

Stimulating Mobile Broadband

Building on the worldwide success of GSM, the EU aims to stimulate growth in the development of mobile broadband services, delivering significant benefits to European society and industry.

One quarter of the world's population now use mobile phones based on the GSM standard developed in the framework of EU research projects and launched via European Council Directives and Recommendations in 1987 (see box).

The coordinated approach propelled European companies into globally dominant positions in what is today an enormously valuable industry. The sector, however, is at a turning point, as the "second-generation" (2G) GSM-based services peak and third-generation (3G) ones are gradually penetrating the market.

3G's ability to carry "mobile broadband services" will be the source of medium to long-term growth in the sector, with mobile phones increasingly being used to access the internet, shop and pay on-line, watch movies, listen to music and provide "location-based" services.

Europe must build on its strong position to extend its leadership in mobile communications. This is not, however, just a priority for stimulating growth in Europe's communications industry - mobile broadband services will also drive efficiency in public services and all industrial sectors, significantly improving productivity across Europe's economy. Supplying content and services will also provide opportunities for Europe's cultural sector.

Pro-Innovation Ground Rules

Growth in high-speed mobile data services is driven primarily by market forces, but it also needs a supportive policy environment.

The EU's regulatory framework for electronic communications ensures national regulators

promote innovation and competition and provides 'investment certainty' for companies. Further regulation of the emerging mobile broadband services market is not envisaged.

Five Key Issues

The "Mobile Broadband Services" Communication (COM2004 447) of 30 June, 2004 took account of the new technological developments to stimulate growth for mobile high speed internet by looking at the policy environment needed for these services to flourish.

Many ideas came from industry via the **Mobile Communications and Technology Platform**. Established in October 2003, it brought together 14 CEOs from the sector, including mobile operators, equipment manufacturers and content providers.

Together they produced a prioritised set of recommendations for rolling out mobile networks across Europe, with other stakeholders contributing ideas at a workshop in June 2004.

The Communication identifies five key issues:

- **Research and Development:** the share of GDP that Europe spends on R&D in this area lags well behind its main trading partners. Europe needs a strategic R&D agenda supporting innovation, including basic research. Today's Mobile Communications and Technology Platform could provide the vehicle for a strategic research initiative within the EU's Seventh Research Framework Programme (2007-2013);
- **Interoperability:** interoperability between different infrastructure and terminal solutions is

GSM Growth

Europe's success in mobile communications is based on the Europe-wide adoption of the GSM standard. Developed by the European Telecommunications Standards Institute (ETSI) with the support of the European Commission, GSM allowed interoperability between networks, handsets and services. Suppliers could develop products for a 'home market' of hundreds of millions of people – and did so. The resulting competition drove further development, driving hardware prices down in a virtuous circle. Similarly, EU-wide deregulation of the telecom sector stimulated competition between operators, forcing costs down further for consumers. Well over 1.6 billion people use GSM – only in 2005 this standard acquired more customers than there are users of all other cellular technologies in the world put together. A similar approach was sought for 'third generation' mobile communications with the "UMTS Decision" of 1999, which aimed to harmonise conditions of use to promote competition based around a global standard, although spectrum assignment mechanisms were not coordinated (see Factsheet 22).



critical to prevent market fragmentation. The converging environment poses new challenges to achieving interoperability, so industry must take urgent steps to improve the interoperability of mobile broadband services. Regulatory intervention is not foreseen at this stage;

- **Value-added content:** increasing the quantity and quality of mobile content applications is essential to stimulating demand for mobile communications and the development of more services. Available and interoperable Digital Rights Management (DRM) technologies and a one stop shop for copyright licensing are key. The Commission will undertake further studies into potential barriers to the deployment of high-value content and related consumer aspects, while Member States are asked to ensure that the regulatory framework for intellectual property rights is adequate;
- **e-payments:** there is, at present, considerable uncertainty regarding how EC rules on e-money and money laundering apply to mobile payment services, so the Commission has launched a public consultation to clarify the issue. There are also forthcoming proposals on a new legal framework for payments in the EU and a third money laundering directive. Any prudential rules governing the use of "e-money", where relevant to mobile payments, must be applied in a proportionate and risk-sensitive manner;
- **Base stations and masts:** to offer their subscribers seamless coverage, operators must site base stations and masts in thousands of different localities. Member States must address the problems caused by fragmented local policies on siting base stations and should ensure that these are based on the generally accepted assessment of health risks.

Broadband Wireless Access (BWA)

3G mobile services are likely to co-exist with and be complemented by other wireless access services, the best known being "WiFi" and "WiMAX". The EC's policy aims to stimulate their development by:

- encouraging Member States to allow BWA deployment without undue restrictions ;
- strengthening the EU single market by harmonising the conditions of use of BWA applications. **Commission Decision 2005(513)EC** was adopted on 11 July 2005 harmonising RLAN in the 5 GHz range and similar activities are on-going for other BWA technologies in the 2.6, 3.4 and 5.8 GHz bands.

Current Commission initiatives

Further EU activities in this field include:

- developing a common EU policy for the optimal management of the radio spectrum;
- intellectual property policies and initiatives to further develop Digital Rights Management;
- the Public Sector Information Directive ensures that this key resource is available in useable form for European content and services;
- Information Society Technologies research, with Strategic Objectives developing technologies crucial to the digital content industry, from access to cultural heritage to cross-media content for entertainment;
- the eContent programme, encouraging the growth and development of the digital content industry in Europe;
- the Safer Internet programme, which focuses on illegal and harmful internet content.

3G and RLAN, of course, are not the final word on mobile and wireless communications - Information Society Technologies research is already looking at radio communications technologies in the 2010 timeframe, with Strategic Objectives on:

- the development of mobile and wireless systems beyond 3G to realise the vision of "Optimally connected anywhere, anytime", and
- applications of mobile communications to areas such as road and air transport.

See Also:

- FactSheets 13 & 14: eCommunications Regulation
- Factsheets 18 & 19: Safer Internet and eContent
- Factsheet 20: Intellectual Property & DRM
- FactSheet 21: Public Sector Information
- FactSheet 22: Radio Spectrum Policy

All Factsheets can be downloaded from "Europe's Information Society: Thematic Portal."

Further Information

- **Mobile and Wireless Communications:**
http://europa.eu.int/information_society/industry/comms/mobile/index_en.htm
- **Radio Spectrum Policy:**
http://europa.eu.int/information_society/policy/radio_spectrum/index_en.htm
- **Europe's Information Society: Thematic Portal**
http://europa.eu.int/information_society/
- **Information Society and Media Directorate-General:**
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