

## **Abstract – NGN and Spectrum Reform: tools to promote broadband deployment**

Over the last two decades, information and communication technologies (ICT) have evolved quickly, making it hard to draw a line between the two. New silicon technologies associated with more powerful applications have generated integration and massive processing and communication capabilities around IP, making possible some NGN to flourish.

These developments have changed the way we work, communicate, shop, see movies or listen to our favorite songs. They have also dramatically increased worker productivity which is a key determinant of living standards in today's global market. For example, mobility was practically a non-existent concept before the 80's, but in 2008 there were over 3 billion cellular subscribers in the world. Likewise, broadband now reaches more than 500 million subscribers from barely 5 million in 1999.

The challenge for policymakers is to create a regulatory environment, especially in the management of the radio spectrum that will sustain these amazing trends and create an environment that allows innovation, mainly new wireless technologies to flourish.

In order to assure that high quality broadband is widely deployed and affordable, government policy makers need to adopt a new way of managing the radio spectrum. For many years it was accepted that spectrum needed to be tightly managed to avoid interference and to maximize economic and social benefits. This current spectrum management approach, sometimes called "command and control," was driven in part by the limits of the radio technology used in the 1940s and 1950s.

Technology innovation makes today's severe spectrum scarcity artificial. Radios are now smarter than previous generations, allowing different technologies to coexist, operating in the same spectrum bands. However, to fully take advantage of these improvements, regulators need to use innovative approaches to dynamically manage spectrum bands. Also, new spectrum management techniques can manage interference and still give licensees more freedom to accommodate customer demands.

In this sense, during the presentation two policy principles will be discussed as tools to promote the development of NGN and broadband: Technology Neutrality and Flexible Use. These two regulatory policies can foster the development of new wireless services and applications and help continue the ICT revolution.