

## **Monolithic electronic-photonic integration in zero-change SOI and bulk CMOS**

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We present platforms for monolithic integration of silicon-photonics components into advanced SOI and bulk CMOS process nodes. These integration platforms enable large-scale electronic photonic systems with millions of transistors and thousands of photonic devices on the same die. Zero-change integration into 45nm and 32nm SOI CMOS enables powerful integrated systems with no extra cost. We also demonstrate bulk CMOS integration with several inexpensive mask layers enabling scaling beyond 32nm.