



The Independent Communications Authority of South Africa
 350 Witch-Hazel Avenue,
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 Gauteng.

Per email: rmakgotlho@icasa.org.za

Attention: Mr Manyapelolo Richard Makgotlho

Dear Mr Makgotlho

**RE: COMMENTS ON THE DRAFT INTERNATIONAL MOBILE
 TELECOMMUNICATIONS ROADMAP, 2018.**

1. Transnet SOC Ltd ("Transnet") herein provides comments on the Draft International Mobile Telecommunications ("IMT") Roadmap, 2018 published in GG 42021.

Ad paragraph 2.1: Purpose of the IMT Roadmap (Resolution 238 (WRC-15))

2. Transnet operates microwave links in the 24.25 – 27.5 GHz and 37 – 40.5 GHz Bands. Transnet recommends that the IMT-2020 identification consider the current licensees in these bands. The Authority is requested to further take note that even with the deployment of IMT-2020 technology, there will be a requirement for wireless back haulage for base stations due to the reduced size of the cells.
3. The Draft IMT Roadmap further provides that the assignment of IMT frequencies will generally be made through an "Invitation to Apply". The "Invitation to Apply" is indicative that companies would need to compete for assignment of IMT frequencies. Transnet recommends that the Authority should consider providing an exemption to the aforementioned "Invitation to Apply" mechanism if migration will include Governmental entities, as Governmental entities will not be able to compete financially with commercial entities such as MTN and Vodacom.

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Ad paragraph 5.2.1.1: Identification of bands which are subject to frequency migration (process)

4. Transnet recommends that the envisaged Roadmap should explicitly state that where migration involves Governmental entities or organisations, the Authority will refer the matter to the Minister of Communications ("the Minister") and that migration only takes place after consultation with the Minister per the requirements of Section 34(16) of the Electronic Communications Act, 2005.

Ad paragraph 6.1: Forecasts for overall IMT demand

5. Table 9 of the South Africa IMT Spectrum Assignments read with ad paragraph 6.1 provides that by 2020 there will be 15 MHz assigned to IMT technology in the 450 MHz Band. This may be construed that the Band is earmarked for Time Division Duplex with a bandwidth of 15 MHz. Transnet recommends that this paragraph be more specific as to what the future of the 450 MHz Band entails.

Ad paragraph 8.2: Calendar of expected activities by year

6. Transnet recommends that paragraph 8.2 must take into account the publication of the Final Radio Spectrum Assignment Plan in Government *Gazette* No. 38640 dated 30 March 2015.
7. Under the 2017 calendar year, the Draft IMT Roadmap provides that "*Transnet may also opt to migrate to GSM-R*". Transnet does not support the use of narrow band technology (Tetra technology) since the technology is not aligned to the globally accepted standard for the 4th Industrial Revolution. In order for Transnet to be technologically competitive during the 4th Industrial Revolution, it will have to use the IMT technology and not the Tetra technology. Transnet will not deploy the GSM-R technology due to the following reasons:
 - 7.1. GSM-R technology is nearing the end of its life cycle and in 10 years it will not be supported by Original Equipment Manufacturers;
 - 7.2. GSM-R technology is not packet based but circuit switched based which is not aligned to future methods of deployment;
 - 7.3. Deployment of the 876 – 880 MHz Band paired with the 921 – 925 MHz Band of GSM-R will lead to drastic increases of required high sites. This may lead to increased acts of vandalism and theft due to the rural proximity of high sites, and also may lead to the unreliability of mission critical rail network; and
 - 7.4. The licensee will be required to conduct Environmental Impact Assessments in terms of the National Environmental Management Act, 1998, and this process

normally takes more than 12 months which will further delay the implementation of the frequency migration process.

8. Further, under the 2017 calendar year, the Draft IMT Roadmap provides that by 2020-2022 Transnet would have completed the radio frequency migration process (deployment and dual illumination phase (in line with Transnet's option 3)). It is unclear from the Draft IMT Roadmap as to what option 3 entails. Transnet recommends that this be explicitly stated in the Draft IMT Roadmap.
9. We thank you for the opportunity to submit comments on the Draft IMT Roadmap.

Kind Regards



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