



In Committee

The Business and Industry Advisory Committee to the OECD (BIAC) was created in 1962 as an independent organisation officially recognised by the OECD as being representative of all sectors of the OECD business community. BIAC's members are the major industrial and employers' organisations in the 30 OECD member countries. Via its 17 standing committees, BIAC mirrors all economic policy issues the OECD covers.

The Broadband Manifesto was spearheaded by the BIAC Committee on Information, Computers and Communications Policy (ICCP). This consensus document is the result of broad cross-sectoral dialogue within the OECD business community.

BROADBAND MANIFESTO (Completed Version)¹

October 2, 2003

1. Why a Manifesto on Broadband?

Industry, in its role as a dynamic and forward-looking part of the economy, has the task of highlighting positive and negative lessons taught by the market. To secure the potential benefits of the digital economy, industry must promote the opportunities offered by technological evolution.

Broadband is an enabling set of technologies, platforms and services that can provide rich and dynamic content and applications to consumers and businesses alike (see endnote). The inherent efficiencies and greater capacity of broadband make possible the delivery of high quality and high bandwidth products and services not before accessible via dial up connection. Stimulation of investment in such products and services and removal of existing and potential trade and regulatory barriers to such business opportunities can both deliver on the promise of the digital economy to end users and SMEs as well as spur new cycles of technological innovation.

There is agreement that broadband technologies still possess untapped potential for generating greater economic efficiency in the use of access networks. In doing this, they may create a bridge to greater general economic efficiency through helping to make such products and services more affordable. For business users of

¹ The BIAC Broadband Manifesto (Completed Version) is an expanded version of the January 9, 2003 Broadband Manifesto Outline.

communication services, broader, richer applications and content coupled with greater interactivity allow them to lower their transaction costs and increase substitution of off-line products for cheaper on-line ones. Education, healthcare, banking and insurance are four prominent examples.

Technological evolution and the increasing availability of affordable and ubiquitous broadband access are transforming the way we use communications networks including the way products, content and services are accessed and delivered. The digital technologies that make broadband possible thrive on multiple platforms (copper-based, fiber, wireless and satellite) linked by packet switching. The growing interrelation of technologies, standards and stakeholders' interests make this a momentous opportunity to capitalize on the potential provided by broadband development.

Furthermore, there is wide consensus that available and emerging technologies will indeed stimulate and serve as important enabling factors of an inclusive global economy.

BIAC recognizes the need to promote the competitive development of technologies that facilitate the growth of broadband and the mass take-up of broadband services. The Digital Revolution is a dynamic and continuous process. A pro-competitive policy framework that promotes innovation and investment is essential to continuing to obtain the benefits of this revolution.

2. Enabling broadband

Broadband enables products and information services to cross boundaries between previously separated sectors and modes of communication including press, broadcasting and telecommunications. Although this can and will happen through both narrowband and broadband, which will coexist for some time, the capacity and efficiency of the latter make it an essential driver of economic growth in the digital economy.

The role of broadband as a facilitator and driver of growth in the digital economy is dependent on both supply and demand factors.

Framework issues relating to the supply of broadband infrastructure include:

Ensuring a competitive marketplace: Governments should ensure a pro-competitive and market driven policy framework that promotes investment in and deployment of broadband for business users as well as consumers. Actions necessary to promote such a policy framework include:

- **Telecoms liberalization:** Liberalization of the telecommunications market can be a powerful economic driver. Business users need innovation and choice in broadband services. This can best be achieved through open and competitive markets which also create incentives for continued investment.

- **Pro-competitive regulation for basic telecommunications:** Ensuring effective application of the pro-competitive policy principles enshrined in the WTO Reference Paper is essential. BIAC supports the migration from ex ante regulation to general competition law after a truly competitive marketplace for basic telecommunications exists. Broadband services can be delivered with a variety of technologies, and business users are concerned with competition at all levels; infrastructure, technologies and services.
- **Limiting Regulation of emerging technologies and services:** Allowing emerging technologies and services offered in a competitive marketplace to flourish through innovation requires regulatory restraint in a process that should bring such technologies to be subject only to general competition law.

Addressing the Challenge of Achieving Broadband's Full Potential: Broadband will necessarily be provided in part through legacy telecommunications infrastructures and technologies, which may not be economically efficient to overhaul or update. This may result in a non-optimal level of technological efficiency, and, given the different requirements of Internet Protocol (IP) traffic and switched traffic, existing switched networks may be challenged by heavy broadband usage. In particular, the provision of high-bandwidth broadband services on legacy networks may be delayed – among other things - by bandwidth gaps, insufficient network capacity, and low website delivery capabilities. Pro-competitive policies are essential to encourage private sector investment needed to transform telecoms infrastructures and technologies.

The necessity to manage coexisting IP and switch-based networks: Given the different requirements of IP and switched traffic, the efficiency of existing networks may be challenged by heavy broadband usage.

The necessity to accommodate different traffic typologies: The network architecture must simultaneously and efficiently support and accommodate different types of traffic including streaming, burst and transaction-oriented traffic, with their differing predictability patterns, requirements for capacity, traffic coherence, packet routing, priority allocation, sequentiality and symmetry.

Achieving the benefits of more efficient frequency allocation: To foster efficient and broadband-friendly management of radio spectrum (in view of facilitating platform competition), governments should make available the maximum amount of radio spectrum, at a reasonable cost, in a coordinated manner, for the deployment of advanced broadband services.

The need for wider and more stable interoperability: System and service interoperability should strive to provide more secure and seamless transmissions between different and diverse environments. Providers must be able to securely distribute the same products, content and applications over different platforms in a manner that ensures a balancing of the interests of all stakeholders. Moreover, information stored in databases of different standards should be queryable and portable from one broadband platform to the other; cross-functionality should be ensured between all the broadband platforms and services.

Issues relating to the demand for broadband that must be addressed through an integrated approach include:

The need to foster an environment that promotes the development of applications that utilize the full potential of Broadband: We are still in the formative stages of developing the technical applications and business models that utilize the full potential of broadband at the B2B, B2G, B2C and G2C levels. While a number of these application and business models already exist, they may not be available remotely and need to be optimized for a broadband environment. The development and deployment of these applications will allow society to attain many of the potential and untapped benefits of broadband.

The need to continue to enhance consumer and business confidence in areas such as privacy and security through promoting a culture of security and combating cybercrime.

The need to promote consumer and business demand through competition: Pro-competitive policies are essential to ensure that consumers and business users can choose innovative broadband services and suppliers, and get the best products and services at affordable prices. Consistent with the need to ensure effective competition and to promote innovation, pro-competitive policies should be flexible, while the cost, burden and potential obstacles of regulation should be as low as possible.

The need for data and intellectual property protection:

- A tremendous amount of data will be available in the broadband world, and should be protected in the appropriate manner.
- With respect to Intellectual Property, the need to stimulate demand for these broadband services (innovative content, software applications and other products and services) further emphasizes the need for adequate and effective intellectual property protection, which balances the interests of all stakeholders.

The consumer's ability to access any lawful site or service, and do business therewith, must be guaranteed.

The Government role in leading in broadband use, through delivering services and through e-Government applications is essential.

A wider implementation of national treatment and non-discrimination protocols for products and services that can be delivered via e-commerce must be seen as benefiting the industry and the economy.

3. The Growth Agenda Going Forward

Wide access to and effective use of broadband contributes to productivity and growth, through efficiency gains and network effects. As such, broadband policies should provide a framework to maximise geographical coverage, network availability and access methods, while maintaining technological neutrality between suppliers and platforms.

In this context, BIAC raises a number of critical and challenging issues relevant to policy makers for the growth of broadband, in particular those relating to demand potential, trust, intellectual property rights and interoperability, and regulation.

3.1. Demand Potential

Realising the full potential of broadband will depend upon the continued evolution of a competitive environment that supports and promotes the development of B2B, B2G, B2C and G2C applications and business models that will spur demand.

As stated above, pro-competitive policies, including that entrance barriers for new service providers are as low as possible, are essential to ensure that consumers and business users can choose innovative broadband services and suppliers, and get the best products and services at affordable prices. Consistent with the need to ensure effective competition and to promote innovation, pro-competitive policies should be flexible, while the cost, burden and potential obstacles of regulation should be as low as possible. Related content issues should also be considered in this context.

By implementing public policy that relies primarily upon market forces, where effective competition and consumer choice exist, governments will ensure affordable means of access not only to community institutions such as community centers and libraries, but also to the business community, specifically small and medium-sized enterprises (SMEs). Furthermore, any facilitation of access to broadband in rural and remote areas should be introduced in the least market-distorting manner possible.

BIAC noted earlier that building supply of broadband is important. As broadband infrastructure development continues to advance in most OECD countries, driving demand among key user groups is just as important a goal for public policy as investment in infrastructure.

Driving demand among all users – i.e., in particular in the B2B context, among SMEs and by governments – will be an essential component of broadband take-up. Indeed, business users of broadband services constitute a major user group as broadband services are an essential productivity tool. Thus, sustainable economic growth will be achieved by addressing the demand potential in the B2B context .

SMEs also form a substantial user group, accounting for a large majority of economic activity and employment. As such, SMEs should be considered in developing demand for broadband.

Governments likewise will aid the development of broadband by acting as model users, not only through their role as a purchaser of services, but also as major providers and content developers in key public policy areas such as health, education and as an investor in ICT research.

3.2. Trust issues

Trust and confidence, of consumers and businesses alike, on issues related to privacy and security, are critical to broadband's growth potential. In the broadband environment, promoting a culture of security and combating cyber-crime are top priorities.

At the same time, it is important to consider the costs for the implementation and management of securing transmissions and communications and of ensuring consumer privacy.

Business is actively engaged in the development of a "culture of security" as promulgated by the OECD Guidelines for the Security of Information Systems and Networks. Likewise the OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data serve as a basis for industry self regulation related to privacy.

Building awareness of trust issues, for example through active implementation of the OECD security and privacy guidelines is a goal that should be pursued by all stakeholders.

Key issues for broadband policy makers related to trust include:

- Trust and confidence are key to the uptake of broadband services;
- Privacy considerations and protection are important components of broadband uptake by consumers, business and governments alike;
- Security measures are necessary for the safeguarding of networks and for the protection of users through mechanisms such as the use of authentication.

3.3. Effective Intellectual Property Rights Protection and Interoperability

3.3.1. Effective Intellectual Property Rights Protection

Adequate protection of intellectual property rights (IPR) is a top priority for business. This should be achieved through a balanced approach that protects the rights of all the stakeholders in the digital networked environment.

Business is in dialogue to ensure that copyright (including neighbouring rights) regimes are applied to digital environment in a manner that promotes electronic commerce while protecting IPR.

As noted in the Global Action Plan for Electronic Commerce², WIPO adopted the copyright and performances and Phonograms Treaties in 1996. As such, business urges governments to move promptly to ratify and implement these treaties, taking into account the challenges and opportunities of the digital environment. This goal must be the establishment of a balanced and realistic framework of accountability that: respects international norms; provides incentives for increased inter-industry co-operation to deter and respond to infringements; promotes responsible business practices; does not impose unreasonable burdens on intermediaries; and preserves an appropriate role for the courts. Any legislation that deals with the applicability of copyright infringement liability rules should carefully examine how these rules apply to all stakeholders in the digital networked environment.

In addition to the WIPO Treaties, business seeks effective and timely implementation and enforcement of the WTO Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs). With the rapid development of digital technologies and electronic services, the need for effective protection and enforcement of IPR is imperative. The TRIPs Agreement plays a very important role in so far as it provides minimum standards for protection and enforcement.

In this context, technological evolution and digital convergence can result in multiple potential roles for on-line service and content providers, resulting in evolving roles for different stakeholders in the marketplace. For example:

- Service providers can be technical intermediaries who also facilitate transport of content from one point of a network to another point in one of several networks;
- Service providers can supply content to their subscribers based on a contractual arrangement with a content owner;
- Service providers can develop and supply their own content along with those of others;
- Content developers can also become service providers.

Accordingly, as part of the ongoing discussion on intellectual property issues, BIAC encourages all stakeholders to consider the above mentioned issues when promoting effective intellectual property protection throughout the value chain. Technological solutions, contractual arrangements, standards and evolving business models (particularly in the consumer environment) are also key issues in the context of broadband and on-line content, product and service delivery.

² A Global Action Plan for Electronic Commerce: Prepared by Business with Recommendations to Governments, July 2002, pp. 47-48.

3.3.2 Interoperable Solutions – How Standards Should Best Serve Demand

Interoperability should strive to provide more secure and seamless transmissions between different and diverse environments. Providers need to be able to securely distribute the same products, content, and applications over different platforms in a manner that ensures a balancing of the interests of all stakeholders.

Moreover, information stored on different standards should be portable in all areas of the broadband world on an end-to-end basis; cross-functionality should be ensured across broadband platforms and in a manner seamless to the user.

Effective and thorough interoperability standards should be pursued across all standard-setting institutions and should also be sufficiently flexible to accommodate requirements of future platforms.

3.4. Regulation

A pro-competitive regulatory environment is essential to trigger the required new investments in the development of broadband services by all stakeholders, in particular as investment in new technologies and services can involve significant risk. Likewise, regulatory regimes/policies should be reviewed as appropriate in order to focus on creating a favorable growth oriented climate for the investment community.

In this context, a number of issues are relevant for policymakers:

- How different platforms fit into the regulatory structure and how regulation affects these platforms;
- The correlation between investment (including the market segments that make the investments) in broadband services, effective regulation and customer benefit; Broadband facilities provide a valuable infrastructure for the delivery of a wide variety of innovative services by users of all sizes. What regulatory solutions encourage private sector investment in broadband infrastructure and services and ensure flexible and affordable customer-driven interfaces with the network?;
- What are the relevant risks of investments in broadband services;
- Consideration of the international regulatory climate for broadband platforms and services;
- Implications of asymmetric regulation – if, and how balance is being achieved between all players, and why;
- Technological neutrality – a tool to promote competition, market openness and transparency.

3.5. Recommendations for OECD work

The continued analysis of issues relating to broadband is important to ensuring that its development is taken forward in a competitive manner that reflects the supply and demand issues relevant to all.

In this context, BIAC recommends that OECD analysis focus on key issues listed below:

- Demand potential for broadband by all user groups, including focus on B2B;
- Business models across OECD countries related to broadband deployment;
- A comparative study of how different platforms fit in to the regulatory structure and how regulation affects these platforms and the services provided over them;
- The correlation between investment in broadband services, effective regulation and customer benefit;
- The advantages and drawbacks of cost orientation. Do prices affect the incentive to invest and if so, what issues are being addressed by the price levels analysed?;
- Implications of asymmetric regulation – if and how balance is being achieved between players and why;
- Continued analytical focus on regulation and platform convergence;
- Continued study of regulation of bundled offers – does segmentation hinder the emergence of convergent offers?;
- The rationale for and impact of different cost methodologies.

The OECD fact-based approach to resolving some of the more challenging and complex broadband issues is in our view essential to continued expansion of broadband demand and realisation of its potential.

4. Enlarging the Dialogue

As a voice for the international business community, BIAC will continue to encourage a broad cross sectoral and inter-organization dialogue on broadband issues in cooperation with the OECD. BIAC will focus on the identification of key areas for OECD work on issues related to broadband, including the analysis of tools for growth that are incorporated in international agreements, with the aim to ensure their effectiveness.

Endnote

The emergence of the “broadband phenomenon” is facilitated by such technologies as: fast transmission and access technologies, mass storage, fast retrieval, treatment, analysis and security technologies.

It may be preferable not to express formally “broadband” in numerical form (i.e., so many bits-per-second), but rather, operationally, as a vehicle for distributing effectively digital content and services over networks. In the context of the multiple platforms that can be used for delivery, it should suffice to say that ‘broadband speed’ should be high enough to provide those on-line services that cannot be provided over narrowband.

Likewise, it may be enough to say that the underlying network architecture must simultaneously and efficiently support and accommodate different types of traffic (streaming, burst and transaction-oriented traffic), which exhibit different pattern predictability, and have different requirements of capacity, traffic coherence, packet routing, priority allocation, sequentiality and symmetry.