

ITU Workshop on Market Mechanism for Spectrum
Management; Geneva
Remarks by Erkki Ormala

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Challenges and Opportunities: What Lies Ahead for Radio Spectrum Management

'Mobile phones have become indispensable in the rich world. But they are even more useful in the developing world, where availability of other forms of communication –roads, postal systems or fixed line-line phones – is often limited. Phones let fishermen and farmers check prices in different markets before selling products, make it easier for people to find work, allow quick and easy transfers of funds and boost entrepreneurship. Phones can be shared by a village. A recent study by London Business School found that, in a typical developing country, a rise of ten mobile phones per 100 people boosts GDP growth by 0.6 percentage points. Mobile phones are, in short, a classic example of technology that helps people to help themselves.' (The Economist June 2005).

New technologies, availability of globally harmonized spectrum, economies of scale, open and interoperable solutions and competitive services and equipment markets have brought the costs of equipment and service down to levels, which make connection to communications affordable for people all around the world. People are used to use their devices as they travel and get connected to a service any time and anywhere.

Today more than 2.5 billion people are connected to mobile communication networks. Every day 1.2 million more people get connected. By the end of this year we will reach the 3 billion users' milestone and by the end of this decennium there will 4 billion mobile users globally. But this is not all. Mobile users will have access to voice and data services and also broadband access to the Internet. Total wireless traffic volume per user per day is estimated grow dramatically by 2020. E.g. the UMTS Forum estimates that traffic will grow more than 20 fold between 2012 and 2020.

Global harmonization of spectrum has played – and will play in the future – a decisive role for an information society for all. New technologies such as software defined radio and cognitive radio techniques are not likely to change that in a foreseeable future.

Industry has an important role to play in harmonization of spectrum use as regulators adopt technology and service neutrality policies. However, the role of regulators continues to be central in terms defining basic rules and a framework for spectrum usage and enforcement. Prevention of harmful interference and safeguarding competition are the overriding objectives. Good cooperation between industry and regulators is a key to efficient use of spectrum. An international agreement framework is a fundament for national and regional arrangements.

Market mechanisms will have an increasing role in spectrum assignment. Licensees should have right to select technology provided that this does not violate basic spectrum usage conditions such as avoiding harmful interference, consumer rights or other public interests. These conditions should also be applied in spectrum trading.

Equipment authorisation i.e. approval is closely linked with spectrum assignment. The basic requirements for effective use of spectrum are typically drawn up by international standardization organizations. The requirements are then adopted as regulatory requirements for placing the equipment on the market. This approach gives a high level of certainty for manufacturers that the equipment when compliant with these requirements does not cause harmful interference.

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In spite of harmonized requirements the conformity assessment procedures vary from one country to another causing delays and extra costs. The European approach based on suppliers' declaration of conformity has turned out to be an efficient and reliable system for product approval.

Nokia is inspired by the ITU vision for a global mobile society. According to the ITU studies need for additional spectrum for mobile use by 2020 is about 500 MHz – 1.0 GHz depending on the market. The allocation and identification of this spectrum is on the WRC-07 agenda. A positive result at the WRC-07 - i.e. to identify new spectrum for IMT - would pave the way for the global mobile society and the introduction of next generation networks and services.