Technology innovation, standardization and spectrum management as key ingredients for enabling a new mobile wave

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The European mobile market landscape

▸ In less than 20 years it was possible to create a new industry from scratch with plenty of new services for citizens and companies(*)

    ▸ 143 operators in 50 countries/areas in Europe

    ▸ from 0 to 454 million Subscribers in Europe in ten years

    ▸ 2-5 competing mobile operators in every country

    ▸ 84% Average Market Penetration in Western Europe

    ▸ average market growth in 2001-2002 = 36% or 102 million new customers

(*) all data refer to end 2005, source GSME response to European Commission consultation on the 2500-2690 MHz IMT-2000/UMTS extension band

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What made it possible?

▶ Basically, the four key component of this success story are

  ▶ An evident market need

  ▶ A clear and stable regulatory and spectrum harmonization framework

  ▶ A complete and clearly defined set of interoperable network and service standards

  ▶ A relevant effort in research and development projects

▶ Affordable (and decreasing) cost of services and terminals, interoperability and roaming are the key benefits valued by the Customers

▶ Operators and Manufactures have been confident in making heavy and future proof investments

▶ A major exploitation of economy of scale has been possible, providing benefits for all, including the Developing Countries where the development of a telecommunication infrastructure is of paramount importance

Outlook to the future

▶ There is an increasing demand for services in full mobility, with ever increasing bandwidth needs

▶ Different technologies are becoming available at higher pace than in the past. Interoperability is therefore a key requisite from a market perspective.

▶ New solutions are now becoming available: Software Defined Radio and Cognitive Radio are just examples of new technology enablers that can potentially be of great help in addressing the spectrum issues currently being raised

▶ There is a strong commitment from the industry, as shown for instance by the European Research projects dealing with these topics

▶ The current service and technology innovations will lead to a deep transformation of the telecommunications, IT and media industries

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Spectrum issues

▶ This workshop has outlined several questions, e.g. low efficiency in spectrum usage, need to cope with an increasing demand for services in full mobility, lack of flexibility and difficulty for new technologies to enter the market

▶ We should not loose sight of the true market needs and keep in mind that seamless availability of services and terminals (including international roaming) at affordable costs are and will be the key drivers for the industry.

▶ In addition, thanks to the regulatory and standard framework, up to today Operators and Manufactures have been confident in making heavy and future proof investments : also this value need not to be lost

▶ So again, harmonization and standardization are the key pillars, today more that ever when a set of new technology options are available while the Customer will continue to value interoperability of terminals and services.

Key issues

▸ The amazing success of mobile industry can be related to many factors: the regulatory framework together with the well defined technology and standard development proved to be pivotal

▸ The market is increasing and it values primarily affordable costs and interoperability and roaming of services and terminals

▸ Different new technologies and technology enablers are approaching the industry: the research can help the industry by developing new solutions to better exploit the spectrum but interoperability will be the crucial issue of our innovation path

▸ We can face the "spectrum challenge" by building on the solid foundations that enabled the success of the mobile industry and by exploiting the exciting opportunities that new technology enablers are making available

▸ ITU must continue their leading role in addressing spectrum management and standard development: WRC07 and the current activity toward IMT-Advanced are key milestones to pave the way toward a new era for mobile telecommunications

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