

# FutureHorizons



The Global Semiconductor Industry Analysts

## FH MONDAY

26 November 2018

### Avaya Launches new SIP Offerings

BENGALURU — Networking and communications vendor Avaya is back in business and has recently announced its open SIP offerings to expand its Desktop Experience portfolio.

[read more](#)

### AI Processor Startups Revelling

Graphcore showed a system that it has co-developed with Dell, and rival Habana snagged \$75 million in a funding round led by Intel Capital. The deals reinforce a report earlier this year that the first AI chip startups are now in production with silicon that looks promising.

[read more](#)

### IBM Researching Copper for Future Memory Use

Every innovation in memory technology begins with basic research, and a team at IBM Research has developed new technique to control the magnetism of a single copper atom. The technology could one day allow individual atomic nuclei to store and process information, but there's a long path ahead to any form of commercialization.

[read more](#)

FutureHorizons



### TALK TO US



### Imec, CEA-Leti Form AI and Quantum Computing Hub

LONDON — Two of Europe's key electronics and nanotechnologies research institutes — imec in Belgium and CEA-Leti in France — will collaborate to develop a European hub for artificial intelligence and quantum computing.

[read more](#)

### EVENTS

#### [Silicon Chip Industry Seminar](#)

– 12 Nov 2018 – London UK

#### [Industry Forecast Briefing](#)

– January 2019 – London UK

**DON'T MISS OUT.-  
BOOK NOW BY  
CALLING**

**+44 1732 740440**

**OR EMAIL**

[mail@futurehorizons.com](mailto:mail@futurehorizons.com)

### Edge computing accelerates ROI of IoT

Mission-critical applications such as factory automation require not only ultra-low latency but also high reliability and fast, on-the-fly decision-making. Conventional centralized communication architectures are not able to provide the new performance requirements mostly due to congestion, high latency and slow backhaul links.

[read more](#)

Future Horizons Ltd, • 44 Bethel Road • Sevenoaks • Kent TN13 3UE • England

Tel: +44 1732 740440 • Fax: +44 1732 740442

e-mail: [mail@futurehorizons.com](mailto:mail@futurehorizons.com) • <http://www.futurehorizons.com/>

Affiliates in Europe, India, Israel, Japan, Russian, San Jose California, USA

## **Avaya Launches New SIP Offerings**

BENGALURU — Networking and communications vendor Avaya is back in business and has recently announced its open SIP offerings to expand its Desktop Experience portfolio.

Session Initiation Protocol (SIP) is an open signaling protocol standard developed by the Internet Engineering Task Force (IETF) in cooperation with many industry leaders, including Avaya, for establishing, managing, and terminating real-time communications over large IP-based networks, such as the Internet.

## **AI Processor Startups Revelling**

SAN JOSE, Calif. — Graphcore showed a system that it has co-developed with Dell, and rival Habana snagged \$75 million in a funding round led by Intel Capital. The deals reinforce a report earlier this year that the first AI chip startups are now in production with silicon that looks promising.

The news comes at a challenging moment for Nvidia, whose GPUs currently lead the rapidly emerging market for AI accelerators. Nvidia said that its fourth-quarter revenues will be down about 20%, mainly due to declining demand for its chips in cryptocurrency mining.

## **IBM Researching Copper For Future Memory Use**

TORONTO — Every innovation in memory technology begins with basic research, and a team at IBM Research has developed new technique to control the magnetism of a single copper atom. The technology could one day allow individual atomic nuclei to store and process information, but there's a long path ahead to any form of commercialization.

In a paper recently published in the journal Nature Nanotechnology, IBM Research scientists Dr. Christopher Lutz and Dr. Kai Yang demonstrated how they can control the magnetism of a single atom's nucleus by performing Nuclear Magnetic Resonance (NMR) one atom at a time. NMR is an essential tool for determining the structures of molecules, but the work by Lutz and Yang is the first time NMR has been achieved using a Scanning Tunneling Microscope (STM), the Nobel Prize-winning IBM invention that allows atoms to be viewed and moved individually.

## **Imec, CEA-Leti Form AI And Quantum Computing Hub**

LONDON — Two of Europe's key electronics and nanotechnologies research institutes — imec in Belgium and CEA-Leti in France — will collaborate to develop a European hub for artificial intelligence and quantum computing.

As security and privacy issues rise up the agenda in almost every organization, the race is on to process more at the edge and put more intelligence at endpoints. For electronics systems design, most of the major chip companies now offer or are developing deep learning and edge AI devices or intellectual property. The edge AI devices are often complete computer sub-systems displaying intelligent behavior locally on the hardware devices (chips), analyzing their environment and taking required actions to achieve specific goals.

Edge AI is considered now to hold the promise of solving many societal challenges — from treating diseases that cannot yet be cured today, to minimizing the environmental impact of farming. Decentralization from the cloud to the edge is a key challenge of AI technologies applied to large heterogeneous systems. This requires innovation in the components industry with powerful, energy-guzzling processors.

## **Edge Computing Accelerates ROI Of IoT**

Mission-critical applications such as factory automation require not only ultra-low latency but also high reliability and fast, on-the-fly decision-making.

Conventional centralized communication architectures are not able to provide the new performance requirements mostly due to congestion, high latency and slow backhaul links.

Furthermore, fast decision-making on highly automated machinery needs advanced computing capabilities right on the spot, which can be provided only by onboard computers or interconnected edge-computing local nodes working together.

Edge computing speaks to a computing topology that places content, computing and processing closer to the user/things or “edge” of the networking. It is not a competing approach to cloud computing but a complementary one.