

Ladies and Gentlemen, dear colleagues,

It is a privilege to address you for this opening session of the forum of the ITU Regional Radiocommunication Seminar dedicated to “Cognitive radio and TVWS perspectives”.

The mission of the ITU is to provide an enabling environment for telecommunication networks, and in particular for radiocommunications, which is becoming the preferred means of providing broadband access throughout the world.

Thanks to harmonized spectrum and global standards, mobile telephony has now reached 7 billion subscriptions, with penetration rates approaching or surpassing 100% in many developing countries. Thanks to harmonised spectrum and global standards, broadband mobile has already passed the 2 billion subscribers mark.

Until recently, broadband mobile development had been slowed by the relatively shorter range provided by the 2 GHz spectrum. ITU decisions at World Radiocommunication Conferences in 2007 and 2012 opened the possibility to allocate to the mobile service the digital dividend arising from the transition from analog to digital television broadcasting. As a consequence, the lower frequency bands at 700 MHz and 800 MHz are now becoming available for the economically efficient deployment of broadband throughout the world, especially in rural and scarcely populated areas.

In the Arab and African countries, the political will to allocate these frequency bands to the mobile service is there and the regional groups in charge of spectrum management (ASMG and ATU) have already taken steps to facilitate the relocation of television broadcasting below 694 MHz, freeing 168 MHz of valuable spectrum to the mobile service. Similar efforts are being undertaken in other parts of the world.

In parallel, global harmonisation of the use of the 700 and 800 MHz bands by the mobile service is progressing well, by the adoption, in Latin America, Asia and Europe, of frequency arrangements which can be used concurrently for both bands in the same terminals.

Political will and economies of scale are therefore setting the conditions for the rapid, ubiquitous and affordable development of broadband access through 3G/4G IMT networks in developing and developed countries throughout the world, to a large extent through the extensive use of the UHF band.

As we know, WiFi systems at 2.4 GHz have also developed in recent years as a natural complement of mobile cellular networks to provide the last meters of connectivity around a well established fixed infrastructure relying on ADSL or fiber. The ITU World Radiocommunication Conference 2003 provided a several-fold increase in the spectrum made available for these systems by opening 455 MHz of bandwidth in the 5 GHz band (5 150-5 250 MHz, 5 250-5 350 MHz and

5 470-5 725 MHz) to Wireless Access Systems, with part of it on a shared basis with military and meteorological radars, with the mandatory use of dynamic frequency selection. This is the first large-scale implementation of a cognitive radio feature.

As it has always done, the ITU will keep supporting new technologies by promoting best practices in the use of spectrum and introducing in the Radio regulations, when it is required, new provisions which enable their development while protecting other services, hence providing long term assurance for investments in radiocommunication systems.

The ITU World Radiocommunication Conference of 2012 concluded that the current international regulatory framework can accommodate software defined radio and cognitive radio systems, hence dynamic spectrum access, without being changed. The development of systems implementing this concept, such as TV white spaces, is therefore essentially in the hands of national regulators in each country.

ITU is also supporting more efficient use of spectrum, which was a key driver in adopting, in 2012, the ITU specifications for IMT-Advanced, which will shortly be deployed in several countries with LTE- Advanced systems.

Obviously, the goal is to provide an environment under which systems implementing cognitive radio features can develop in a sustainable way, in harmony with other systems using the same spectrum.

For this purpose, collaborative discussions on the technical, operational, economical and regulatory aspects of this question are essential if progress is to be made quickly. The ITU Radiocommunication Sector (through its Study Groups) is providing a forum for these discussions between governments, regulators, operators, manufacturers and academia. Several workshops on this issue will also be organised in the coming months to complement these discussions through a wider participation. This Forum today in Tunis is the first one of this type.

Before concluding, I would like to express my gratitude to ANF for hosting this Regional Seminar and Forum and to the ASMG for its support in organizing it. I look forward to the discussions that you will have today, since they will help in achieving a better understanding of what is to be expected from and for cognitive systems such as those using TV white spaces.

I wish you a very fruitful Forum.

François Rancy