Ref: TRAI Consultation Paper 6/2009

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Dear Dr Sarma,

Further to the TRAI consultation on spectrum management and review of licence terms and conditions, the GSMA[1] would like to respond formally to this strategic consultation. We support the view of the TRAI that spectrum is vital input for wireless services and spectrum management for optimal utilisation is a key consideration when planning future spectrum use and allocation. A stable, clear, regulatory environment is required to encourage long term investment.

It is important to recognise that India is a key market and the decisions made can reflect the other markets in (ITU) Region 3, India's position and recognition of allocation of spectrum on a technology neutral basis and in accordance with WRC and ITU recommendations can deliver harmonisation efforts across the region and is consistent with other leading regulators.

We understand that requests have been made for spectrum to be made available licence free to support innovation, we would welcome any initiative from TRAI to identify a suitable band and allocation for this, but would recommend that this should be consistent with international harmonisation efforts as this delivers consumer benefits[2] and there must be continued efforts to ensure interference to commercial (including future use based on WRC/ITU recommendations) and essential government services is minimised. In parallel, we note there are likely to be future developments as the industry continues to deliver innovation including possible services based around the use of cognitive and software defined radio techniques, making use of white space around existing allocations this work is expected to continue up to WRC 2012.

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[1] The GSM Association represents over 800 operator members deploying GSM/GPRS, 3G, IMT2000, HSPA and shortly LTE based networks[1]. In addition, we have strong relationships with manufacturers (both device and infrastructure) with over 120 companies contributing to GSMA activities in building a comprehensive mobile ecosystem supporting mobile voice, broadband and mobile applications.

[2] Benefits of a harmonised band are ably demonstrated by the use of ISM band by Wi-Fi.

The section below contains comments on some of the questions raised in the TRAI consultation. The GSMA has concentrated on answering those general questions of policy, regulation and best practice to support international harmonisation efforts in mobile. With this in mind we would ask the TRAI to propose early release of the unused Digital Dividend Band spectrum at 700 MHz in India. This would support harmonisation efforts and would allow India to take a lead in the deployment of LTE services.

Responses to Questions in TRAI Consultation

3) How can the spectrum required for Telecommunication purposes and currently available with the Government agencies be re-farmed?

According to best practices the GSMA recommends that TRAI should carry out or commission an independent study and impact assessment on the use of the spectrum including administrative pricing, utilisation and efficiency of existing government agency use. If existing users are either required or voluntarily agree to move then the costs associated with migration are charged to the new entrants either upfront, from auction proceeds or through ongoing licence fees.

5) How and when should spectrum in 700 MHz band be allocated between competitive services?

The GSMA proposes that India should consider the use of the 700MHz band for mobile services, in order to benefit from significant propagation advantages this band provides in providing ubiquitous, affordable, rural high speed mobile broadband services. For the full benefits of the 700 band to be realised it is important that markets including India align regionally to realise the potential economies of scale, driving down handset and network equipment costs.

The GSMA has proposed a band plan option to the JTG – India which reflects the objectives stated above, this band plan was also considered suitable for submission by Government of India at the APT AWF meeting in Phuket, Thailand in September 2009.

The proposed FDD 2x50 band plan option for India will:

- Maximize the use of the limited spectrum available in India
- Deliver large contiguous blocks of spectrum for mobile broadband
- Avoid potential fragmentation of the band and possible in-band interference issues

To support this analysis the GSMA is continuing it's evaluation of detailed options for the 700MHz *band,* and we expect this technical assessment to be completed by end Q1 of 2010.

Sharing of the band is not recommended if the goal of affordable high speed rural broadband is to be attained, the use of such a band plan of 2x50 MHz with two sub-bands can handle wide (LTE) carrier bandwidths (up to 20 MHz) ensuring high speeds can be delivered to support digital inclusion in rural India.

The GSMA recommends that whichever band plan is adopted by India, it should not lead to greater international fragmentation. The number of international band plan options should be minimised in order to allow the most efficient use of the available digital dividend spectrum in the greatest number of countries across Asia. It is therefore important that any domestic band plan decision should also find international consensus through APT, with the Indian administration acting as a key player in the forum.

6) What is the impact of digital dividend on 3G and BWA?

The Digital Dividend spectrum will make it much easier of operators to provide wide area services for rural broadband. As the TRAI consultation states it is less expensive to build a mobile network at 700 MHz than at 2.1GHz. Various studies[3] have concluded that it can be over 70% less expensive than at 2.1GHz due to favourable propagation characteristics at lower frequencies requiring less base stations .

Any operator with 3G at 2.1 GHz and DD at 700 MHz would be able to deploy wide area broadband coverage at a much lower cost initially using 700 MHz. The operator would be able to build capacity into their network using 2.1 GHz such as in more dense rural areas (village). This will allow investment to be focussed on coverage, bringing broadband rapidly to more consumers, rather than being focussed predominantly in dense urban areas

9) What should be the considerations to determine maximum spectrum per entity?

The GSMA believes the end impact on consumers in terms of economic and social welfare should be the main considerations for any caps on spectrum ownership. As noted in the TRAI consultation document there are impacts on spectrum efficiency of having spectrum allocations that are too small. However it should be noted that the underlying impact is ultimately included in the costs of providing a given quality of service.

In competitive markets these benefits are passed on to consumers. An analysis similar to the one produced for the GSMA in 2008[4] should be undertaken by TRAI. This shows that increasing the number of operators in a market where spectrum cannot be passed on or mergers (that pass on spectrum) are not allowed, can increase costs to end users

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[3] SCF associates, Ofcom, Nokia , Ericsson, et al

http://www.plumconsulting.co.uk/pdfs/GSMA%20spectrum%20management%20policy%20in%20India.pdf

significantly. The report found that a suitable enabling framework can facilitate consolidation in the market and introduce a competitive framework in accordance with international norms, would reduce costs by at least 21%, and increase consumer benefits by RS 117 bn per year (2008 market conditions).

17) Whether the existing licence conditions and guidelines related to M&A restrict consolidation in the telecom sector?

GSMA's opinion is that they do, we agree with the 2nd committees report: "The present policies (e.g. M&A guidelines, lock-in of promoter equity, etc.) are such that they de facto create a high barrier to consolidation. These need to be reviewed and instead we need to put in place a policy and regulatory environment that will allow the free play of market forces and facilitate consolidation in the market place." These should be amended to ensure that consolidation can occur as soon as is practicable and economically efficient.

24) Is spectrum trading required to encourage spectrum consolidation and improve spectrum utilisation efficiency?

As noted in the second committee's report recommendation g:" Since there is scarcity of spectrum, and since the market may operate more efficiently if it is allowed to discover the optimal number of operators, merger/transfer/sharing of spectrum should be permitted amongst UAS/CMTS licensees." Any windfall gains or claw-back should be set at a level that does not unduly affect the efficient working of spectrum trading.

57) What in your opinion is the desired structure for efficient management of spectrum?

All the building blocks are in place in India for efficient management of spectrum and the TRAI has outlined the key ones in the consultation, perhaps the most important consideration is application of administrative pricing for spectrum used by Government agencies. Without denying the importance of national security and the interests of the republic it is essential that spectrum, a key national asset is used as economically efficient as possible and consistent with international harmonisation, a fair and just regime for use of spectrum in India should incorporate administrative pricing for spectrum used by government agencies..

Yours sincerely

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