

ITUWRS
ONLINE2020

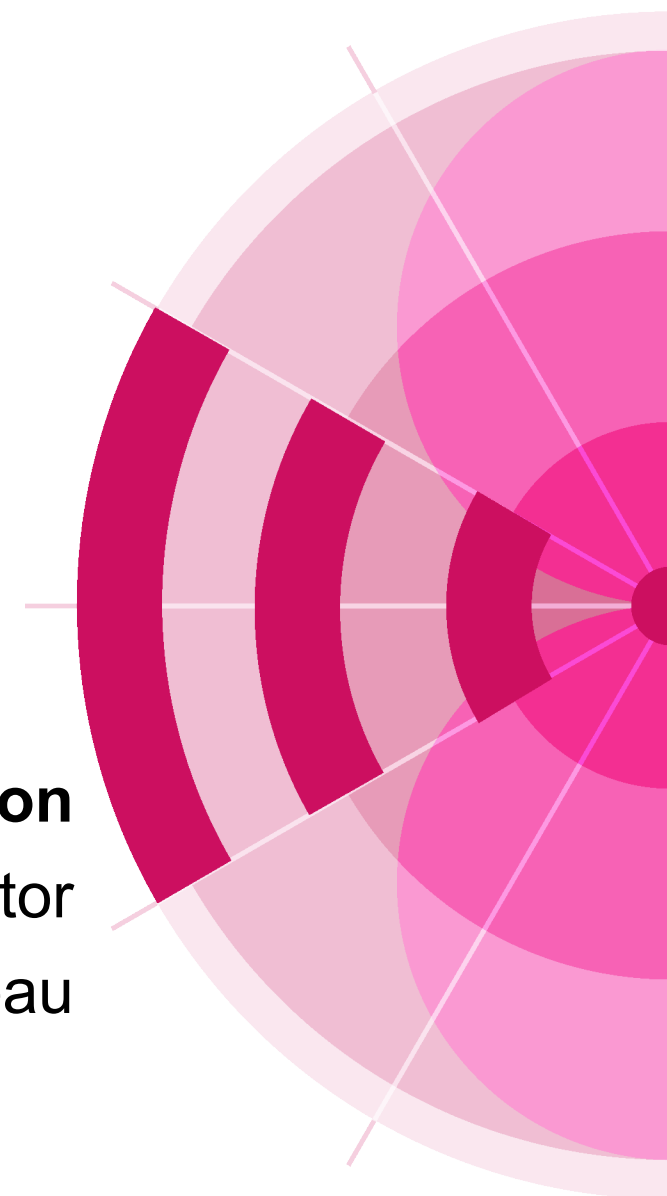
29TH WORLD RADIOCOMMUNICATION SEMINAR
30 November - 11 December 2020

ITU and ITU-R Basics and Facts

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www.itu.int/go/wrs-20

#ITUWRS



Overview

- ITU: Brief history and structure
- ITU Radiocommunications Sector (ITU-R)
- ITU Radiocommunications Bureau (BR)

Who are we?

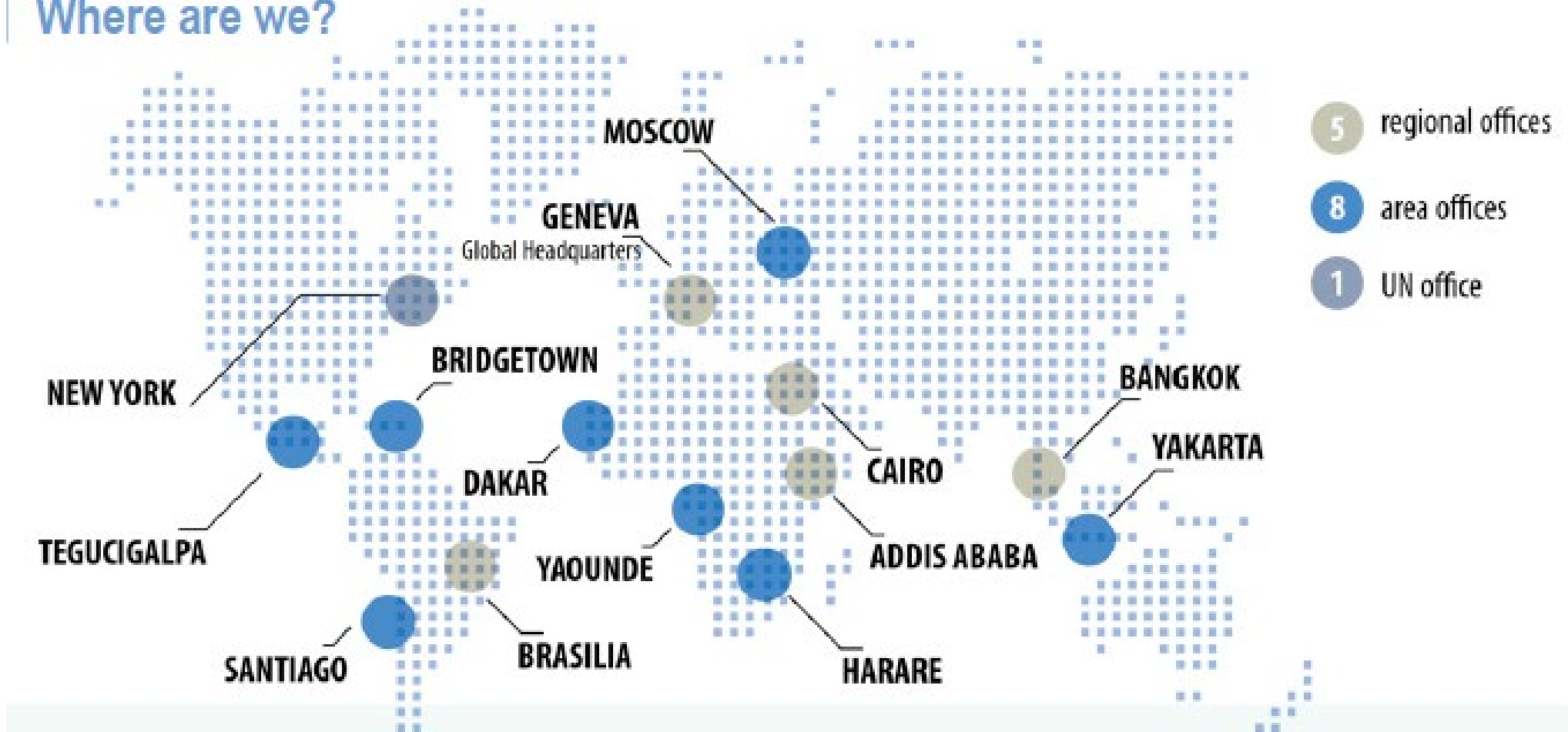


ITU is the United Nations **specialized agency for information and communication technologies (ICTs)**

Enabling a **connected world**

ITU Locations

Where are we?



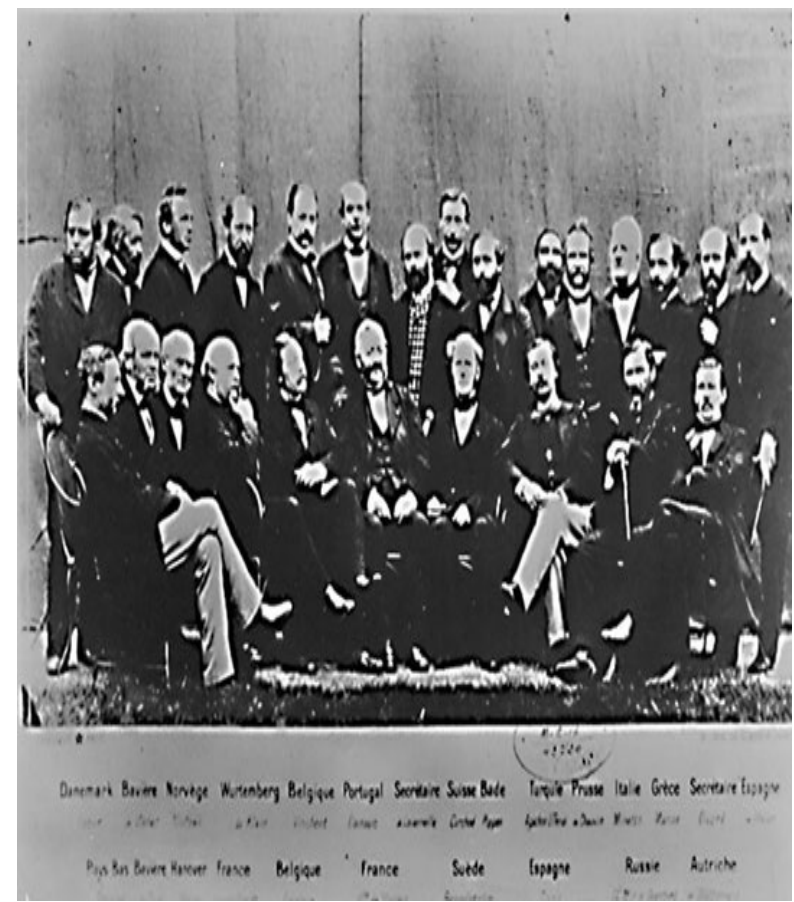
International Telegraph Union

155 years old : founded on 17 May 1865 by 20 nations

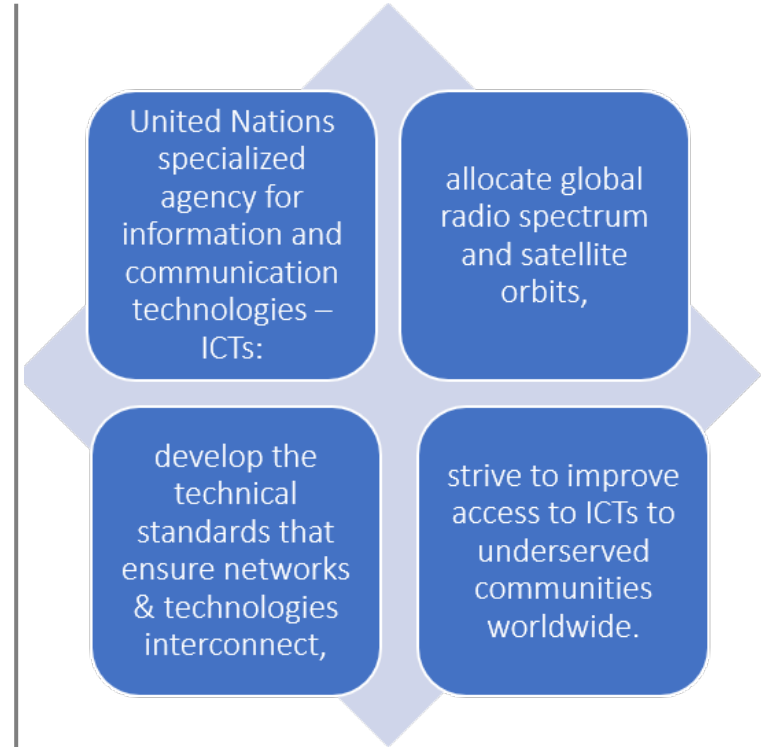
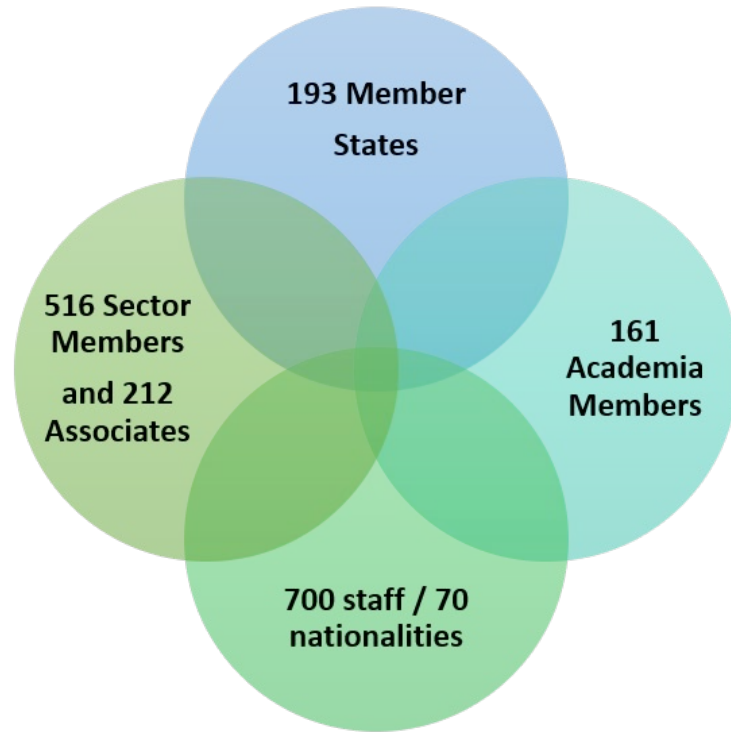
- common rules to standardize equipment to facilitate international interconnection,
- adopted uniform operating instructions which would apply to all countries,
- common international tariff and accounting rules.

Took ITU name on 1934

Became UN agency on 1947



International Telecommunication Union



Legal Framework (ITU Treaties)

The Constitution:

- **Basic instrument of the International Telecommunication Union**, with the object of facilitating peaceful relations, international cooperation among peoples and economic and social development by means of efficient telecommunication services

The Convention:

- **Complements the Constitution**

The Administrative Regulations:

- **Radio Regulations;**
- **International Telecommunication Regulations**, which complement the Constitution and the Convention: establish general principles which relate to the provision and operation of international telecommunication services offered to the public as well as to the underlying international telecommunication transport means used to provide such services. They also set rules applicable to administrations

ITU Structure



Committed to
Connecting the World

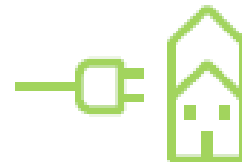
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Sectors



ITU Radiocommunication
Coordinating radio-frequency spectrum and **assigning** orbital slots for satellites



ITU Standardization
Establishing global standards



ITU Development
Bridging the digital divide

Radiocommunication Sector (ITU-R)

- **is to ensure interference free through the implementation and the efficient and timely update of the:**

- Radio Regulations and
- Regional Agreements.

Objective

- Developing and updating international regulations on the use of spectrum and associated orbits
- Applying these regulations and managing the MIFR
- Developing and adopting standards and best practices on the use of orbit/spectrum resources
- Disseminating information on these regulations, standards and best practices

Role/Duties

Radio standardization also establishes '*Recommendations*' intended to assure the necessary performance and quality in operating radiocommunication systems, and seeks ways and means to conserve spectrum and ensure flexibility for future expansion and new technological developments.

History of ITU-R in brief

1906 (Berlin)	International Radiotelegraph Convention (1 st <i>Radio Regulations</i>)
1927 (Washington DC)	CCIR (International Radio Consultative Committee)
1932 (Madrid)	Telegraph & Radiotelegraph Conventions merged: the International Telegraph Union became the International Telecommunication Union
1947 (Atlantic City)	Created the IFRB (International Frequency Registration Board) ITU becomes a UN Specialized Agency
1992 (Geneva)	ITU-R (Radiocommunication Sector): <ul style="list-style-type: none"> • ITU-R Study Groups (formerly CCIR) • RRB (Radio Regulations Board) (formerly IFRB) • BR (Radiocommunication Bureau)



ITU-R Membership by the Numbers

193

MEMBER
STATES



299

PRIVATE SECTOR
ORGANIZATIONS



166

ACADEMIA
MEMBERS



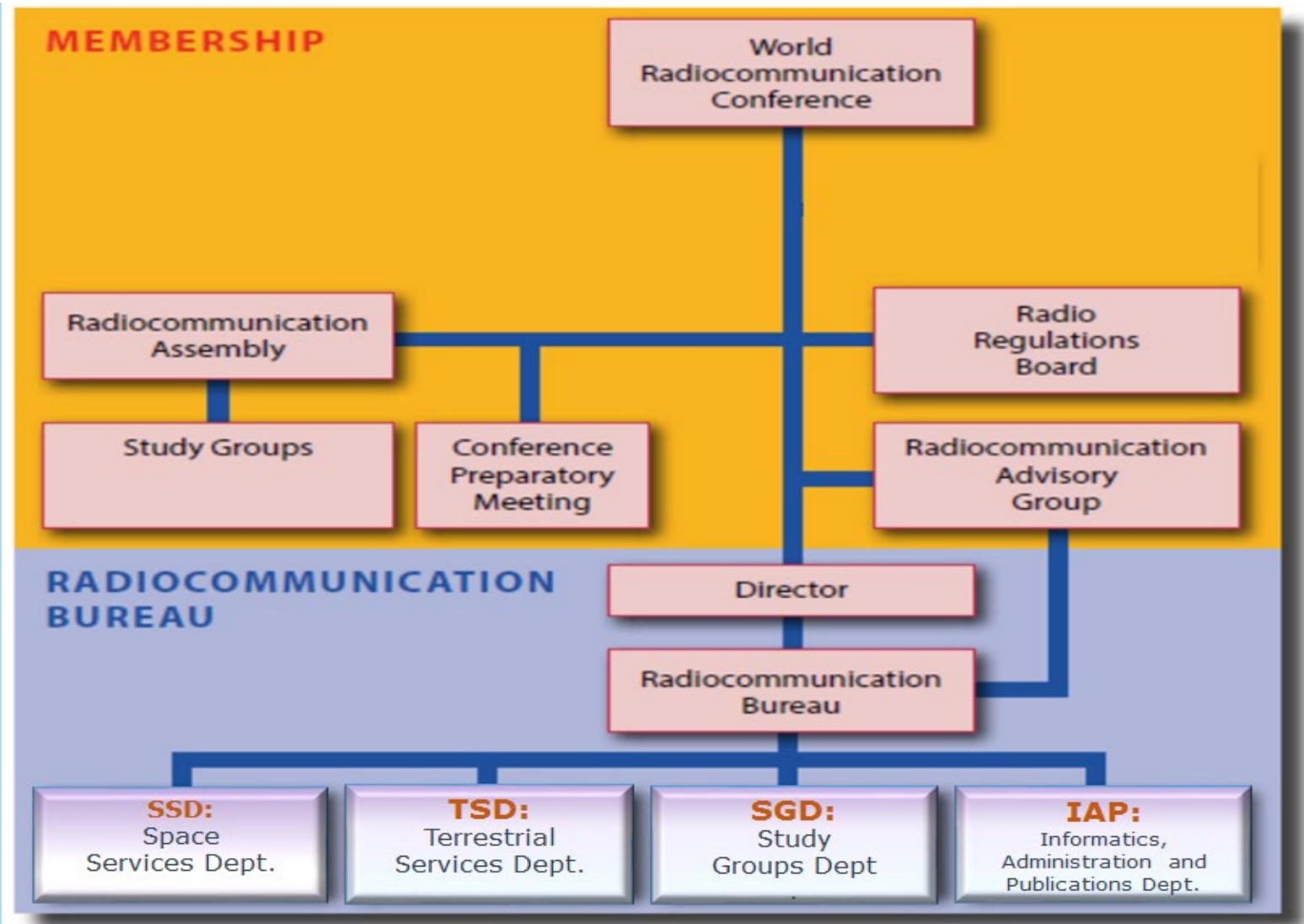
ITU RADIO- COMMUNICATION SECTOR

Major Achievements

- 1906: First Radio Regulations treaty
- 1912: Frequencies for maritime distress signals (SOS) & Morse Code
- 1959: Allocations for Space Research & Radio Astronomy
- 1964/66: Allotment plan for aeronautical mobile (R) service.
- 1994: Digital Audio Broadcasting (DAB) standard;
- 1995/97: Global framework for non-geostationary satellites
- 2000: Specifications for IMT-2000 (3G)
- 2012: Specifications for IMT-Advanced (4G)
- 2015: Allocates bands for global flight tracking
- 2019: Framework for regulating large NGSO constellations
- 2020: Specifications for IMT-2020 (5G)

ITU-R and BR Structure

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World Radiocommunication Conferences (WRC)

- Considering the evolving spectrum requirements of all Radiocommunication services, the advances in technology, and the need for protection of existing services.

WRC reviews the requirements



- Modify the RR and consider any radiocommunication matter of worldwide character
- Develop instructions to the RRB and the BR
- Determine issues considered by RA and SGs as part of the preparatory work for WRC future
- Set agenda of next WRC, and subsequent draft.

WRC has the authority, among others, to



- Develop and maintain, by consensus, a sustainable ecosystem for radiocommunications and avoid disruptions.

On a consensus basis



Create regulatory certainty for a multi-trillion dollars activity which plays an increasingly important role in the development of our societies

Creating certainty requires consensus in order to achieve stable results on a sustainable use of orbit/spectrum resources

World Radiocommunication Conferences

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update the **Radio Regulations**, the international treaty governing the use of the radio-frequency spectrum and satellite orbits

and

ensure the rational, equitable, efficient and economical use of the radio-frequency spectrum by all radiocommunication services

Mobile



Satellite



Maritime



Emergency



Aviation



Broadcasting



Science



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Radiocommunication Assembly (RA)

The Administrative body for the ITU-R, the RA's duties include:

- Establishing structure and mandates for ITU-R Study Groups
- Adopting ITU-R Study Questions
- Establishing the working methods of the ITU-R
- Electing leadership of ITU-R Study Groups and RAG
- Responding to requests from ITU conferences
- Approving ITU-R Recommendations

RAs are convened every 4 years (Res. 77 PP14), associated in time and place with WRC (the week before)

Radiocommunication Advisory Group (RAG)

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Review the
priorities and
strategies
adopted in
the Sector

Monitor
progress of
the work of
the Study
Groups;

Provide
guidance for
the work of
the Study
Groups;

Recommends
measures to
foster
cooperation/
coordination
with other
organizations
and with the
other ITU
Sectors.

Provide advice
on these
matters to the
Director of the
Radiocommun-
ication Bureau
(BR).

Radiocommunication Assemblies (RAs) may refer specific matters within its competence to the RAG. The RAG may be authorized to act on behalf of the RA between two Assemblies.

RAG meets yearly, before ITU Council meeting. Open to ITU-R members.



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Radio Regulations Board (RRB)

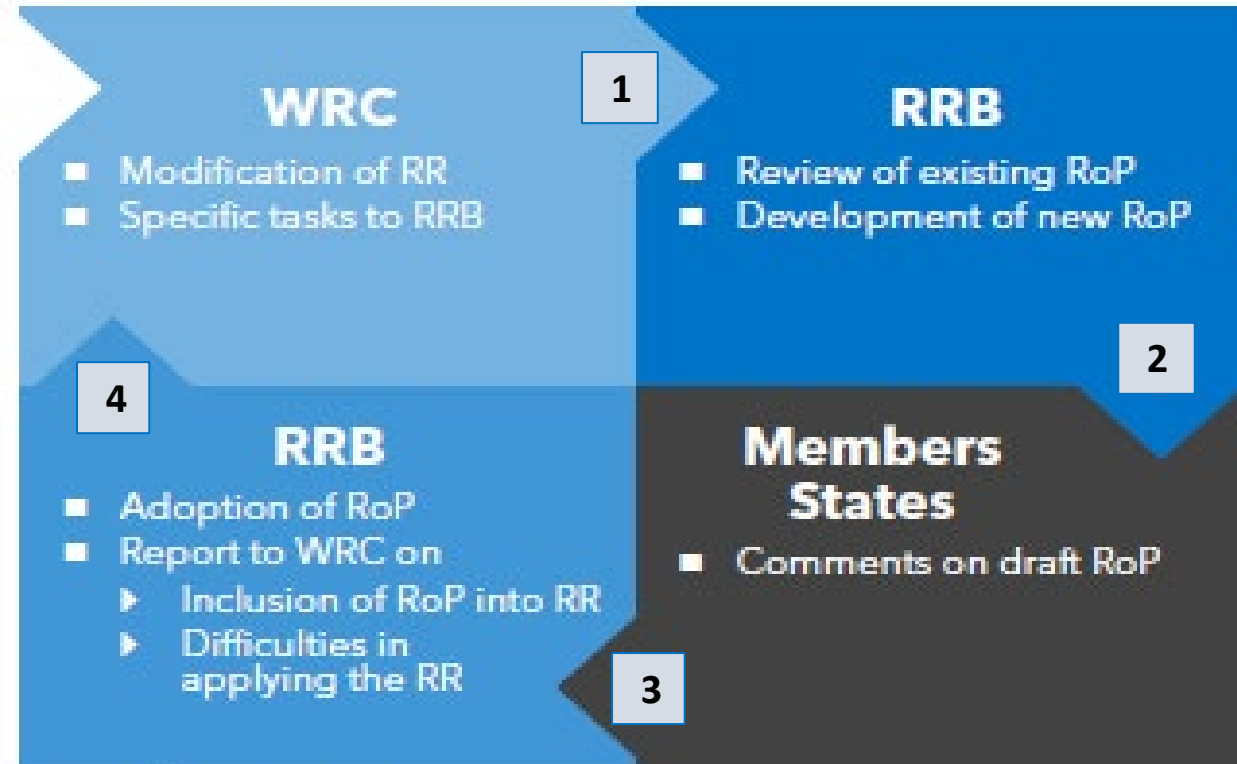
RRB is conformed of 12 members, elected by each PP. It performs its functions independently and on a part-time basis, including:

- Approving Rules of Procedure (RoP) that complement the RRs
- Considering matters referred by the BR that cannot be solved by applying the RR and RoPs;
- Addressing complaints of unresolved harmful interference;
- Advising the WRC and RA;
- Considering appeals against findings and decisions taken by the BR;
- Performing additional duties as assigned by the WRC or by Council.

RRB meets 3 - 4 times per year at the ITU headquarters in Geneva

Radio Regulations Board

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RR – Radio Regulations

RRB – Radio Regulations Board (the Board)

RoP – Rules of Procedure

WRC – World Radiocommunication Conference

ITU-R Study Groups (SG)

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SG 1: Spectrum management

SG 3: Radiowave propagation

SG 4: Satellite services

SG 5: Terrestrial services

SG 6: Broadcasting service

SG 7: Science services

Coordination Committee for Vocabulary
Conference Preparatory Meeting

* Some WPs meets 2 or 3 times/year; some meetings abroad

ITU-R Study Groups



develop the technical bases for decisions taken at WRCs and develop global standards (Recommendations), Reports and Handbooks on radiocommunication matters.



gather more than 5,000 specialists from ITU Member States,



Sector and Associate Members, and Academia



counts with 6 SG, composed by 21 Working Parties, WP.



WP meets twice a years (some WP 1 or 3), normally at Geneva. SG meets yearly (after sessions of their respective WP)



Currently 1165 Recommendations and 536 Reports in force, along with 42 Handbooks



ITU-R Publications: Resolutions (ITU-R RA), Recommendations, Reports, Handbooks, Opinions, Questions, and some software and databases are of public access (download), free of charge.



http://www.itu.int/en/ITU-R/Documents/BD_Flyer_A4_E.pdf

ITU-R Study Groups: Main Products

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1,175 ITU-R
Recommendations



561 ITU-R
Reports



42 ITU-R
Handbooks

All these products can be download free of charge from ITU-R website
> 1 million downloads yearly

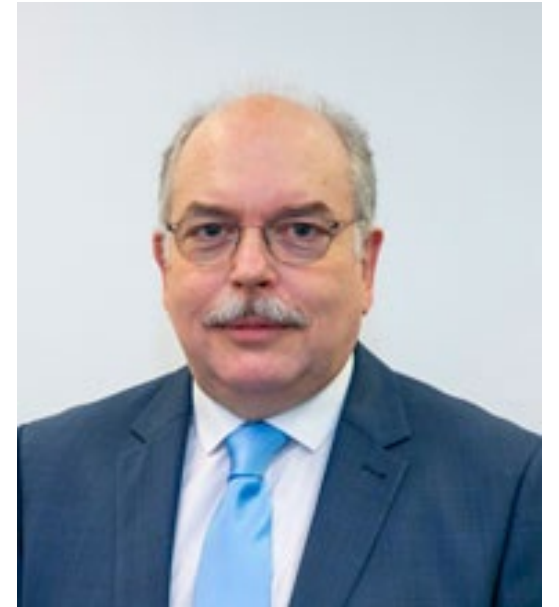
RADIOCOMMUNICATION BUREAU (BR)

BR MANAGEMENT:

BR is headed by an elected Director responsible for the coordination of the work of the Sector, managing professional and administrative teams of BR.

BR DUTIES:

- Administrative and technical support to WRCs, RAs, ITU-R SG, WPs and Task Groups;
- Applies the provisions of the RR and various Regional Agreements;
- Records and registers frequency assignments and orbital characteristics of space services,
- maintains the International Frequency Register, MIFR
- Coordinates the preparation, editing and dispatch of circulars, documents and publications developed within the Sector;



Mario MANIEWICZ, Director
ITU Radiocommunication Bureau

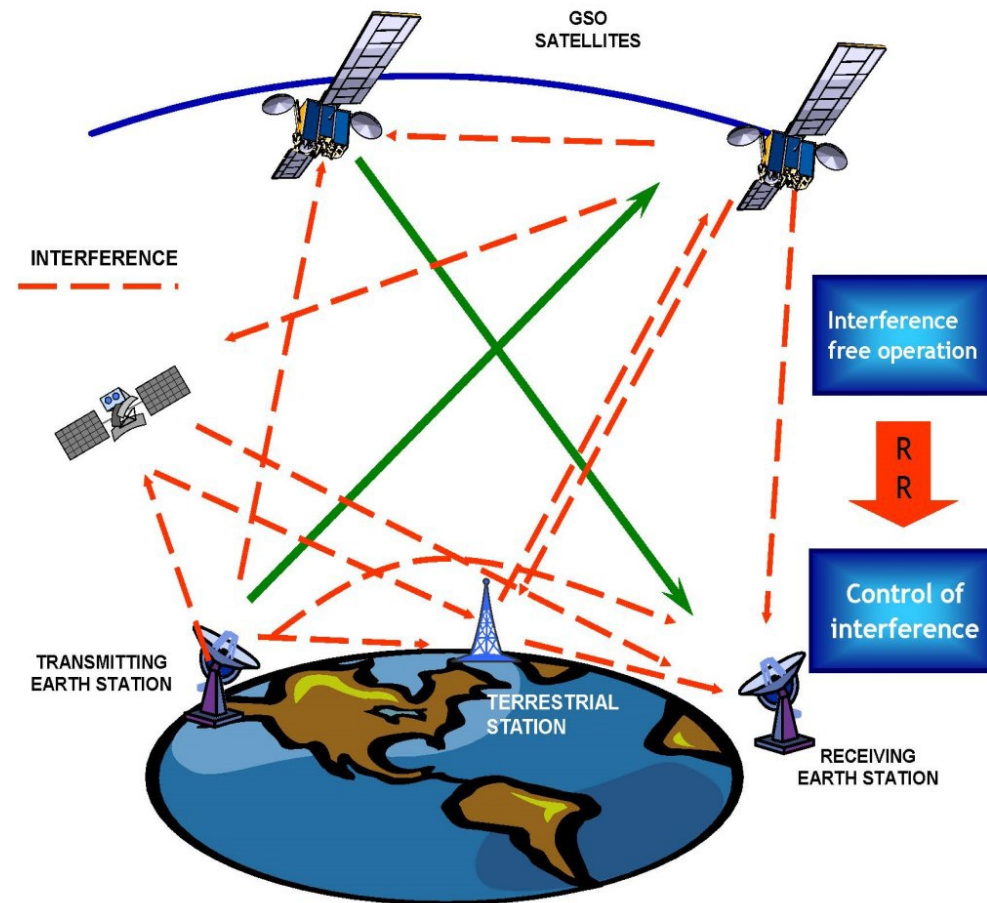
Space Services

Coordination and recording procedures for space systems & earth stations:

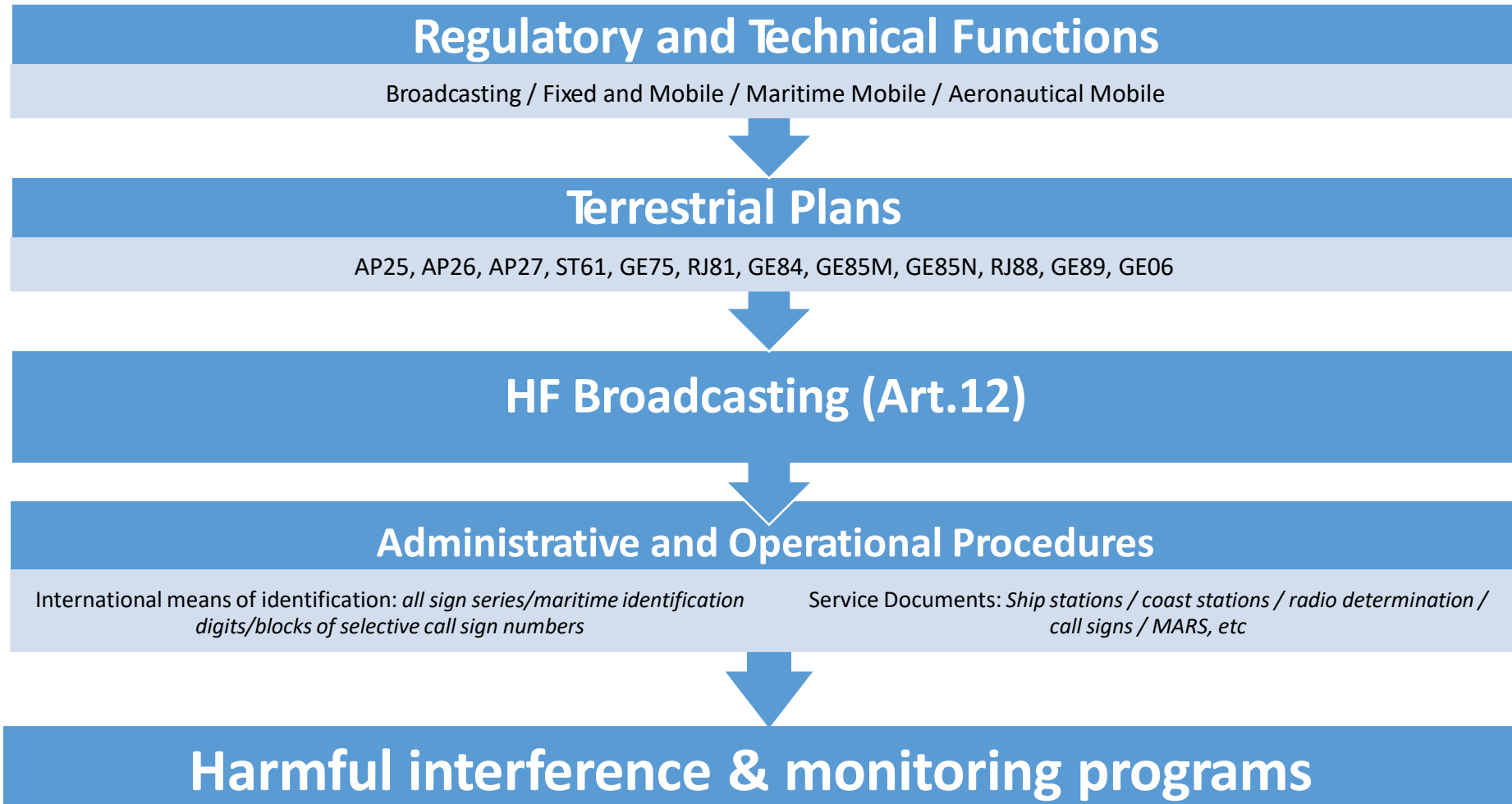
capture, processing and publication of data and examination of frequency assignment notices submitted by administrations for inclusion in the formal coordination procedures or recording in the Master International Frequency Register (MIFR).

Procedures for space related assignment or allotment *plans*

Assistance to administrations on all of the above issues



Terrestrial Services



Informatics Administration and Publications (IAP)

IAP undertakes activities related to:

- ❖ Development and enhancement of the Bureau's major software packages (automation tools and IT resources)
- ❖ ITU-R Publications
- ❖ Membership and outreach in coordination with the General Secretariat and other Bureaux
- ❖ BR Administrative functions, including organization and support of ITU-R conferences and meetings

IAP comprises
three Divisions:

Space Application Software Division (SAS)

Terrestrial Applications Software Division (TAS)

Administrative Division (ADM)

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World & Regional Radiocommunication Seminars (WRS/RRS)

Disseminates worldwide the most recent revision of the **Radio Regulations** and the associated **RoP**

Fosters **human capacity building** on the use of the radio-frequency spectrum and the satellite orbits, particularly the application of the provisions of the ITU Radio Regulations

Complemented with sessions dedicated to spectrum-related **topics of particular interest** to the involved **region**.

Hosted by the spectrum management authorities in cooperation with the relevant regional organizations and the ITU regional/areas offices

Thank you!

ITU – Radiocommunication Bureau

Questions to brmail@itu.int



BACKUP SLIDES

World Radiocommunication Conference Process

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