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|  |  **Radiocommunication Advisory Group Geneva, 10-13 May 2016** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
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|  | **Addendum 2 to****Document RAG16/1-E** |
| **6 April 2016** |
| **Original: English** |
| Director, Radiocommunication Bureau |
| report TO the twenty-third meeting of the radiocommunication advisory group |
| Draft FOUR-YEAR ROLLING OPERATIONAL PLAN FOR THE RADIOCOMMUNICATION SECTOR for 2017-2020 |

This Addendum presents a summary and the key elements of the draft four-year rolling Operational Plan for the Radiocommunication Sector (ITU-R) for the period 2017-2020.

# 1. Introduction

The four-year rolling Operational Plan for the ITU Radiocommunication Sector (ITU-R) has been prepared in full alignment with the ITU Strategic Plan for 2017-2020, within the limits of the Financial Plan for 2017-2020 and the corresponding biennial budgets. The structure follows the ITU-R results framework, outlining the ITU-R objectives, the corresponding outcomes and the indicators to measure their progress, as well as the outputs (products and services) produced by the activities of the Sector.

The planning, implementation and monitoring and evaluation process for the Radiocommunication Bureau (BR) will be complemented by the following internal mechanisms:

*i)* the Work Plans of the Departments and Divisions of the BR, and

*ii)* the Service Level Agreements (SLAs) for the planning, monitoring and evaluation of the support services.



*Figure 1: ITU-R OP and the ITU strategic framework for 2016-2019*

# 2. Outline and key priorities for the ITU-R Sector

The period 2017-2020 will be marked by the implementation of the decisions of RA-15 and WRC-15, the preparation of RA-19 and WRC-19 and the development of key standards and best practices in radiocommunications. The key issues are listed below, against the four operational activities of the ITU-R Sector and the supporting activities of the Radiocommunication Bureau:

2.1 To establish and update international regulations on the use of the radio-frequency spectrum and satellite orbits

* The implementation of the decisions of WRC-15,
* The adoption by the RRB of the associated Rules of Procedure.

2.2 To implement and apply international regulations on the use of the radio-frequency spectrum and satellite orbits

* The implementation of the decisions of WRC-15 as they become applicable, in particular by developing and making available to the membership the related software tools,
* The proper and timely application of the provisions of the Radio Regulations and applicable Regional Agreements for terrestrial and space services, with the update of the Master International Frequency Register (MIFR) and assignment and/or allotment Plans and Lists,
* The monitoring of harmful interference cases and more generally of situations of conflicts in sharing spectrum/orbit resources and the resolution of these cases,
* The associated publications (BR IFIC, Maritime service publications, list of international monitoring stations).

2.3 To establish and update worldwide Recommendations, Reports and Handbooks for the most efficient use of the radio-frequency spectrum and satellite orbits

* The preparation of RA-19 and WRC-19 in ITU-R Study Groups and in close collaboration with the regional groups, including the development of draft technical, regulatory and procedural texts in support of the CPM19-2,
* The development of key Recommendations, Reports and Handbooks, in particular on the radio interface of IMT-2020, in close cooperation with ITU‑T, regional organizations and other standard making bodies.

2.4 To inform and assist the ITU‑R membership in radiocommunication matters

* The publication and promotion of the ITU-R products (such as Radio Regulations, Recommendations, Reports and Handbooks).
* In close cooperation with the other Sectors, the ITU regional offices, the relevant regional organizations, and the membership,
	+ The dissemination and sharing of information, including Worldwide and Regional Radiocommunication seminars, conferences, workshops and other events.
	+ The assistance to the membership in facing the challenges raised by the development of their radiocommunication services, in particular in relation to the transition to digital television broadcasting and the allocation of the digital dividend.

2.5 Supporting activities of the Radiocommunication Bureau

* The continuing development, improvement, and maintenance of the BR software tools, with a view to maintaining a high level of efficiency, reliability, user-friendliness, and satisfaction of the membership.
* The logistical and administrative support to ITU-R Study groups and the participation in the related activities of the regional groups.
* The rendering of assistance to the membership, in close collaboration with the other Bureaux, the ITU regional offices, and the regional organizations.

3 ITU-R results framework for 2017-2020

3.1 Linkage with the ITU Strategic Goals[[1]](#footnote-1)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ITU-R objectives | Goal 1: Growth | Goal 2: Inclusiveness | Goal 3: Sustainability | Goal 4: Innovation & partnership |
| **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 | **☑** | 🗸 | 🗸 | 🗸 |
| **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 | **☑** | 🗸 | 🗸 | 🗸 |
| **R.3** Foster the acquisition and sharing of knowledge and know-how on radiocommunications |  | **☑** |  |  |

## 3.2 ITU-R objectives, outcomes and outputs

|  |  |  |  |
| --- | --- | --- | --- |
| Objectives | 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 | 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 | R.3 Foster the acquisition and sharing of knowledge and know-how on radiocommunications |
| Outcomes | **R.1-1**: Increased number of countries having satellite networks and earth stations recorded in the Master International Frequency Register (MIFR)**R.1-2**: Increased number of countries having terrestrial frequency assignments recorded in the MIFR**R.1-3**: Increased percentage of assignments recorded in the MIFR with favourable finding**R.1-4**: Increased percentage of countries which have completed the transition to digital terrestrial television broadcasting**R.1-5**: Increased percentage of spectrum assigned to satellite networks which is free from harmful interference **R.1-6**: Increased percentage of assignments to terrestrial services recorded in the MIFR which are free from harmful interference | **R.2-1**: Increased mobile-broadband access, including in frequency bands identified for international mobile telecommunications (IMT)**R.2-2**: Reduced mobile-broadband price basket, as a percentage of gross national income (GNI) per capita**R.2-3**: Increased number of fixed links and increased amount of traffic handled by the fixed service (Tbit/s)**R.2-4**: Number of households with digital terrestrial television reception**R.2-5**: 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**R.2-6**: Increased number of devices with radionavigation-satellite reception**R.2-7**: Number of Earth exploration satellites in operation, corresponding quantity and resolution of transmitted images and data volume downloaded (Tbytes) | **R.3-1**: Increased knowledge and know-how on the Radio Regulations, Rules of Procedures, regional agreements, recommendations and best practices on spectrum use**R.3-2**: Increased participation in ITU-R activities (including through remote participation), in particular by developing countries |
| Outputs | – Final acts of world radiocommunication conferences, updated Radio Regulations– Final acts of regional radiocommunication conferences, regional agreements– Rules of Procedure adopted by Radio Regulations Board (RRB)– Results of the processing of space notices and other related activities– Results of the processing of terrestrial notices and other related activities– RRB decisions other than the adoption of Rules of Procedure– Improvement of ITU-R software | – Decisions of Radiocommunication Assembly, ITU-R resolutions– ITU-R recommendations, reports (including the CPM report) and handbooks– Advice from the Radiocommunication Advisory Group | – ITU-R publications– Assistance to members, in particular developing countries and LDCs– Liaison/support to development activities– Seminars, workshops and other events |
| The following outputs of the activities of the ITU governing bodies contribute to the implementation of all the objectives of the Union:– Decisions, resolutions, recommendations and other results of the Plenipotentiary Conference– Decisions and resolutions of the Council, as well as results of the Council Working Groups |

3.3 Allocation of resources to ITU-R objectives and outputs for 2017-2020

|  |  |  |  |
| --- | --- | --- | --- |
|  | Planned allocation of resources per Output**R.1-1** Final acts of world radiocommunication conferences, updated Radio Regulations**R.1-2** Final acts of regional radiocommunication conferences, regional agreements**R.1-3** Rules of Procedure adopted by Radio Regulations Board (RRB) **R.1-4** Results of the processing of space notices and other related activities**R.1-5** Results of the processing of terrestrial notices and other related activities**R.1-6** RRB decisions other than the adoption of Rules of Procedure**R.1-7** Improvement of ITU-R software**R.2-1** Decisions of Radiocommunication Assembly, ITU-R resolutions**R.2-2** ITU-R recommendations, reports (including the CPM report) and handbooks**R.2-3** Advice from the Radiocommunication Advisory Group**R.3-1** ITU-R publications**R.3-2** Assistance to members, in particular developing countries and LDCs**R.3-3** Liaison/support to development activities**R.3-4** Seminars, workshops and other events**PP**: Decisions, resolutions, recommendations and other results of the Plenipotentiary Conference \***Council/CWGs**: Decisions and resolutions of the Council, as well as results of the Council working groups \* | **% of total**4.83%0.48%2.15%24.13%12.01%2.48%11.45%2.45%9.73%1.62%13.69%3.72%2.08%5.31%1.52%2.34% | **% of objective****8.07%****0.80%****3.59%****40.32%****20.06%****4.14%****19.13%****17.05%****67.80%****11.29%****53.05%****14.41%****8.08%****20.60%****1.52%****2.34%** |
| 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 interferenceR.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 standardsR.3 Foster the acquisition and sharing of knowledge and know-how on radiocommunications | **60%****14%****26%** |

\* Cost of these Outputs is allocated to all the Objectives of the Union.

4 Risk analysis

Moving from strategy to implementation, the following top-level operational risks presented in the Table below have been identified, analysed and evaluated. The Bureaux and each Department will manage all the risks associated with the achievement of the corresponding outcomes.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| RISK FOCUS | DESCRIPTION OF RISK | PROBABILITY | IMPACT LEVEL | MITIGATION ACTIONS[[2]](#footnote-2) |
| OPERATIONAL RISK | 1. Total or partial loss of integrity of data in the MIFR or in any of the Plans, resulting in inadequate protection of the rights of administrations to use spectrum/orbit resources
2. Total or partial loss of operations in the processing of notices, resulting in delays in the recognition of rights of administrations to use spectrum/orbit resources and risks for the corresponding investments.
 | Low | Very High | * Daily backup of data
* Development of high data security program
* Ability to restore data/operation within a limited time period
 |
| 1. Occurrence of harmful interference (e.g. due to lack of observance of the regulatory provisions), resulting in disruptions in the radiocommunication services provided by the membership.
 | Low | High | * Promote capacity building on international regulations, through worldwide and regional seminars
* Provide BR assistance in applying the international regulations
* Promote regional or sub-regional coordination to resolve interference problems, with BR support
* Monitor, report and inform on cases of harmful interference (Resolution 186 (Busan, 2014))
 |
| ORGANIZATIONAL RISK | Inadequate facilities for meetings in ITU (e.g. due to lack of meeting rooms and overcrowded meetings schedule), resulting in membership dissatisfaction and delays in work programmes. | Medium | High | * Hold more meetings externally
* Increase the use of virtual meeting rooms for small meetings
 |

5 ITU-R objectives, outcomes and outputs for 2017-2020

ITU-R Sector objectives will be met by achieving the related outcomes, through the implementation of the outputs. ITU-R objectives, in the context of the remit of the Sector, contribute to the overarching goals of the Union. The Radiocommunication Bureau is also contributing to the implementation of the intersectoral objectives, outcomes and outputs (presented in the General Secretariat’s Operational Plan).

## 5.1 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.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Outcome** | **Outcome Indicator** | **2014** | **2015** | **2020 target** | **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 | 49 | 60 | 70 | BR/MIFR |
| Number of countries having earth stations recorded in the MIFR | 81 | 114 | 120 |
| **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 | 188 | 190 | 193 | BR/MIFR |
| Number of countries which registered terrestrial assignments in the MIFR within the last 4-year period  | 78 | 84 | 90 |
| **R.1-3**: Increased percentage of assignments recorded in the MIFR with favourable finding | Subject to Coordination (Terrestrial) | 99.99% | 100.00% | 99.99%  | BR/MIFR |
| Subject to a Plan (Terrestrial) | 97.65% | 7.40% | 75%  |
| Others |  | 96 % | 98% |
| **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 | 17.00% | 27.00% | 70%  | BR & BDT |

|  |  |
| --- | --- |
| Output | Financial resources[[3]](#footnote-3) (in k CHF) |
|  | **2017** | **2018** | **2019** | **2020** |
| **R.1-1**: Final acts of world radiocommunication conferences, updated Radio Regulations | 1,082 | 1,052 | 8,448 | 1,057 |
| **R.1-2**: Final acts of regional radiocommunication conferences, regional agreements | 306 | 293 | 304 | 299 |
| **R.1-3**: Rules of Procedure adopted by the Radio Regulations Board (RRB) | 1,355 | 1,355 | 1,324 | 1,336 |
| **R.1-4**:Results of the processing of space notices and other related activities | 15,427 | 15,090 | 14,664 | 15,043 |
| **R.1-5**:Results of the processing of terrestrial notices and other related activities | 7,652 | 7,514 | 7,328 | 7,469 |
| **R.1-6**:RRB decisions other than the adoption of Rules of Procedure | 1,582 | 1,546 | 1,507 | 1,557 |
| **R.1-7**:Improvement of ITU-R software | 7,323 | 7,183 | 6,924 | 7,141 |
| Cost allocation to Plenipotentiary Conference and Council activities (**PP**, **Council/CWGs**) | 1,218 | 1,993 | 1,310 | 1,407 |
| **Total for Objective R.1** | 35,945 | 36,026 | 41,809 | 35,309 |

5.2 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

| **Outcome** | **Outcome Indicator** | **2014** | **2015** | **2020 target** | **Source**  |
| --- | --- | --- | --- | --- | --- |
| **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 | 99.97% | 99.96% | 99.99% | 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 within the last four years) | 99.99% | 99.99% | 99.99% | BR/MIFR |
| **R.2-1**: Increased mobile-broadband access, including in frequency bands identified for international mobile telecommunications (IMT) | Number of subscriptions/subscribers (bn) | 6.95/5.00 | 7.09/ 5.20 | 9.20 | The State of Broadband 2015:A Report by the Broadband Commission for Digital DevelopmentSeptember 2015 |
| % of mobile broadband subscriptions  | 38.7% | 48.8% | 83.7% |
| **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) | 4.80 |  | 4.00 | ITU, Measuring the Information Society (MIS) Report, Ed. 2015 |
| Number of countries with a price basket below 5% | 111 |  | 193 |
| **R.2-3**: Increased number of fixed links and increased amount of traffic handled by the fixed service (Tbit/s) | Number of fixed links |  |  |  | BDT/ICT Survey |
| Total capacity (in Tbps) |  |  |  | BDT/ICT Survey |
| **R.2-4**: Number of households with digital terrestrial television reception | Number of households with DTT (millions) | 197.7 |  | 453 | Digital TV World Databook report, June 2015; Digital TV Research LtdDatabook report |
| % of households with DTT | 10.8% | 15.1% | 22.7% | Digital TV World Databook report, June 2015; Digital TV Research Ltd/UNStats |
| **R.2-5**: 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  |   |   |   | Euronconsult |
| Corresponding capacity (in Tbit/s) |   |   |   | Euronconsult |
| Number of VSATs (millions) | 3.865 |  |   | Global VSAT Forum |
| Number of DTH (millions) | 357 |  | 439 | Digital TV World Databook report, June 2015; Digital TV Research Ltd |
| **R.2-6**: Increased number of devices with radionavigation-satellite reception | Number of operational GNNS constellations/satellites | 2/48 | 3/72 | 6/144 | BR/MIFR |
| Number of devices with GNSS embedded Rx (billions) | 3.7 | 4.5 | 8 | European GNSS Agency: GNNS Report 2015 |
| **R.2-7**: Number of Earth exploration satellites in operation, corresponding quantity and resolution of transmitted images and data volume downloaded (Tbytes) | Number of ERS satellites | 180 | 215 | 440 | BR/MIFR |
| Quantity of transmitted images (million) |  |  |  | UN OOSA; UN Special Working Group for ERS |
| Size of downloaded images (Terabytes) |  |  |  | UN OOSA; UN Special Working Group for ERS |

|  |  |
| --- | --- |
| Output | Financial resources[[4]](#footnote-4) (in k CHF) |
|  | **2017** | **2018** | **2019** | **2020** |
| **R.2-1** Decisions of the Radiocommunication Assembly, ITU-R resolutions | 1,384 | 1,358 | 1,970 | 1,350 |
| **R.2-2** ITU-R recommendations, reports (including the CPM report) and handbooks | 6,004 | 6,805 | 5,608 | 5,867 |
| **R.2-3** Advice from the Radiocommunication Advisory Group | 1,031 | 1,006 | 996 | 1,011 |
| Cost allocation to Plenipotentiary Conference and Council activities (**PP**, **Council/CWGs**) | 295 | 517 | 277 | 298 |
| **Total for Objective R.2** | 8,714 | 9,686 | 8,852 | 8,525 |

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Outcome** | **Outcome Indicator** | **2014** | **2015** | **2020 target** | **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) |  1.8  |  2.5  |  4.0  | ITU Events Registration Database |
| Number of capacity-building events organized/supported by BR (presence & virtual)  | 29 | 32 | 36 |
| Number of participants on capacity building events organized/supported by ITU/BR (intra WRC period) |  1,261  |  1,518  |  2,000  |
| **R.3-2**: Increased participation in ITU-R activities (including through remote participation), in particular by developing countries | Number of technical assistances/events with BR participation | 78  | 93 | 100 | ITU Events Registration Database |
| Number of countries receiving BR technical assistance/events | 57  | 78  | 80  | ITU Events Registration Database |
| Number of participants/events in ITU-R conferences, assemblies and Study Group-related meetings (presence & virtual) | 6,385/47 | 9,031/45 |  | ITU Events Registration Database |
| Number of countries participating in ITU-R seminars and workshops, SG and WP meetings and events (presence & virtual) | 103 | 158 | 193 | ITU Events Registration Database |

|  |  |
| --- | --- |
| Output | Financial resources[[5]](#footnote-5) (in k CHF) |
|  | **2017** | **2018** | **2019** | **2020** |
| **R.3-1** ITU-R publications | 9,014 | 8,489 | 7,983 | 8,771 |
| **R.3-2** Assistance to members, in particular developing countries and LDCs | 2,348 | 2,332 | 2,305 | 2,292 |
| **R.3-3** Liaison/support to development activities | 1,337 | 1,314 | 1,244 | 1,306 |
| **R.3-4** Seminars, workshops and other events | 3,355 | 3,424 | 3,199 | 3,283 |
| Cost allocation to Plenipotentiary Conference and Council activities (**PP**, **Council/CWGs**) | 563 | 914 | 476 | 512 |
| **Total for Objective R.3** | **16,617** | **16,473** | 15,207 | 16,164 |

6 Implementation of the Operational Plan

The outputs defined in this Operational Plan will be coordinated by the responsible Departments of the Radiocommunication Bureau, implementing the activities of the internal work plans of the Bureau and each department. The administrative support services are delivered partly by the Radiocommunication Bureau and principally by the General Secretariat, subject to predefined and agreed annual Service Level Agreements (for the provision of internal services) between the two parties. The Support Services delivered by the General Secretariat are described in the General Secretariat Operational Plan. The delivery of the outputs and support services is planned, monitored and evaluated by ITU management based on the objectives of the ITU as outlined in the strategic plan. The annual report on the implementation of the strategic plan will emphasize on the progress made towards achieving these objectives and the overall goals. With regard to risk management, in addition to the risks analysis included in this Operational Plan for periodical review by senior management, each Bureau/Department will continue systematic identification, assessment and management of risks associated with the delivery of the respective outputs and support services, based on a multi-level risk management approach.

# Annex 1: Allocation of resources to intersectoral objectives and ITU Strategic Goals

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ITU Strategic Objectives for 2016** | **Total Cost** | **Cost of BR/Direct Cost** | **Cost Reallocated from GS** | **Cost allocated by TSB/BDT** |   | **Goal 1**Growth | **Goal 2**Inclusiveness | **Goal 3**Sustainability | **Goal 4**Innovation & partnership |   | **Goal 1**Growth | **Goal 2**Inclusiveness | **Goal 3**Sustainability | **Goal 4**Innovation & partnership |
|   |   |
| **R1** | **ITU-R Objective 1** | 35,945 | 19,580 | 16,344 | 22 |  | **50%** | 30% | 10% | 10% |  | 17,972 | 10,783 | 3,594 | 3,594 |
| **R2** | **ITU-R Objective 2** | 8,714 | 5,688 | 3,021 | 5 |  | **50%** | 30% | 10% | 10% |  | 4,357 | 2,614 | 871 | 871 |
| **R3** | **ITU-R Objective 3** | 16,617 | 10,800 | 5,807 | 10 |  | 0% | **100%** | 0% | 0% |  | 0 | 16,617 | 0 | 0 |
| **Total Cost** | **61,276** | **36,068** | **25,172** | **37** |  |  |  |  |  |  | **22,329** | **30,014** | **4,465** | **4,465** |
|   |   |  |  |  |  |  |  |  |  |  |  | **36.4%** | **49%** | **7.3%** | **7.3%** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ITU Strategic Objectives for 2017** | **Total Cost** | **Cost of BR/Direct Cost** | **Cost Reallocated from GS** | **Cost allocated by TSB/BDT** |  | **Goal 1**Growth | **Goal 2**Inclusiveness | **Goal 3**Sustainability | **Goal 4**Innovation & partnership |  | **Goal 1**Growth | **Goal 2**Inclusiveness | **Goal 3**Sustainability | **Goal 4**Innovation & partnership |
|  |  |
| **R1** | **ITU-R Objective 1** | 36,027 | 19,898 | 16,107 | 21 |  | **50%** | **30%** | **10%** | **10%** |  | **18,013** | **10,808** | **3,603** | **3,603** |
| **R2** | **ITU-R Objective 2** | 9,686 | 6,685 | 2,996 | 6 |  | **50%** | **30%** | **10%** | **10%** |  | **4,843** | **2,906** | **969** | **969** |
| **R3** | **ITU-R Objective 3** | 16,473 | 10,571 | 5,892 | 10 |  | **0%** | **100%** | **0%** | **0%** |  | **0** | **16,473** | **0** |  |
| **Total Cost** | **62,186** | **37,154** | **24,995** | **37** |  |  |  |  |  |  | **22,856** | **30,187** | **4,572** |  |
|  |  |  |  |  |  |  |  |  |  |  |  | **36.8%** | **48.5%** | **7.4%** |  |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Boxes and ticks demonstrate primary and secondary links to goals. [↑](#footnote-ref-1)
2. Risk owners will be appointed by the Director of the Bureau. [↑](#footnote-ref-2)
3. Estimates, especially for 2018-2019. Allocation of resources for the subsequent years is subject to change upon Senior Management decisions. [↑](#footnote-ref-3)
4. Estimates, especially for 2018-2019. Allocation of resources for the subsequent years is subject to change upon Senior Management decisions. [↑](#footnote-ref-4)
5. Estimates, especially for 2018-2019. Allocation of resources for the subsequent years is subject to change upon Senior Management decisions. [↑](#footnote-ref-5)