Space is one of the fastest growing sectors globally and is projected to grow to around $640bn from current levels at around $325bn in 2015. Around 25,000 satellites are projected to be launched between now and 2025 (from a baseline of 1,400 active satellites today) and this will require a rapid uplift of space launch capabilities.

The UK government is looking to grow the UK’s contribution to the global space sector from 6% in 2013 to around 10% in 2030 growing in real terms from £11bn to £40bn. To support this the UK government has encouraged the development of space ports in the UK (7 space ports have applied for licenses); looks to pass regulation on spaceflight in 2017; encourage space manufacturing; new space services and the development of space applications using the data derived from space activities. The latter is estimated to contribute around 80% of the future UK market. There will be additional benefits to the UK economy. Even today, the direct contribution of space to the UK economy is around £14bn but the UK Space Agency has estimated that the downstream contribution could be as high as £250bn. Productivity in the space sector is also around 2.7% the national average.

So what are the implications for defence and security? Clearly, there are many opportunities to exploit latent UK expertise and services to improve defence and security capabilities. And space services are falling in cost as the numbers of space actors expands. However, the UK will not be the only nation seeking to exploit the space domain. Indeed in the Asia-Pacific, geopolitical tensions are driving a new space race. In addition, Space and Cyber are intrinsically intertwined, potential adversaries will therefore seek to target space based assets in order to undermine Western military - and indeed economic - superiority.

Secondly, spacefaring nations hold some serious responsibilities. According to international law, the UK holds unlimited liability for UK commercial space activities. There are UK companies looking to launch megaconstellations, on-orbit servicing capabilities and space debris removal services. All of these pose complications and will likely require an independent means to observe space activities not only to ensure they are complying with UK and international regulation but to identify potential threats from space debris and other space actors. How the UK secures commercial activities, mitigates national reliance on space services and protects military capabilities - especially as many will be dual use capabilities - will be an important area of work over the next 10 years.

This conference will examine commercial and military trends in space. It will ask whether the UK has the necessary skills, capabilities and governance structures in place to secure our access to space and to respond to crises as they emerge.