LYON, France – January 28, 2019: The InP wafer market is today dominated by the high-speed fiber optic communication market, as InP is capable of emission and detection in wavelengths above 1000 nm. The InP wafer market is so largely impacted by the photonics market, especially driven by datacom and telecom applications: each market segment is using InP as a substrate for both laser diodes and photo diodes in optical transceivers. Driven by the 5G arrival and the impressive growth of datacom business, the InP wafer and epiwafer are showing a strong attractiveness. Yole Développement (Yole) announces a US$172 million market by 2024, with a 14% CAGR between 2018 and 2024.

The market research and strategy consulting company Yole proposes this month a new compound semiconductor report dedicated to the InP wafer and epiwafer industry. Titled InP Wafer and Epiwafer Market - Photonic and RF Applications, this report provides a deep understanding of this industry with a comprehensive description of the applicative market segments, photonics and RF electronics. Yole’s analysts reveal the status of InP wafer growth and epi growth technology and analyze the powerful ecosystem with market dynamics, key players by market sizes and forecasts. Business development is not only limited to the photonic markets. Yole’s Power & Wireless team also investigated other markets including LiDARs and handset PA.

Yole offers you today a clear picture of the InP potential and business opportunities.
As an old but still gold-standard member of the compound semiconductor family, InP possesses the key advantages of emission and detection capabilities over 1000 nm in the photonics domain, as well as high speed and low noise performance in high-frequency RF applications.

“Though it is often overshadowed by rivals like GaAs and SiGe for mass-volume, cost-driven RF applications, InP remains a top choice for performance-driven niche markets like military communication, radar, and radiometry, as well as automatic test equipment,” asserts Ezgi Dogmus, PhD, Technology & Market Analyst, Power & Wireless team at Yole. And she adds: “Moreover, different industrial actors including Skyworks, GCS, and IntelliEPI are monitoring InP technology for the upcoming 5G move.”

Currently, the real boost for the InP wafer market is expected in photonic applications. In optical communication, InP offers high performance in many functions including emission, photo detection, modulation, and mixing, but it is often challenged by other semiconductor platforms because of its high cost. Nevertheless, InP is an indispensable building block for laser diodes in transceivers used for telecom and datacom applications. Specific to the cyclic telecom market, which has recently slowed down, massive investment plans from different operators (i.e. China Telecom) are expected with the imminent 5G network.

“In fact, the InP wafer market for telecom is projected to reach around US$53 million by 2024,” comments Hong Lin, PhD., Senior Technology & Market Analyst at Yole. Also, significant investment in the datacom market is expected from different players, led by internet giants Google, Amazon, Alibaba, and more.

With the requirement of more data transfer at higher speeds, transceiver technology is migrating to technology offering better rates (100GbE and 400GbE), for which InP is more favorable. The wafer market for datacom is expected to explode, with an impressive 14% CAGR between 2018 and 2024. Last but not least, exciting LiDAR applications could be promising for InP, i.e. enabling eye safety at higher wavelength, which is currently in an early R&D phase.

Yole is deeply involved in the compound semiconductor sector for a while. With a dedicated Power & Wireless team and its collaboration with System Plus Consulting, part of Yole Group of Companies, the company investigates each material and devices and proposes step by step a significant collection of compound semiconductor reports. SiC4, GaN5, GaAs and today InP, analysts expand their expertise and reveal their vision of the industry and technology evolution through reports, presentations all year long during key conferences and trade shows and webcasts. As an example,

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4 SiC : Silicon Carbide
5 GaN : Gallium Nitride
this week, Yole is organizing an online event dedicated to the GaAs industry. Sponsored by IQE, GaAs Wafer and Epiwafer Market: RF, Photonics, LED, and PV Applications webcast takes place on January 30 at 5.00 PM CET – 8.00 AM PDF. Ezgi Dogmus from Yole and Dr. Drew Nelson President & CEO of IQE, will present the status of this industry and point out the technology challenges. Register today!

The full collection of compound semiconductor reports including the one focused on InP is available on i-micronews.com, compound semiconductor reports section.
ABOUT THE REPORT:

InP Wafer and Epiwafer Market - Photonic and RF Applications

Photonics (telecom, datacom, LiDAR, sensing and others…) is driving the InP wafer market. – Produced by Yole Développement (Yole).

Companies cited in the report:

Authors:
- As a Technology & Market Analyst, Compound Semiconductors, Ezgi Dogmus, PhD is member of the Power & Wireless division at Yole Développement (Yole). She is daily contributing to the development of these activities with a dedicated collection of market & technology reports as well as custom consulting projects. Prior Yole, Ezgi was deeply involved in the development of GaN-based solutions at IEMN (Lille, France). Ezgi also participated in numerous international conferences and has authored or co-authored more than 12 papers. Upon graduating from University of Augsburg (Germany) and Grenoble Institute of Technology (France), Ezgi received her PhD in Microelectronics at IEMN (France).
- Hong Lin, PhD works as a Senior Technology and Market Analyst, Compound Semiconductors since 2013. She is specialized in compound semiconductors and provides technical and economic analysis. Before joining Yole Développement, she worked as R&D engineer at Newstep Technologies. She was in charge of the development of cold cathodes by PECVD for visible and UV lamp applications based on nanotechnologies. She holds a PhD in Physics and Chemistry of materials.

RELATED REPORTS
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ABOUT YOLE GROUP OF COMPANIES

System Plus Consulting specializes in the cost analysis of electronics, from semiconductor devices to electronic systems. Created more than 20 years ago, System Plus Consulting has developed a complete range of services, costing tools and reports to deliver in-depth production cost studies and estimate the objective selling price of a product.
System Plus Consulting engineers are experts in Integrated Circuits - Power Devices & Modules - MEMS & Sensors - Photonics – LED - Imaging – Display - Packaging - Electronic Boards & Systems. Through hundreds of analyses performed each year, System Plus Consulting offers deep added-value reports to help its customers understand their production processes and determine production costs. Based on System Plus Consulting's results, manufacturers are able to compare their production costs to those of competitors. System Plus Consulting is a sister company of Yole Développement. More info on www.systemplus.fr and on LinkedIn and Twitter.

Founded in 1998, Yole Développement (Yole) has grown to become a group of companies providing marketing, technology and strategy consulting, media and corporate finance services, reverse engineering and reverse costing services and well as IP and patent analysis. With a strong focus on emerging applications using silicon and/or micro manufacturing, the Yole group of companies has expanded to include more than 80 collaborators worldwide covering MEMS & Sensors - Imaging - Medical Technologies - Compound Semiconductors - RF Electronics - Solid State Lighting - Displays - Photonics - Power Electronics - Batteries &
Energy Management - Advanced Packaging - Semiconductor Manufacturing - Software & Computing - Memory and more...

The “More than Moore” market research, technology and strategy consulting company Yole Développement, along with its partners System Plus Consulting, PISEO and KnowMade, support industrial companies, investors and R&D organizations worldwide to help them understand markets and follow technology trends to grow their business. For more information, visit www.yole.fr and follow Yole on LinkedIn and Twitter.

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