



The Royal Academy
of Engineering

The new UK Space Agency

A response to the House of Commons Science and Technology Committee

September 2010

Introduction

The Royal Academy of Engineering is pleased to submit evidence to the House of Commons Select Committee on Science and Technology Inquiry into the new UK Space Agency. This response has been prepared following consultation with a number of our Fellows with expertise in this area, both in industry and academia.

Fellows are very supportive of the UK Space Agency and are encouraged by the Science and Technology Committee's interest in it.

The Academy endorses the creation of the new agency and the opportunity it creates to drive and support the growth of an already world-class manufacturing and technology sector. The £6billion UK industry represents an excellent example of the kind of high tech sector the UK needs to rebalance its economy for the future.

1. What progress has been made in setting up the UK Space Agency?

The Academy welcomed the creation of the new agency and its support from government, both previous and current. The basic structure appears to be developing, as would be expected, with the establishment of a Space Leadership Council and a National Space Technology Steering Board. However, there is as yet a lack of clarity on how the new agency intends to operate.

As the organisation develops, the UKSA will require strong leadership, with industry and political credibility and first rate communications skills. An urgent challenge for the agency will be to significantly raise its profile and gain the respect of its peer agencies around the world. Unless this can be achieved and a clear strategy established that sets UKSA apart from its BNSC predecessor, there is a danger of it being viewed as continuation of the BNSC.

2. How does the UK Space Agency work with other bodies (national and international) on space issues?

The new agency does appear to be much more international in its outlook than its predecessor. Through support for the International Space Innovation Centre (ISIC) at Harwell, strong links with the US and elsewhere are being forged. Strong links with Engineering and Physical Sciences Research Council and the Technology Strategy Board should also be developed to support future R&D.

The Technology Strategy Board appears to be enthusiastic in its support for future space technology commercialisation and there is a strong private sector within the UK space industry.

3. Is the UK Space Agency more effective at coordinating space policy than its predecessor, the British National Space Centre?

The UKSA is still new and has a lot to prove. Because it does not yet have a track record, the Academy is not able to judge UKSA's effectiveness. The Space Innovation and Growth Team review and the new growth strategy for space are viewed as rightly ambitious. The formation of a high profile Space Leadership Council and the new National Space Technology Steering Board are to be welcomed.

4. What should the UK Space Agency's priorities be for the next five years?

The Academy recommends that the UKSA prioritises driving and supporting the growth of an already world-class manufacturing and technology sector as a key plank of the UK economic growth strategy. This can be achieved through:

- coordination of investment in upstream R&D to ensure that the UK space industry is world leading in its technology base;
- support for new downstream space applications. There are new untapped space applications to be developed, each of which can in principle lead to successful new businesses as has been observed with the GPS industry.

The issue of R&D investment is critical. Since a sizeable fraction of the upstream UK space industry operates on a project basis (for example through ESA programmes), there is often limited scope for industry investment. Even commercial space

programmes are limited in terms of the numbers of satellites ordered, despite the industry being categorised by exceptionally high added value products. STFC to their credit has been investing in space technology R&D (for example the AURORA programme).

The Academy is willing to assist the UKSA address the issue of how the UK space industry can contribute further to economic growth and would welcome further dialogue.

5. Is the UK Space Agency adequately funded?

The Academy is not in a position to answer this question. However, our Fellows have made the point that to-date, adaptive hardware and systems (ahs) received modest public funding. If this is to be an important area for innovation and growth then this area must not be cut in the funding round, or it may not be possible to be effective.

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1 September 2010