

News story: New legal powers could send UK scientists into space to research vaccines and medicines

British scientists will be able to fly to the edge of space to conduct vital medical experiments under new powers unveiled this week.

Laws paving the way for spaceports in the UK will allow experiments to be conducted in zero gravity which could help develop medicines.

The powers will allow the launch of satellites from the UK for the first time, horizontal flights to the edge of space for scientific experiments and the establishment and operation of spaceports in regions across the UK.

Next steps involve government encouraging business and industry to come forward with specific proposals for space launches and the introduction of a Bill later this year, after which specific rules and regulations will be developed for operators – such as safety and insurance measures. In addition, the government is inviting commercial space businesses to bid for funding to help create a space launch market in the UK.

The sector is vital to the future of the UK economy, it creates high-value jobs and generates wealth across the country. Our regions will benefit from direct access to space as the building of local spaceports will lead to more demand in hospitality and tourism services, creating jobs and opportunities. The UK construction, engineering and service sector will benefit too from supply-chains and supporting services.

Together the new powers and funding will potentially allow a commercial spaceflight from a UK spaceport by 2020.

Space satellites are vital for our daily lives – once launched they can help provide broadband to rural communities, monitor weather systems as they move around the earth, and even help rural health workers who use satellite communications to diagnose and assist patients situated far from specialist health services.

The move has the potential to take UK scientists up to space so they can research and develop vaccines and antibiotics, which grow differently where there is no gravity. The flights could also carry out hundreds of vital scientific experiments on medical issues such as aging and the human body.

Aviation Minister Lord Ahmad said:

The UK's space sector is the future of the British economy. It already employs thousands of people and supports industries worth more than £250 million to the economy, and we want to grow it further. Forty years ago, meteorologists couldn't have imagined the

importance of satellites for predicting the weather. Today over 90% of data used in every forecast comes from a satellite, with hundreds of other applications used in GPS, telecommunications and broadband.

We have never launched a spaceflight before from this country. Our ambition is to allow for safe and competitive access to space from the UK, so we remain at the forefront of a new commercial space age, for the next 40 years.

Although the UK is a world-leader when it comes to satellite technology and services, businesses currently have to rely on launch services located in other countries such as the US, Japan, or India, and often have to share launch vehicles, which can lead to delays and restrictions on where satellites can go.

The Bill builds on [£10 million of grant funding](#) announced by the Department for Business, Energy and Industrial Strategy earlier this month which will deliver an early boost to the UK's commercial spaceflight market, helping us harness our research and innovation while creating high skilled jobs. It will work alongside the government's modern [Industrial strategy](#), which will support sectors like the space industry by creating an environment where companies big and small can thrive.

Universities and Science Minister Jo Johnson said:

From the launch of Rosetta, the first spacecraft to orbit a comet, to Tim Peake's 6 months on the International Space Station, the UK's space sector has achieved phenomenal things in orbit and beyond.

With this week's Spaceflight Bill launch, we will cement the UK's position as a world-leader in this emerging market, giving us an opportunity to build on existing strengths in research and innovation. Through our 'Industrial strategy' we will harness this potential, creating an environment where companies across this sector will thrive.

New launch technology for small satellites will provide low cost, reliable access to space.

Forecasts suggest the global market for this will be worth £25 billion over the next 20 years. Our new laws will put British businesses at the forefront of these services.