EUV lithography now

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EUV lithography has come a long way over the last two decades starting from small field demonstration systems through full field alpha tool scanners installed in 2006 in CNSE, Albany, USA and IMEC, Leuven, Belgium to EUV followed by multiple high volume manufacturing tools at customer locations since 2010.

Starting with historical perspective, mid-term challenges such as source power scaling, vacuum challenge and mask cleanliness will be reviewed.

EUV can be extended for several nodes by a combination of advanced illumination schemes, higher numerical aperture and potentially new wavelength.
Worldwide research activities supporting this EUV extension will be shared and discussed.