Is 3D NAND a Disruptive Technology for Flash Storage?

Flash Memory Summit

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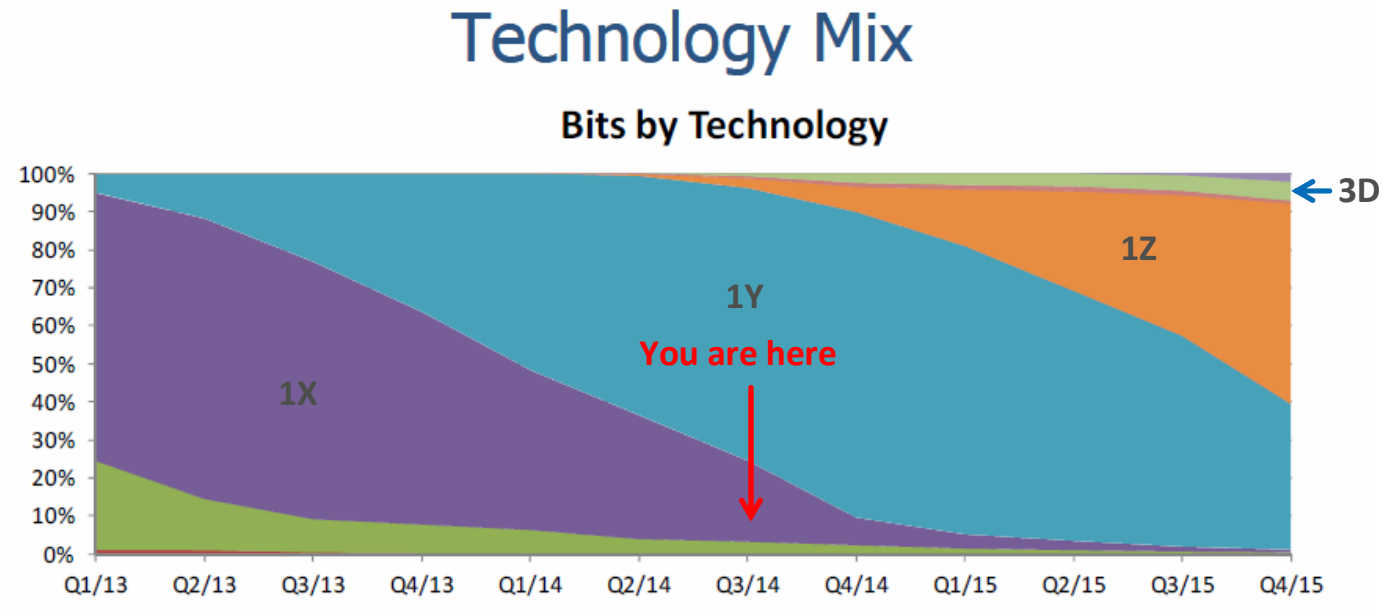
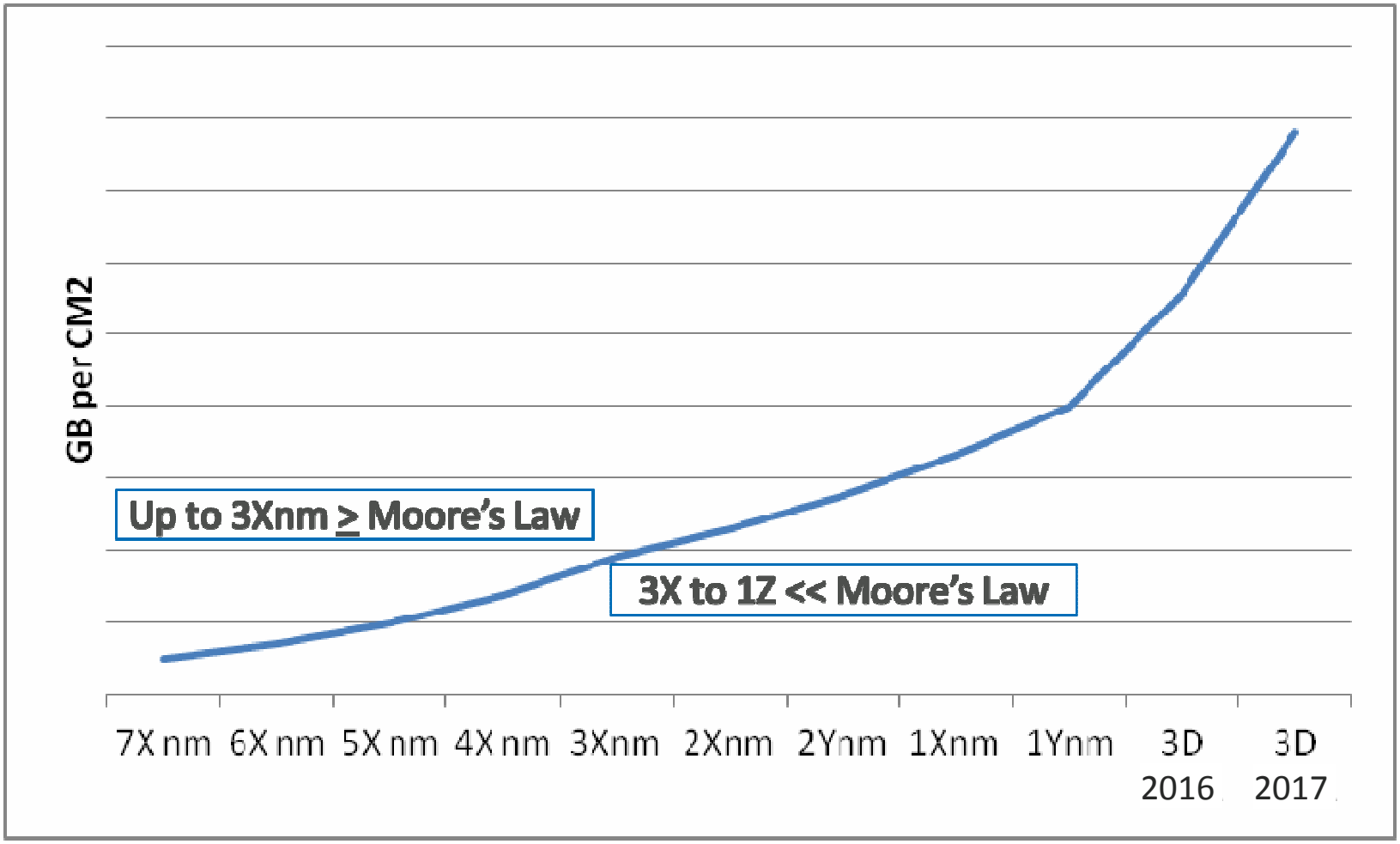
Is 3D NAND a Disruptive Technology for Flash Storage?

Yes, but not today

- **Economics** for suppliers not there yet
- **Benefits** for NAND users not there yet



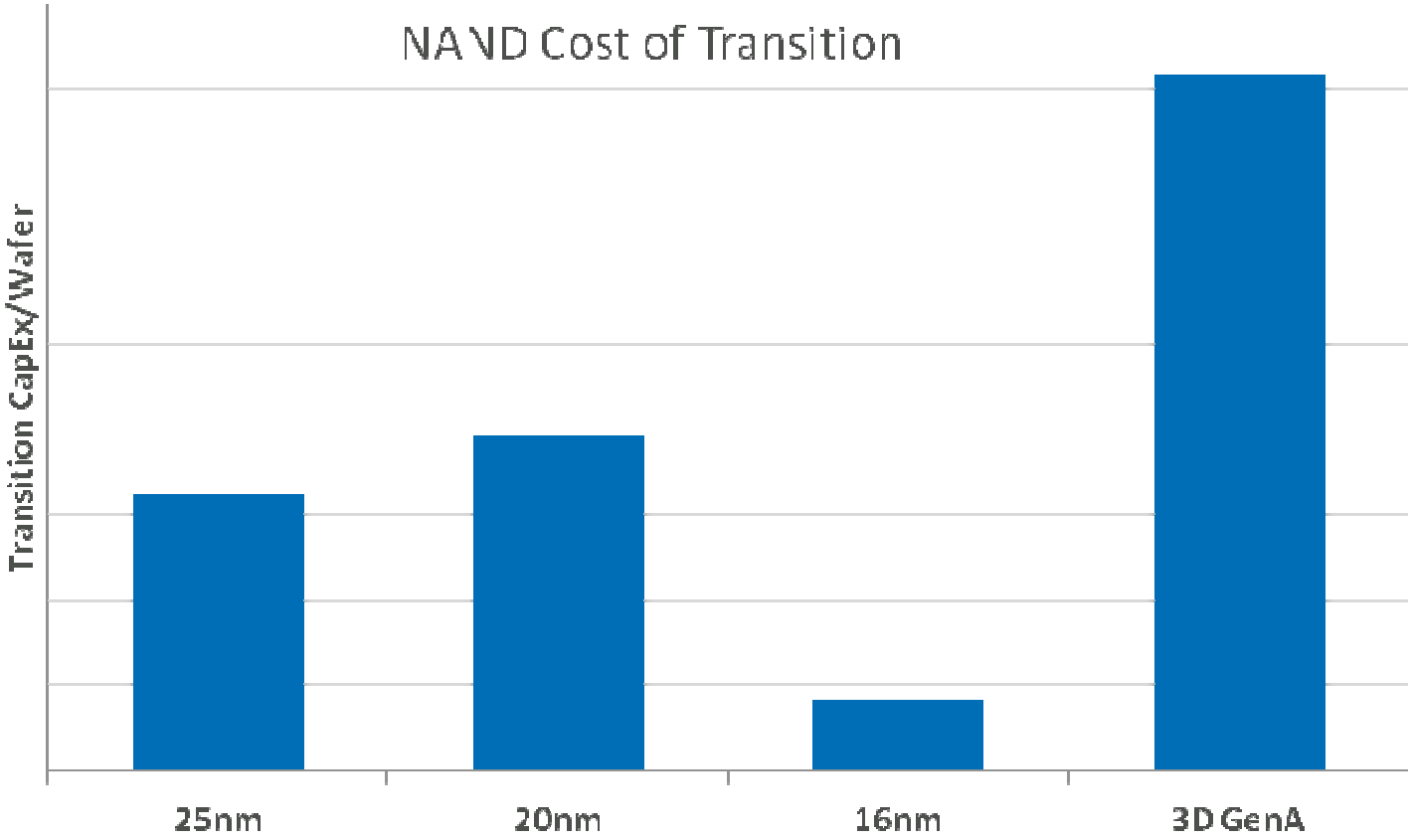
3D NAND – The Promise:
Back to Moore's Law Scaling



→ 3D NAND is enabler for 256Gb (MLC) and higher densities

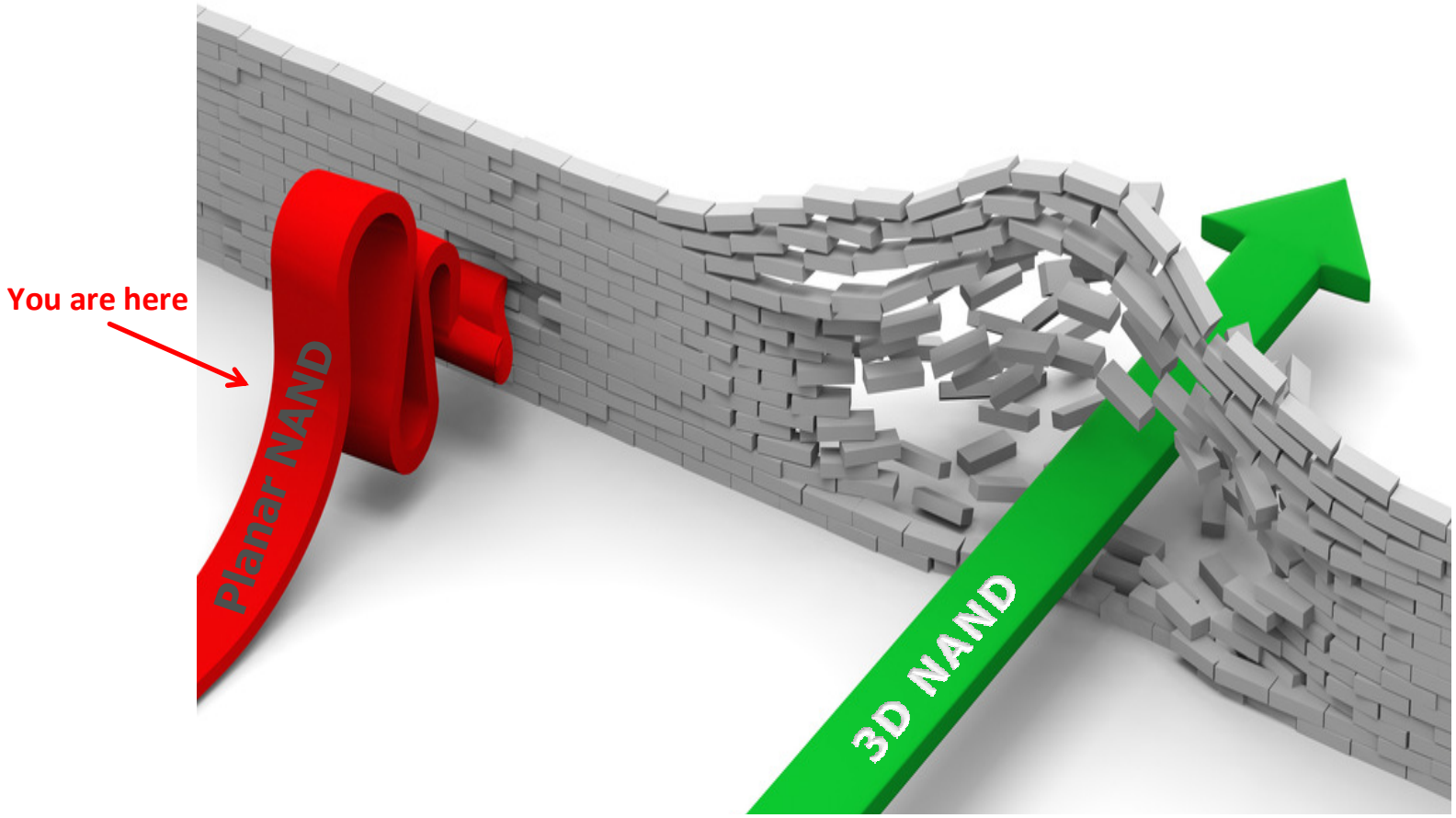
→ Conventional error management methodologies

The Problem Statement for NAND Manufacturers



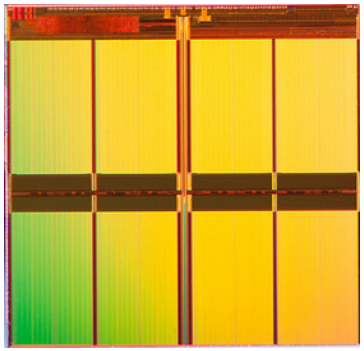
Does not include “back-end” costs (yield, reliability testing, etc)

We Keep Pushing the Wall Back



16nm Planar NAND uses Proven Technology

16nm NAND



INSIGHT AWARDS

SEMICONDUCTOR OF THE YEAR

Conclusion

3D NAND will be disruptive, but it is not today

CapEx cost prohibitive to manufacturers

256Gb (MLC) density required to provide benefit to users

16nm planar NAND proven and best solution through at least 2015

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