufacturing, Nanomaterials, Power Electronics and Batteries & Energy Management.
The "More than Moore" company Yole, along with its partners System Plus Consulting, PISEO, Blumorpho and KnowMade, support industrial companies, investors and R&D organizations worldwide to help them understand markets and follow technology trends to grow their business.

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