

# Heterogeneous Integration Roadmap Workshop

## ESTC

Dresden September 19<sup>th</sup> 2018

13:00 - 16:30

Welcome to the Heterogeneous Integration Roadmap Workshop hosted by the 2018 ESTC Conference.

Our Industry has reinvented itself through multiple disruptive changes in technologies, products and markets.. With the rapid migration of logic, memory and applications to the Cloud infrastructures, Data Centers and 5G Networks, the Internet of Things (IoT) to internet of everything (IOE), Autonomous Vehicles, the proliferation of Smart Devices every where, and increasing interest in 5G, artificial intelligence (AI) & Virtual Reality (VR) , the pace of innovation is increasing to meet these challenges. What are the paths forward?

The IEEE Heterogeneous Integration Technology Roadmap (HIR), is sponsored by the IEEE Electronic Packaging Society (EPS), the Electron Devices Society (EDS), Photonics Society together with ASME EPPD and SEMI. It will address the future directions of heterogeneous integration technologies and applications serving future markets and applications, so very crucial to our profession, our industries, academic and research communities. Following the spirit of ITRS, the HIR is a pre-competitive technology roadmap provides long-term vision to identify the needs of future technology challenges, roadblocks, and potential solutions focused on system integration and broad market applications in order to accelerate progress for the broad electronics industry.



# Heterogeneous Integration Roadmap Workshop at ESTC

## Agenda

September 19, 2018 13:00 – 16:00

Welcome Messages

Hubert Lakner & Karlheinz Bock

Invited Talk (19 min each talk)

- Heterogeneous Integration Roadmap Overview
- Opportunities & Challenges in Automotive Electronics Packaging
- Photonics Integration
- ITRW & Power Electronics Integration

Bill Chen & Bill Bottoms

Andreas Middendorf

Gunnar Böttger

Pete Wilson & Jing Zhang

Heterogeneous Integration Roadmap TWG Session (11 minutes each talk)

TWG Session Co - Moderators :

- System-in-Package (SIP)
- WLP & Fanout
- Co-Design & Simulations
- 5G & Analog & Mixed Signal

Jean Trewhella & Klaus Pressel

Rolf Aschenbrenner

John Hunt

Chris Bailey

Frank Fitzek

Panel (all speakers ) Q&A Session

Wrap-Up

Bill Bottoms & Bill Chen