Enabling Better MEMS from Concept to High Volume Production
Dr. David Haynes, Lam Research Corp.

Faster time to market, improved device yield and increased productivity in high volume manufacturing are becoming increasingly critical requirements for MEMS manufacturers. Lam Research is unique in being able to support these requirements by offering a broad range of modelling and production proven processes technologies.

At the very start of the MEMS development process, Lam's Coventor team offers a unique and powerful platform for MEMS design, simulation, verification and process modeling. This platform addresses MEMS-specific engineering challenges such as multi-physics interactions, process variations, MEMS + IC integration, and MEMS + package interaction. Using these tools, engineers can model and simulate device behavior and interactions before committing to actual fabrication. In a few hours or days, they can model or simulate effects that would have taken months of building and testing in the fab.

Then, Lam can support the ramp of proven designs into high volume products by offering a range of MEMS specific deposition, etch and clean solutions that draw on our advanced CMOS fabrication capabilities to deliver best in class MEMS manufacturing performance.

In this presentation we will discuss both these key aspects of realizing new MEMS products.
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David gained a B.Eng and PhD in Materials Engineering from Swansea University. His PhD thesis was in the field of organic semiconductors for electronic and optoelectronic applications. In his professional career, David has accrued more than 20 years of experience in the Semiconductor Capital Equipment and research instrumentation sectors with STS, SPTS and Oxford Instruments. Focused on new technology development, he has a strong process background in plasma etch and deposition for optoelectronics, photonics, MEMS, Power and RF Electronics, as well as advanced chip packaging technologies. Building on this technical knowledge, David has a proven track record in developing strategic business partnerships; specialising in new technology developments and introduction of enabling process capabilities to leading semiconductor fabs worldwide. David Joined Lam Research in June 2016 and is currently Managing Director of Strategic Marketing in Lam's Customer Support Business Group.