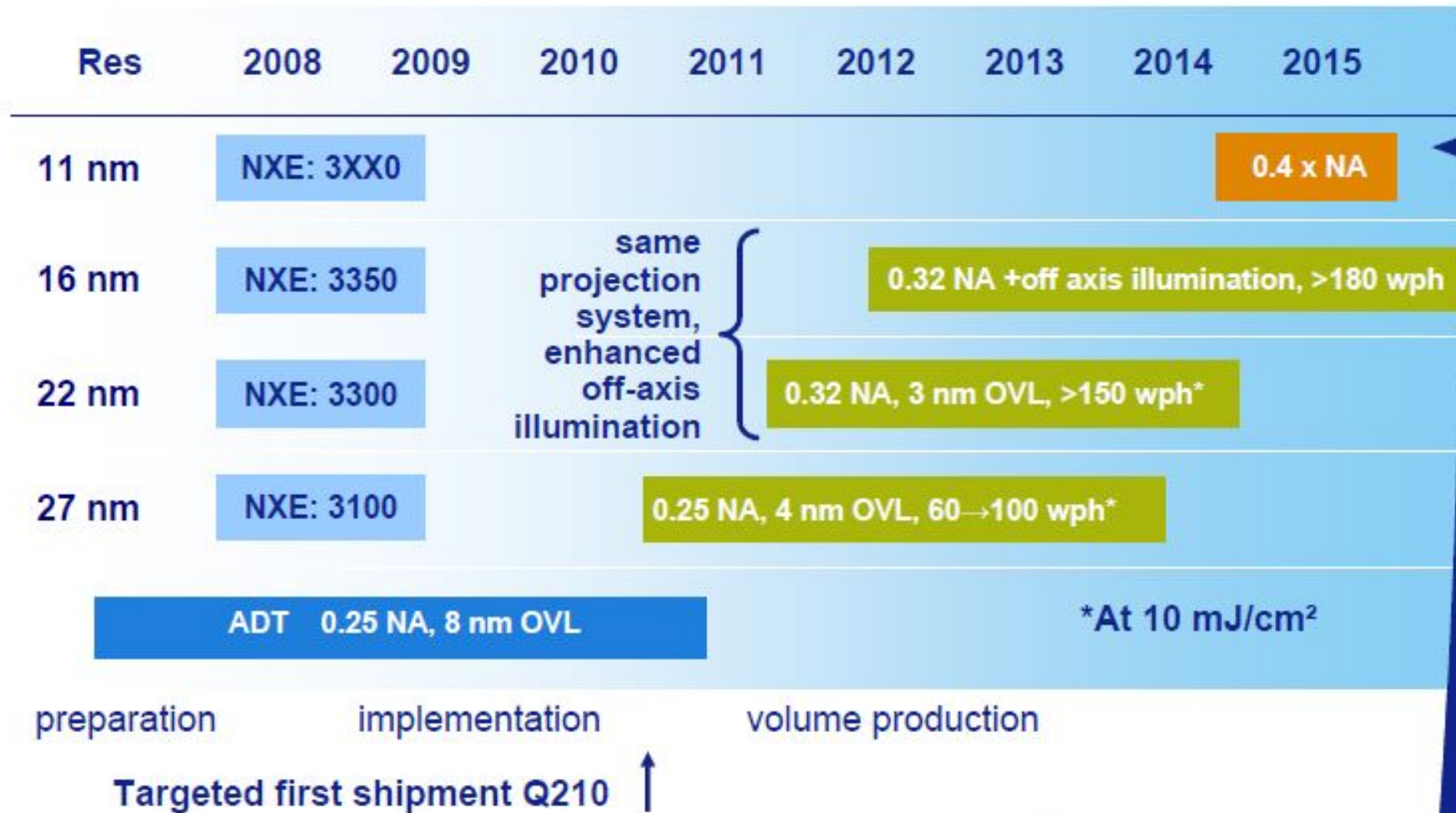


# Welcome to the iEUVi Panel

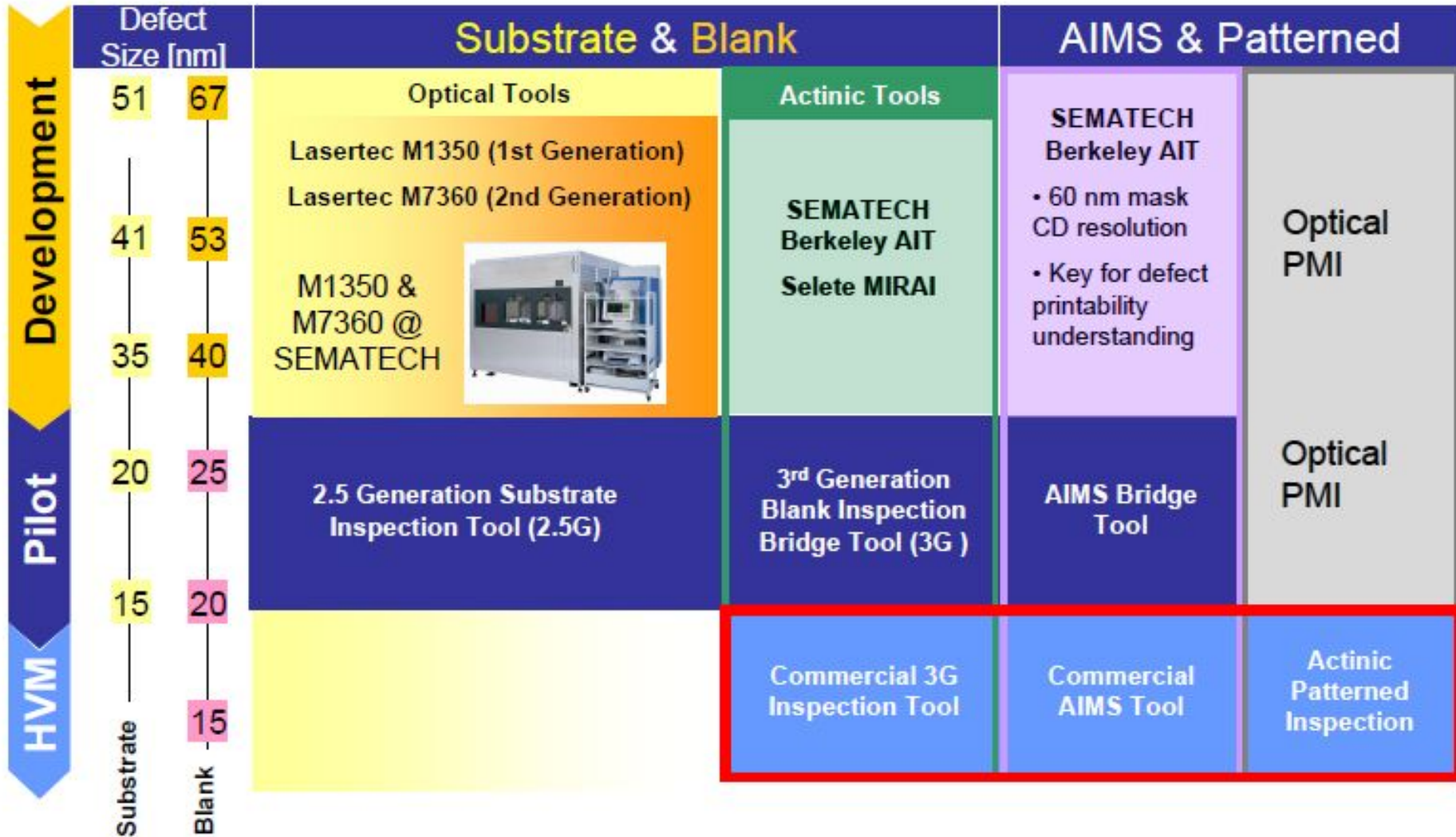
"Defect Printability Mask Standardization -  
Attributes and Possibilities"

# EUVL roadmap: a single multi-generation platform

For different optics suitable down to 16 nm



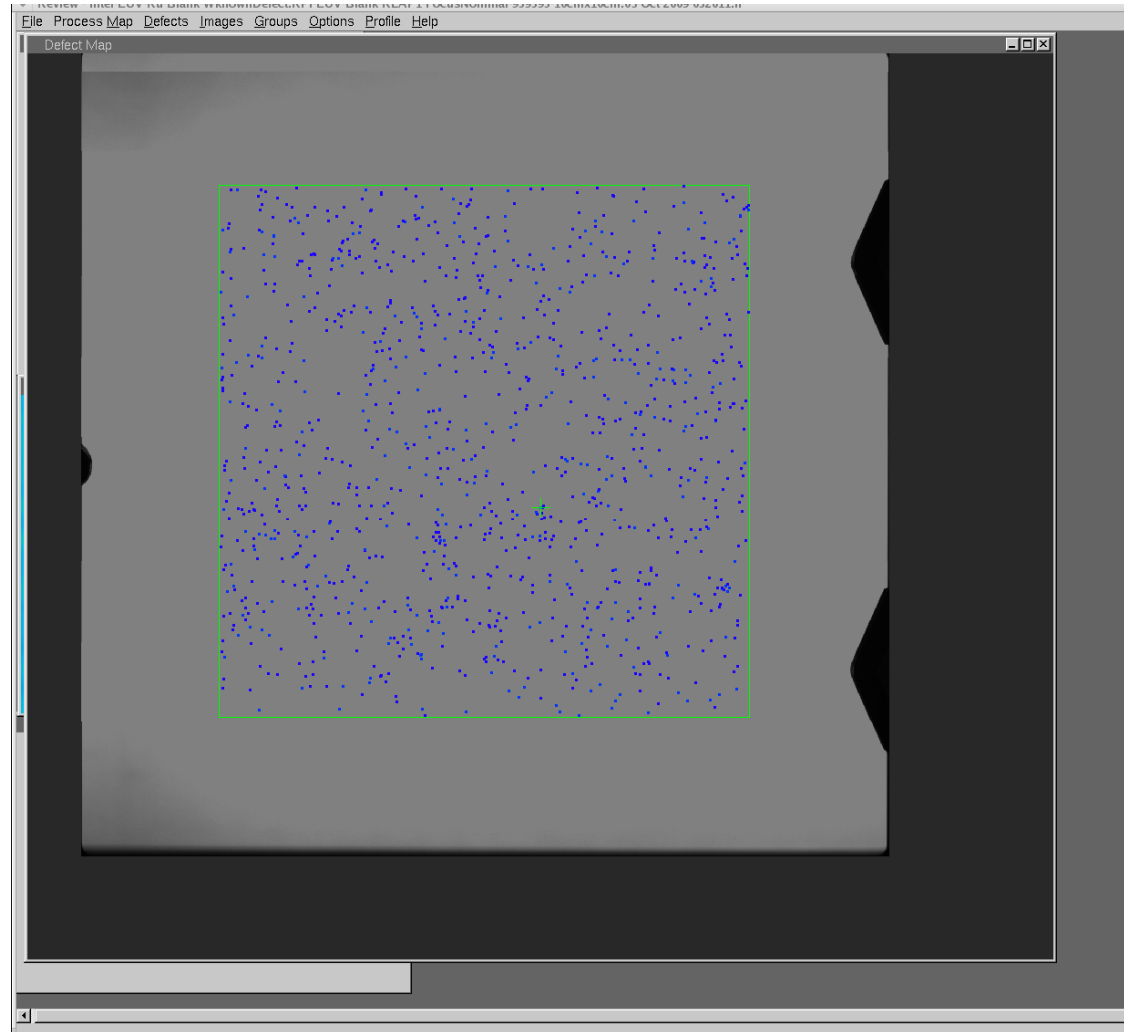
# EUV mask inspection tools

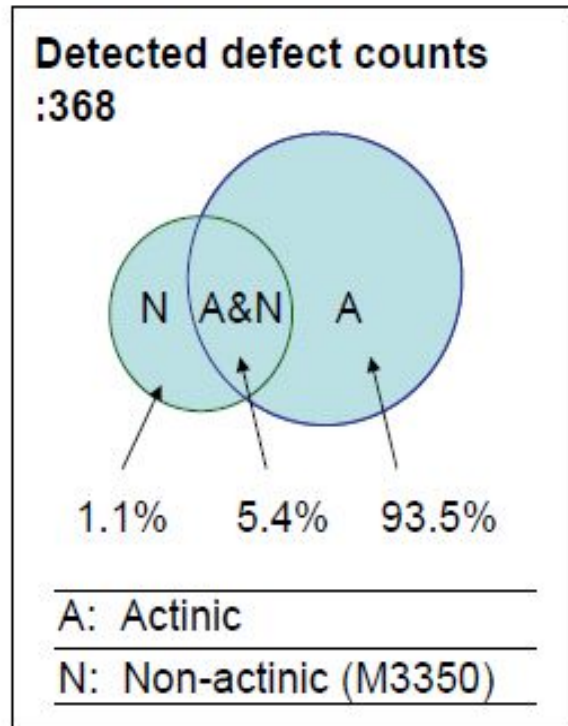


ABC = Existing Tools  
   = SEMATECH Pilot Line Tools  
   = Production Tools

# Blank Inspection

Defect map of natural defects on an EUV ML blank





↓

**Defect review**

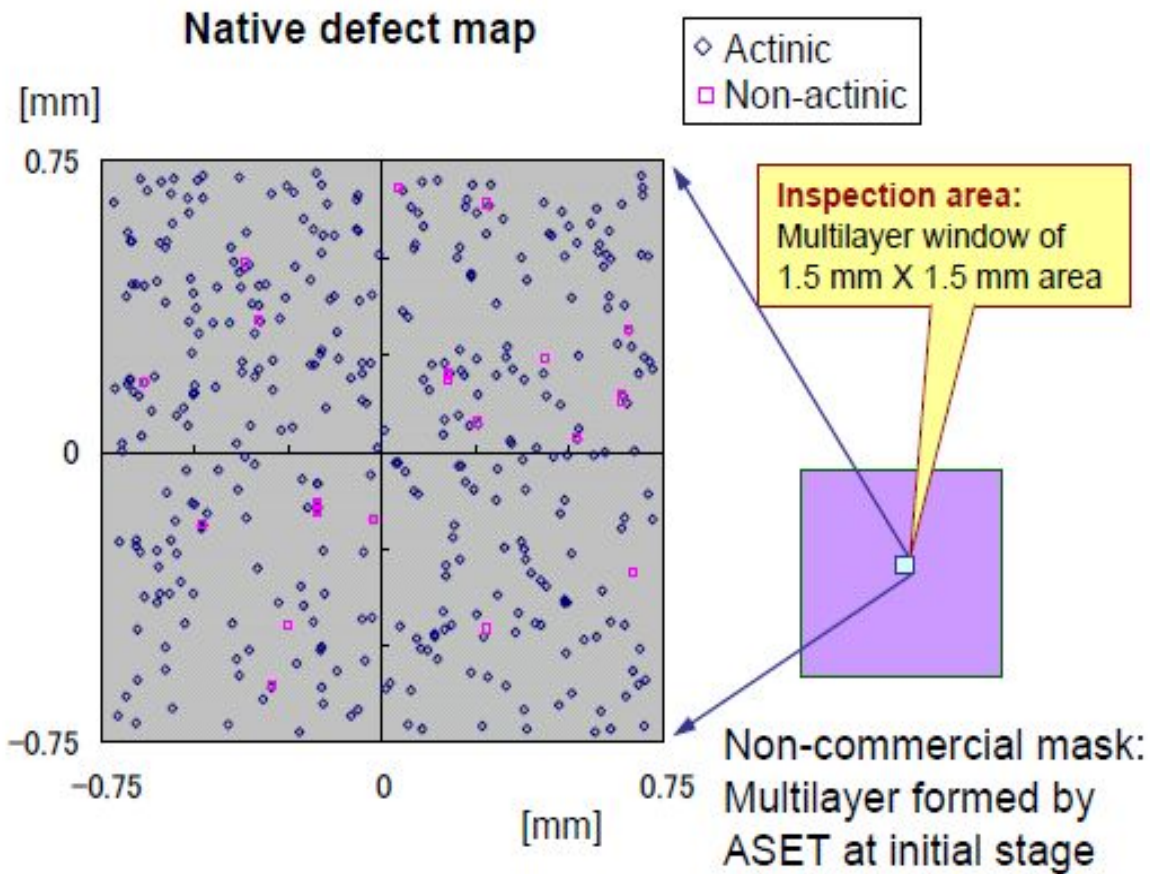
---

A:        AFM

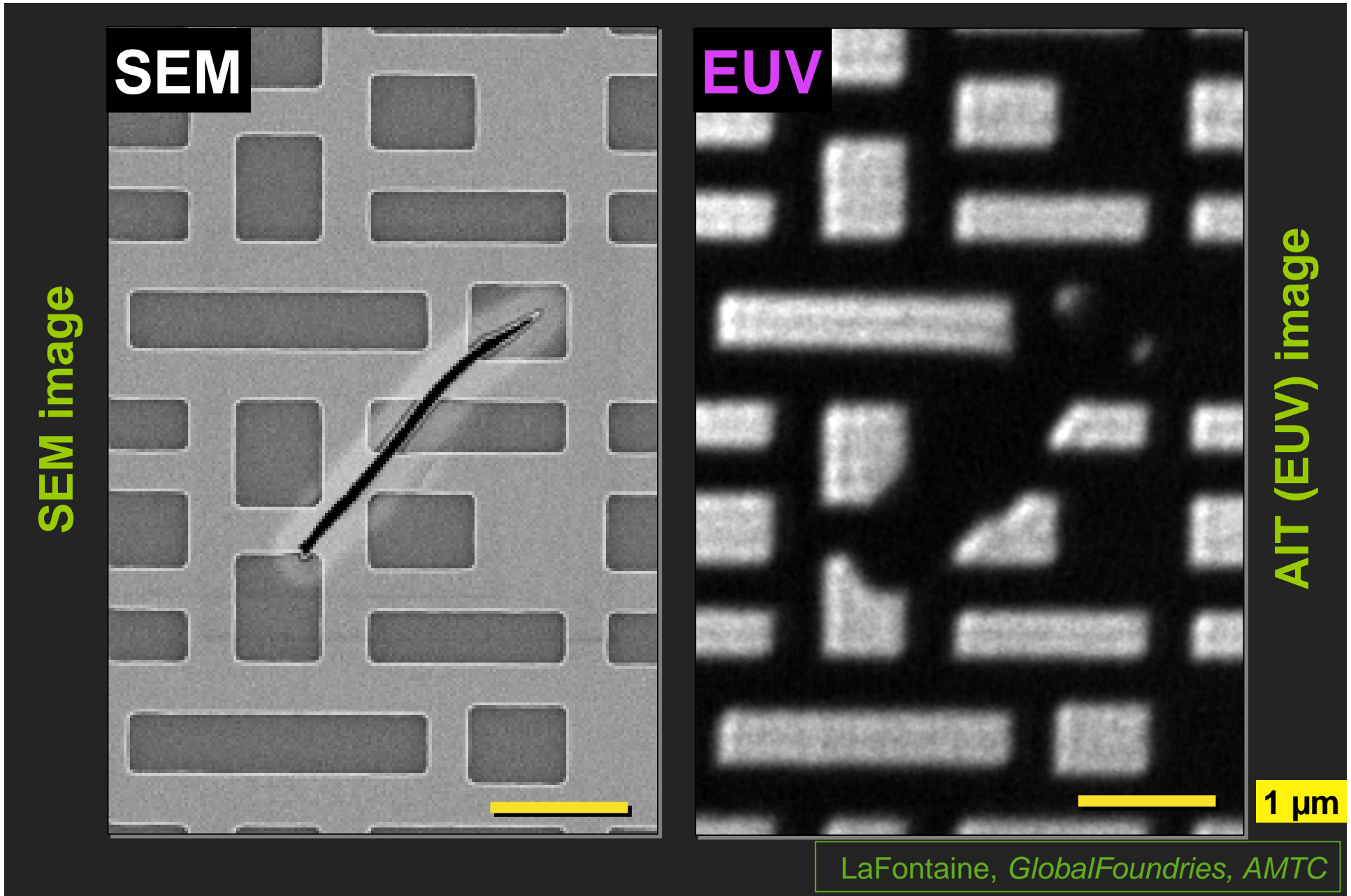
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A&N, N: SEM

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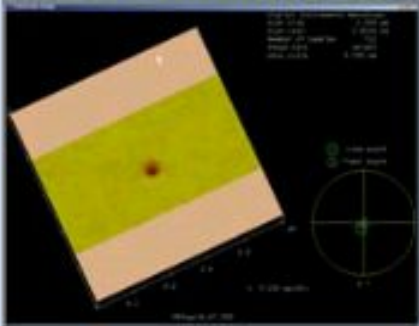


# Native defects on a full-field mask (1)



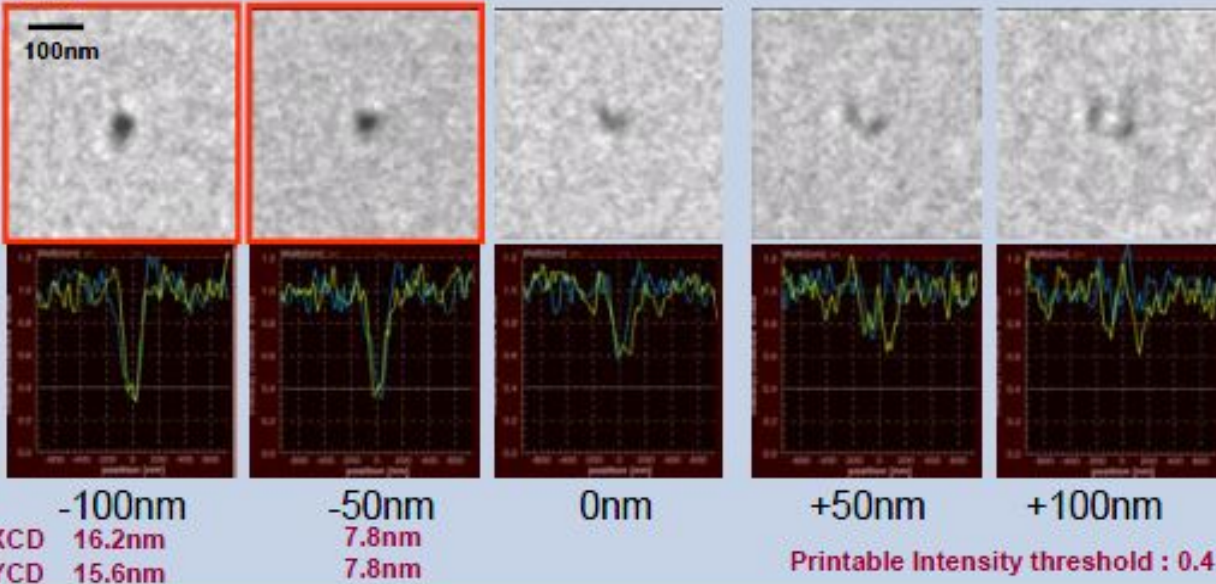
# Defect Image on AIT / AFM (Pit)

## Printable

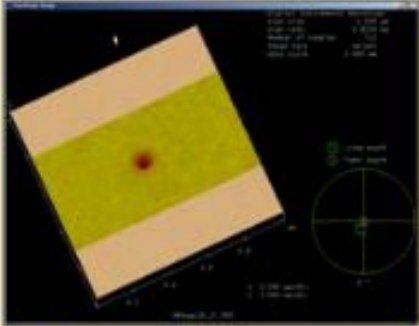


- FWHM : 50.5nm, depth : 4.4nm
- Phase : 236.2deg

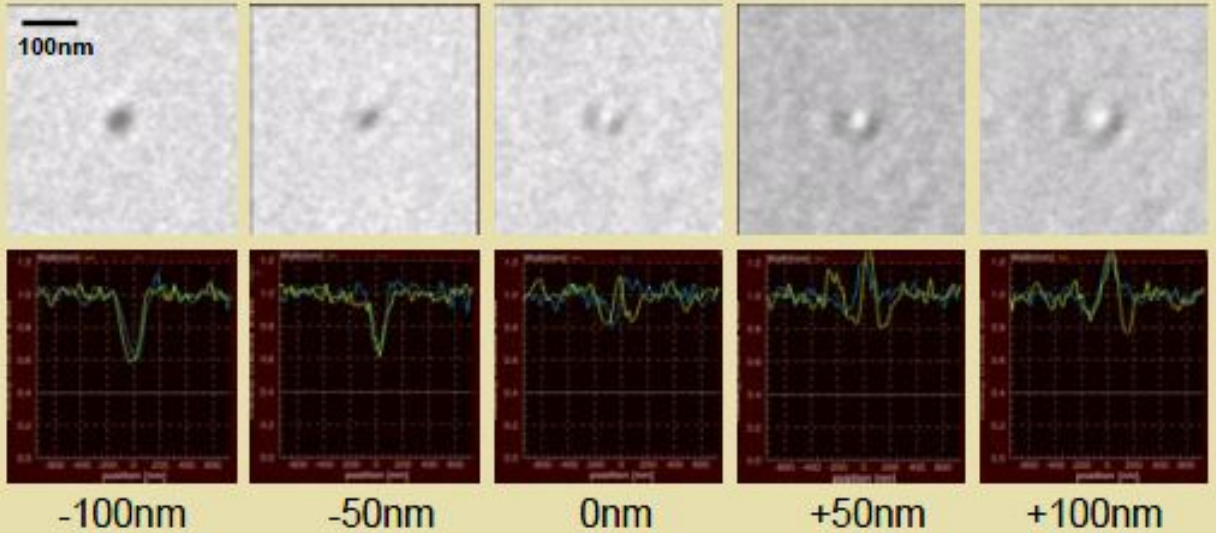
## AIT



## Unprintable



- FWHM : 22.8nm, depth : 2.8nm
- Phase : 150.6deg



**Pit : More printable at “-” focus**

# Comparison wafer inspection, mask inspection and blank inspection

