

SCREEN

SOKUDO



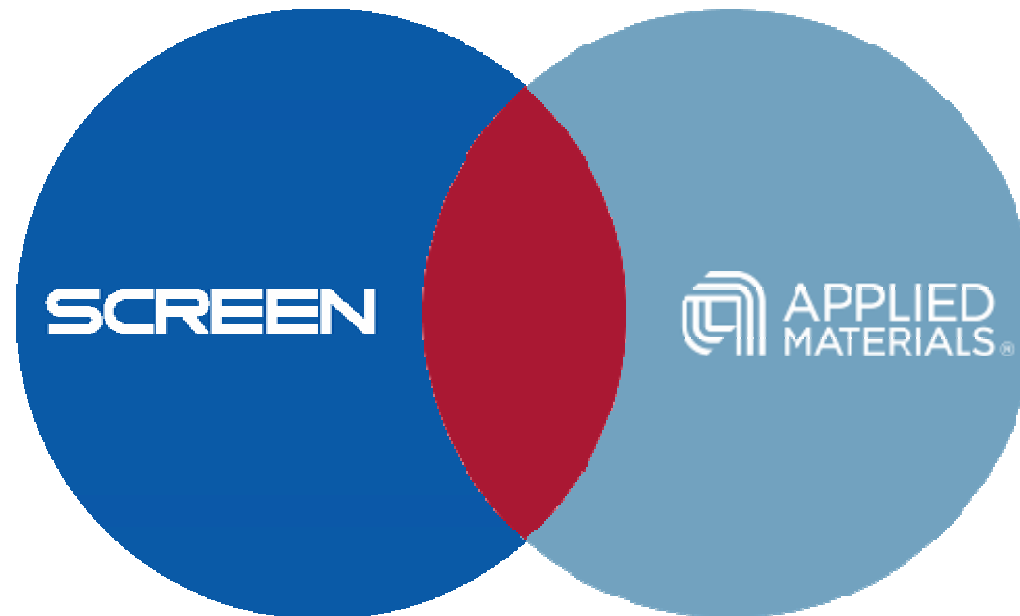
32nm Lithography: Evolution or Revolution for Coat/Develop Track Equipment

SOKUDO Co., Ltd.



SOKUDO

Joint Venture Company as of July 20, 2006

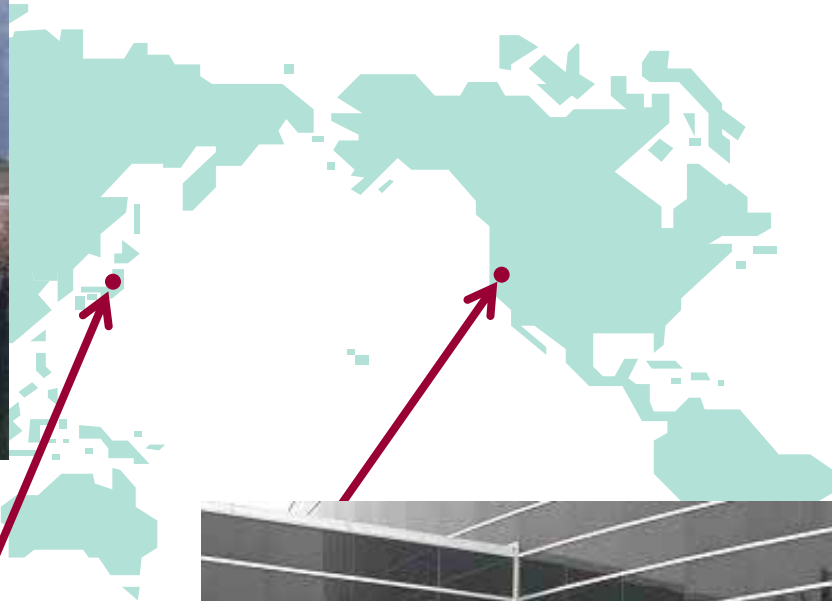


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Centers for Research & Development



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White Canvas RAKUSAI

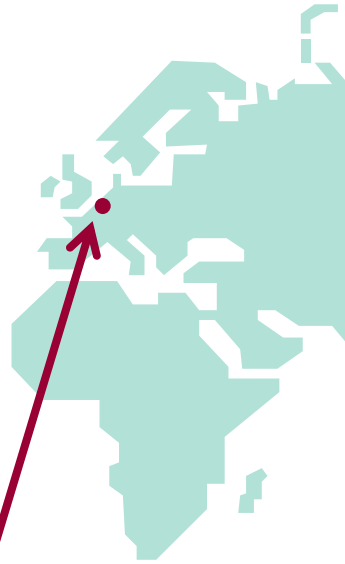
120nm CD Nikon S302A (NA 0.65)

Maydan Technology Center

65nm CD ASML XT:1400 (NA 0.93)



Immersion Lithography Development Site



ASML Veldhoven

45nm CD ASML XT:1700Fi (NA 1.2)

RF³ⁱ

*Immersion Lithography
Coat / Develop Track*

32nm Lithography Development Options

- **Immersion EVOLUTION**

- ASML, Nikon, and/or Canon process co-development
early access to ArF immersion NA > 1.3 exposure

- **Extreme REVOLUTION (EUV)**

- SELETE (Tsukuba, Japan) EUV Project

- **REVOLUTIONARY EVOLUTION (E-Beam)**

- e-BEAM Corporation (Tokyo, Japan) cooperation via
Dainippon Screen Mfg. Co., Ltd. participation

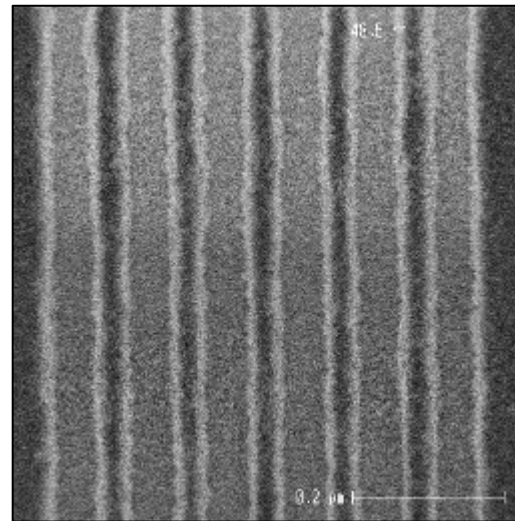
Early EUVL Sampling at ASML Veldhoven

*Resist: MET-2D, ~18 mJ/cm²
ASML EUV Alpha NA=0.25
 $\sigma = 0.5$ (conventional illumination)
no process optimization development*

*EU
Coat, Develop,
and PEB by*

RF³ⁱ
TRACK

50 nm half-pitch



40 nm half-pitch

