The Industrialized EUV Scanner for High-Volume Manufacturing  
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With the introduction of its fifth-generation NXE:3400 scanner, ASML brought EUV to High-Volume Manufacturing for lithography in the 7 nm node and beyond with full support of pellicle. This presentation presents an update on lithographic performance results obtained with the NXE:3400, characterized by an NA of 0.33, a Pupil Fill Ratio (PFR) of 0.2 and throughput capability of more than 125 wafers per hour. Advances in source power and system performance have enabled a continued increase of productivity. To maximize the number of yielding dies per day excellent Overlay, Focus, and Critical Dimension (CD) control have been realized, combining intrinsic tool stability with holistic control schemes. We will also show matching performance for both Overlay and Imaging, and further improvements in Focus Process Dependencies for the 5nm node and beyond. Finally we will show the ASML roadmap for meeting future node requirements.