Market Briefing

E. Rude
Semi, milpitas, United States

Biography
Since joining SEMI 2017 Mr. Rude has been responsible for corporate engagement with SEMI members and industry to participate in SEMI events, initiatives and new vertical markets. In addition, Mr. Rude supports new SEMI association acquisitions of FlexTech, Fab Owners Association, MEMS & Sensors Industry Group and Electronic Systems Design. Previously Mr. Rude served as Director of Sales with the National Restaurant Association for 16 years responsible for creating new business and driving revenue to support the foodservice industry.

2019 Semiconductor Fab, Equipment and Materials Market: Have we reached the bottom of this cycle?

L. Chamness
Senior Market Analyst Manager
SEMI, Industry Research and Statistics, Milpitas, United States

Abstract
Coming off of a record-breaking year, 2019 is shaping up to be a reset year for the industry. Headwinds in the form of excess inventory, memory pricing and trade tensions have converged to set the industry up for declines across the board. The critical question is, have we reached the bottom yet? This presentation will discuss the 2019 fab, equipment, and materials markets and provide a forecast through 2020 for these markets.

Biography
Ms. Lara Chamness is a Senior Manager Market Analysis at SEMI® and is responsible for SEMI's data collection programs for equipment and materials. This includes leading interactions with SEMI's participating companies, partners and subscribers. Ms. Chamness has 19 years of industry experience and earned BA/MS degrees in environmental sciences and a MBA degree from Santa Clara University.

Equipment Manufacturing Trends: What to expect for More than Moore devices?

A. Pizzagalli
Technology & Market Analyst,Equipment & Materials - Semiconductor Manufacturing
Yole Développement, Villeurbanne, France

Abstract
The overall semiconductor equipment market is worth several billion dollars. By contrast, lithography equipment for the MTM industry is a small niche representing millions of dollars.
However, megatrend markets like fifth generation (5G) wireless technologies, electric vehicles, and advanced mobile devices demand miniaturization and extra functionality. These emerging applications push MTM devices to new levels of complexity, resulting in big investments. As a matter of fact, fabricating the next MTM device generation requires tools with new technical specifications. These are very different to the “More Moore” mainstream semiconductor industry with respect to resolution, overlay, depth of focus (DOF), wafer bow and backside alignment.
The new lithography equipment market for MTM devices is mostly driven by Advanced Packaging. This sector accounts today for almost 60% of the overall MTM lithography tools market and will continue dominating this industry with stepper technology. Meanwhile, a high percentage of lithography equipment revenue for MEMS and Sensors, CIS and Power devices comes is generated by retrofitted tools coming from the legacy semiconductor industry. MEMS, Sensors and Power Devices have more relaxed specifications, so that mask aligner tools are sufficient at lower cost. However, megatrend applications are pushing devices with more stringent requirements, with lithographic features below 1µm. This would pave the way towards greater adoption of stepper or disruptive technologies.

This presentation will highlight the status of the lithography equipment type used for More than Moore devices along with a more in-depth analysis of technology trends and impacts made by emerging applications.

Biography
Amandine Pizzagalli is a Technology & Market Analyst, Equipment & Materials - Semiconductor Manufacturing, at Yole Développement (Yole). Amandine is part of the development of the Semiconductor & Software division of Yole with the production of reports and custom consulting projects. She is in charge of comprehensive analyses focused on semiconductor equipment, materials and manufacturing processes. Previously, Amandine worked as Process engineer on CVD and ALD processes for semiconductor applications at Air Liquide. Amandine was based in Japan during one year to manage these projects. Amandine graduated from the engineering school, CPE Lyon (France), with a technical expertise in Semiconductor & Nano-Electronics and holds an electronics engineering degree followed by a master’s in semiconductor manufacturing technology from KTH Royal institute of technology (Sweden).
She has spoken in numerous international conferences and has authored or co-authored more than 10 papers