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**Uwe F.W. Behringer**  
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## Foreword

On behalf of VDE/VDI-GMM, the sponsors, and the organizing committee, we welcome you to the proceedings volume from the 30th European Mask and Lithography Conference, EMLC2014 at the Hilton Hotel in Dresden, Germany.

The conference has annually brought together scientists, researchers, engineers, and technologists from research institutes and companies from around the world to present innovations at the forefront of mask lithography and mask technology. The two-day conference was dedicated to the science, technology, engineering, and application of mask and lithography technologies and associated processes, giving an overview of the present status in mask and lithography technologies and the future strategy where mask producers and users have the opportunity of becoming acquainted with new developments and results. This year's sessions included: Mask Writing Time Optimization; EUV Lithography; EUV Mask Technology; E-Beam Technologies; Templates Technologies; Simulation; Metrology; Wafer Processing; DSA Technology and Alternative Lithography, and Processes and Special Technologies.

Heinz Martin Esser, CEO of Roth & Rau – Ortnor GmbH was the welcome speaker. His presentation introduced European's largest Cluster in the ICT (Information & Communication Technology) and explained the impressive development with the main success factors. Another highlight of his talk described the efforts to build up a strong European Cooperation beginning initially with a partnership with Grenoble (Minalogic) which could be extended with other important European High-Tech Clusters (Silicon Europa) to establish a new mutual European Identity in the global competition.

Our first keynote speaker was Jan Hendrik Peters from Carl Zeiss, SMS GmbH, Jena, Germany. His talk was "EUV mask infrastructure: Are we ready to meet the demands for the consumer electronics market?"

Our second keynote speaker was Stefan Wurm from SEMATECH. His talk was entitled "EUV lithography: process, challenges and outlook."

Keeping our tradition, we invited the Best Paper of PMJ 2014 (the paper will be announced by the PMJ Committee), and the Best Poster from BACUS2013 which was "Black border, mask 3D effects: covering challenges of EUV mask architecture for 22nm node and beyond," and was presented by Natalia Davydova from ASML.

Also a tradition we invited V. Jindal from SEMATECH to present information regarding the yearly "Mask Industry Survey."

## **Technical Exhibition**

Parallel to the Conference Presentations, the Technical Exhibition took place on Tuesday and Wednesday where companies (mask suppliers, material suppliers, and equipment suppliers) exhibited their companies and products. To foster the exchange between the conference attendees and the exhibitors, the exhibition area was also the place for all coffee and lunch breaks.

**Uwe F.W. Behringer**  
EMLC2014 Conference Chair

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