



A SIMPLE SOLUTION TO THE LOOMING SPECTRUM CRUNCH COULD GENERATE UP TO \$26 BILLION FOR ECONOMY IN MENA REGION

A new study published shows significant benefits could flow from use of 1.4 GHz band for a mobile supplemental downlink for enhanced multi-media and broadband services

There could be up to eight times more traffic in downlink than in uplink in mobile networks. And this imbalance will continue to grow, as rich mobile content is increasingly made available and as consumers' appetite continues to soar. European regulators are showing great interest in the use of the 1.4 GHz band as a mobile supplemental downlink band for mobile services to drastically increase capacity, to enable considerably higher user data rates, to substantially enhance the user experience and to provide significant economic benefits.

In Europe, the 1.4 GHz band (i.e. 1452-1492 MHz) is being harmonized for a mobile supplemental downlink (SDL). It is possible that we will see harmonized use of the 1.4 GHz band for a SDL across European countries partially from 2013 and fully from 2015. The Middle East and North Africa (MENA) region could also benefit from these developments by assigning the 1.4 GHz band for a SDL.

A study undertaken by Plum, unveiled today, shows the MENA region could benefit in economic terms by **\$26bn over the next 10 years as a result of** an enhancement of user experience (faster download speeds, larger capacity and richer new content) and low cost rollout of rural services.

This new independent study was conducted jointly for Ericsson, the world's leading provider of technology and services to telecom operators, and Qualcomm Incorporated. A full copy of the report and executive summary is available at www.plumconsulting.co.uk

Jay Srage, Senior Vice President and President of Qualcomm MEA emphasized that *"following the very recent CEPT decision, developments of HSPA+ and LTE-Advanced standards provide the opportunity to now use the 1.4 GHz band for mobile broadband supplemental downlink. This technology is now well known, the spectrum is largely available across Europe, Middle East and Africa and most importantly the demand for rich content from consumers is ever increasing. There exists a clear need to harmonize the band in Middle East and North Africa too in order to benefit from economies of scale identified in the Plum Consulting study."*

Phillipa Marks, Director at Plum Consulting noted on the publication of the study that *"the economic benefits may well be in excess of \$26 billion for the MENA economy when using the 1.4 GHz band for a supplemental downlink for the delivery of enhanced mobile multimedia services"*. Ms Marks added that *"it is increasingly important that we find a solution to ease the spectrum crunch, as the majority of mobile broadband traffic last year was estimated to be multimedia - and this will only grow. The 1.4GHz band is the ideal solution, not just to help address the spectrum crunch but also to support low cost rollout of rural broadband in the MENA region."*



The results of these studies vindicate both the European Parliament's recent Resolution in favor of harmonising 1.4 GHz for wireless broadband services and the CEPT's recent decision to review and harmonize the future use of the band in Europe. Lasse Wieweg, Director, Government and Industry relations at **Ericsson** said that *"the 1.4 GHz band can be the perfect complement to a mobile operator's existing frequency assets. A supplemental downlink band, combining extended bandwidth and favorable coverage properties, will be a precious resource in the near future, given the significant rise of data traffic on mobile broadband networks."*

For more information contact:

Plum Consulting: Phillipa Marks, phillipa.marks@plumconsulting.co.uk, +44 207 047 1919

Ericsson: Ericsson Corporate Public & Media Relations, media.relations@ericsson.com +46 10 719 69 92

Qualcomm: Mathew Heim, mheim@qualcomm.com, + 44 7879 406135

NOTE FOR EDITORS:

There is currently a significant asymmetry of mobile communications traffic, with up to eight times as much data being downloaded than is being uploaded (see Plum Consulting report). This due to the very rich content being made available, ranging from videos, to apps and to books. However, current spectrum allocations for 3G and 4G in the Middle East and North Africa (MENA) regional most all come in paired bands (i.e. one band for uploads and one band for downloads). Finding an additional band that can be expressly used for downloading data as supplement to the existing paired spectrum bands will drastically ease capacity constraints and increase wireless usage.

The term 1.4 GHz band is used to mean the 40 MHz block at specifically 1452-1492 MHz (it is also commonly called 1.5 GHz and L-band). The use of 1.4 GHz for supplement downlink has only recently become possible, through developments in technology now included in the 3GPP HSPA+ standard and the soon to be finalized LTE-Advanced standard, that are part of the main 3G and 4G mobile broadband roadmap.

The band has been allocated for use by digital audio broadcasting (DAB) services in many countries including in the MENA region – part of the band is allocated to terrestrial networks and part is allocated to satellite networks. None of these services have developed in the band. Rather in all countries in the MENA region the satellite part of the band is unused and this is also the case in the terrestrial component in most countries.

On May 20th 2011, the European Conference of Postal and Telecommunications Administrations (CEPT), formed of 48 European countries cooperating to regulate posts, radio spectrum and communications networks, (www.cept.org) set up a Project Team, FM PT 50, to determine which future use(s) of the 1.4 GHz band would be the most beneficial for Europe and to harmonise the spectrum accordingly. FM PT50 developed ECC Report 188



which concludes that the most appropriate regulatory framework for the future use of the 1.4 GHz in CEPT is the harmonisation of the band for a mobile broadband Supplemental Downlink (SDL).

In October 2012, the ECC decided to develop an ECC Decision harmonizing and designating the 1452-1492 MHz band for Mobile/Fixed Communications Networks (MFCN) Supplemental Downlink (SDL) in CEPT. The finalization of this ECC Decision which will include the technical rules for harmonised use of the band is planned for May 2013 and its approval is expected by September 2013. In France, Orange will conduct an SDL trial in partnership with Ericsson and Qualcomm in early 2013¹.

¹<http://www.orange.com/en/press/press-releases/press-releases-2012> on 28th of June 2012