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| **Radiocommunication Bureau (BR)** | | |
| Administrative Circular  **CA/215** | | 31 July 2014 |
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| **To Administrations of Member States of ITU and Radiocommunication Sector Members** | | |
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| Subject: | **Summary of conclusions of the twenty-first Radiocommunication Advisory Group meeting** | |
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| Reference: **Administrative Circular CA/212 of 7 February 2014** | | |
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1 The Radiocommunication Advisory Group (RAG) met for the twenty-first time from 24 to 27 June 2014 in Geneva.

2 The summary of conclusions of the meeting is contained in the Annex to this letter.

3 Additional information about this meeting may be found on the RAG website at [http://www.itu.int/ITU‑R/go/RAG](http://www.itu.int/ITU-R/go/RAG).

François Rancy

Director

**Annex:** 1

Distribution:

− Administrations of Member States of ITU

− Radiocommunication Sector Members

− Chairmen and Vice-Chairmen of Radiocommunication study groups and

the Special Committee on Regulatory/Procedural Matters

− Chairman and Vice-Chairmen of the Radiocommunication Advisory Group

− Chairman and Vice-Chairmen of the Conference Preparatory Meeting

− Members of the Radio Regulations Board

− Secretary-General of ITU, Director of the Telecommunication Standardization Bureau,

Director of the Telecommunication Development Bureau

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| **ANNEX** | |
| **Radiocommunication Advisory Group Geneva, 24-27 June 2014** |  |
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| **27 June 2014** |
| **English only** |
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| twENTY-FIRST meeting of the  radiocommunication advisory group | |

SUMMARY OF CONCLUSIONS

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| Agenda Item No. | Subject | Conclusions |
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| 1 | Opening remarks | In line with the agenda of the meeting, the Deputy Secretary-General represented the Secretary-General in his opening remarks and was followed by the Director of BR. The meeting was formally opened by the Chairman, Mr. Daniel Obam (Kenya). |
| 2 | Approval of the agenda | The draft agenda in Doc. RAG14-1/ADM/1 was agreed. The meeting noted that practical information for participants was provided in Doc. RAG14-1/INFO/1. |
| 3 | Council and Plenipotentiary issues  *(Docs. RAG14-1/1, 12)* | RAG noted the information provided in the Director’s Report on several Council issues related to ITU‑R, including cost recovery of satellite notifications, free online access to BR publications, the situation of the approved budget and the resulting constraints in managing the activities of the Sector.  RAG noted comments relating to Council and the limitations of the approved budget with regard to work ahead in the coming year, particularly with emphasis on the forthcoming WRC-15.  RAG noted the information provided on publication and sales statistics of the Radiocommunication Sector publications.  RAG noted the progress made so far by the Radiocommunication Bureau in making ITU‑R service publications available online free or on a cost-recovery basis, including the Rules of Procedure.  RAG noted the importance of the concept of free online access to the general public as additional means of improving the mechanism of information dissemination in the six official languages of the Union, as highlighted by the Director of BR.  RAG noted the request to reinforce cooperation amongst the three Sectors and the proposal for an Intersectoral Coordination Team of the advisory groups of the three Sectors with the objective of reviewing areas of mutual interest and providing valuable suggestions as and when deemed appropriate in order to ensure that respective interests are adequately addressed. RAG appointed Mr. Albert Nalbandian and Mr. Peter Major (Vice-Chairmen of RAG) to represent RAG in the Intersectoral Coordination Team as requested in RAG Doc. RAG14-1/12. An indicative list of current intersectoral activities between ITU-R and the other Sectors was provided (see ANNEX 1).  Regarding intersectoral activities on Human exposure to and measurement of electromagnetic fields, RAG noted that ITU-R SG1 had nominated its Vice-Chairman, Dr. Haim Mazar, to represent SG1 in joint studies on this topic. |
| 3.1 | Report on ITU-R membership, associates, and academia *(Doc. RAG14-1/1(Add.3*)) | RAG noted efforts being made by BR and the ITU in the attempt to attract more Sector Members including Academia, into the work of the Union. It was also mentioned that a document highlighting the various ways and means allowing Sector Members and Academia to participate more in the work of ITU has been elaborated and discussed by Council. The outcomes of these discussions will be forwarded to PP‑14, including a draft resolution on the proposed new attributes for this category of membership. |
| 4 | Study Group activities *(Docs. RAG14-1/1, 1(Add.2))* | RAG noted the report on study group activities. Following discussion on the topic of remote participation, RAG agreed to continue trials on remote participation and to review ongoing experience gained in the use of this facility. |
| 4.1 | Resolution ITU-R 1-6 *((Docs. RAG14-1/2, 4, 11, 21(Rev.1))* | With respect to a proposal that some amendments be made to ITU-R Res.1-6 (Doc. RAG14-1/2), the Director agreed to investigate how the status of Recommendations incorporated by reference could be shown more clearly on the Recommendations web page. Notes have now been added to the relevant Recommendations on the ITU-R website to indicate which versions are incorporated by reference.  Following discussions on the various proposals on restructuring and modification of Res. ITU-R 1-6, the Rapporteur Mr.Vallet compiled a summary of proposals raised at the meeting (see ANNEX 2). RAG agreed to continue this activity in a Correspondence Group and appointed Mr.Vallet as chairman of this group. The terms of reference are included in ANNEX 2.  RAG advised the Director that the PSAA procedure could be applied for the adoption and approval of Questions pending the revision of Res. 1-6 at the RA to address this aspect.  RAG advised the Director to undertake any necessary editorial revisions of Recommendations with the aim of removing any old references to “S” provisions of the Radio Regulations. |
| 4.2 | Studies requested in ITU-R Resolutions *(Docs. RAG14-1/10, 16, 18, 20)* | RAG noted the updates of studies requested in ITU-R Resolutions not associated with WRC agenda items that were provided by Study Groups 1, 4, 5 and 6. |
| 4.3 | Other Study Group related issues *(Docs. RAG14-1/5, 6, 22, 23)* | Doc. RAG14-1/5, on the importance of terrestrial broadcasting in emergency situations, was noted.  Doc. RAG14-1/6, on the working definition of ICT, was noted.  Regarding Doc. RAG14-1/22, the Chairman of SG 1 was requested to encourage contributions to the WP 1B meeting on technical studies related to the relevant topics presented in section 3.1 of Doc. RAG14-1/22, and to encourage participants to also support the related studies on national regulatory and technical aspects of infrastructure sharing in ITU-D.  Having taken note of the Doc. RAG14-1/23 proposed by the Administration of Ukraine and the comments by the SG 5 Chairman, who suggested that the issues in Document RAG14-1/23 have relevance to the SG 5 mandate and can be considered by SG 5, RAG:  • concluded that the issues raised in Document RAG14-1/23 may be relevant to the RAG’s mandate in Resolution ITU-R 62 – “Studies related to testing for conformance with ITU-R Recommendations and interoperability of radiocommunication equipment and systems”;  • recommended that the Director of BR refer to the appropriate Study Group on the need, if any, for further studies by ITU-R Study Groups;  • invited the Administration of Ukraine to submit any proposal directly to ITU-R SG 5 for further consideration;  • recommended that the Director of BR and ITU-R SG 5 take into account work already carried out in other organizations in order to avoid duplication of work. |
| 5 | CPM and WRC-15 preparation *(Docs. RAG14-1/1(*§ *3.1), 8, 15)* | Following consideration of information contained in Doc. RAG14-1/ 8 and the proposal in Doc. RAG14-1/15, RAG advised the Director to maintain the current practice of holding the first session of the CPM on the Monday and Tuesday after the WRC. RAG noted the information in Doc. RAG14-1/1, § 3.1, regarding preparations for WRC-15 and the date of the second ITU inter-regional workshop on WRC-15 preparation, to be held in Geneva on 12-13 November 2014. |
| 6 | BR information systems | RAG noted the progress made by BR in responding to WRC-12 Resolutions 907 and 908 and the updates being undertaken by BR in improving the existing legacy systems. |
| 6.1 | **Database and search facility *(****Docs. RAG14-1/****3, 9, 17)*** | RAG noted the work carried out by BR in cooperation with the IS Department in the development of a search facility and recognized the generous support provided by the Administration of Japan to accelerate the completion of this work in a timely manner. A demonstration of the facility was provided during the session, which was appreciated by delegates. It was proposed to deliver a similar demonstration during the forthcoming WTDC Resolution 9 meeting.  RAG advised that BR, in cooperation with the IS Department, review the possibility of providing the functions proposed in Doc. RAG14-1/3 as well as those in the W3C accessibility guidelines, and report on the result to the next RAG meeting. |
| 6.2 | Cloud computing *(Doc. RAG14-1/7)* | RAG noted the progress made by BR and stressed that more cooperation within ITU should be undertaken to avoid any duplication of work. RAG also recognized the importance of existing ITU-R databases and highlighted the importance of security and confidentiality measures if and when cloud techniques are used. |
| 6.3 | Russian version of the ITU-R webpages *(Doc. RAG14-1/13)* | RAG noted the concern of the Russian Administration, and it was noted that similar issues exist in other languages. RAG therefore requested BR to coordinate with administrations to resolve these issues on an ongoing basis. |
| 7 | Draft strategic and financial plan/ Council-14 ITU-R Operational plan for 2015-2018 *(Docs. RAG14-1/1(Add.1), 28), INFO/4* | RAG considered the report of the meeting on the 2nd day (25 June, 2014) to address the Strategic and Operational Plans. RAG agreed on the proposed amendments to the outcomes of the objectives in the Draft Strategic Plan as shown in ANNEX 3. RAG requested the Director to convey the proposed amendments to PP-14 (this would be done through the Chairman of the Council Working Group on Strategic and Financial Plans). RAG further noted the presentation of the approved operational plan for 2015-2018.  RAG noted the work undertaken by BR in the application of the concept of regional seminars, which is attracting more participation. It was noted that the fundamental objectives of holding the regional seminars in the respective regions are to increase participation by reducing costs for administrations, focusing on regional issues of concern (see C14/28) .  RAG noted the presentation from BDT on a Spectrum Management Training Programme (SMTP). The materials are still undergoing continuous development and members were urged to contribute and participate actively in this programme. RAG was informed that information (Doc. RAG14-1/ INFO/4) on the training programme is available on the following website: <http://academy.itu.int/news/item/1077>. |
| 8 | Results of TSAG meeting, 17-20 June 2014, relevant to ITU-R *(Doc. RAG14-1/INFO/3)* | RAG noted the information in this document regarding establishment of the ITU-T Focus Group on Aviation Applications of Cloud Computing for Flight Data Monitoring, the updated ITU IPR patent guidelines and declaration form, holding of ITU Kaleidoscope 2014, continued collaboration on ITS communication standards, and the establishment of an Intersectoral Coordination Team. |
| 8.1 | Global tracking and monitoring of flight data *(Doc. RAG14-1/14)* | RAG noted the information provided on the ICAO Special Meeting on Global Flight Tracking and the Expert Dialogue on Real-time Monitoring of Flight Data. RAG noted that there is already close collaboration between ICAO and ITU-R Study Groups 4 and 5 on the subject of global flight tracking. It was noted that ICAO had requested ITU to address this issue at WRC-15 and take an appropriate allocation decision. RAG noted that this issue may be brought to the attention of PP-14. |
| 8.2 | Evaluation of Kaleidoscope 2014 papers with respect to relevance in ITU-R activities *(Doc. RAG14-1/INFO/2(Rev.1))* | RAG noted the report on Kaleidoscope 2014 and the increasing level of interest being shown in this event. |
| 9 | RAG correspondence Group on Electronic Document Handling *(Doc. RAG14-1/19)* | RAG noted the report of the EDH Correspondence Group and encouraged participation in this activity. |
| 10 | Date of next meeting | RAG noted the proposal to hold its 22nd session from 5 to 8 May 2015, including one day without interpretation to discuss the Strategic and Operational Plans. |
| 11 | Any other issues | - |

ANNEX 1

Source:Document RAG14-1/TEMP/1

UPDATE ON INTERSECTORAL ACTIVITIES

The table below indicates the main topics in ITU-R Study Groups currently being addressed as an intersectoral activity. This information can be updated at the meeting of the intersectoral coordination team.

| Topics | R-T-D groups currently involved | Associated Questions/Resolutions/Handbook |
| --- | --- | --- |
| Participation of countries, particularly developing countries, in spectrum management | ITU-R SG 1; ITU-D SG 1 | WTDC Resolution 9; Resolution ITU-R 22-3 |
| Further development of the spectrum management system for developing countries | ITU-R SG 1; BDT | Resolution ITU-R 11-4 |
| Non-ionizing radiation measurements in relation with to Human exposure to EMF | ITU-R WP 1C;  ITU-D SG 1 ITU-T SG 5 | ITU Handbook on Spectrum Monitoring |
| Co-existence between wired telecommunication systems (Power Line Telecommunication; Smart Grid power management systems; DSL based, G.fast J.HiNoC systems, etc.) and radiocommunication services | ITU-R SGs 1, 4, 5 and 6; ITU-T SGs 5, 9 and 15 | Question ITU-R 221-2/1,  Question ITU-R 236/1 |
| Disaster response and relief | ITU-R SGs 1, 4, 5 and 6; ITU-D SG 2 | Resolutions ITU-R 53-1, ITU-R 55-1 |
| Satellite radio interfaces of IMT | ITU-R SG 4, ITU-T SG 13, ITU-D SG 2 | Resolutions ITU-R 12-1, ITU-R 47‑2, ITU-R 57-1, Questions ITU-T 15/13, ITU-D 25/2 |
| Satellites in access network transport | ITU-R SG 4, ITU-T SG 15 | Question ITU-T 1/15 |
| Audio Visual Quality Assessment | IRG-AVQA: ITU-R SG 6, ITU‑T SGs 9 and 12 | Question ITU-R 62/6 |
| Audiovisual Media Accessibility | IRG-AVA: ITU-R SG 6, ITU-T SG 9 and ITU-T SG 16 |  |
| Integrated Broadcast-Broadband Systems | IRG-IBB: ITU-R SG6 and ITU‑T SG 9 |  |
| ICTs, Sustainability and Climate Change | ITU-R SGs 7 and 5, ITU-D SG 2, ITU-T SG 5 | Resolutions ITU-R 53-1, ITU-R 55-1 and ITU-R 60 |
| Vocabulary | ITU-R CCV, ITU-T SCV | Resolutions ITU-R 33-1, ITU-R 34‑1, ITU-R 35-1, ITU-R 36-1, ITU‑T 67 |

ANNEX 2

Source:Document RAG14-1/TEMP/4

Possible revision to Resolution ITU-R 1-6

During the 2014 session of the Radiocommunication Advisory Group, the issue of a possible revision of Resolution ITU R 1-6 was discussed on the basis of several contributions (see Documents RAG14-1/2, 4, 11, 21(Rev.1)).

# 1 Consideration of the input documents

Document [RAG14-1/2](http://www.itu.int/md/R14-RAG14-C-0002/en) proposed to add provisions to Resolution ITU-R 1 in order to clarify the situation where the Radio Regulations contain previous versions of binding ITU‑R Recommendations. The proposed solution was to include information in administrative circulars and on the ITU website regarding the use of ITU‑R Recommendations incorporated by reference in the Radio Regulations. Following discussions and general support for this idea, the Director of the Radiocommunication Bureau informed the RAG that the webpage displaying ITU-R Recommendations will be modified accordingly (see Document RAG14-1/TEMP/2(Rev.1) for more detailed information).

Administrations are invited to consider whether this action by the BR is sufficient or whether a specific provision should be included in Resolution ITU-R 1 with regards to this proposal.

On the basis of the 2013 discussions on a possible revision of Resolution ITU-R 1, Document [RAG14-1/4](http://www.itu.int/md/R14-RAG14-C-0004/en) proposed that there should be no merge of Resolutions ITU-R 2, 36, 38 in Resolution ITU-R 1, that no additional provisions about RAG be included in it, that the procedure for simultaneous adoption and approval (PSAA) be extended to ITU-R Questions and that provisions for revision or suppression of Handbooks, Reports, Decisions and Opinions be explicitly added in Resolution ITU-R 1. It was noted that these proposals are relevant to a possible new structure of Resolution ITU-R 1 and should be considered in conjunction with Document RAG14-1/21(Rev.1).

Document [RAG14-1/11](http://www.itu.int/md/R14-RAG14-C-0011/en) proposed to revise Resolution ITU-R 1‑6 in order to clarify the way to deal with "studies without Questions" within each Study Group. Two possible ways to make such a revision were suggested: including criteria of the distinction between "studies with Questions" and "studies without Questions" and inserting the way to notify on "studies without Questions" to the Member States.

Administrations are invited to further consider these proposals and submit specific revisions to Resolution ITU-R 1-6.

Document [RAG14-1/21(Rev.1)](http://www.itu.int/md/R14-RAG14-C-0021/en) contains the proposals put together by the Rapporteur on Resolution ITU-R 1-6 about a possible new structure of Resolution ITU-R 1. In particular, it was mentioned that Annex 1 to this Resolution would then be divided into two main parts: the first about the ITU-R structure and groups, the second about ITU-R documentation. In line with the proposals contained in Document RAG14-1/4, no new provisions have been included concerning the Conference Preparatory Meeting, the Coordination Committee for Vocabulary and the Special Committee for regulatory and procedural matters. Only a brief sentence linking Resolutions ITU-R 2, 36 and 38 was added. No new, more detailed provisions concerning the Radiocommunication Advisory Group have been included either. Concerning the ITU-R documentation (i.e. ITU-R Resolutions, Decisions, Questions, Recommendations, Reports, Handbooks and Opinions), a specific sub-section for each type of document was created based on a similar structure for each of the sub-sections (definition, adoption and/or approval, suppression). As such, each sub-section would be self-sufficient in terms of procedures related to one type of document, even if it introduces repetitions in Resolution ITU-R 1.

# 2 Summary of discussions on a possible revision of Resolution ITU-R 1

Discussions took place during the RAG meeting following the introduction of the various proposals about a possible revision of Resolution ITU-R 1.

It was recognized that, Document RAG14-1/21(Rev.1) requires careful review by administrations due to the importance of Resolution ITU-R 1 for the ITU-R work, the number of proposed revisions and the overall length of the document. In particular, it was indicated that a more detailed consideration of the various mechanisms for adoption, approval, revision or suppression of ITU-R documentation was needed to ensure that they are commensurate with the relative importance of the various ITU-R documents. It was emphasized that, since Resolution ITU-R 1-6 does not contain explicit detailed provisions for the approval of Decisions, Reports, Handbooks and Opinions, the General Rules of Conferences, Assemblies and Meetings of the Union apply by default, which means that approval is obtained via a simple majority. Considering the current ITU-R practice, the Rapporteur drafted provisions proposing methods based on the absence of opposition for Reports and on consensus for other documents. This should however be further reviewed and discussed, noting that an alternative could be to explicitly mention in Resolution ITU-R 1 the use of simple majority as a method for approval of Decisions, Reports, Handbooks and Opinions.

An improvement was also proposed with regard to studies in response to ITU-R Resolutions: it was proposed to hold CVC meeting after Radiocommunication Assembly for organization of work and distribution of responsibility on studies in response to ITU-R Resolutions between study groups.

More specific comments were also made on Document RAG14-1/21(Rev.1) and are listed below:

– Annex 1 could begin with a preamble giving a general explanation of the ITU-R and its work.

– A Table of Contents should be inserted at the beginning of Annex 1.

– Section 1 “General considerations” of Part 1 of Annex 1 should be moved at the end of this Part and retitled “Other considerations”.

– New provision 3.1.4 may be better placed in section 3.2.

– New provisions 3.1.5 and 3.1.8 mention certain sub-groups of Study Groups that are defined only later in section 3.2. These provisions should therefore be reworded.

– New provision 3.1.16 may be better placed in sections 12.2 or 12.3 related to the adoption and approval of ITU-R Questions.

– Concerning the title of New section 5, it was noted that CPM may not be relevant for Regional Radiocommunication Conferences (RRC) since RA-07 has deleted references to RRC from Resolution ITU-R 2.

– CCV should be included in § 9.3.1 (contributions and documentation) because this provision for Study Group is becoming relevant for the CCV also.

– Procedures for documents developed by joint groups like Joint Task Groups or Joint Rapporteur Groups should be considered and included in Resolution ITU-R 1.

– The current definition of ITU-R Decisions (see new provision 11.1) should be reviewed and clarified.

– As an alternative to the use of PSAA for ITU-R Questions, the possible adoption of Questions at any Study Group meeting for subsequent approval by correspondence should also be considered, noting that this was the normal practice before RA-12. It should be noted that RAG subsequently approved the interim application of PSAA to ITU-R Questions.

– Time periods mentioned in §§ 13.2.2.2.1 (two months to inform about planned adoption of a Recommendation) and 13.2.2.2.2 (four weeks to make the draft Recommendation available) could be aligned.

– The common format for ITU-R Recommendations developed by RAG should be mentioned in some way in Resolution ITU-R 1, while not including it in the Resolution itself in order for the RAG to keep flexibility about possible improvements of this common format in the future.

– It was suggested that the paragraph related to the need of editorial revision of Questions and Recommendations aiming at removing of “S” from referenced RR provisions is not necessary to be explicitly inserted any longer in Resolution ITU-R 1. It should be noted that RAG decided to request the BR to perform once for all such editorial revision in all Recommendations. Other editorial revisions would continue to follow the procedures of Resolution ITU-R 1.

– Title of section 13.2.2.1 “Principles for the adoption of a new or revised Recommendation” could be reworded to “General considerations on the adoption of a new or revised Recommendation”.

# 3 Steps taken by the RAG

In order for administrations to continue the discussions and work on a possible revision of Resolution ITU-R 1, RAG has established a Correspondence Group on this topic and adopted Terms of Reference (see annex). ITU-R members are encouraged to submit their input to the Chairman of the Group.

ANNEX

Terms of Reference of the Correspondence Group on  
the revision of Resolution ITU-R 1-6

The Terms of Reference of this Correspondence Group are:

• In accordance with § 1.7 of Resolution ITU-R 1-6 and Resolution ITU-R 52, prepare a draft revision of Resolution ITU‑R 1‑6 for consideration by the RAG and subsequent submission to the Radiocommunication Assembly 2015, taking into account the proposals contained in Documents RAG14-1/2, 4, 11, 21(Rev.1), items summarized in Document RAG14-1/TEMP/5(Rev.2) (ANNEX 2) and any other additional proposals submitted to the Correspondence Group.

The Correspondence Group shall submit its final report to the 2015 meeting of the RAG at least two weeks before the beginning of the RAG meeting.

The Chairman of the Correspondence Group is Mr. Alexandre Vallet (F) ([alexandre.vallet@anfr.fr](mailto:alexandre.vallet@anfr.fr)).

ANNEX 3

Source:Document RAG14-1/TEMP/3(Rev.2)

conclusions of informal discussions  
on the itu-r draft strategic plan

The attached tables contain the results of the informal discussions of the RAG on the draft ITU‑R strategic plan for the period 2016-2019.

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| **Objective** | **Outcomes** | **Outputs** |
| R.1. Meet, in a rational, equitable, efficient and economical way, the ITU membership’s requirements for radio-frequency spectrum and satellite-orbit resources, while avoiding harmful interference | 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 favorable 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 master register which are free from harmful interference | * 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 adoption of Rules of Procedure * Improvement of software of ITU-R |

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| **Objective** | **Outcomes** | **Outputs** |
| R.2. Provide for worldwide connectivity and interoperability, improved performance, quality and affordability of service and overall system economy in radiocommunications, including through the development of international standards | 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[[1]](#footnote-1), as 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) | * Decisions of Radio Assembly, ITU-R Resolutions * ITU-R Recommendations, Reports (including the CPM report) and Handbooks * Advice from the Radiocommunication Advisory Group |

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| **Objective** | **Outcomes** | **Outputs** |
| R.3. Foster the acquisition and sharing of knowledge and know-how on radiocommunications | R.3-1: Increased knowledge and know-how on 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 | * ITU-R publications * Assistance to members, in particular developing countries and LDCs * Liaison/support to development activities * Seminars, workshops and other events |

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1. Outcome refers to the mobile-broadband sub-basket of the ITU ICT Price Basket (IPB). For more information please refer to ITU (2013): Measuring the Information Society 2013 report, available at: <http://www.itu.int/en/ITU-D/Statistics/Documents/publications/mis2013/MIS2013_without_Annex_4.pdf> [↑](#footnote-ref-1)