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| **Radiocommunication Advisory Group Geneva, 25-27 May 2020** | | C:\Users\murphy\AppData\Local\Temp\Temp1_ITU logo Entire package.zip\jpg\ITU official logo_blue_RGB.jpg | |
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|  | **Document RAG20/INFO/2-E** | | |
| **26 March 2020** | | |
| **English only** | | |
| Director, BR | | | |
| ITU-R Objectives, outcomes and outputs for 2020-2023 | | | |

This information document presents the outcome indicators of the Radiocommunication Sector for the last four years, in a similar format as presented in previous RAG meetings for information only. It complements the data in the ITU Draft Operational Plan presented in Section 2 of Part 2 of Document 10.

Objectives, outcomes and outputs for 2020-2023

The objectives will be met by achieving the related outcomes, through the implementation of the outputs. Sector and inter-sectoral objectives, in the context of the remit of each Sector and the GS, contribute to the overarching goals of the Union.

R.1 Meet, in a rational, equitable, efficient, economical, and timely way, the ITU membership's requirements for radio-frequency spectrum and satellite-orbit resources, while avoiding harmful interference.

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| Outcome | Outcome Indicator | 2016 | 2017 | 2018 | 2019 | Source |
| R.1-1: Increased number of countries having satellite networks and earth stations recorded in the Master International Frequency Register (MIFR) | Number of countries having satellite networks recorded in the MIFR | 56 | 63 | 69 | 70 | BR/MIFR |
| Number of countries having earth stations recorded in the MIFR | 77 | 78 | 81 | 81 |
| Number of countries which registered satellite networks in the MIFR within the last 4-year period  (\*Some satellite networks received in 2019 have not yet been published.) | 50 | 54 | 55 | 51 |
| Number of countries which registered earth stations in the MIFR within the last 4-year period  (\*\*Some earth stations received in 2019 have not yet been published.) | 23 | 25 | 28 | 24\*\* |
| R.1-2: Increased number of countries having terrestrial frequency assignments recorded in the MIFR | Number of countries having terrestrial frequency assignments recorded in the MIFR | 190 | 190 | 192 | 192 | BR/MIFR |
| Number of countries which registered terrestrial assignments in the MIFR within the last 4-year period | 79 | 81 | 81 | 89 |
| R.1-3: Timely processing of satellite and terrestrial assignments | Average processing time delay for satellite assignments (months) | 0.07 | 1.51 | 1.34 | 0.24 | BR/MIFR |
| Average processing time delay for terrestrial assignments (months) | 0.66 | 3.12 | 2.8 | 2.9 | BR/MIFR |
| R.1-4: Increased percentage of countries which have completed the transition to digital terrestrial television broadcasting | Percentage of countries which have completed the transition to digital terrestrial television | 28% | 30% | 30% | 37% | BR & BDT |
| R.1-5: Increased percentage of spectrum assigned to satellite networks which is free from harmful interference | % of spectrum assigned to satellite networks which is free from harmful interference | 99.96% | 99.96% | 99.92% | 99.95% | BR/MIFR |
| R.1-6: Increased percentage of assignments to terrestrial services recorded in the MIFR which are free from harmful interference | Percentage of assignments to terrestrial services recorded in the Master Register which are free from harmful interference (based on the number of cases reported to the ITU) | 99.99% | 99.99% | 99.99% | 99.99% | BR/MIFR |

R.2 Provide for worldwide connectivity and interoperability, improved performance, quality, affordability, and timeliness of service and overall system economy in radiocommunications, including through the development of international standards

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| **Outcome** | **Outcome Indicator** | **2016** | **2017** | **2018** | **2019** | **Source** |
| **R.2-1**: Increased mobile-broadband access, including in frequency bands identified for international mobile telecommunications (IMT) | Number of subscriptions (bn) | 7.51 | 7.81 | 7.91 | 8.30 | ITU BDT ICT Statistics |
| % of mobile broadband subscriptions | 51% | 60% | 67% | 77% |
| Number of subscribers (bn) | 5.18 | 5.39 | 5.46 | 5.73 |
| **R.2-2**: Reduced mobile-broadband price basket, as a percentage of gross national income (GNI) per capita | Mobile broadband price basket as percentage of GNI per capita (prepaid, handset 500 MB)  World | 3.61 | 3.6 | 3.6 | \* | ITU BDT ICT Statistics  \*Data will be available by the end of the 2Q 2020 |
| *Developed Countries* | 0.65 | 0.6 | 0.6 | \* |
| *Developing Countries* | 4.6 | 4.8 | 4.8 | \* |
| *Least Developed Countries* | 9.21 | 10.4 | 10.4 | \* |
| Number of countries with a price basket below 5% | 150 | 145 | 139 | \* |
| **R.2-3**: Increased number of households with digital terrestrial television reception | Number of households with DTT (millions) | 271.9 | 311 | 335 | \*\* | Digital TV World Databook report; Digital TV Research Ltd  \*Data will be available by the end of the 2Q 2020 |
| *Number of households with ATT (millions)* | 184.1 | 136 | 104 | \*\* |
| *Total number of households DTT + ATT (millions)* | 456 | 447 | 439 | \*\* |
| % of households with DTT | 13.5% | 14.90% | 15.80% | \*\* |
| % of households with ATT | 9.1% | 6.50% | 4.90% | \*\* |
| % of households with Terrestrial TV | 22.6% | 21.40% | 20.80% | \*\* |
| **R.2-4**: Increased number of satellite transponders (equivalent 36 MHz) in operation and corresponding capacity (Tbit/s); Number of VSAT terminals; Number of households with satellite television reception | Number of satellite transponders (equivalent 36 MHz) in operation | 19772 | 25056 | 28765 | 31206 | Euroconsult  (http://www.euroconsult-ec.com) |
| Corresponding capacity (in Tbit/s) | 1.491 | 1.978 | 2.546 | 2.866 | Euroconsult  (http://www.euroconsult-ec.com) |
| Number of VSATs (millions) | 3.897 | 4.007 | 4.205 | 4.236 | Global VSAT Forum  (https://gvf.org) |
| Number of DTH (millions) | 411.1 | 416 | 424 | \* | Digital TV World Databook report; Digital TV Research Ltd  \*Data will be available by the end of the 2Q 2020 |

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| **Outcome** | **Outcome Indicator** | **2016** | **2017** | **2018** | **2019** | **Source** |
| **R.2-5**: Increased number of devices with radionavigation-satellite reception | Number of operational GNSS constellations/satellites (the number of satellites may include several times the same operational satellite since more than one satellite network may support the operations of an actual satellite) | 6/507 | 6/575 | 6/576 | 6/603 | BR/MIFR |
| Number of devices with GNSS embedded Rx (billions)  †Estimates | 5.0 | 5.8† | 6.5† | 6.4 | European GNSS Agency:  GNSS Report   (https://www.gsa.europa.eu) |
| **R.2-6**: Increased number of Earth exploration satellites in operation and corresponding number of countries operating Earth exploration satellites~~)~~ | Number of Earth exploration satellites (GSO/non-GSO systems/all satellites) | 146/46/896 | 168/51/1020 | 179/52/1125 | 191/52/1176 | BR/MIFR |
| Number of countries operating Earth exploration satellites | 29 | 33 | 34 | 35 | BR/MIFR |

R.3 Foster the acquisition and sharing of knowledge and know-how on radiocommunications

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| **Outcome** | **Outcome Indicator** | **2016** | **2017** | **2018** | **2019** | **Source** |
| **R.3-1**: Increased knowledge and know-how on the Radio Regulations, Rules of Procedures, regional agreements, recommendations and best practices on spectrum use | Number of ITU-R free online publication downloads (millions) | 1.0 | 1.7 | 1.57 | 1.56 | Google Analytics |
| Total number of events/participants in ITU seminars, workshops and capacity-building events (world and regional seminars, and symposiums) organized by BR | 14/1523 | 19/857 | 11/815 | 5/634 | ITU Events Registration Database |
| Number of technical assistances for terrestrial services provided/countries receiving /time spent (days)  \* The change in method to calculate the number of technical assistances provided by the ITU makes comparison with previous numbers misleading. | \* | \* | \* | 33/84/118 | TSD |
| **R.3-2**: Increased participation in ITU-R activities (including through remote participation), in particular by developing countries | Total number of events/participants in ITU-R conferences, assemblies and Study Group-related meetings | 48/6043 | 52/7050 | 47/6528 | 38/9679 | ITU-R Events Registration Database |

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