

Ref: S901x/ab

Rt Hon Jeremy Hunt MP  
Secretary of State  
**Department for Culture, Media and Sport**  
2-4 Cockspur Street  
London SW1Y 5DH

28th Jun 2011

Dear Mr Hunt,

The Institution of Engineering and Technology (IET) is pleased to respond to your ***Open letter, 16<sup>th</sup> May 2011 - A Communications Review for the Digital Age.*** **Please find our response attached.**

The IET has in excess of 150,000 members worldwide drawn from a broad range of science and engineering disciplines. The membership represents a wide range of communications expertise, from technical experts to business leaders, encompassing a wealth of professional experience and knowledge, independent of commercial interests. This response has been prepared on behalf of the Institution's Trustees, after inviting input from its membership, and consulting with members of its Communications Policy Panel.

The Institution has responded, within its professional competence, to the questions raised in the letter where it believes it can make worthwhile comment.

If you require further information or amplification of any aspect of this submission then please do not hesitate to contact me.

Yours sincerely,



Paul Davies  
Head of Policy

Encl: 1) Response letter , 2) PowerPoint charts



**IET response to:**

**A Communications Review for the Digital Age**

*'Open letter to all those who work in fixed or mobile communications, television, radio, online publishing, video games, and other digital and creative content industries. We would also welcome the views of bodies representing the interests of consumers, citizens and businesses that trade online' dated 16 May 2011*

**Preamble**

The IET represents over 150,000 members in 127 countries around the world, providing a global perspective, from a solid UK base. The IET has communities of experts looking at engineering issues over a wide technical range that very few bodies can match without bias.

Nevertheless even the five questions grouped under 'A communications infrastructure that provides the foundations for growth' relate more to markets than to technology or engineering. But the communications industry is based on engineering, and both the engineering and technology is likely to develop rapidly in profound ways that we consider will deeply affect, generally for the better, the future experience of both operators and users, potentially changing the business environment in the process. In doing so it will create major new growth opportunities in convergent wireless and superfast broadband systems, and for the users of such systems in the wider economy. Any review of the future regulatory and legal environment must in our view take account of, and where appropriate, drive a vision for these trends.

**Specific Issues**

We have had extensive discussions and held a special conference on different aspects of this and are conscious that there can be much complexity in the details. We have chosen to present a specific view of the future of the key area of superfast mobile wireless access. Of course concern in this area is driven by the need to support new smartphone and other mobile services where coverage, regulatory and capacity issues are already serious enough to be a limit on new services. The current mobile regulatory framework, far from coping with these new challenges, has become part of the problem.

We attach a PowerPoint presentation on this topic that is designed to set out the issues and solutions as clearly and succinctly as possible, but in summary we foresee;

- Much larger numbers of smaller cells with higher performance (**'Super-High-Density' wireless**).

This goes hand in hand with major shifts towards;

- **'Inside-out'** customer-premises-based systems like WiFi & femtocells
- Multimode networks blending public / private cells, e.g. Cellular/ WiFi)
- Services and content innovation multiplying
- Inside out systems look to be the *only* practical way of delivering the superfast wireless / untethered systems that we believe will dominate future communications. This is vital to maintain the UK's leadership in the Creative industries.
- This also implies close **integration between the wireless and fast broadband backhaul** infrastructure, and a pro-investment UK Communications model.

As a result of these trends;

- **The current Communications regulatory framework is now a serious barrier to growth.** In particular wholesale network competition must perform better or we will fall further and further behind consumer expectations.
- **It is important for the government and regulators to promote a vision for the future of mobile superfast services, that inspires sustainable investment and wider services competition.**
- The UK Government needs to consider both mobile and wireline communications more fully in the context of **UK National Infrastructure** (energy, transport and water as well as communications) with its complex interdependencies, and to add consideration of such interdependencies to the duties of regulators.