

HIGH ALTITUDE IMT BASE STATIONS

CAN HELP CLOSE THE DIGITAL DIVIDE

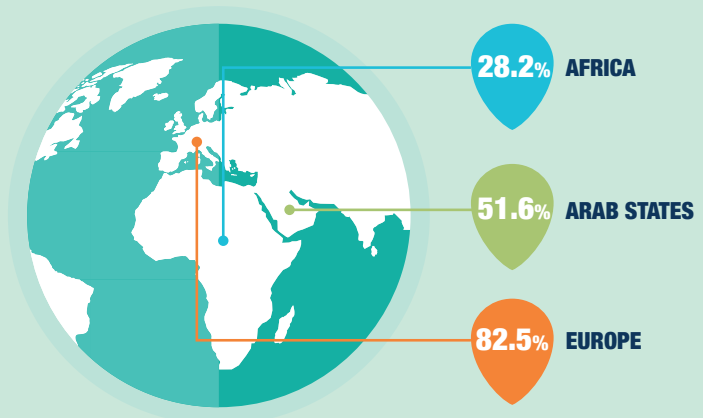
International Mobile Telecommunications (IMT) services can be delivered directly to end users' devices via base stations operating in the stratosphere – about 20 Km above the earth's surface. This concept is known as high altitude IMT base stations or HIBS.



INTERNET PENETRATION RATES 2019

Widespread deployment of HIBS would provide a highly-effective and efficient way to meet growing demand for mobile broadband in underserved areas across Africa, helping to close the digital divides between cities and the countryside and between different regions.

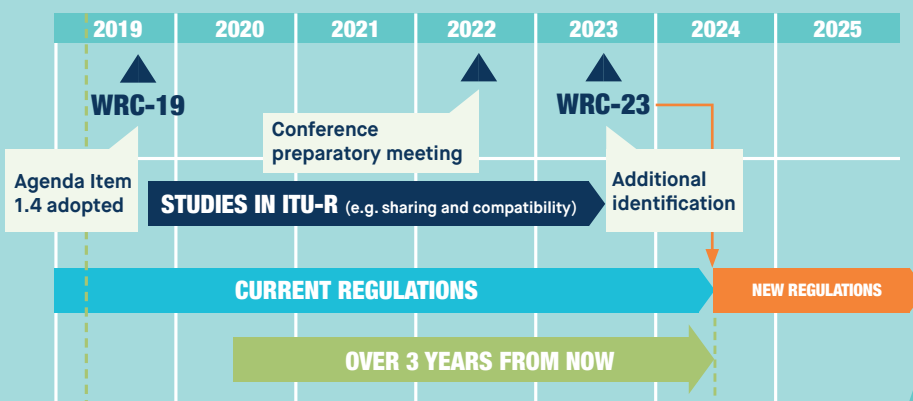
Source: ITU Key ICT indicators.



WRC-23 AGENDA ITEM 1.4

Could pave the way for HIBS to use the IMT bands below 2.7 GHz to provide IMT services directly to smartphones and other end-user devices, complementing and extending the coverage provided by terrestrial IMT networks.

PREPARING FOR WRC-23



ITU-R technical studies will address the compatibility of HIBS with other services in the IMT bands below 2.7 GHz. The results and a review of the existing Radio Regulations for HIBS will inform the regulatory options.

These options should:

- provide sufficient flexibility for use of the IMT bands by HIBS
- ensure no negative impact on the use of the bands by terrestrial IMT networks
- allow HIBS to fully complement terrestrial IMT in the bands below 2.7 GHz
- ensure protection to other services using these bands

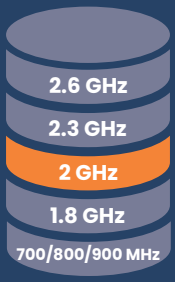
HIGH ALTITUDE IMT BASE STATIONS AGENDA ITEM 1.4 FOR WRC-23



MOBILE OPERATORS

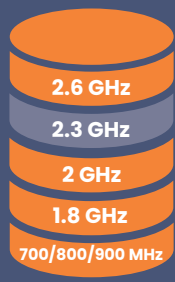
To allow mobile operators to use more of their IMT spectrum for HIBS and terrestrial IMT services.

CURRENT REGULATION



NO FLEXIBILITY
ONLY 2 GHz CAN BE USED
(SEE RR 5.388A AND RR 5.388B)

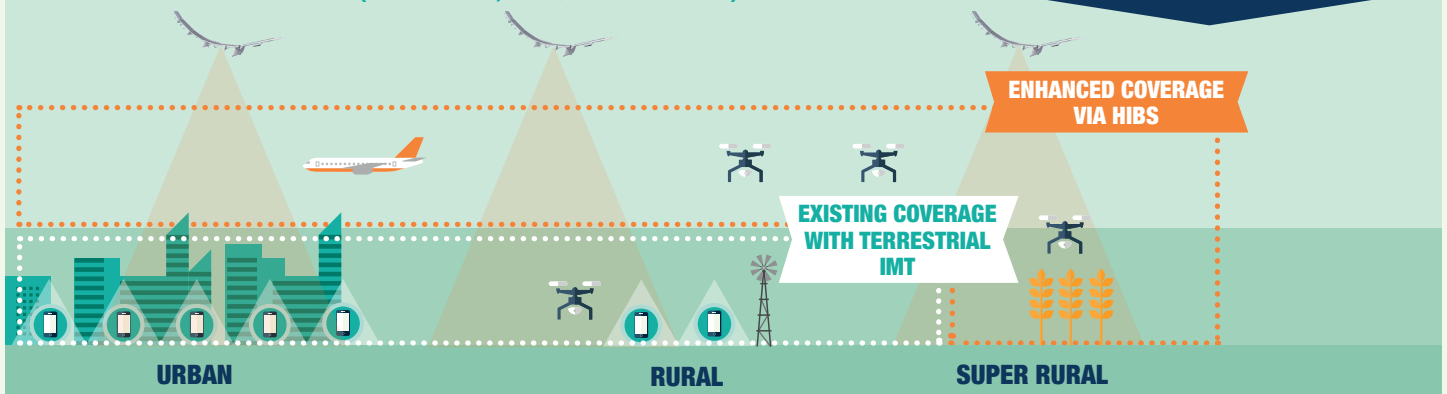
If mobile network operators have the flexibility to use their existing IMT spectrum for high altitude IMT, as well as terrestrial IMT, they could provide extensive and cost effective mobile broadband connectivity.



FLEXIBILITY TO USE EXISTING IMT SPECTRUM HOLDINGS
(THE BANDS SHOWN IN ORANGE)

HIBS CAN DELIVER:
STRONG SIGNAL AND LOW LATENCY
DIRECT ACCESS TO EXISTING SERVICES
WIDE AREA COVERAGE (MORE THAN 31,000 SQUARE KM PER HIBS)

BETTER COVERAGE



RICH & DIVERSE SERVICES



In rural areas, reliable access to websites, navigation services, social media, email and other mobile apps via existing handsets.



Support remote working, remote learning and tele-health and tele-medicine services.



A wide range of IoT applications, such as environmental monitors, drone flights for aerial photography and deliveries, and connected sensors that monitor the health of livestock and crops.



A critical communications and information lifeline to people affected by natural disasters, such as earthquakes, tsunamis and hurricanes, which have damaged terrestrial telecoms infrastructure.



Temporary capacity increases in stadiums, theme parks, resorts, beauty spots or exhibition places.