# Relentlessly Pursuing Moore's Law

Advancing and Accelerating Computing

Components Research, the research group of Intel Technology Development, is responsible for delivering revolutionary process and packaging technologies that extend Moore's Law and enable Intel products and services.

At the 67th Annual IEEE International Electron Devices Meeting, Components Research is presenting key breakthroughs in three areas of research for delivering the fundamental building blocks for more powerful computing well into the future:
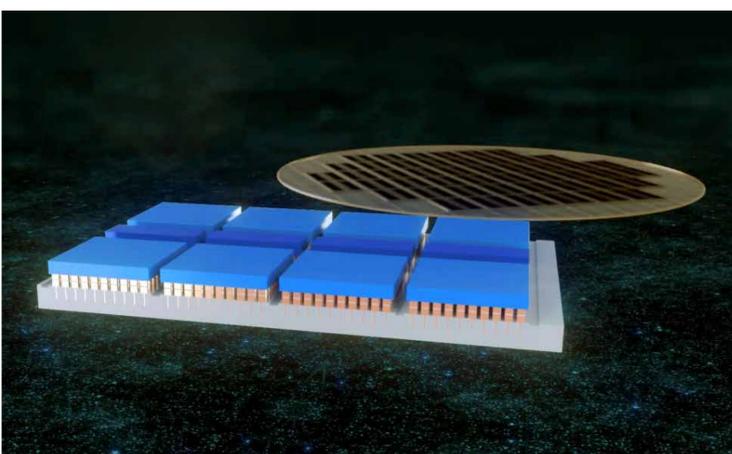
Delivering More Transistors

Essential scaling technologies for delivering more transistors include making them faster and smaller, so we can deliver millions more per square area and deliver them as tiles, or chiplets, via advanced packaging.

- Interconnect density improvement in packaging
- Area improvement with 3D transistor stacking
- Super thin materials for future scaling
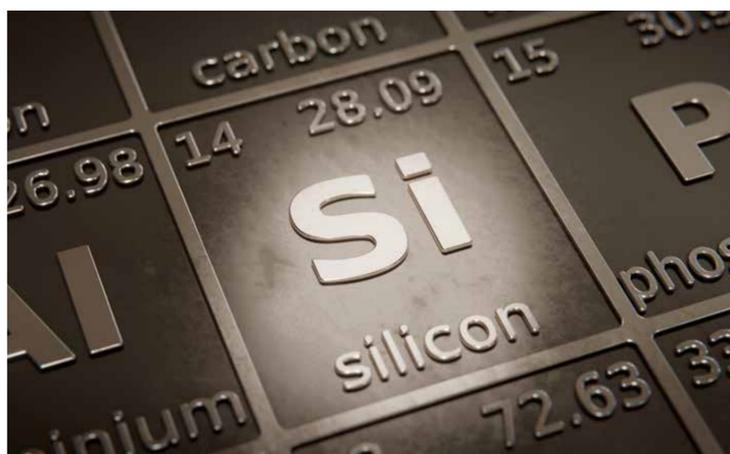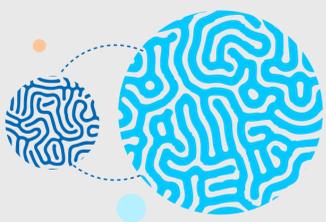
Bringing New Capabilities to Silicon

As we enable more powerful computing through scaling, we need to stretch the limits of silicon and integrate new materials so we can deliver power more efficiently and meet greater demands for memory.
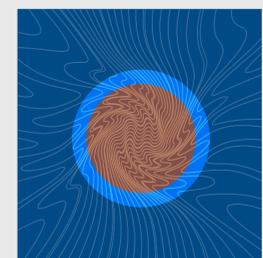
- World's first integration of GaN-based power switches
- Record FeRAM speed and endurance
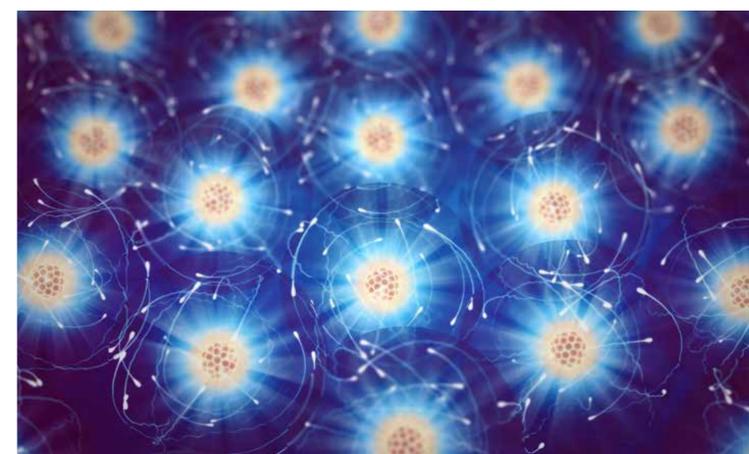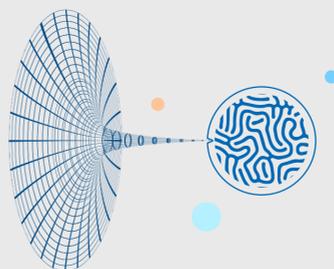
Embracing the Quantum Realm

We are exploring entirely new concepts in physics that may one day revolutionize computing by potentially replacing classic transistors, enabling even greater performance and power efficiencies.

- Magnetoelectric spin-orbit logic
- Spin-torque devices
- 300mm qubit process flows

Learn more at https://intel.ly/31PxF9p