



In partnership with



HUAWEI

**ACADEMIC SALON
2018 REPORT**

**KEYNOTE SPEAKERS,
DISCUSSIONS AND
COLLABORATIONS**

TABLE OF CONTENTS

- 2
- 3 Huawei's mission statement
- 4 Ministerial keynote
- 5 University leadership keynote
- 6 Panel discussion
- 7 Collaborations
- 8 Breakout sessions



All photos: Times Higher Education

Introduction to the Huawei Academic Salon

together more than 100 leading figures from the worlds of education, industry and policymaking.

The aim of the event was to consider how companies and academia can work together to address the challenges presented by the ways in which innovation is transforming business and society.

Huawei, a global leader in information and communications technology, invests at least 10 per cent of its annual revenue in research and development. To date, it has

spent more than \$60 billion (£45 billion) on this work, which involves collaborating with universities and other scientific research institutions around the world.

The salon featured a range of high-profile speakers, including Sam Gyimah, UK universities and science minister; Stephen Toope, vice-chancellor of the University of Cambridge and Chen Lifang, corporate senior vice-president

technologies.

Chen Lifang, senior vice-president and board director, Huawei

"Huawei has grown from a 'nobody' into a 'somebody' in the communications industry. This is due to technological breakthroughs made in global basic research. We are a company that benefits from and pioneers basic research – that is why we have put so much effort into this area since our foundation. We think that innovation is a process of persistent investment to make breakthroughs.

Every year, we invest 10 per cent of our revenue back into research and development. In the past 10 years, we have invested \$60.4 billion in R&D. In our opinion, research is like a beacon, illuminating the way forward for you, me and the rest of the world. As the Chinese saying goes, victory is ensured when people pool their strength and wisdom."

Lord Browne of Madingley, chairman, Huawei UK

"For several years in European history, 'salons' were gatherings of leading thinkers designed to increase understanding, inspire new thinking and encourage constructive debate. They played a key role in developing many of the European Enlightenment's most important ideas. In that spirit, the Huawei Academic Salon is about exploring the ideas that will help transform the modern world... We have heard from people who have



Chen Lifang



Lord Browne of Madingley

come from a wide variety of backgrounds and organisations, but whether they are scientists, policymakers or academic leaders, each shares a common interest in the way in which engineering can solve modern challenges and make the world a better place to live. This idea underpins Huawei's ambition to build a better-connected world."



In our opinion, research is like a beacon, illuminating the way forward

Chen Lifang

Sam Gyimah, UK minister for universities and science

The UK needs to become a "magnet for talent" if it is to lead the world in innovation and technology, the UK's minister for universities and science told delegates at the 2018 Huawei Academic Salon.

Sam Gyimah said it was pivotal that the UK became the "number one place" for collaboration if it was to remain at the

and research.

"If the UK is to lead the world in innovation and technology, investment alone will not be enough – we need to be open to the world and, most importantly, to talent," he said. "We need to be as open as possible to attract those [talented] people into our country."

This was true for undergraduate students, postgraduates, researchers, and "the entrepreneurs and innovators of the future". "Collaboration is the name of the game rather than competitiveness," he added.

The minister said that shortly after he became universities minister in January, he had consulted one of his predecessors in the role, David Willetts.

"I said to [Lord Willetts] that I wanted to see the UK as a technology and innovation superpower. He chided me and said, 'No, Sam, you want the UK to become the best place to collaborate with. That is essential to how business is done these days:'

This openness to collaboration

was the optimum way "to harness the best ideas and the spark of creative genius that drives invention and innovation", Mr Gyimah added.

To this end, the minister said that one of his aims in government was to continue to build "diverse relationships" within the UK and overseas, which "includes innovation with companies like Huawei".

investment and working with universities in the UK," he concluded.

"It is exactly what we want to see, and is exactly the kind of platform that will enable some of the best ideas in communications and computer sciences to flourish here in the UK, not only for the benefit of our economy but also for the benefit of humankind."

Stephen Toope, vice-chancellor, University of Cambridge

A "complex innovation ecosystem" is emerging and universities must adapt in order to ensure their role within it,

University of Cambridge.

– that innovation happens mostly within universities, government and industry – could soon be "obsolete", and that the "locus of innovation is shifting".

"Technology has become more diffuse...[and] collaboration becomes the key," Professor Toope told delegates. "Universities, like industries, can no longer expect to be an exclusive source of innovation. Instead, we now need to be talking about our role in a complex innovation ecosystem." Some of academia's "traditional building blocks...may have to be rethought", he continued.

"Think, for instance, about the peer review process, which reinforces the notion that there are distinguished individuals in a position to judge other people's output. What happens to these experts in a world of open, and some would say more democratic, innovation?"

Professor Toope said that he remained confident about the role of universities in this new world, saying that he still believed "people need expertise to guide the process...of innovation". "As academics, I think our key role may be in equipping

others to make sensible and ethical judgements," he said. "It is up to us to nurture the innovation ecosystem so that it remains fit for purpose." Professor Toope also said that the UK government's support for research and innovation is a key part of its strategy. He said that the government's support for research and innovation is a key part of its strategy. He said that the government's support for research and innovation is a key part of its strategy.

How is the fourth industrial revolution redefining human talent?

THE PANEL

John Gill, editor, *Times Higher*
(moderator)

Anne-Marie Canning, director of social mobility and student success, King's College London

Nick Hillman, director, Higher Education Policy Institute

Stephen Muggleton, head, Computational Bioinformatics Laboratory, Imperial College London

Universities have a key role to play in ensuring that students are equipped with the transferable skills they need, according to the head of an influential UK think tank.

Nick Hillman, director of the Higher Education Policy Institute, said he was concerned that too much attention was paid to trying to predict what the world of work would look like in the future. "What we need to prepare people for is a world that we don't fully understand," he said.

"One of the things we know about every bit of innovation is that it ends up being used in ways that were not predicted when it was initially discovered."

Anne-Marie Canning, director of social mobility and student success at King's College London, said that, according to World Economic Forum predictions, there were three skills that were repeatedly seen as vital: problem solving, emotional

University of Surrey

The 5G Innovation Centre at the University of Surrey has brought together leading academic experts with industry collaborators – including Huawei – to work towards the development of a global 5G network that will change the way the world uses mobile technology.

"The institute is the largest academic research institute in the information and communications technology area, looking at all aspects of telecommunication systems," Rahim Tafazolli, director of the centre, told the Huawei Academic Salon.

He demonstrated the potential of his work by showing delegates how an ultra-high-definition video of an aeroplane taking off was able to be live streamed perfectly

to a mobile phone screen. "This is a demonstration of the potential of 5G technology," he said. "It shows that we can have a high-quality video stream that is not affected by network congestion or signal strength. This is a significant step forward for mobile video streaming."

The demonstration was part of the 5G Innovation Centre's ongoing work to develop and test new 5G applications.

ec ta B** " fh Mf

The economic impact of information and communication technology

When will the huge developments being made in artificial intelligence, automation and robotics result in significant leaps forward in terms of productivity? This was one of the issues discussed by Mirko Draca, senior research associate at the London School of Economics' Centre for Economic Performance, during a session on the economic impact of technology.

Dr Draca's collaborative research with Huawei has been investigating the impact that ICT has on the economy and society.

"We are not yet seeing evidence of a qualitatively new phase of automation, where automation is hitting the jobs of non-routine manual workers like truck drivers," he said, adding that because there tends to be a time lag for technology to be fully adopted, such a leap forward could occur in "about 10 to 15 years".

Management and leadership

David De Cremer has literally written the book on the leadership culture at Huawei.

The KP e 5 or dM t
Ectapsh dhaMS ürsee iÄ D, M s" Ecz tB tT mar Snol wei ha:m