

Contribution from UKE, Poland to the GSR15 Consultation

THE OFFICE OF ELECTRONIC COMMUNICATIONS ACTIONS TOWARDS FACILITATING THE UPTAKE AND WIDESPREAD USE OF M-APPLICATIONS AND SERVICES THROUGH TARGETED REGULATION

In the recent years a rapid growth of mobile apps and services has been observed. They penetrate every area of people's lives and are used for working, learning, socialising, or engaging in public life. The impressive growth of mobile services such as m-communication, m-health, m-education, m-agriculture, m-governance or online payments, coupled with the advent of Internet and the emergence of m-applications and services have revolutionized not only the way we communicate, but also the economy and our lives in general.

The bulk of our activity, including peer-to-peer communication and knowledge management, is mediated by digital technologies. This is a prove of the overall change: in 10 years, digital ICTs have moved from a peripheral role to a core role in our daily lives. There is more to it however; nowadays people do not only want to have access to the Internet: they want to be able to access broadband Internet no matter where and when they are, anywhere and everywhere, at home and on the move on their mobile devices. The generation born after 1980 was named "millennials" to indicate not only the fact that is it the first generation to come of age in the new millennium. It is the first growing up digital generation, those for whom modern ICTs are an indispensable part of life. This generation, according to recent estimates, would comprise 75 per cent of the global work force by 2025.

However, these developments also pose substantial challenges. Increased data traffic puts pressure on radio spectrum. Meaningful access to information and knowledge requires infrastructure. It increases the need for transition to a "fourth-generation regulation", a new regulations paradigms that respond to the ongoing dynamic changes in ICTs and markets.

In this context, Poland would like to share its experience related to the rapid development of the telecommunications market and the regulatory strategy applied to enhance infrastructure development.

Spectrum management

Poland has made significant progress in the recent decade. Mobile telephony has been developing fast thanks to proper regulatory strategy resulting in an increase of competitiveness which led to rising customer interest in the mobile broadband Internet access. New LTE technology was introduced in Poland, as one of the first countries of the world, in September 2010, in the frequency band of 1800 MHz. Now, Poland is one of the EU Member States with the highest percentage of the mobile broadband penetration, reaching 81% (compared with the EU average at 70%).

Currently an auction for the frequency band of 800 MHz, organized and conducted by UKE is being held. The anticipated and currently visible trends in the ICT market made it necessary to release additional frequency resources for the purposes of wireless broadband communications. 800 MHz band shall be assigned for mobile wireless broadband. The emergence of modern networks in the LTE standard will facilitate reaching larger network capacity, smaller delays in data transmission which are particularly important for advanced e-services, as well as larger territorial coverage and network range inside the buildings.

Frequency license – additional requirements to develop infrastructure

As a result of the auction, entrepreneurs who acquire frequencies will be granted general exclusive frequency licences. The auction is targeted at the country's coverage with the fast internet network, especially in those areas where access to fast internet is currently difficult. That is why the President

of UKE imposes on the auction participants coverage/investment obligations that further become elements of the frequency licence of the particular entity. Entrepreneurs who acquire frequencies will be obliged to ensure network coverage in almost 90% of the municipalities in Poland. This shall significantly help in bridging the digital gap and building an inclusive information society. A failure to implement such a licence obligations can even lead to a withdrawal of the licence, i.e. revocation of frequencies.

Poland seeks to address the needs of information society by assigning frequencies for mobile broadband Internet development. The chosen form (auction, frequency licenses with coverage obligations) and experiences gathered by UKE in the process can serve as an example of smart regulation in practice.

Enhancing broadband infrastructure development

ICTs have increased their presence in terms of their reach, scope and depth, its horizontal influence touches upon every aspect of our economic and social life. That is why broadband infrastructure has become a core objective of ICT strategies for development. A pervasive digital infrastructure, a digital “nervous system” for development means networks that include people, devices and organizations; networks that are fast becoming increasingly complex.

To enhance the development of infrastructure, to target investments, to address the society’s needs and requirements in the best possible way, Poland introduced the System of Information on Broadband Infrastructure (SIIS).

It is a system for gathering, processing, presenting and sharing information about telecommunication infrastructure, public telecommunication networks and buildings to enable co-location. Its aim is to identify areas with low penetration of broadband services in order to focus investment in the telecommunications sector and identify areas for public intervention in national broadband development plans. It has allowed for increasing investment in the telecommunications sector, accelerating investments in construction of new generation networks co-financed by EU funds, and lowering investment barriers in telecommunication infrastructure.

SIIS data may be used by various stakeholders:

- NRAs and governments to get information about the telecom infrastructure developed on the territory of the country which is needed to take decisions regarding the State Aid, decide on the geographical segmentation within the market analysis process and provide operators with the information about the possible access points;
- operators, for information about the existing civil engineering infrastructure which may potentially be used for network roll-out;
- end users to find information about the availability about the broadband access on particular geographical area.

The developing ICTs - mobile applications, social networking and cloud services – are reshaping today’s world: the way we work, learn, communicate and socialize. They are changing the economy and politics. However, development is impossible without infrastructure. That is why regulators have to apply smart regulatory measures to enable the infrastructure to develop fast enough to accommodate changes in the ICT sector. Keeping in mind that in the future network structures will have less of a physical, and more of a virtual, existence, NRAs have to take proper actions to address the challenges of the modern world.