

To: digitalbritain@berr.gsi.gov.uk

## **BNSC Response to the Digital Britain Interim Report**

The British National Space Centre (BNSC) is at the heart of UK efforts to explore and exploit space. Formed from 10 Government Departments and research councils, we co-ordinate UK civil space activity, support academic research, nurture the UK space industry; and work to increase understanding of space science and its practical benefits.

We welcome the publication of the Digital Britain Interim Report, and the great amount of valuable research and debate that has gone into its preparation. We welcome BERR' contribution as a key partner in BNSC, and are pleased to be engaged with them in the continuing work around Digital Britain.

We welcome the report's focus on the digital economy – both as a technological enabler and market opportunity for the commercial development of space – as well as for the rest of the economy. We are keen to engage in the debate and in future developments, and thought it would be useful to highlight areas where existing and planned space activities, services and infrastructure are already important, where they offer new opportunities and where they provide solutions to issues raised by Digital Britain. We particularly welcome Lord Carter's highlighting the UK's international strengths in satellite broadband in the foreword of the interim report.

For convenience we will group comments within the context of the Actions listed in the Interim Report (precis of action included in italics for convenience – actions are grouped where appropriate):

### **Digital Networks**

**ACTION 1** *Maximise market-led coverage of Next Generation broadband and assess whether any contingency measures, as recommended by the Caio review, are necessary.*

- Satellite broadband is acknowledged as the only economical way to provide broadband service to the most difficult 5 to 15% of the population – it can do this at next generation speeds as well as at lower speeds.
- New technology satellite capacity capable of servicing 100,000 UK subscribers at 2Mbps has been funded and will be launched this year. It will be price competitive and commercially viable and demonstrate the potential of satellite broadband.
- Additional capacity could be launched to meet the full USC shortfall by 2012, or - as such satellites are inherently flexible - they could also deliver next generation speeds as well as a 2Mbps basic service – operators can pick and mix within the basic overall capacity of the satellite.
- Satellites will be commercial in operation (including provision for long term replacement costs), but will be likely to need some level of contingency support or guarantees to cover up-front fixed costs.
- Satellites could ease pressure on available bandwidth by facilitating innovative and economical new download mechanisms such as streaming and caching of TV content as an alternative to i-player type developments (BSkyB are already pioneering this with Sky+).
- Satellites are inherently flexible with regard to geography, service can cover remote areas as well as urban 'not spots' wherever they occur in the UK (or indeed Europe) – once launched, full roll-out is immediate.

## **ACTION 2**

*Government will work with the main operators and others to remove barriers to the development of a wider wholesale market in access to ducts and other primary infrastructure.*

- Satellite ground infrastructure is not subject to such barriers. Some minor planning constraints do exist, but these are readily soluble.

## **ACTION 3**

*Clarity over business rates identified by Francesco Caio in his report.*

- An issue for Fibre – does not apply to Satellite broadband.

## **ACTION 4**

*Consider the value for money case for whether public incentives have a part to play in enabling further next generation broadband deployment, beyond current market-led initiatives.*

## **ACTION 5**

*The Government will help implement the Community Broadband Network's proposals for an umbrella body to bring together all the local and community networks and provide them with technical and advisory support.*

- Existing local Satellite Broadband pilots (using leased capacity on current satellites) with grant aid from several DAs / RDAs provide useful case examples to consider here.
- Satellites can, and already do, service remote local networks as well as individual subscribers.

## **ACTION 6**

*Wireless Radio Spectrum Modernisation Programme.*

- Satellite utilise different parts of the spectrum from terrestrial operators - in the Ka Band. Spot beam technology allows very effective utilisation.

### **Digital Television Networks**

## **ACTION 7**

*We will consider at what point and at what cost the standard offer provided by the Digital Television Switchover Help Scheme could have a return path capability, and we will ensure that such capability is available as an option.*

- The interim report makes the strong point that market choice is now driving this market and that half of users have already chosen a pay TV option – much of it satellite.
- In addition, Freesat is already providing a popular national satellite based alternative to terrestrial digital TV provision (potentially including access in remote areas beyond the 98.5 universal cut-off).
- Integration of satellite broadband and satellite TV with a built in return path capability offers a very interesting option that could be commercially attractive and should be investigated.

## **ACTION 8**

*Use the region-by-region programme of publicly funded information and advice on one form of digital transition to provide impartial information on wider opportunities of digital beyond digital broadcast television.*

- This should include information on satellite broadband options.

### **Digital Radio Networks**

## **ACTION 9**

*We will take action to support DAB digital radio ..... We will commission an independent expert examination of the economic viability, continuing social contribution of, and most effective delivery methods for, local radio services and the relevance of the existing localness legislation.*

- Freesat already delivers DAB digital radio channels – expert examination should include satellite as a possible future delivery mechanism to remote areas alongside other services such as satellite broadband.

### **Digital Content**

#### **ACTION 10**

*Foster UK creative ambition and alternative funding mechanisms.*

- Satellite imagery and the opportunities for location aware content through GPS satellites are already being widely incorporated into digital content – google maps and virtual earth have already brought this into the mainstream.
- The Galileo programme will allow better reception of GPS signals across a range of environments and offer new opportunities.
- News content has long been dependent on satellites for worldwide communications – enhanced, cheaper and smaller equipment continually allow more and different content to be explored.
- A healthy and growing industry already exists providing tailored content from earth observation and meteorological satellites – greater cross-fertilization with innovative new content providers could be very productive.

### **Rights and Distribution**

#### **ACTION 11**

*Rights Agency to bring industry together to agree how to provide incentives for legal use of copyright material.*

#### **ACTION 12**

*A new approach to civil enforcement of copyright. It will be important to ensure that this approach covers the need for innovative legitimate services to meet consumer demand.*

#### **ACTION 13**

*ISPs to notify alleged infringers of rights.*

- Satellite delivery of digital content is relevant in this context – not least because, like the internet, it allows ready access to material from geographical areas outside the UK.
- As already noted, satellites can facilitate innovative download mechanisms such as streaming and caching of TV content as an alternative to i-player type developments (such as BSkyB Sky+). These may introduce new and possibly more benign rights issues.

### **Original UK Content**

**ACTION 14** *Merger regime.*

**ACTION 15** *Terms of Trade between producers and broadcasters.*

**ACTION 16** *second public service organisation providing competition for quality to the BBC.*

- Space not relevant here.

### **Network Universal Connectivity on Digital Networks**

#### **ACTION 17**

*We will develop plans for a digital Universal Service Commitment to be effective by 2012, delivered by a mixture of fixed and mobile, wired and wireless means.*

*Subject to further study of the costs and benefits, we will set out our plans for the level of service which we believe should be universal. We anticipate this consideration will include options up to 2Mb/s.*

- BNSC welcome the Steering Committee's establishment of the USC Technical Group to help develop these plans.
- Satellite broadband is acknowledged as the only economical way to provide the most difficult 5 to 15% of the universal service commitment.
- New technology satellite capacity capable of servicing 100,000 subscribers at 2Mbs has been funded and will be launched this year. It will be price competitive and commercially viable and demonstrate the potential of satellite broadband.
- Additional capacity could be launched to meet the full USC shortfall by 2012, it would be commercial in operation (including provision for long term replacement costs), but is likely to need some level of contingency support or guarantees to cover up-front fixed costs.
- Satellites are inherently flexible with regard to geography, service can cover remote areas as well as urban 'not spots' wherever they occur in the UK (or indeed across Europe).
- Satellite can therefore help deliver broadband to 100% of the population (subject to a postal service type of 'exceptional circumstances' caveat) – once launched, full roll-out is immediate.

#### **ACTION 18**

*We will develop detailed proposals for the design and operation of a new, more broadly-based scheme to fund the Universal Service Commitment for the fully digital age – including who should contribute and its governance and accountability structures.*

- Existing small scale pilots of satellite broadband in rural areas have demonstrated that, given some subsidy of initial user equipment, it is commercially competitive – even given the use of leased sub-optimal existing satellite capacity.
- Satellite capacity using new technology is due for launch in 2009 that will demonstrate cost-competitive broadband delivery at a much larger scale (350,000 subscribers) – public investment in this technology has provided one third of satellite cost, the other two thirds has been raised commercially.
- Private sector finance for communications satellites is a very well established and understood business, and one in which London has a global lead – even in the current climate.
- Additional satellite capacity to complement terrestrial technologies in servicing the remote segment of the USC would be commercial in operation given support for initial fixed costs. Possible support mechanisms to de-risk initial private sector investment could take the form of launch aid, direct subsidy or some form of guarantee.

#### **Take-up of universally available broadband**

#### **ACTION 19**

*Digital Inclusion Champion and expert taskforce to drive the Government's work on digital inclusion.*

#### **ACTION 20**

*BBC to play a leading role, drive the development of platforms with open standards.*

#### **ACTION 21**

*Public services online designed for ease of use by the widest range of citizens, and encourage the shift to online channels in delivery and service support.*

### **Digital Media Literacy**

#### **ACTION 22**

*Ofcom to make an assessment of its current responsibilities in relation to media literacy and, working with the BBC and others, to recommend a new definition and ambition for a National Media Literacy Plan.*

- BNSC is actively engaged in using Space as a powerful and attractive way of promoting the benefits of new technology and science. There is already great public interest in space and in images and digital content associated with space. It is an area that particularly engages the young.
- Efforts to promote space and science already make extensive use of digital media and the internet. They complement and can provide useful material for the parallel promotion of digital inclusion and media literacy.

#### **Conclusion**

Space has provided and supported many of the technologies that have driven first the explosion of ICT and then the digital revolution. Space also provides, supports and enables a wealth of digital content – satellite imagery, the basic infrastructure of modern news gathering, exciting new possibilities like exploitation of positional awareness through GPS, and much else. Space also offers the economical solution to the universal provision of broadband to remote users – both at 2Mbps and at next generation speeds.

BNSC welcomes Digital Britain's acknowledgement of the rôle of satellites and space technology in the future roll-out of the digital economy. The British space industry is a great asset in helping to deliver the Digital Britain vision, we are keen to continue working with BERR as a partner in BNSC and with DCMS to help make this happen.