### **ITUEvents**

## ITU in service of space

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# Improvement International rules and regulations

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### **The Socio-Economic Impact of Satellite**

By 2030, global socioeconomic benefits of Satcom to surpass \$256 Billion Broadband delivery for households, education, healthcare, emergency and critical services

**\$52 billion** socio-economic benefits for **350 million** people by 2030\*

Media broadcasting (satellite TV and radio)

Socio-economic benefits expected to stabilize at <u>\$86 billion</u> by 2030\*\*

#### **Broadband on the move**

Socio-economic benefits to skyrocket from <u>\$15 billion</u> in 2022 to <u>\$121 billion</u> in 2030\*\*\*

#### The success of the industry depends on a favourable regulatory

#### environment, assumed to be stable over the years to come



Sources: VVA elaboration based on \* World Bank (2022); ITU (2022); \*\* Statista (2022); Satellite Industry Association (2022); \*\*\* Statista (2022); London School of Economics (2018)

#### **A Transformation of Satcoms is Ongoing**

Four key trends are changing the face of the industry as we know it and supporting drive to connect the unconnected



Hardware to Software

Diversification of Orbits Universal Standards adaptation for satellites

Entry of Public Cloud "Hyperscalers"



#### **Improving satellite spectrum efficiency** Flexible use of satellite allocations (FSS, BSS, MSS)



#### **Improving Satellite Spectrum Efficiency** Example of ITU-R work studying flexible use



#### Improving spectrum efficiency

WRC Agenda items:

- 1.15 and 1.16 ESIMs in the FSS
- ► 1.17 ISL in the FSS
- 1.19 FSS in an existing BSS allocation

#### **Planned bands – Finding the Right Balance**

#### **ITU Constitution – Article 44**

"In using frequency bands for radio services, Members shall bear in mind that radio frequencies and any associated orbits, including the geostationary-satellite orbit, are limited natural resources and that they must efficiently be used rationally, and economically, in conformity with the provisions of the Radio Regulations, so that countries or groups of countries may have equitable access to those orbits and frequencies, taking into account the special needs of the developing countries and the geographical situation of particular countries".





### **Multi-Orbit Strategy - How we Maximise the Benefit**

#### NGSO – NGSO

- Heavy investment into NGSO constellations
- Growing number of NGSO players and lack of clear rules
- Collaboration is key: adequate information is shared → increased number of constellation



Regulatory framework to be defined to ensure access to new entrants without interference :

- 1. Coordination procedures
- 2. Interference protection criteria

## Multi-orbit solution offers an optimized, "best of all worlds"



- With technological advancement, regulation needs to be refined
- ✤ Intensive work at ITU-R level to update regulatory frameworks for assessing NGSO → GSO coexistence.





#### **Efficient Spectrum use with Regulatory Certainty**



## Thank you for your attention

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