Speech: Research and innovation: How intellectual property supports global progress

Thank you for the introduction. Mayor Ying, Minister Miao, Vice Chairman Lin, Chairman Lu, ladies and gentlemen. Good afternoon and thank you for inviting me to join you today at this Innovation and Emerging Industries Development Forum.

I am especially pleased to be attending this event alongside the China International Industry Fair. I had the honour yesterday of accompanying Minister Miao on a tour of the Fair over in Hongqiao. The range of exhibitors from China and overseas was impressive.

And of course, I was proud to see the UK's Country-of-Honour Pavilion showcasing the best of British technology.

The branding of the UK Pavilion includes images from the global campaign GREAT for Imagination. This campaign marks 400 years since UK patent number 1, which was granted in 1617, and designated the patent number "GB1" when the UK Patent Office was founded in 1852.

The GREAT for Imagination campaign celebrates the long history of scientific inventions leading to industrial and consumer products that have had a profound impact on people's lives. This is what I would like to speak about today.

UK research & innovation

We like innovation in the UK.

We are home to less than 1% of the world's population, but the UK punches above its weight in science and technology.

The UK is home to 3 of the world's top 10 universities – Oxford, Cambridge and Imperial College London – and more than 30 of the top 200. These universities are equipped with first class facilities and talent from around the world, producing top quality research.

A report published last month by the UK Department for Business, Energy and Industrial Strategy, and Elsevier showed that the UK accounts for:

- 9.9% of downloaded academic articles;
- 10.7% of citations; and
- 15.2% of the world's most highly-cited articles.

The report notes that the UK has a broad and diverse research base, and relative to its comparator countries the UK continues to rank number one in Field-Weighted Citation Impact, a measure of the influence of scientific

research.

As well as excellence in curiosity-driven science, the UK also has a wide range of policies and funding initiatives to support commercialisation of the research base.

For example, the government provides funding for projects that link universities and research institutes with businesses and entrepreneurs. And many local governments across the UK are undergoing Science & Innovation Audits, which seek to deepen relationships between universities and their wider communities.

Given the important role of IP in research and innovation, the Intellectual Property Office is also playing its part to support commercialisation of the research base:

- Last year we updated the Lambert Toolkit, a set of practical resources to support IP management in university-industry collaborations. The Lambert Toolkit includes a set of model contracts and consortia agreements, and a model Heads-of-Terms.

- We offer an "IP Asset Management Guide for Universities" to help senior university managers set strategies to make the most of the IP created by their staff and students; and we recently launched "IP for Research", which helps PhD students and early career researchers understand how to commercialise technology.

- The IPO is currently running a public consultation on collaborative innovation and licensing of IP rights. This consultation looks at areas such as IP trading platforms, IP-backed finance and IP valuation, all of which are being studied here in China as well.

All these initiatives by the IPO and others are in line with the commitment from our minister Jo Johnson to put science and innovation at the heart of our industrial strategy.

International research and innovation collaboration

As an open country at the centre of world and European research for centuries, the UK has a long history of collaboration with international partners. We strongly believe that global cooperation in research and innovation is a really good thing.

51% of all UK research publications in 2017 were co-authored, which helps explain the global impact of UK science. The UK is a global hub for research and innovation.

All other things being equal, research produced by authors of different nationalities produces higher citation rates. Cross-border licensing of

technology creates new revenue flows, and spreads cutting-edge technology to markets and research communities around the world.

This shows how important it is to resist nationalistic science and innovation policies. Technology is not a zero-sum game, where one country's strength is another country's weakness.

Flourishing UK-China science and innovation collaboration is a good example of this. The UK places great value on the strength of our partnership with China, and research and innovation collaboration between our two countries is a cornerstone of our relationship:

- This year Research Councils UK celebrated 10 years in China, over which period they have invested over £230million in joint research in more than 150 projects;

- The UK-China Research and Innovation Partnership Fund, also known as the Newton Fund, has funded over 450 joint projects in fields such as antimicrobial resistance, atmospheric pollution and human health, and remote-sensing for agriculture; and

- Last year Innovate UK and the Chinese Ministry of Science and Technology jointly invested £21m in 15 research and development projects, including Innovate UK's largest ever international R&D competition. This year Innovate UK is has launched joint calls with Shanghai, Jiangsu and Guangdong provinces on smart cities, infrastructure systems and urban innovation.

And of course, the UK-China success story in science and innovation is not only about government-backed projects. Here in East China:

- Edinburgh University recently completed an Innovation Week in partnership with COMAC and Shanghai Jiaotong University; and

- Nobel Prize winner Sir Kostya Novodelov of the University of Manchester spends two months per year supervising research collaborations in Nanjing.

IP in research and innovation

Technology is intellectual property. The process of creating and commercialising IP enriches our society and drives economic growth.

It is the responsibility of IP policymakers such as myself to maintain accessible and non-discriminatory IP system. An effective IP system should encourage investment in research and innovation, and ensure that the results of that investment are used and protected.

And given the enhanced benefit of cross-border science and innovation collaboration, it is important that an IP system facilitates – rather than frustrates – international projects.

Researchers and companies involved in cross-border collaboration should be allowed to freely negotiate IP arrangements that suit their projects, including ownership of IP generated by joint research.

And the commercialisation of jointly developed technology should be transparent, enabling all contributing parties to benefit, wherever that use occurs.

This is genuine win-win cooperation.

UK-China intellectual property cooperation

The UK and China have a broad and deep cooperation on intellectual property. This year:

- Patent examiners from the UK IPO visited China for exchanges with Chinese counterparts, including hosting a seminar on accelerated patent examination;

- Mr Justice Carr, one of our leading IP judges, visited Beijing to meet with members of China's judiciary;

- We hosted the 2017 UK-China IP Symposium in London; and

- Vice-Minister Zhou Huilin of the National Copyright Administration of China visited me in London to discuss copyright enforcement and legislative developments in our two countries.

This week I will also visit Hangzhou and Beijing, including to meet with my counterparts in China's IP agencies. Our discussions will cover how to provide the best possible service to users of the IP systems in both our countries.

This builds on initiatives such as the UK-China pilot Patent Prosecution Highway – or PPH – which was extended last summer. PPHs enable faster patent protection for users filing corresponding applications in both countries. I know that schemes such this are especially welcomed by Chinese institutions and businesses that are building IP international portfolios.

And of course I am also using my visit to China to support UK-China research and innovation collaboration.

Today I am happy to announce the publication of a new template Non-Disclosure Agreement for use in negotiations between British and Chinese partners as they develop a joint research bid or a technology licensing deal. The NDA

will help provide legal certainty so partners can engage with confidence.

The NDA is drafted in both English and Chinese, and is mutual, meaning it provides equal protection to all parties, whether from the UK or China.

This is part of a set of practical resources and advice we provide to British and Chinese researchers to help them effectively manage IP in cross-border projects.

Closing

Distinguished guests, in both the UK and China, scientific research and innovation are important drivers of economic growth. New technologies enrich our societies and improve our quality of living.

The evidence shows that these benefits are maximised by open and mutually-beneficial international collaboration.

Barriers to genuine win-win cooperation should be overcome and removed, including:

- Nationalistic, zero-sum policy narratives; and
- Restrictions on the flexibility of research institutions to fully benefit from the global commercialisation of the IP they help create.

The UK IPO shall continue to promote a domestic and international IP system that facilitates investment in research and innovation, and responds to the needs of it users around the world.

Thank you for listening. I wish you a successful forum, and I look forward to further presentations throughout the afternoon.

Thank you.