



# Intel Launches Intel Saffron AML Advisor Using AI to Detect Financial Crime

CEVA & Brodmann17  
Partner to Deliver  
20 Times more  
AI Performance  
for Edge Devices

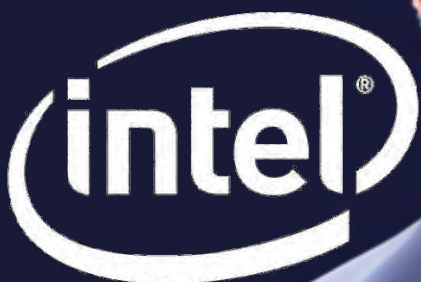
Microsoft announces  
one of the largest  
wind deals with  
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SenseTime China  
and  
Qualcomm USA  
to Collaborate to  
Drive On-Device AI

Cisco Unveils  
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Blockchain  
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**HOPE or HYPE**  
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Facebook shuts  
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after bots  
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Picture Courtesy of Intel

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Daniel Dierickx  
CEO & co-Founder  
at e2mos  
Acting Chief Editor



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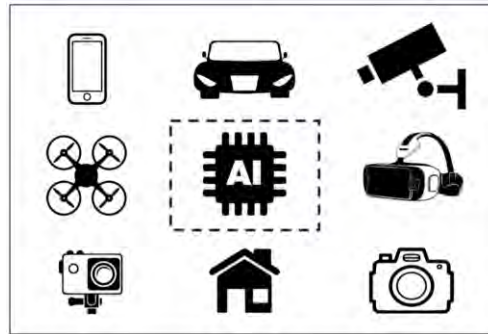
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# CEVA and Brodmann17 Partner to Deliver 20 Times more AI Performance for Edge Devices

*Combination of CEVA-XM imaging and vision platform and Brodmann17's deep learning technology brings ultra-low power deep learning vision to smartphones, drones, cars, surveillance cameras and more*



MOUNTAIN VIEW, Calif., Oct. 18, 2017 /PRNewswire/ -- CEVA, Inc. (NASDAQ: CEVA), the leading licensor of signal processing IP for smarter, connected devices, and Brodmann17, a developer of patent-pending deep learning technology, today announced a partnership aimed at accelerating the deployment of deep learning computer vision in mainstream applications. Through the partnership, CEVA and Brodmann17 bring an order of magnitude increase in performance and power efficiency for deep learning in edge devices compared to the leading GPU-based implementations.

The push towards widespread adoption of Artificial Intelligence (AI) in consumer devices continues at a relentless pace. However, cloud-based deep learning on battery-powered devices is plagued with issues, including latency, security and the need for a constant, reliable internet connection. Implementing the intelligence on the device itself – or on the edge – eliminates all of these issues. Highly efficient computer vision processors are necessary to meet the stringent power requirements and specialized deep learning software is crucial in delivering the accuracy and performance needed for cloud-based systems.

Targeting embedded devices, Brodmann17 has developed a specialized deep learning technology for visual recognition aimed at edge-based artificial intelligence. Using patent-pending techniques, Brodmann17's deep learning architecture generates smaller neural-networks that are faster and more accurate than any other network generated on the market. Through the collaboration with Brodmann17, licensees of the CEVA-XM platforms and their customers will be able to use Brodmann17's deep learning object detection that achieves state of the art accuracy on the CEVA-XM at a rate of 100 frames per second. This equates to 170% better performance than the same software running on the NVIDIA Jetson TX2 AI Supercomputer. Comparing to the popular combination today of Faster-RCNN algorithm over NVIDIA TX2 it is an improvement of 20 times (2000%) in frames per second.

"Our patent-pending deep learning vision software is a perfect fit for the many CEVA customers and OEMs using CEVA-XM platforms to add intelligence to their devices," said Adi Pinhas, CEO of Brodmann17. "This first-of-its-kind combination of hardware and software achieves real-time performance that supports multi-cameras with a single DSP or higher resolutions."

"To truly maximize the performance and capabilities of AI in mass-market devices, it requires not just application-specific hardware like our CEVA-XM platforms, but also neural networks that are trained to be run efficiently on the edge embedded devices," said Ilan Yona, vice president of the vision business unit at CEVA. "Brodmann17's deep learning software provides the capability to create extremely light, accurate and flexible networks, trained from the ground up with embedded in mind. We're delighted to partner with them and bring their unique capabilities to the CEVA-XM ecosystem."

## About Brodmann17

Brodmann17 develops first-in-class deep learning vision software for everyday devices. We partner with automotive, security, robotics, smartphones and other device manufacturers to make consumer devices cloud-free and truly autonomous. Our proprietary deep learning algorithm technology increases overall speed and efficiency in processors, while eliminating the need for Graphic Processing Units (GPU)- making it the most lightweight deep learning vision solution on the market. The company was founded in 2016 and is backed by Iool Ventures, SamsungNext and Sony Innovation Fund. Visit us at <http://www.brodmann17.com> and follow us on YouTube and LinkedIn.

## About CEVA, Inc.

CEVA is the leading licensor of signal processing IP for a smarter, connected world. We partner with semiconductor companies and OEMs worldwide to create power-efficient, intelligent and connected devices for a range of end markets, including mobile, consumer, automotive, industrial and IoT. Our ultra-low-power IPs for vision, audio, communications and connectivity include comprehensive DSP-based platforms for LTE/LTE-A/5G baseband processing in handsets, infrastructure and machine-to-machine devices, advanced imaging, computer vision and deep learning for any camera-enabled device, audio/voice/speech and ultra-low power always-on/sensing applications for multiple IoT markets. For connectivity, we offer the industry's most widely adopted IPs for Bluetooth (low energy and dual mode), Wi-Fi (802.11 a/b/g/n/ac up to 4x4) and serial storage (SATA and SAS). Visit us at [www.ceva-dsp.com](http://www.ceva-dsp.com).

# Microsoft announces one of the largest wind deals in the Netherlands with Vattenfall



*Microsoft will purchase 100 percent of the wind energy generated by project in Wieringermeer Polder*

AMSTERDAM — Nov. 2, 2017 — On Thursday, [Microsoft Corp.](#) announced its second European wind project in the Netherlands with [Vattenfall](#), one of Europe's largest electricity and heat retail and producers. Microsoft will purchase 100 percent of the wind energy generated from a repowered and expanded wind farm that is adjacent to its local datacenter operations in the Netherlands. The 180-megawatt wind farm will be constructed and operated by [Nuon](#), part of Vattenfall in the Wieringermeer Polder, near Amsterdam.

Vattenfall will begin construction of the expansion in 2018, and expects it to be operational effective 2019. Once completed, the Wieringermeer wind farm will be one of the largest onshore wind farms in the Netherlands, almost three times bigger than the Princess Alexia wind farm inaugurated in 2013.

"We are very glad and proud to be able to support Microsoft's transition toward using fossil-free energy in its datacenter operations," said Magnus Hall, CEO of Vattenfall. "This deal is completely in line with our strategy to help all our customers power their lives in ever smarter ways and free from fossil fuel within one generation."

This wind farm will be located adjacent to Microsoft's Netherlands datacenter operations that serves as a regional hub to deliver Microsoft Cloud services to customers across Europe, the Middle East, and Africa, as well as global customers. With the latest expansion completed in 2015, the datacenter is a technologically advanced facility built to reduce water, power and energy use.

The proximity of the wind farm to Microsoft's datacenters in the Netherlands made it particularly attractive, as this will allow the energy generated from these turbines to directly power the datacenter with local, clean wind energy. Matching production and consumption of renewable energy so closely unlocks great transmission efficiencies.

"Investing in local clean energy to power our local datacenter is a win-win for our business and the Netherlands," said Brian Janous, general manager of energy at Microsoft. "Microsoft is committed to bringing new renewable energy sources online to power our datacenters. By focusing on local projects, we're able to create new economic opportunities, reduce carbon emissions and make progress on our global commitment to increase the amount of clean energy used to power the Microsoft Cloud."

This project builds on the existing partnership between Vattenfall & Microsoft. Vattenfall relies on Microsoft Azure and other cloud-based tools to digitally transform its business operations, including renewable energy operations. Vattenfall is implementing advanced analytics powered by Azure with many new use cases, including new analytics for Vattenfall Wind.



"There's a virtuous circle in greening the cloud enabled by this kind of deal," Janous said. "Our powerful cloud tools help companies operate more effectively and efficiently. In the case of Vattenfall and other energy companies, this strengthens their business and creates new opportunities — and that means new opportunities for Microsoft to partner with them to buy new, clean energy to power our cloud, which then powers our customers' cloud services."

Nuon plans to expand the project to eventually include 100 windmills. That will allow the production of approximately 1.3 billion kWh of renewable electricity. Nuon has partnered with key local actors, ECN and the Windcollectief Wieringermeer, to lease lands and operate these turbines. This additional generation capacity will not become available until 2020.

Nuon CEO Peter Smink commented, "We power climate-smarter living and help datacenters use locally produced renewable energy. This is not only an important investment in Dutch renewable energy, but also a new step in the greening of IT in the Netherlands."



The agreement will help support the continued long-term growth of the Microsoft Cloud services delivered from the Netherlands, which is one of 42 Azure regions announced across the globe, and is also one of the first regions to offer the preview of Azure Availability Zones. It also builds on recent local investments in sustainability and energy in the country. Earlier this year, Microsoft sponsored smart-energy startups at the Dutch accelerator Rockstart by providing collaboration and access to business development, data analytics and the Internet of Things.

"This is Microsoft's second wind energy project in Europe, closely following a new Irish wind farm announced about a month ago," said Christian Belady, general manager, Microsoft Cloud Infrastructure and Operations, Microsoft. "Once completed, this wind project will bring Microsoft's total global direct procurement in renewable energy projects to almost 800 megawatts. With these wind projects, we're making considerable progress against the corporate clean energy commitments we set for ourselves in 2016."

**About Nuon** -- Nuon, part of Vattenfall, generates and supplies electricity, energy-related products and services, gas, heat and cooling. Nuon aims at a fossil-free supply of energy within one generation; clean, reliable and affordable. With its 3,600 employees, Nuon services approximately 2 million private and business customers.

**About Vattenfall** -- Vattenfall is a European energy company with approximately 20,000 employees. Together the company produce heat and electricity from the energy sources; wind, hydro, biomass, solar, nuclear, coal and gas. To continuously and reliably deliver energy to our society we need a variety of energy sources.



## SenseTime and Qualcomm to Collaborate to Drive On-Device Artificial Intelligence

Oct 20, 2017 SHENZHEN -- SenseTime Group Limited and Qualcomm Technologies, Inc., a subsidiary of Qualcomm Incorporated (NASDAQ: QCOM), today announced plans to collaborate on artificial intelligence (AI) and machine learning (ML) for future mobile and IoT products. This collaboration will draw from the expertise of both companies in AI by leveraging SenseTime's ML models and algorithms with Qualcomm® Snapdragon™ premium and high-tier platforms, which offer advanced heterogeneous computing capabilities for client based AI. The companies expect to drive the popularity and development of on-device AI in areas such as innovative vision and camera-based image processing.

Devices such as smartphones and connected cameras are becoming more intelligent with the proliferation of AI. Implementing AI on the device provides a number of advantages over cloud-only implementations, enabling edge devices to provide reliable execution with or without a network connection. Additional benefits of on-device AI include real-time performance, privacy protection and enhanced reliability.

"To develop an AI ecosystem, it takes efforts from players in multiple industries," said Dr Li Xu, co-founder and chief executive officer, SenseTime. "The strategic collaboration between SenseTime and Qualcomm Technologies will advance on-device intelligence by leveraging our algorithm and Qualcomm Technologies' chipset. Together we'll push the envelope and extend AI to places that are currently beyond reach. Our strategic collaboration will become a turning point for the whole AI ecosystem."

"Qualcomm has been conducting fundamental research in AI over a decade," said Keith Kressin, senior vice president, product management, Qualcomm Technologies, Inc. "In fact, many devices shipping today using our Snapdragon mobile platforms already utilize on-device AI. We look forward to the results of our collaboration with SenseTime to further accelerate new and exciting capabilities of on-device AI for millions of customers using mobile devices."

Currently, Qualcomm Technologies is focused on optimizing the Snapdragon mobile platform to accelerate myriad AI use cases in the areas of computer vision and natural language processing — for smartphones, IoT and automotive — and is researching broader executions in the areas of wireless connectivity, power management, and photography. SenseTime is a leading company in artificial intelligence and its applications. It plays an important role in deep learning algorithm innovation and has built a proprietary deep learning platform called Parrots. The company's leading technology in deep learning makes it possible to innovate and develop a variety of algorithms with low cost and quick turn-around. SenseTime has made breakthroughs in algorithm model miniaturization. Its strategic collaboration with Qualcomm Technologies is expected to drastically improve the speed and efficiency of combining algorithm and chipset, making SenseTime's AI technology more pervasive.

The first public demonstration of this collaboration will be showcased exclusively in Qualcomm Technologies' meeting rooms at the Ritz Carlton (#23-26) during China Public Security Expo in Shenzhen, October 29 – November 1, 2017.

### About SenseTime

SenseTime is China's largest artificial intelligence (AI) company that focuses on computer vision and deep learning technologies. It is also the largest AI unicorn valued above USD 1.5 billion. The developer behind China's only proprietary deep learning platform, SenseTime has become the largest algorithm supplier in the country. The company is dedicated to creating an AI ecosystem with innovation and solutions to upgrade the industries. Besides from its technological strengths, SenseTime has achieved commercial successes. It has powered many industries such as finance, security, smart phone, and mobile Internet with core computer vision technologies including face recognition, video analysis, and character recognition. **SenseTime boasts more than 400 leading customers and strategic partners including Qualcomm, NVIDIA, China Mobile, UnionPay, Huawei, Xiaomi, OPPO, vivo and Weibo. With offices in Beijing, Shenzhen, Shanghai, Chengdu, Hangzhou, Hong Kong, Kyoto, and Tokyo, SenseTime has attracted top talents around the world to build a world-leading technology company – from China, for the world.** For more information, visit SenseTime's website <https://www.sensetime.com/>, WeiChat and Weibo.

### About Qualcomm

Qualcomm's technologies powered the smartphone revolution and connected billions of people. We pioneered 3G and 4G – and now we are leading the way to 5G and a new era of intelligent, connected devices. Our products are revolutionizing industries, including automotive, computing, IoT, healthcare and data center, and are allowing millions of devices to connect with each other in ways never before imagined. Qualcomm Incorporated includes our licensing business, QTL, and the vast majority of our patent portfolio. Qualcomm Technologies, Inc., a subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, all of our engineering, research and development functions, and all of our products and services businesses, including, our QCT semiconductor business. For more information, visit Qualcomm's website <https://www.qualcomm.com/>, OnQ blog, Twitter and Facebook pages.

# Cisco Unveils Industry's First Predictive Services Powered by AI



*New offerings designed to manage growing technical skills gap through unique expertise, intelligence and automation*

SAN JOSE, Calif.—October 17, 2017— Cisco today announced a new portfolio of services designed to put IT departments back in the driver's seat. Powered by AI, Cisco's suite of predictive services anticipates IT failures, mitigates risk, reduces maintenance costs, and assists organizations in attaining the necessary skills to transform their businesses. Delivering both advanced predictive and preemptive capabilities, Cisco's new Business Critical Services and High-value Services offerings will enable organizations to invest more of their IT budgets on technology innovation amid a growing technical skills gap that poses an imminent threat to business continuity and growth.

"Today's world is moving faster than ever, and to be successful, businesses must have the right blend of IT talent and services," said Chuck Robbins, chief executive officer, Cisco. "By leveraging AI and machine learning to address critical IT issues, Cisco's new services offerings will truly help our customers free up time to focus on the growing IT talent gap, and remain competitive into the future."

More than ever, organizations look to heads of IT to create new revenue streams for their businesses. Yet the shortage of digital skills and the technical skills gap are putting organizations at peril of losing their competitiveness. Cisco's new suite of predictive services are differentiated by the unique expertise, intelligence and automation that help minimize the impact of the skills gap and free technical staff to focus on accelerating innovation.

Today Cisco is launching two new additions to the services portfolio: Business Critical Services and High-value Services. These two new services offer the power and intelligence of AI and machine learning to optimize IT talent, knowledge and skills and allow organizations to solve their problems first and ultimately get closer to their end user/customer.

## **Cisco Business Critical Services:**

Technology environments are increasingly more complex and dynamic and organizations seek to aggressively address these challenges. Cisco is introducing a new portfolio of subscription services, Business Critical Services that goes beyond basic optimization to deliver more capabilities including analytics, automation, compliance and security by Cisco Advanced Services' technology experts to enable a more secure, efficient, and agile technology environment. Business Critical Services will help minimize human error and help extract the most value from products and solutions while creating a highly secure IT environment. These next-generation optimization services enable organizations to:

- **Reduce complexity and cost** through automation, orchestration, and technical expertise.
- **Accelerate business agility and transformation** through advanced analytics and machine learning capabilities to deliver critical insights that prioritize infrastructure and application recommendations.
- **Reduce risk** with automated compliance and remediation services, coupled with a robust security portfolio including incident response for threat protection.

These new Business Critical Services seek to help reduce downtime by up to 74 percent, resolve issues up to 41 percent faster and reduce operational costs by up to 21 percent according to the Cisco Optimization Services Executive Summary.

## **Cisco High-value Services:**

To help organizations better utilize advanced software, solutions, and the network, Cisco is delivering next-generation Technical Services, called high-value services. This portfolio builds on our industry leading product support services with offerings that use analytics, onboarding, expertise, and scale to deliver more proactive and prescriptive services, enabling our customers to realize higher value, faster, from their IT investments.

- **Software Support:** provides support for Cisco software. New high-value services features includes: Multi-level service options enhanced and premium, in addition to basic level (reactive) support.
- **Solution Support:** provides centralized support for Cisco hardware, software and third-party partner solutions from first call to resolution. Solution Support is the default service offering for Cat 9K/DNA.
- **Network Support:** Technical Services (TS) Advantage provides network-level support.

According to IDC's 2017 Global Digital Transformational (DX) Leader Survey, a lack of digital skills in the organization was cited as the single largest challenge to successfully implement digital transformation. Correspondingly, companies seeking to implement digital transformation are creatively looking to other sources of talent to enable their digital strategies. IDC forecasts \$6.3T in direct digital transformation investments over the period 2017-2020. \$2.6T of this investment is being budgeted and spent exclusively on third party services firms with expertise in digital transformation.

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# Cisco Unveils Industry's First Predictive Services Powered by AI

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Chris Barnard of IDC says: "The landscape is evolving too fast for some businesses to keep up with digital transformation, as a result they rely on their larger vendor partners with the skills, expertise and capabilities to help address these talent gaps. By leveraging IT vendors with strong knowledge and a breadth and depth in IT skill sets, organizations are able to get up to speed, adjust to changing market conditions and ultimately focus on innovation."

According to Cisco's recent Services landscape report, the top benefits enterprise organizations are looking to achieve from IT services include filling key talent or skills gaps, gaining access to unique expertise or capabilities and refocus internal staff on other priorities. Additionally, the strategic challenges where IT services are most important in helping to address include allowing IT to focus on strategic priorities rather than keeping systems running and increasing the speed at which they implement new technology to support business priorities.

As the company's second largest business, Cisco Services delivers the experience, talent and skills where the customer needs it. Cisco Services augments a team and provides the innovation, expertise, flexibility, learnings and dedication to service quality to help customers accelerate business growth while minimizing risk. The offerings span every stage of IT lifecycle – from advisory to optimization to training and technical services and across every major IT architecture.

**Channel partners:** Partners are vital to the Cisco Services business. Whether a Cisco partner has an existing Services practice or looking to build one, Cisco is enhancing its services portfolio to support its partners to deliver end-to-end customer solutions. With Business Critical and High-Value Services, partners can unlock services opportunities that will deepen their relationships and attract new customers.

## Supporting Quotes

### Alatau Services Technologies

"We have been working with Cisco Services for over nine years combining Cisco technical support with our own services and delivering the comprehensive services to our key customers. Through this partnership, we have built a strong collaborative relationship with Cisco experts. Combining Cisco Technical Services Advantage incident management deliverables along with our expertise and 24x7 local language support, we reduced the number of incidents on our customer's network by 30 percent over the last three years. We look forward to a continued partnership with Cisco Services."

Vitaly Sychev, Director, Alatau Service Technologies

### Bell

"Having the right services engagement with Cisco enables us to sustain our customer experience levels and capture new customers. Cisco Business Critical Services provides the guidance and intelligence to configure new technology properly and reconfigure it safely during scheduled network changes, resulting in fewer issues and less downtime."

Craig Hudgins, Senior Manager, Technology Architecture, Bell

### Oncor

"Cisco Business Critical Services has been essential in our transformation to the Cisco Next-generation Agile Data Center. We were looking for more speed and agility to serve our 10 million customers. Cisco experts advised us through this transition, and with their new analytics and automation we're better positioned to quickly adopt new technologies, and improve our customers' experience."

Tom Kelly, Director of Networks, Oncor

## Additional Resources

Executive Blog: [Cisco's New Predictive Services \(Joe Cozzolino\)](#)

Learn more: [Cisco's Services Landscape Report](#)

The Power of Services: [Customer Success Stories](#)

Cisco Innovators: [James Leach and Ulf Vinneras](#)

Read about: [Cisco Services](#)

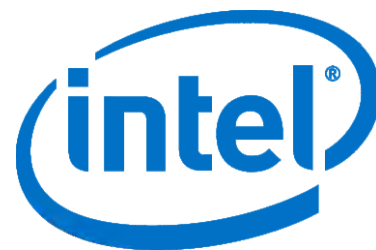
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## About Cisco

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[CLICK HERE](#) to view the full article and have direct access to many Direct Links

# Intel Launches Intel Saffron AML Advisor Using AI to Detect Financial Crime



*Bank of New Zealand Joins Intel Saffron Early Adopter Program to Accelerate Adoption of Innovative AI Technologies in the World of Banking*

## NEWS HIGHLIGHTS

- Intel Saffron Anti-Money Laundering (AML) Advisor uses explainable AI to enhance decision-making for investigators and analysts. Associative memory AI finds and explains multidimensional patterns so that investigators and analysts can explore emerging trends across a bank's or insurer's data.
- With an unsupervised learning approach, the AML Advisor unifies structured and unstructured data from enterprise systems, email, web and other data sources to deliver insights along with the explanation of how connections were identified.
- Additionally, the AML Advisor provides the transparency required to comply with ever-tighter regulatory standards.
- Intel Saffron Early Adopter Program partners with five select organizations to utilize the latest developments in associative memory AI to shape the future of financial services.

SANTA CLARA, Calif., Oct. 11, 2017 – Intel today launched the Intel® Saffron™ Anti-Money Laundering (AML) Advisor, aimed at detecting financial crime through a transparent AI solution utilizing associative memory. Today's launch kicks off the first associative memory AI solution specifically tailored to the needs of financial services institutions and is optimized on Intel® Xeon® Scalable processors.

Intel Saffron's associative memory AI simulates a human's natural ability to learn, remember and reason in real time. It mimics the associative memory of the human brain to surface similarities and anomalies hidden in dynamic, heterogeneous data sources, while accessing an infinitely larger data set than its human counterparts. The AML Advisor surfaces these patterns in a transparent way, paving the way for "white box AI" in enterprise applications. These solutions are designed to enhance decision-making in highly complex tasks, and early results indicate they can catch money launderers with unprecedented speed and efficiency.



Press Kit: [Artificial Intelligence](#)

Total financial crime is at all-time highs. According to the United Nations, the estimated amount of money laundered globally in one year is 2 to 5 percent of global GDP, or \$800 billion to \$2 trillion.<sup>1</sup> In addition, in 2016 alone, approximately 15.4 million consumers were victims of identity theft or fraud, resulting in \$16 billion in losses.<sup>2</sup>

"Intel Saffron's mission is to minimize the time and effort it takes to reach confident decisions," said Gayle Sheppard, vice president and general manager of Saffron AI Group at Intel. "We accelerate the path to decision by surfacing and explaining patterns in data with speed, precision and accuracy. The amount of data that banks and insurers collect is growing at massive scale, doubling every two years. While the quantity of data is growing, so are the types and sources of data, which means today much of the data isn't queried for insights because it's simply not accessible with traditional tools at scale. Investigators and analysts will depend on transparent AI solutions to meet the ever-growing demands of consistency and efficiency from a business, regulatory and compliance perspective."

Banks and financial organizations often have 50 or more applications that require use of the same personal financial data. Banks want a more efficient way to manage their data, putting an end to moving and replicating data, which is costly and increases risk. They also want visibility to the unified knowledge across multiple data sources to better serve customers. Intel Saffron AML Advisor uses associative memory AI to discover new insights for growing businesses, meeting compliance and regulatory requirements, and fighting financial crime with a suite of features, including:

- **Knowledge Index:** Unifying structured and unstructured data linked into a 360-degree view at the individual entity level, to make sense of the patterns found across boundaries wherever the data is stored. This derives knowledge that is hard to gain with vendor and database proliferation of point solutions.
- **Continuous Learning:** Unlike traditional machine learning methods, Intel Saffron AML Advisor doesn't require domain-specific models nor training and retraining, resulting in improving the time to insight. The financial services industry faces the challenge of "What will be important tomorrow?" In this dynamic landscape, actionable insights realized in hours or days rather than weeks or months is an imperative.
- **Work Augmentation:** Intel Saffron AML Advisor reduces the human cognitive burden through automation thought processes that work with and for the investigators allowing them to focus on higher value activities.
- **Compliance Validation:** Banks collect the data necessary to comply with various regulations, but often must pay non-compliance fines in the billions due to human error or missed deadlines. Intel Saffron AML Advisor explains the rationale behind the recommendations to help banks meet compliance, mitigate fines and reduce countless hours reworking reports.

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# Intel Launches Intel Saffron AML Advisor Using AI to Detect Financial Crime

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Intel also introduced the Intel Saffron Early Adopter Program (EAP). This program is designed for institutions whose ambition is to lead the pack on innovation in financial services by taking advantage of the latest advancements in associative memory artificial intelligence. It allows its members to gain the first-mover advantage over the competition and define the future of associative memory AI in financial services. Expanding upon its existing relationship with Intel, Bank of New Zealand\* (BNZ) has joined the Intel Saffron EAP.

"We're excited to be working with Intel Saffron on truly bleeding edge technology that will enable us to understand our customers far better than we ever have before and help them make smarter decisions" said David Bullock, director of Products and Technology at BNZ. "By staying at the forefront of AI, we can help ensure we have access to the latest, innovative technologies that enhance our business."

Intel Saffron solutions allow BNZ to take advantage of its existing big data platform to glean increasingly sophisticated insights for innovative customer service.



For more details about the Intel Saffron AML Advisor and the Intel Saffron Early Adopter Program, visit the [Intel Saffron financial services page](#).

1 - United Nations Office on Drugs and Crime, <https://www.unodc.org/unodc/en/money-laundering/globalization.html>

2 - Javelin Strategy & Research, 2017 Identity Fraud Study, <https://www.javelinstrategy.com/press-release/identity-fraud-hits-record-high-154-million-us-victims-2016-16-percent-according-new>

## BrainChip Ships First BrainChip Accelerator To a Major European Car Maker for Evaluation in ADAS and AV Systems



SAN FRANCISCO, CA -- (Marketwired) -- 10/24/17 -- BrainChip Holdings Ltd. ("BrainChip" or the "Company") (ASX: BRN), a leading developer of software and hardware accelerated solutions for advanced artificial intelligence (AI) and machine learning applications, today announced that it has shipped its first BrainChip Accelerator card to a major European automobile manufacturer.

As the first commercial implementation of a hardware-accelerated spiking neural network (SNN) system, the shipment of BrainChip Accelerator is a significant milestone in neuromorphic computing, a branch of artificial intelligence that simulates neuron functions. BrainChip Accelerator will be evaluated for use in **Advanced Driver Assisted Systems (ADAS)** and **Autonomous Vehicle (AV)** applications.

The shipment follows the launch of BrainChip Accelerator on 10th September 2017.

BrainChip Accelerator increases the performance of object recognition provided by BrainChip Studio software and algorithms. The low-power accelerator card can detect, extract and track objects using a proprietary SNN technology. It provides a 7x improvement in images/second/watt, compared to traditional convolutional neural networks accelerated by Graphics Processing Units (GPUs).

Bob Beachler, BrainChip's Senior Vice President for Marketing and Business Development, said: "This is an exciting first evaluation of BrainChip Accelerator that was released just last month. Our spiking neural network provides instantaneous "one-shot" learning, is fast at detecting, extracting and tracking objects, and is very low-power. These are critical attributes for automobile manufacturers processing the large amounts of video required for ADAS and AV applications. We look forward to working with this world-class automobile manufacturer in applying our technology to meet its requirements."

### **About BrainChip Holdings Ltd (ASX: BRN)**

BrainChip Holdings Ltd. is a leading provider of software and hardware-accelerated solutions for Advanced Artificial Intelligence and Machine Learning applications. The Company has developed a revolutionary new spiking neural network technology that can learn autonomously, evolve and associate information just like the human brain. The technology, which is proprietary, is fast, completely digital and consumes very low power. The Company provides software and hardware solutions that address the high-performance requirements in Civil Surveillance, Gaming, Facial Recognition and Visual Inspection systems. [www.brainchipinc.com](http://www.brainchipinc.com).

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# BrainChip Launches New AI-powered Software that Accelerates Pattern Search and Facial Classification

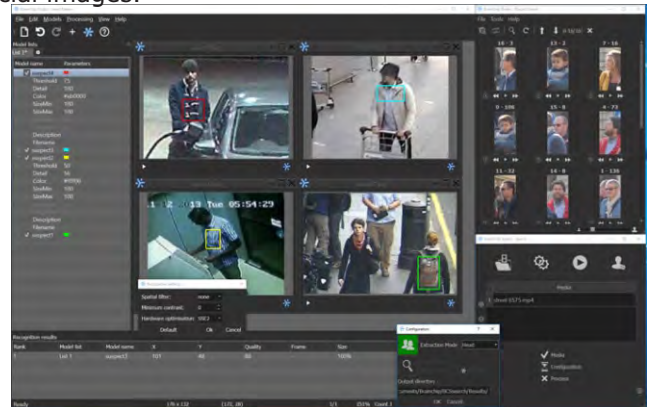
*Software aids law enforcement and intelligence organizations to rapidly search vast amounts of video footage to identify patterns or faces*

ALISO VIEJO, CA -- (Marketwired) -- 07/19/17 -- BrainChip Holdings Ltd., (ASX: BRN) ("BrainChip" or "the Company"), a leading developer of software and hardware accelerated solutions for advanced artificial intelligence and machine learning applications, today announced the release of its new software product, BrainChip Studio.

BrainChip Studio is the result of more than 10 years development and uses an artificial intelligence technology called a spiking neural network, a type of neuromorphic computing that simulates the functionality of the human visual tract. Powered by this technology, BrainChip Studio aids law enforcement and intelligence organizations to rapidly search vast amounts of video footage for identifying patterns or faces.

Because faces are potentially a uniquely identifying feature, the software includes advanced facial detection, extraction, and classification algorithms. The spiking neural network technology enables BrainChip Studio to work on low resolution video and requires only a 24x24 pixel image to detect and classify faces.

In a recent field trial, BrainChip Studio detected, extracted and classified in real-time more than 500,000 facial images during 3 1/2 hours of video across eight different cameras. In a separate trial, it processed 36 hours of recorded video in less than two hours, extracting over 150,000 facial images.



Powered by XILINX

There is a large market opportunity for this type of software given there has been little increase in the ability to analyze video despite the massive growth in video surveillance -- driven by increases in crime and terrorism -- and an exponential growth in the storage of video data.

"According to IHS market research, 197 million surveillance cameras will be sold during 2017. This is in addition to the estimated 300 million cameras already in use," said Robert Beachler, BrainChip's Senior Vice President of marketing and business development.

"BrainChip Studio's forensic search capabilities tames this massive amount of video information, making it practical for a single individual to search for exactly what they need across multiple video sources."

BrainChip Studio's spiking neural networks can be trained on a single image in milliseconds, enabling rapid searches of video for patterns not known a priori. This technology has the added benefit of being able to recognize patterns in low-resolution, noisy environments, making it ideal for the large amount of previously installed video surveillance systems.

"Unlike current convolutional neural network technologies that require extensive pre-labelled datasets and expensive cloud-based training and acceleration, BrainChip's spiking neural network can be implemented in software with traditional CPUs and trained on-premise," said Peter van der Made, BrainChip's founder and CTO.

"Therefore, BrainChip Studio can be deployed in the field in highly secure environments that may not have cloud connectivity."

BrainChip Studio software runs on Windows or Linux computing platforms, and is compatible with all major encoded video formats. It is currently available for trials to select law enforcement and intelligence agencies. For more information please visit: [www.brainchipinc.com/products](http://www.brainchipinc.com/products).

## **About BrainChip Holdings Ltd. (ASX: BRN) See also Page 9**

BrainChip Holdings Ltd. is a leading provider of software and hardware-accelerated solutions for Advanced Artificial Intelligence and Machine Learning applications. The Company has developed a revolutionary new spiking neural network technology that can learn autonomously, evolve and associate information just like the human brain. The technology, which is proprietary, is fast, completely digital and consumes very low power. The Company provides software and hardware solutions that address the high-performance requirements in Civil Surveillance, Gaming, Facial Recognition and Visual Inspection systems. [www.brainchipinc.com](http://www.brainchipinc.com).

# Baidu Collaborates with Conexant, A subsidiary of Synaptics, Inc., to Bring Conversation-based AI Devices to Market

## *Baidu to expedite adoption of its DuerOS AI platform by third-party device makers with Conexant's AudioSmart voice solutions*

IRVINE, Calif., July 5, 2017 – Conexant, a leading provider of audio and voice technology solutions that enable a more natural user experience, today announced that it is collaborating with Baidu to release development kits and reference designs for device makers to develop far-field voice-enabled artificial intelligent (AI) devices running on Baidu's DuerOS platform. The development kits and reference designs will be powered by Conexant's CX20924 4-microphone and CX20921 2-microphone voice input processing solutions. DuerOS is a conversation-based AI system that already supports access to a voice-activated digital assistant for mobile phones, TVs, speakers, and other devices.

The collaboration is aimed at helping developers and device-makers integrate DuerOS into their own products. Conexant is the de facto far-field solution for voice-enabled products today, and through this partnership, Baidu and Conexant are establishing a high-performance standard for AI devices to come.

Enabling speech recognition and voice control from a distance requires overcoming substantial acoustic challenges related to echo cancellation, background noise, position of microphones, speaker placement and more. The 2-mic and 4-mic development kits for DuerOS will help shorten time-to-market of conversation-based AI devices with high-performance noise cancellation and far-field voice capability.

"Conexant brings a valuable asset to Baidu and third-party product developers looking to create innovative applications for the DuerOS AI platform," said Kun Jing, General Manager of Baidu Duer Business Unit. "Voice interface is a critical part of DuerOS and we are committed to working closely with Conexant to quickly grow the DuerOS ecosystem by offering product developers a solution to help them quickly fulfill consumer demand for top-performing AI-infused devices. We're working closely with Conexant to ensure their voice solutions provide optimal speech recognition performance with our AI system and are excited to provide device makers tools to jumpstart the creation of new hardware applications."

The core component in the announced development kits is Conexant's AudioSmart(r) voice input processor (CX20924 for 4-mic applications, and CX20921 for 2-mic applications) running its industry-leading far-field voice pre-processing software technology. Conexant's far-field voice input processors focus on the user's voice and remove echoes and noise from the audio signal to provide the DuerOS cloud AI platform clear voice requests for speech recognition processing. Conexant's market-proven voice processing provides a consistently accurate AI experience.

Key benefits of the Conexant AudioSmart voice input processors include:

- **Robust far-field voice interaction with two or four microphones**
- **Proprietary Smart Source Locator™ technology identifies the direction from which the user's voice is coming (4-mic only)**
- **Enhanced Smart Source Pickup noise suppression improves speech recognition performance by filtering non-stationary TV noise and voices coming from sources other than the user out of the audio signal**
- **Voice barge-in enabled by full duplex acoustic echo cancellation (AEC) detects the wake word even when the device is playing music or voice prompts loudly**

"The voice revolution is a global phenomenon. By working with Baidu we help more third-party manufacturers bring to market innovative voice-enabled AI devices with an exceptional conversational AI experience," said Saleel Awsare, President of Conexant. "The launch of DuerOS development kits and reference designs will drastically reduce development time and cost, allowing manufacturers to quickly bring their innovative ideas to market."

Introduced at Baidu Create 2017, the development kits and reference designs for DuerOS will be available on 07/05/2017.

### **About Baidu**

Baidu, Inc. is the leading Chinese language Internet search provider. As a technology-based media company, Baidu aims to provide the best and most equitable way for people to find what they're looking for. In addition to serving individual Internet search users, Baidu provides an effective platform for businesses to reach potential customers. Baidu's ADSs trade on the NASDAQ Global Select Market under the symbol "BIDU". Currently, ten ADSs represent one Class A ordinary share.

### **About Synaptics**

Synaptics is the pioneer and leader of the human interface revolution, bringing innovative and intuitive user experiences to intelligent devices. Synaptics' broad portfolio of touch, display, biometrics, voice, audio, and multimedia products is built on the company's rich R&D, extensive IP and dependable supply chain capabilities. With solutions designed for mobile, PC, smart home, and automotive industries, Synaptics combines ease of use, functionality and aesthetics to enable products that help make our digital lives more productive, secure and enjoyable. (NASDAQ: SYNA) [www.synaptics.com](http://www.synaptics.com).

## Facebook shuts AI system after bots create own language

*Days after Tesla CEO Elon Musk said that artificial intelligence (AI) was the biggest risk, Facebook has shut down one of its AI systems after chatbots started speaking in their own language defying the codes provided.*

Already published by ETTelecom.com -- IANS | July 31, 2017, 11:40 IST

San Francisco: Days after Tesla CEO Elon Musk said that artificial intelligence (AI) was the biggest risk, Facebook has shut down one of its AI systems after chatbots started speaking in their own language defying the codes provided.

According to a report in Tech Times on Sunday, the social media giant had to pull the plug on the AI system that its researchers were working on "because things got out of hand".

"The AI did not start shutting down computers worldwide or something of the sort, but it stopped using English and started using a language that it created," the report noted.

Initially the AI agents used English to converse with each other but they later created a new language that only AI systems could understand, thus, defying their purpose.

This led Facebook researchers to shut down the AI systems and then force them to speak to each other only in English.

In June, researchers from the Facebook AI Research Lab (FAIR) found that while they were busy trying to improve chatbots, the "dialogue agents" were creating their own language.

Soon, the bots began to deviate from the scripted norms and started communicating in an entirely new language which they created without human input, media reports said.

Using machine learning algorithms, the "dialogue agents" were left to converse freely in an attempt to strengthen their conversational skills.

The researchers also found these bots to be "incredibly crafty negotiators".

"After learning to negotiate, the bots relied on machine learning and advanced strategies in an attempt to improve the outcome of these negotiations," the report said.

"Over time, the bots became quite skilled at it and even began feigning interest in one item in order to 'sacrifice' it at a later stage in the negotiation as a faux compromise," it added.

Although this appears to be a huge leap for AI, several experts including Professor Stephen Hawking have raised fears that humans, who are limited by slow biological evolution, could be superseded by AI.

Others like Tesla's Elon Musk, philanthropist Bill Gates and ex-Apple founder Steve Wozniak have also expressed their concerns about where the AI technology was heading.

Interestingly, this incident took place just days after a verbal spat between Facebook CEO and Musk who exchanged harsh words over a debate on the future of AI.

"I've talked to Mark about this (AI). His understanding of the subject is limited," Musk tweeted last week.

The tweet came after Zuckerberg, during a Facebook livestream earlier this month, castigated Musk for arguing that care and regulation was needed to safeguard the future if AI becomes mainstream.

"I think people who are naysayers and try to drum up these doomsday scenarios -- I just, I don't understand it. It's really negative and in some ways I actually think it is pretty irresponsible," Zuckerberg said.

Musk has been speaking frequently on AI and has called its progress the "biggest risk we face as a civilisation".

"AI is a rare case where we need to be proactive in regulation instead of reactive because if we're reactive in AI regulation it's too late," he said.



SOURCE: ETTelecom.com [CLICK HERE](#)

# Blockchain for Development

## HOPE OR HYPE?

Blockchain technology has been heralded by many as the next big thing. The potential use of blockchains has attracted widespread attention from the media, the IMF, the UN, and the UK Government's Chief Scientific Advisor. Some argue that within 20 years, blockchain will disrupt society more profoundly than the internet has disrupted communication and media. With the reported potential to replace powerful financial institutions with a new form of cheap and secure banking globally, could it also transform development? It has the potential to offer new ways to track aid and tackle corruption, facilitate smart-aid contracts and cut costs for international payments, but experience suggests it is through adding value to existing development processes that it could have the most benefit.

### What is blockchain technology?

At its heart, the blockchain is a ledger. It is a digital ledger of transactions that is distributed, verified and monitored by multiple sources simultaneously. It may be difficult to think of something as basic as the way we keep and maintain records as a technology, but this is because record-keeping is so ingrained in daily life, albeit often invisibly. The ubiquity of ledgers is in part the reason why blockchains are held as having so much disruptive potential. Traditionally, ledgers have enabled and facilitated vital functions, with the help of trusted third parties such as financial institutions and governments. These include: ensuring us of who owns what; validating transactions; or verifying that a given piece of information is true.

### Why is the blockchain such a transformative ledger?

It is not just one, but a combination of several characteristics that feeds its hype. As opposed to the ledgers of intermediaries (see Table 1), the blockchain is distributed, public, transparent, encrypted and immutable.

Ledgers of intermediaries e.g. Bank account	Blockchain e.g. Bitcoin
Centralised: Single owner such as a bank makes these ledgers vulnerable since they have a single point of failure that can be hacked.	Distributed: Nobody/everybody owns it. Because it is distributed across millions of users it has no single point of failure making it especially difficult and economically unfeasible to hack.
Opaque: Only authorised users can view them or have access to them.	Transparent: Anyone can view or access the entire ledger, which is updated in near-real time.
Alterable: Errors can be corrected by (internal) users with overriding privileges.	Immutable: Transactions cannot be reversed.
Subject to identity theft: Accounts are often hacked.	Encryption and pseudo-anonymity: This makes it very difficult to hack blockchain.
Time lag: Can take days or even weeks to complete transactions.	Near-real time: Transactions completed in ten minutes (on average).
Borders: Varying international and conversion fees that can cost up to 20 per cent.	Borderless: Same low fee everywhere (usually a few US cents).

**Table 1:** Comparing traditional ledgers with the blockchain

**Source:** Adapted from Paul Baran's networks, Paul Baran, Introduction to Distributed Communications Networks, 1964, Rand Corporation

### The 'trust protocol'

The hype is not about the blockchain itself but what it enables. It has been called 'the trust protocol' because it facilitates trust between people without the need for an intermediary to verify and/or validate identities, funds, or ensure compliance. Since ledgers are so ubiquitous, blockchains can disrupt just about every sector. It goes beyond money. Any unit of value can be transacted on blockchains. Some are calling it 'the second era of the internet' or the 'economic layer the internet never had'. Whereas the first era of the internet fostered a greater democratisation and decentralisation of knowledge creation and sharing, blockchain technology may do something similar for units of value and transactions.

### Potential development applications

**Microfinance:** Anyone using the blockchain application bitcoin has the equivalent to an online bank account in the form of a bitcoin wallet. Getting a bitcoin wallet is free and it is available to anyone with internet access. Some wallet providers are working on SMS solutions. No legal identification is required, just an email address or phone number, and there are no maintenance fees or minimum balance requirements. However, digital inequalities mean blockchain banking may be less accessible to those less likely to be online, such as poorer communities, women (especially in developing countries) and minorities.

**Remittances and international payments:** Blockchain transactions are borderless. The same minimal fee (a few US cents) is charged regardless of where the two sides of a transaction reside. Currently the average remittance cost is 7.6 per cent globally but can cost up to 20 per cent – depending on the sending and receiving country. The World Bank estimates that cutting the cost by 5 percentage points can save US\$16bn per year.

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**Digital registries:** As an immutable, time-stamped ledger, the blockchain is an attractive tool to prove ownership and existence. There are already initiatives aiming to use blockchains to register land and improve property rights, including Bitfury in Georgia and Factom in Honduras. Registering assets may allow people in developing countries to leverage up to US\$20tn (as estimated by economist Hernando de Soto) for capital which they do not currently have proof of ownership for. Furthermore, the blockchain can be used to track assets from raw materials to the end user to ensure they meet standards (e.g. organic or fair trade).

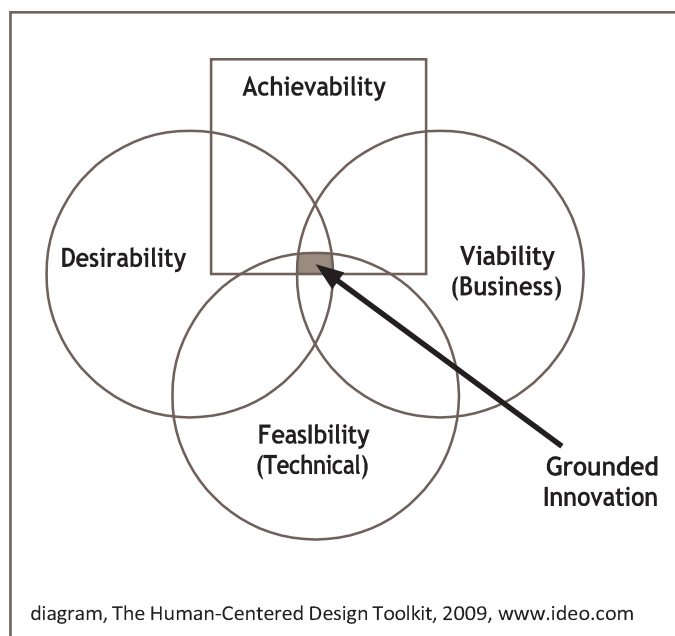
**Tracking aid:** The blockchain can help give governments and taxpayers piece of mind as it makes it possible to track aid funds in near-real time through the aid chain, allowing donors to ensure money is being spent as intended and to crack down on misappropriated funds.

**Smart-aid contracts:** Smart contracts are essentially bank accounts for contracts that live on blockchains in the form of computer code with instructions that self-execute and automatically disperse funds once predetermined conditions are met. This can potentially streamline results-based finance. Funds can be automatically dispersed as objectives and milestones are reached, albeit such rigid forms of financing can make it even more difficult to adapt to complex contexts and issues. Smart contracts could also help improve response time to crises by automatically dispersing predetermined amounts of funds after a certain amount of deaths during an epidemic or if a natural disaster of a predetermined magnitude hits a vulnerable country.

**P2P aid:** Peer-to-peer (P2P) donations could be made via blockchain without the help of aid organisations, NGOs, community organisations, or any other intermediaries in the aid chain as well as financial institutions. This could ensure that a larger share of donations and loans reach beneficiaries, and smart contracts can be built into them to ensure money is used as intended (e.g. sending kids to school). However, overreliance on such models could leave out digitally poor groups unable to upload their stories onto P2P platforms.

## A ten-point checklist for development policymakers and practitioners interested in blockchain

As Figure 1 shows, the components for successful innovation are technical feasibility, business viability and human desirability, all of which come together within social, cultural, political and economic settings that ultimately determine contextual achievability. The sweet spot in the middle is what we call grounded innovation.



### Technical feasibility

#### 1. If I just need a ledger, is blockchain technology the best fit for me?

The blockchain is essentially a ledger, and although it is arguably more powerful than others, at times other systems may be more appropriate. Moreover, sometimes other contextual factors may need to be tackled before any ledger will work.

#### 2. Are blockchain developers willing to adapt and iterate their proposed solutions if they don't work?

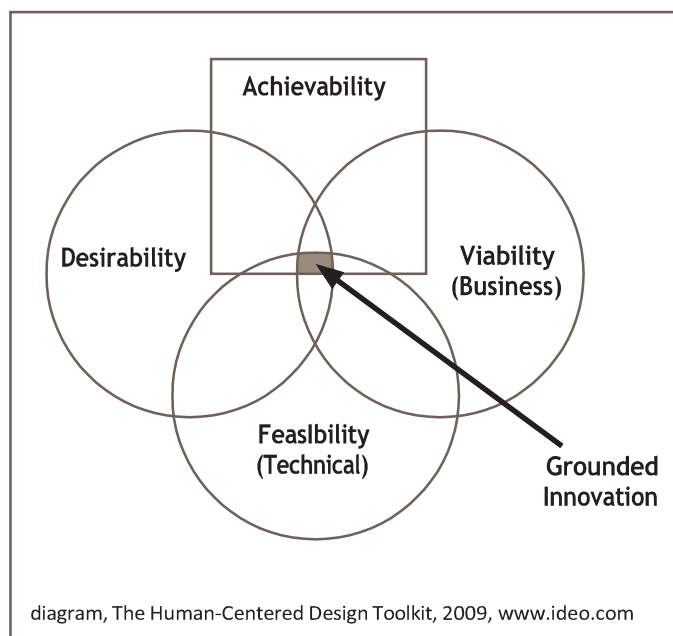
Blockchain developers must be willing to try alternative solutions when things don't go as planned. Letting go may be especially difficult for organisations composed of technology activists treating the blockchain as a paradigm-shifting technology.

#### 3. Is it reasonable to finish this project within the given timeframe?

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### 3. Is it reasonable to finish this project within the given timeframe?

When the blockchain is used to tackle social issues, there are political issues and power relations that need to be overcome before, during and after implementation. Tackling these often takes much longer than implementing the technology itself. Timeframes for projects should take into account these factors, and not simply assume that delivering the technology will be the end of the intervention.



**Figure 1:** Components for successful innovation

### Business viability

#### 4. If this project is donor funded, is funding sustainable?

Ongoing IDS research shows that a lack of continuous funding for technology for transparency and accountability solutions can lead to imperfect technical solutions put on hold that may remain so permanently if new funding is not available.

#### 5. Does the blockchain solution fit existing business models in my context or are new ones needed?

Proposed technological solutions to social problems do not operate in a vacuum. To assess the potential for any solution to tackle a social issue, a deep understanding of organisational and strategic enablers and disablers to innovation is essential. These institutional factors can determine the success or failure of any intervention just as much as, and sometimes more than, technological ones.

### Human desirability

#### 6. Does the proposed solution put users at the centre of the design process?

Given that context is important in determining what will work, be sceptical of outsider blockchain solutions to local problems. Remote design or sending people for short periods of time to set up blockchain solutions is likely to be inadequate. Successful blockchain applications are likely to be those designed in developing countries putting the end user at the centre of the design process, not those designed for developed countries. In order for a solution to be inclusive it needs to be designed with inclusivity as a focal point from the outset.

#### 7. Will I be able to win over the people that I need to engage?

Initiatives using technology for social change often find that getting buy-in is the toughest part of delivering an effective solution, not the technology. This buy-in is required not just from national governments but also local government, expected partners, influential and powerful community members, and citizens themselves.

#### 8. Could the blockchain stop me from doing some of the things I would like to do?

Just as any given technology facilitates doing certain things better and more efficiently, it can also hinder other behaviours. If dynamic complex issues are to be tackled, rigid blockchain solutions with predetermined code may not provide the room necessary to adapt to changes. It is important to think about these trade-offs.

### Contextual achievability

#### 9. Is the blockchain solution appropriate and relevant for reaching stated development goals and stakeholders?

Blockchain solutions need to be designed with digital divides and inequalities in mind, which often mirror analogue inequalities: there is a strong tendency for the better off to adapt to new technologies first. Citizens in poorer countries, those in rural areas, or marginalised groups are less likely to be online or have the digital literacy required to engage with blockchain-based technologies, which can therefore potentially exacerbate digital inequalities.

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## 10. How does the political economy of different contexts affect the likelihood of success? Are powerful actors in the context providing the space for success?

It has long been argued that technology initiatives that push on open doors are most likely to succeed, while those that push on closed or locked doors are not. Governments who are already making efforts to be more transparent are likely to welcome technology improving transparency whilst those that seek to remain opaque are likely to push back. Moreover, vested interests may be opposed to blockchain solutions and do everything in their power to hinder them. Cookie cutter approaches often fail to replicate successes elsewhere due to an inability to replicate enabling contextual political economy and social factors in the original context.

### Recommendations

Will blockchain be a case of hope or hype? It's hard to say at this stage. What is clear is that the blockchain does have the potential to add value to development programmes, if its application is undertaken in a strategic, creative and robust fashion. Experience suggests that it is through adding value to existing development processes that disruptive technologies get their foothold, both within development and more widely. With this in mind, we make five recommendations for all development professionals thinking about or currently working on blockchain applications.

**Be hopeful but avoid the hype:** There is still no evidence that it leads to social transformation. Although blockchain technology is transformational in theory, it is still unproven. Just as there is no reason that it will not work, there is no reason that it will.

**Look into the pros and cons:** Along with enabling some behaviours, technologies can limit or hinder others. Given its rigid coded nature, the blockchain may make it difficult to tackle complex development issues that require continuous adaptations.

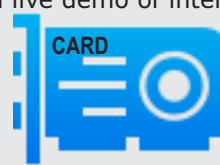
**Be contextually grounded:** In order to work, blockchain-based solutions need to be able to navigate local political economies and power relations. Assessing this possibility from the onset is essential.

**Keep digital inequalities in mind:** Not doing so risks further exacerbating inequalities (and thus digital and social exclusion) or creating new ones and opens the door for opportunistic behaviour by powerful actors that can make full use of blockchains. In order for a solution to be inclusive it needs to be designed with inclusivity as a focal point from the outset.

**Learn from the past, and the present:** One-size-fits-all cookie cutter approaches to development do not work. Innovations that take context into account and are embedded in the social realities of those contexts are most likely to succeed. Above all, ensure an experimental learning mentality is built into all efforts, balancing technical creativity with a hunger for evidence and results.

## BITMAIN launches SOPHON Tensor Processors and AI Solutions

On November 8, 2017, AI World 2017 (<http://www.aiworld2017.com/en/>), titled "AI Power Universal Leverage" was held in Beijing. Bitmain was honored to be invited to the event, and its cofounder and CEO, Micree Zhan, gave a keynote speech titled "Planet-scale Computing Driven by AI," introducing the bright future of the AI revolution, big data, and massive planet-scale computing. He also officially unveiled the world's first tensor computing ASIC, Sophon BM1680, proudly announcing that it's already in mass production. At the event, Bitmain showcased Sophon BM1680 chips, the Sophon SC1 card, and the Sophon SS1 server. They also presented a live demo of intelligent video analysis run on the Sophon SS1 system. The official website of Sophon, [sophon.ai](http://sophon.ai), went live today.



### Company Background and Vision

In the past few years, with the rapid growth of data generation and break-throughs in deep learning algorithms and computer architecture, AI has set off a new wave in the global IT industry, causing a fundamental shift. Not only does this create new opportunities; it also brings new challenges. To meet AI's increasing demand for computing power, current computer architecture faces challenges in the areas of power consumption, performance, memory bandwidth, the slow growth implicit in Moore's law, and more. Computer architecture desperately needs innovation.

"AI drives the new generation of planet-scale computing and computer architecture innovation. In terms of images, voice recognition, and natural language processing, AI applications are going ever deeper and continue to drive innovation in the industry," said Micree Zhan, CEO of Bitmain.

"As the global leader of digital currency ASICs and solutions, as well as the world's largest provider of Bitcoin mining ASICs, we strongly believe that AI will soon have applications in every industry, making the whole world more intelligent."

Bitmain is committed to providing the most cost effective and least power consuming AI computing power based on its strong ASIC design experience, agility, and complete system design capability. We will focus on fully customized design for AI applications and optimized hardware and system level solutions in order to lower the barrier to the realization of AI+ and the dream of seeing AI implemented everywhere.

Consider the example of the Sophon SS1 server solution we announced today. It is a complete integrated system with many AI algorithms. Customers can simply plug it in and launch the video analytics demo; furthermore, the applications can be easily integrated into large video analytics systems by calling algorithm APIs. Customers may also choose the Sophon SC1 accelerator card based on the Sophon BM1680 tensor processing unit. **MORE: [CLICK HERE](#)**