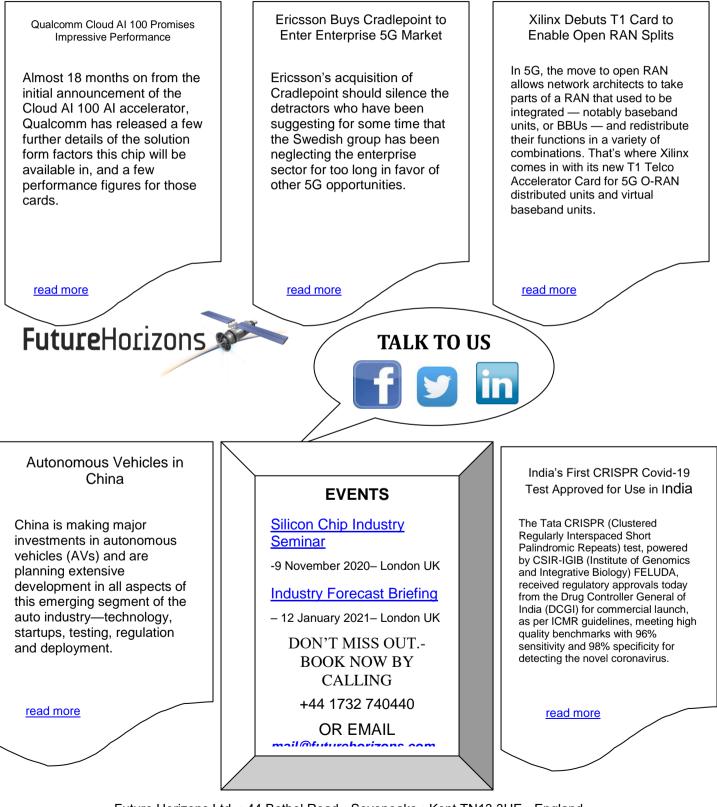
# FutureHorizons

# **FH MONDAY**

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### Qualcomm Cloud AI 100 Promises Impressive Performance per Watt for Near-Edge AI

Almost 18 months on from the initial announcement of the Cloud AI 100 AI accelerator, Qualcomm has released a few further details of the solution form factors this chip will be available in, and a few performance figures for those cards. The mobile silicon giant revealed that Cloud AI 100 final silicon is in production and will ship in the first half of 2021.

The Cloud AI 100 was launched almost 18 months ago in April 2019. While Qualcomm dominates the smartphone processor market with its Snapdragon line, Qualcomm's offerings for servers had previously not taken off — its Armbased Centriq line was pulled in 2018 just a year after launch. The mobile silicon maker therefore sees the Cloud AI 100 as a way into the edge server market.

#### **Ericsson Buys Cradlepoint to Enter Enterprise 5G Market**

Ericsson's acquisition of Cradlepoint should silence the detractors who have been suggesting for some time that the Swedish group has been neglecting the enterprise sector for too long in favor of other 5G opportunities.

Cradlepoint focuses on LTE/4G/5G indoor and private network wireless access and mobile wireless WAN (wide area network) edge solutions.

Ericsson paid \$1.1 billion in cash for the Boise, Idaho-based company that has been a long-term but low-key partner of the Swedish telecommunications infrastructure supplier.

Cradlepoint has an impressive line-up of cellular and Wi-Fi access points, accompanied by cloud-based management software. Its solutions are specifically designed to operate in local areas, including inside buildings and factories and private and campus networks.

## Xilinx Debuts T1 Card to Enable Open RAN Splits

In 5G, the move to open RAN allows network architects to take parts of a RAN that used to be integrated — notably baseband units, or BBUs — and redistribute their functions in a variety of combinations. That's where Xilinx comes in with its new T1 Telco Accelerator Card for 5G O-RAN distributed units and virtual baseband units.

A radio access network is basically the wireless part of a cellular network, which ultimately links to the network core, which is largely wireline. One of the elements of a RAN is the baseband unit (BBU), which is essentially the unit that smartphones and the like connect to. In 4G networks, the BBU is a single, integrated system. Originally, 5G BBUs were all integrated too, but then came a proposal for open standards for RAN (or open RAN, or O-RAN). With O-RAN, a BBU can be split in two; into a centralized unit, or CU, and a distributed unit, or DU. These often also get an O-for-open prefix, like so: O-CU and O-DU. A BBU thus divided can then also be referred to as a virtual BBU, or vBBU.

#### **Autonomous Vehicles in China**

China is making major investments in autonomous vehicles (AVs) and are planning extensive development in all aspects of this emerging segment of the auto industry—technology, startups, testing, regulation and deployment.

Baidu this week demonstrated at Baidu World 2020 Apollo's new fully automated driving capability without a safety driver inside the vehicle. Given the fast-moving AV development in China, I will offer a two-part article on China's AV strategy, current status, use-cases and overview of key AV companies. Information of the leading AV companies will primarily be in the second column.

But first, let's start with the big picture. It is useful to understand how big China has become in the auto industry, which is summarized in the table below with comparisons to the United States. Most of the information came from the online version of the CIA World Factbook, which is a great data resource for all of the world's countries.

#### India's First CRISPR Covid-19 Test Approved for Use in India

The Tata CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) test, powered by CSIR-IGIB (Institute of Genomics and Integrative Biology) FELUDA, received regulatory approvals today from the Drug Controller General of India (DCGI) for commercial launch, as per ICMR guidelines, meeting high quality benchmarks with 96% sensitivity and 98% specificity for detecting the novel coronavirus.

This test uses an indigenously developed, cutting-edge CRISPR technology for detection of the genomic sequence of SARS-CoV-2 virus.CRISPR is a genome editing technology to diagnosing diseases.

The Tata CRISPR test is the world's first diagnostic test to deploy a speciallyadapted Cas9 protein to successfully detect the virus causing Covid-19. This marks a significant achievement for the Indian scientific community, moving from R&D to a high-accuracy, scalable and reliable test in less than 100 days.