



## **Wafer Fab Materials Enabling the Connected World**

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Wafer Fab Materials demand is driven by the device manufacturing it enables. The technical and economic factors underlying Silicon wafer demand are critical in understanding the demand for the materials that they consume in manufacturing. However, the device manufacturing landscape is changing – scaling is not the only route to increased device value, and volume demand.

The cost of developing smaller nodes is increasing, and customers are implementing new designs with caution, meaning capacity is ramping more slowly. Logic device makers are reviewing product strategies, and refocusing roadmaps on opportunities like edge computing, automotive electronics, AI and 5G for growth. Memory is seeing a rapid shift to 3D architectures in NAND, and capacitor changes in DRAM, and More than Moore applications such as MEMS, power management, and CIS are seeing increased demand, and will likely grow at above average wafer area demand for the next 5 years.

These trends affecting the wafer manufacturing landscape will combine with the structural shifts in the materials supply chain to provide technical, strategic, and tactical challenges and opportunities. We will outline these trends, and draw conclusions for suppliers