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**BROADBAND DRIVING GROWTH: POLICY RESPONSES**

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*Following the request from the Committee in March, the outline of these recommendations was prepared during a joint TISP and WPIE workshop in June 2003. Drawing on the Committee's work on Broadband over the last two years, including three workshops on the subject, the Secretariat has prepared this set of policy recommendations for broadband development. TISP and WPIE delegates have commented on three successive drafts. This final draft is presented for approval by the Committee during its 45th meeting.*

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## **BROADBAND DRIVING GROWTH: POLICY RESPONSES**

### **I. Why is broadband important for economic and social development?**

1. Broadband connectivity is a key component in ICT development, adoption and use. It is of strategic importance to all countries because of its ability to accelerate the contribution of ICTs to economic growth in all sectors, enhance social and cultural development, and facilitate innovation. Widespread and affordable access can contribute to productivity and growth through applications that promote efficiency, network effects and positive externalities, with benefits for business, the public sector, and consumers. Broadband networks are an important platform for the development of knowledge-based global, national, regional, and local economies.

2. For the private sector, broadband is an enabler of e-business and new market opportunities, allowing firms, including small and medium-sized enterprises (SMEs), to realise growth through productivity increases stemming from improved information exchange, value chain transformation, and process efficiency. Broadband can improve the efficiency, availability and reach of public sector services in areas of high government interest, such as health, education and government services, and have important demonstration effects in other economic sectors. For consumers, broadband can enhance the quality of life through economic, social and cultural, development. For small, rural and remote communities it can be an enabler for economic and social inclusion; especially, it can facilitate access to new and advanced goods and services, as well as opportunities to participate in the digital economy and information society. However, geography poses challenges, particularly in countries with low population densities, in extending broadband to all communities.

### **II. What is broadband?**

3. There is no universally accepted definition of broadband and national definitions vary, but it is generally agreed that it applies to always-on services considerably faster than ISDN. Definitions can be based on technical criteria, such as the capacity of the communication link, or on functional characteristics. Generally, broadband is a set of digital communication technologies with the capacity to transmit significant amounts of data at a high rate, supporting the delivery of a range of digital services, some or all of which can occur simultaneously. The critical aspect of broadband is what it allows a user to do.

4. The capabilities of broadband and the demand for broadband services will continue to evolve. Network operators will need to consider future demand for improved performance when designing and investing in broadband networks. New technological developments are competing with more established DSL and cable modem technologies, which are themselves evolving rapidly. These include new forms of fixed wireless, mobile wireless and other options including, Ethernet LANs, fibre to the home, satellite, digital terrestrial television, and broadband through electrical power lines. Significantly, broadband access may rely on a combination of interoperable technologies to deliver services to users such as access via a local fixed wireless system with backhaul via satellite.

### III. What policy principles should guide broadband development?

5. Based on experience from OECD countries, the following principles have been demonstrated to assist the development of broadband markets, promote efficient and innovative supply arrangements, and encourage effective use of broadband services.

6. These principles are:

- Effective competition and continued liberalisation in infrastructure, network services and applications in the face of convergence across different technological platforms that supply broadband services and maintain transparent, non-discriminatory market policies.
- Policies that encourage investment in new technological infrastructure, content and applications in order to ensure wide take-up.
- Technologically neutral policy and regulation among competing and developing technologies to encourage interoperability, innovation and expand choice, taking into consideration that convergence of platforms and services requires the reassessment and consistency of regulatory frameworks.
- Recognition of the primary role of the private sector in the expansion of coverage and the use of broadband, with complementary government initiatives that take care not to distort the market.
- A culture of security to enhance trust in the use of ICT by business and consumers, effective enforcement of privacy and consumer protection, and more generally, strengthened cross-border co-operation between all stakeholders to reach these goals.
- The need to address both: 1) supply-based approaches to encourage infrastructure, content, and service provision, and 2) demand-based approaches, such as demand aggregation in sparsely populated areas, as a virtuous cycle to promote take-up and effective use of broadband services.
- Access on fair terms and at competitive prices to all communities, irrespective of location, in order to realise the full benefits of broadband services.
- Assessment of the market-driven availability and diffusion of broadband services in order to determine whether government initiatives are appropriate and how they should be structured.
- Regulatory frameworks that balance the interests of suppliers and users, in areas such as the protection of intellectual property rights, and digital rights management without disadvantaging innovative e-business models.
- Encouragement of research and development in the field of ICT for the development of broadband and enhancement of its economic, social and cultural effectiveness.

#### **IV. What are the areas for action?**

##### ***Infrastructure development and readiness***

- The active engagement of the private sector in a competitive marketplace is the best way to facilitate ongoing and new investment in broadband, and to maximise the capacity to assess the potential risks and returns.
- Liberalisation of telecommunications markets is fundamental but pro-competitive safeguards are also required. Competition and the reduction of bottlenecks are important to stimulate take-up and facilitate maximum extension of the market.
- The widespread availability and access on fair and reasonable conditions to broadband remains an issue in some countries for remote areas and under-served groups. The broadening of geographic coverage, which may require the innovative use of spectrum, should address existing, and avoid creating new digital, social, and economic divides while not increasing any dominant market position. Public financial assistance could complement private investment where appropriate, provided it does not pre-empt private sector initiative or inhibit competition.
- Competition among different operators and technological platforms and their capabilities to deliver content-rich services requires the interoperability of broadband networks, in the context of convergence.

##### ***Demand, application, use and skill development***

- Digital content and services are essential for increasing demand for broadband, and government and the private sector have key roles in facilitating content availability across all platforms.
- As model users of broadband government can demonstrate the potential of broadband-based services and content, notably by using it to increase the efficiency of public service delivery, and encourage local development of new content, including content from public sources.
- A high level of trust, security, privacy and consumer protection are needed in order to safeguard the integrity and reliability of networks, protect users through mechanisms such as encryption and authentication technologies, combat cyber-crime and spam, and protect intellectual property, and will only be achieved through the development of rules with cross-border application for the market place.
- The private sector needs to take an active lead in developing standards and mechanisms that meet the demands of their customers and will also continue to build confidence in broadband services.
- Government initiatives to expand coverage and use, such as aggregation of local demand, are best structured around public/private sector partnerships.
- The private sector and government have a role in providing information about the benefits of the widespread adoption and use of broadband, especially those to SMEs. The use of e-government in particular provides important demonstration effects and serves as a demand driver.
- Education, healthcare, general government information and services, and provision of government services to businesses and citizens can all potentially benefit from the use of broadband and should be given priority in government strategies.
- All stakeholders need to seek a consensus on the management of intellectual property rights to allow new business models to be developed for the distribution of content.