



30<sup>TH</sup> WORLD RADIOCOMMUNICATION SEMINAR

24 – 28 October 2022

Geneva, Switzerland

# ITU and ITU-R Basics and Facts

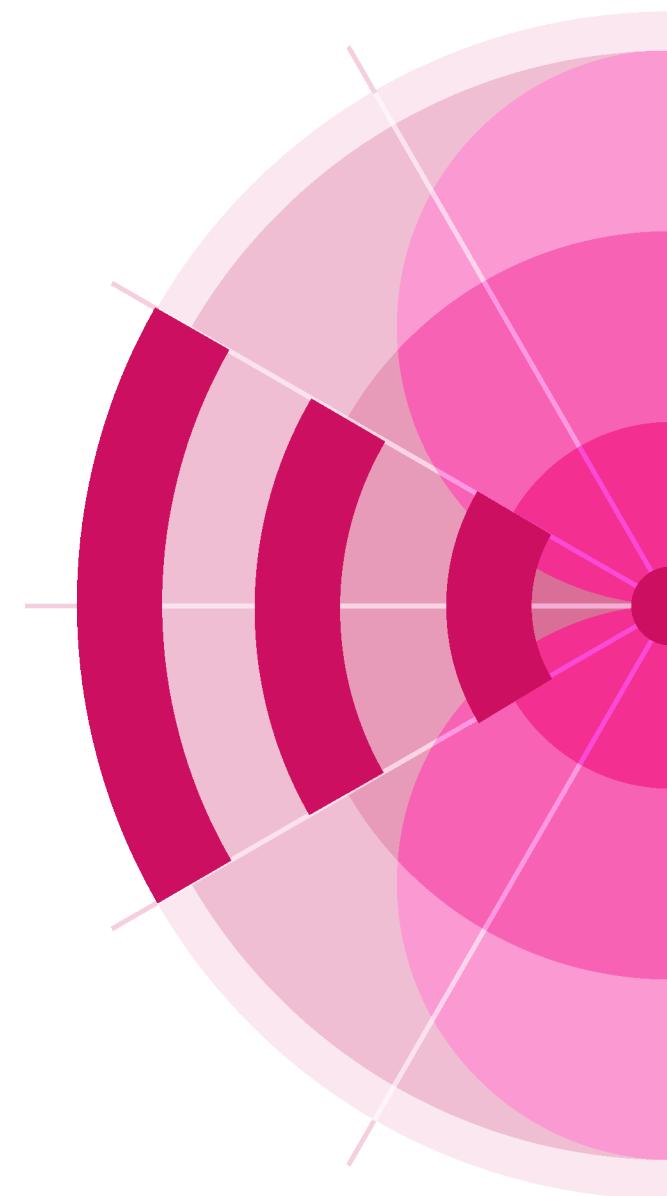
Joanne Wilson

Deputy to the Director

ITU Radiocommunication Bureau

[www.itu.int/go/wrs-22](http://www.itu.int/go/wrs-22)

#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**

# International Telegraph Union

157 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

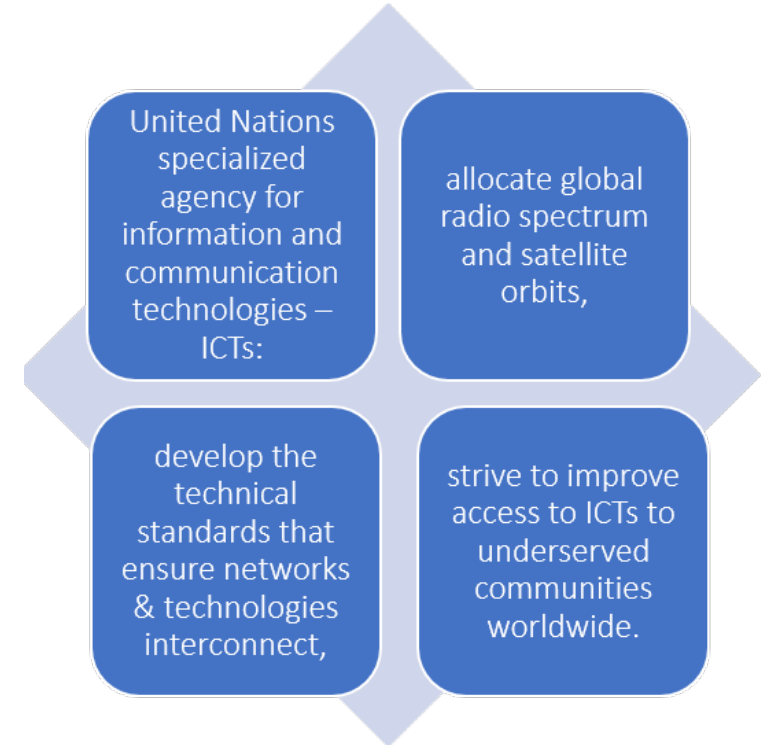
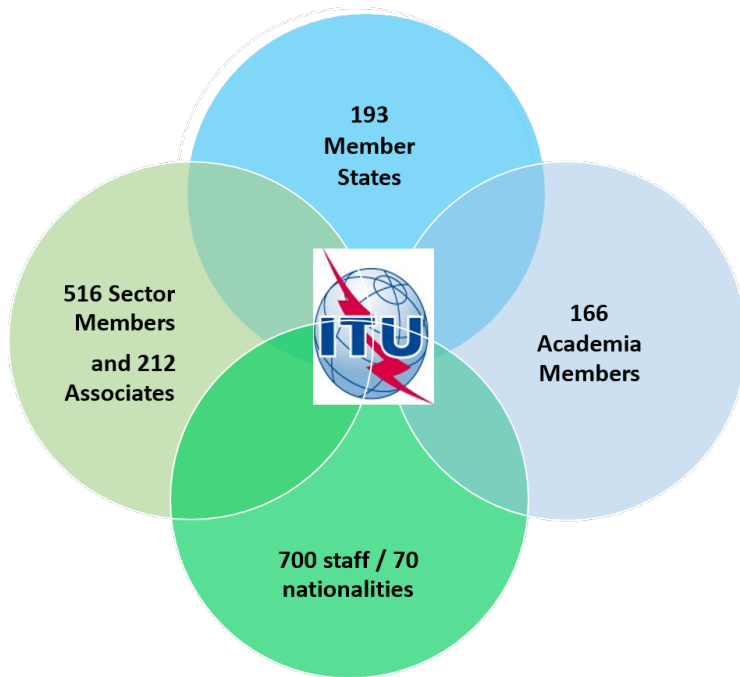


# History of ITU-R in brief

1906 (Berlin)	International Radiotelegraph Convention (1 <sup>st</sup> <i>Radio Regulations</i> )
1927 (Washington DC)	CCIR (International Radio Consultative Committee)
1932 (Madrid)	Telegraph & Radiotelegraph Conventions merged: the International <b>Telegraph</b> Union became the International <b>Telecommunication</b> 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"> <li>• ITU-R Study Groups (formerly CCIR)</li> <li>• RRB (Radio Regulations Board) (formerly IFRB)</li> <li>• BR (Radiocommunication Bureau)</li> </ul>

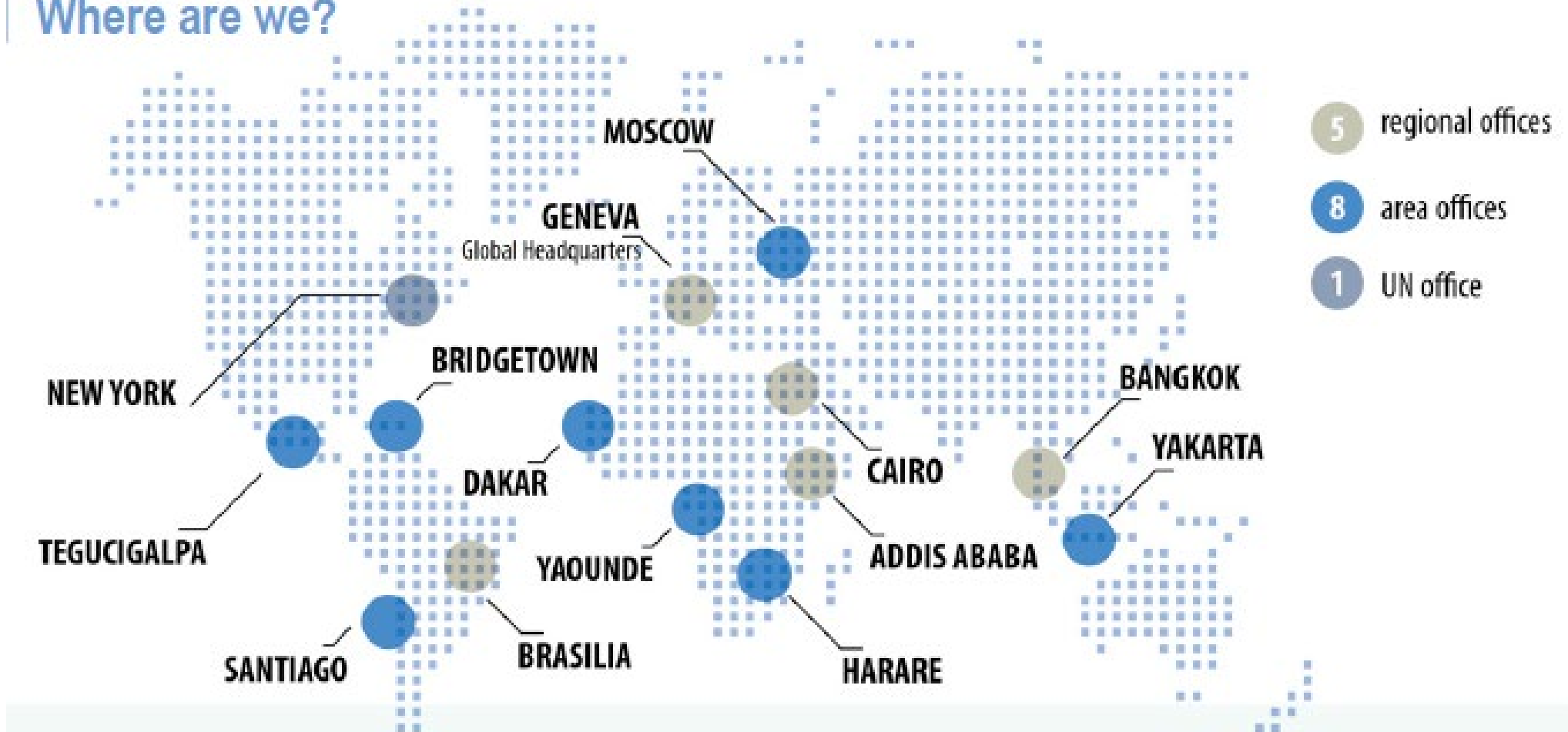


# International Telecommunication Union



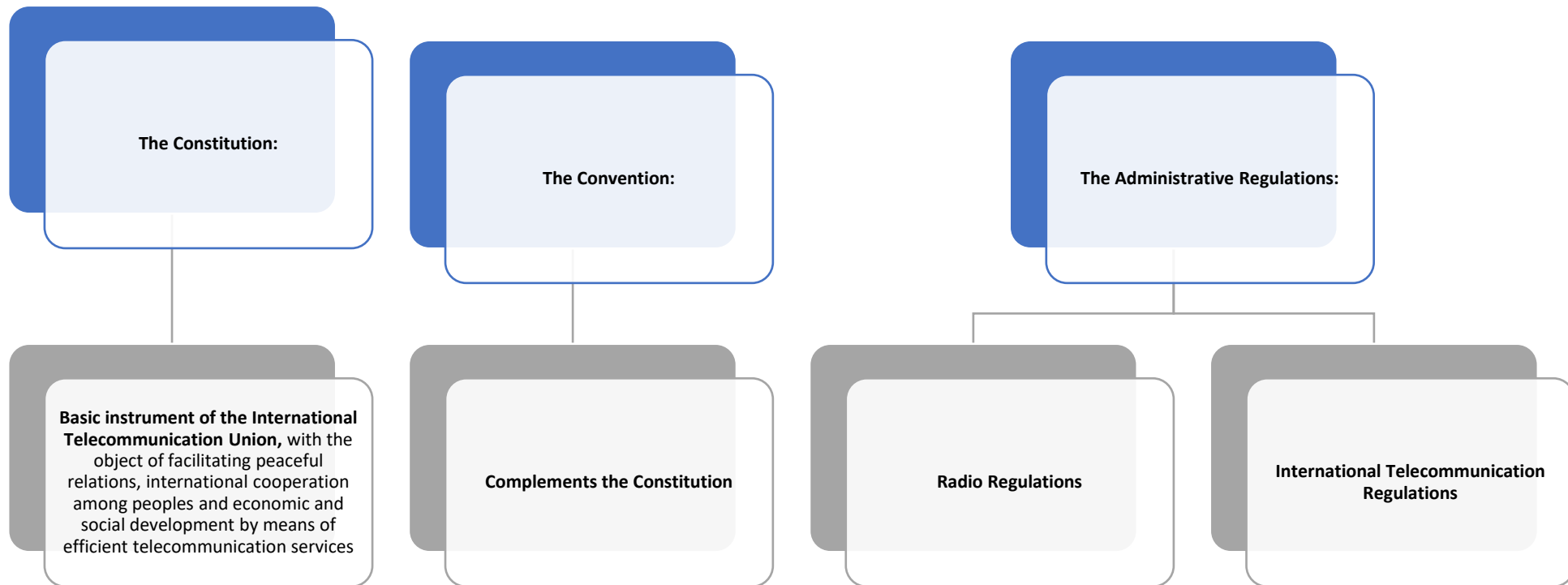
# ITU Locations

Where are we?





# Legal Framework (ITU Treaties)

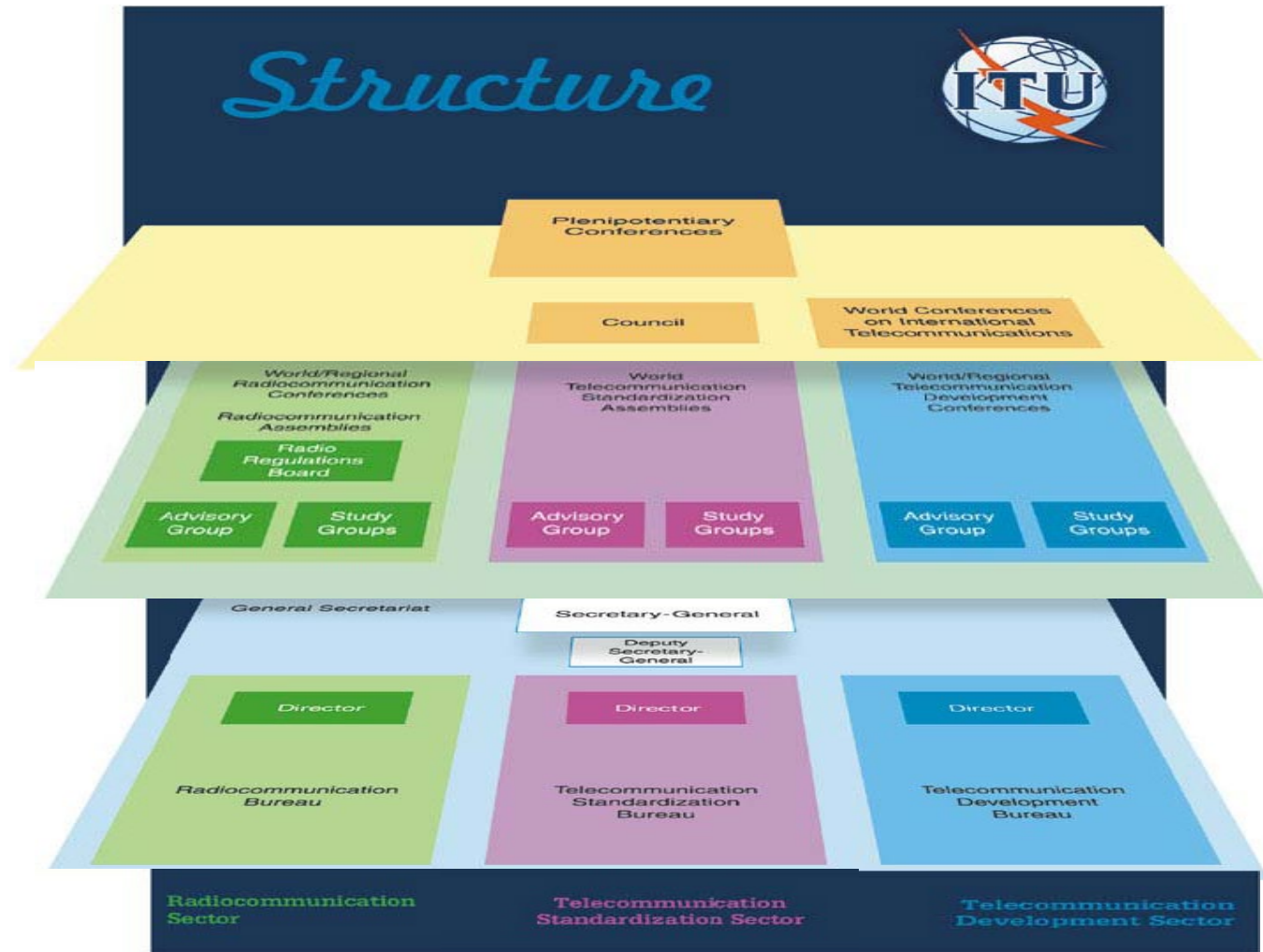




# ITU Structure



Committed to  
Connecting the World



# ITU Leadership



Houlin Zhao  
ITU Secretary General



Committed to  
Connecting  
the World



Malcolm Johnson  
ITU Deputy Secretary General

# ITU Telecommunication Standardization Sector



Committed to  
Connecting the World

## KEY ROLE

Crucial role in **defining operation and interoperability of technologies** that underpin global communications network

**200 - 300** new global standards approved every year, with over **4,000** in use today

Standards enable global communications by ensuring ICT networks and devices **speak the same language globally.**



Chaesub Lee, Director  
ITU Telecommunication  
Standardization Bureau



# ITU Telecommunication Development Sector



Committed to  
Connecting the World

## KEY ROLE

Spread equitable and affordable **access to telecommunications** to help stimulate social and economic development

**Human capacity-building** in developing and least developed countries (LDCs)

Helps to ensure that people everywhere are empowered **to reap the benefits that connectivity delivers**



Doreen Bogdan-Martin, Director  
ITU Development Bureau



# ITU Radiocommunication Sector



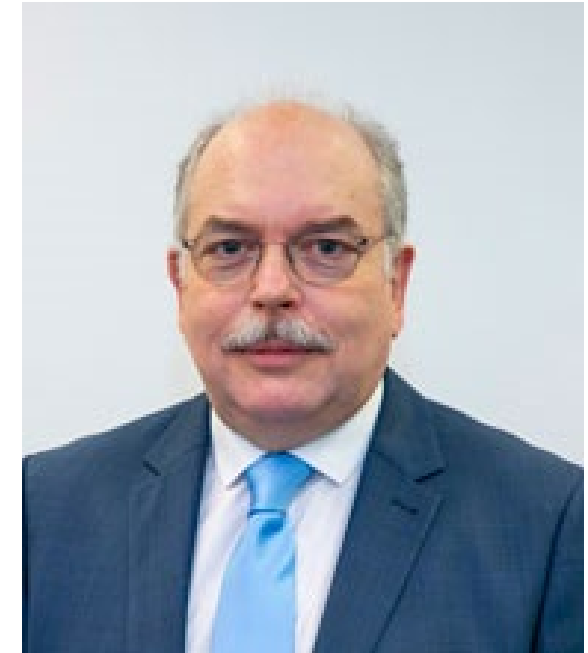
Committed to  
Connecting the World

## KEY ROLE

Global management of **radio-frequency spectrum** and, for space stations, their associated **satellite orbits**

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

Carrying out **studies** and adopting **recommendations** on radiocommunication matters



Mario Maniewicz, Director  
ITU Radiocommunication Bureau





# ITUPP

BUCHAREST2022

26 September - 14 October 2022  
Bucharest, Romania







Doreen  
Bogdan-Martin  
ITU Secretary  
General-elect  
(2023-2026)



Tomas  
Lamanauskas  
ITU Deputy  
Secretary  
General-elect  
(2023-2026)





Newly Elected  
or Re-elected  
ITU Directors  
of the BR, BDT  
and TSB for  
2023 - 2026

## Other PP-22 Results

### 1. New Radio Regulations Board

- 5 Returning members
- 7 New members

### 2. ITU Council

- 48 Member States elected

### 3. New ITU Strategic and Financial Plans

- More than 12 additional contributory units pledged





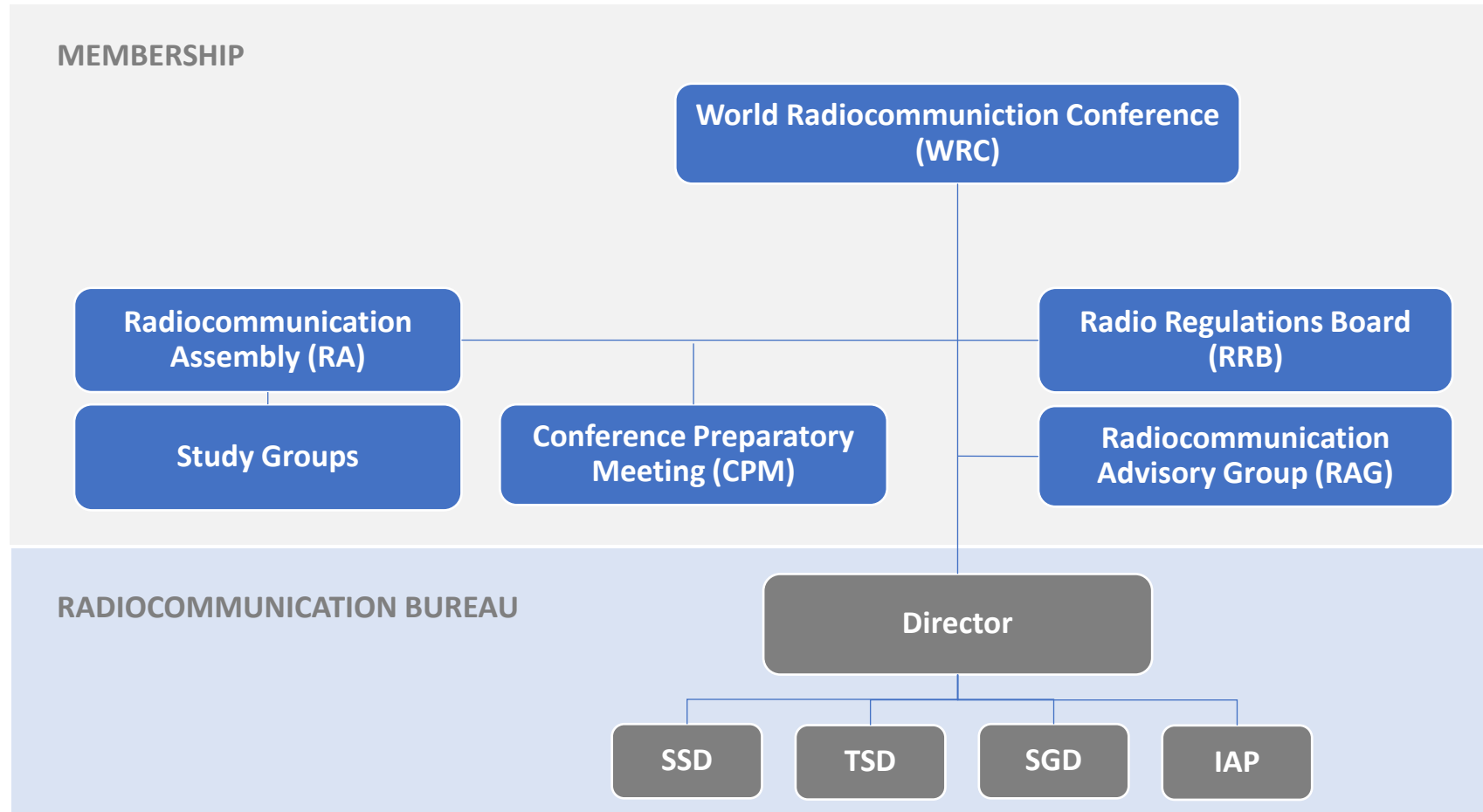
## ITU Radiocommunication Sector

- Developing and updating international regulations and regional agreements on the use of **spectrum** and associated **orbits**
- Applying these regulations
- Developing **standards and best practices** on the use of spectrum
- Disseminating information on these regulations, standards and best practices





# ITU-R Structure



# ITU-R Membership by the Numbers

193

MEMBER  
STATES



299

PRIVATE SECTOR  
ORGANIZATIONS



166

ACADEMIA  
MEMBERS



# World Radiocommunication Conferences (WRC)

WRCs 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





# 2023 World Radiocommunication Conference

- WRC-23 will be held from 20 November – 15 December 2023 in Dubai, United Arab Emirates
- Preceded by the 2023 Radiocommunication Assembly (RA-23) on 13 - 17 November 2023
- Followed by the 1<sup>st</sup> Conference Preparatory Meeting for the WRC-27 (CPM27-1)



# Radiocommunication Assembly (RA)

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

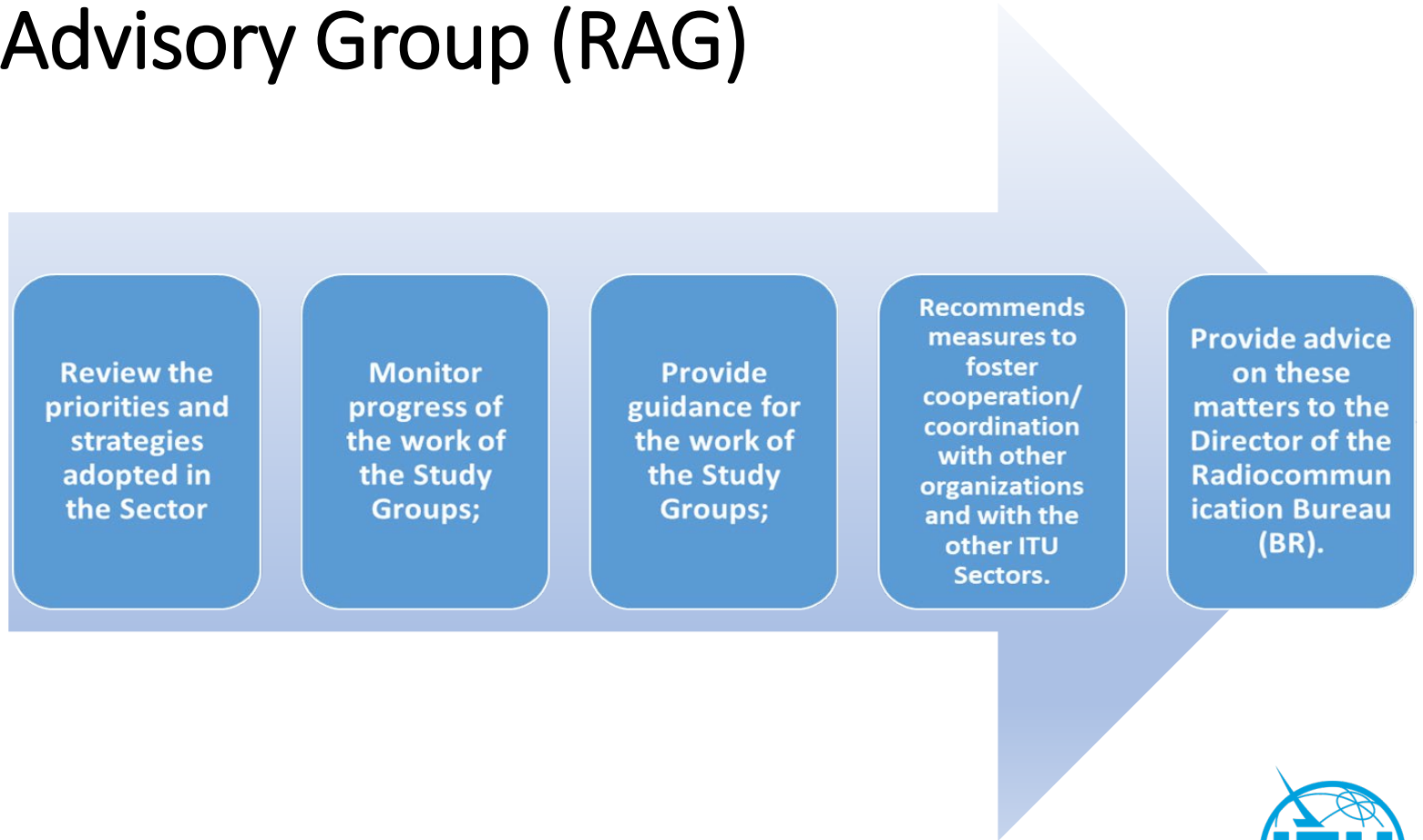
- Establishing structure and mandates for ITU-R Study Groups
- Adopting ITU-R Study Questions
- Establishing the working methods of the ITU-R
- Electing leadership of ITU-R Study Groups and RAG
- Responding to requests from ITU conferences
- Approving ITU-R Recommendations

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





# Radiocommunication Advisory Group (RAG)





# 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**

# The ITU Radiocommunication Bureau (BR)



The work of the ITU-R is supported by the Radiocommunication Bureau, under the management of the Director of the BR.

The role and activities of the BR are established and described in the ITU Constitution and Convention.

This section describes the role and work of the BR in supporting and carrying out the functions of the ITU-R.

# ITU RADIOCOMMUNICATION BUREAU (BR)



Mario MANIEWICZ, Director  
ITU Radiocommunication  
Bureau

## **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 Study Groups;
- ❖ Applies the provisions of the RR and various Regional Agreements;
- ❖ Records frequency assignments of space networks, with their associated orbital characteristics, and terrestrial stations in the Master International Frequency Register (MIFR) and Frequency Plans and maintains these databases;
- ❖ Coordinates the preparation, editing and dispatch of circulars, documents and publications developed within the Sector;

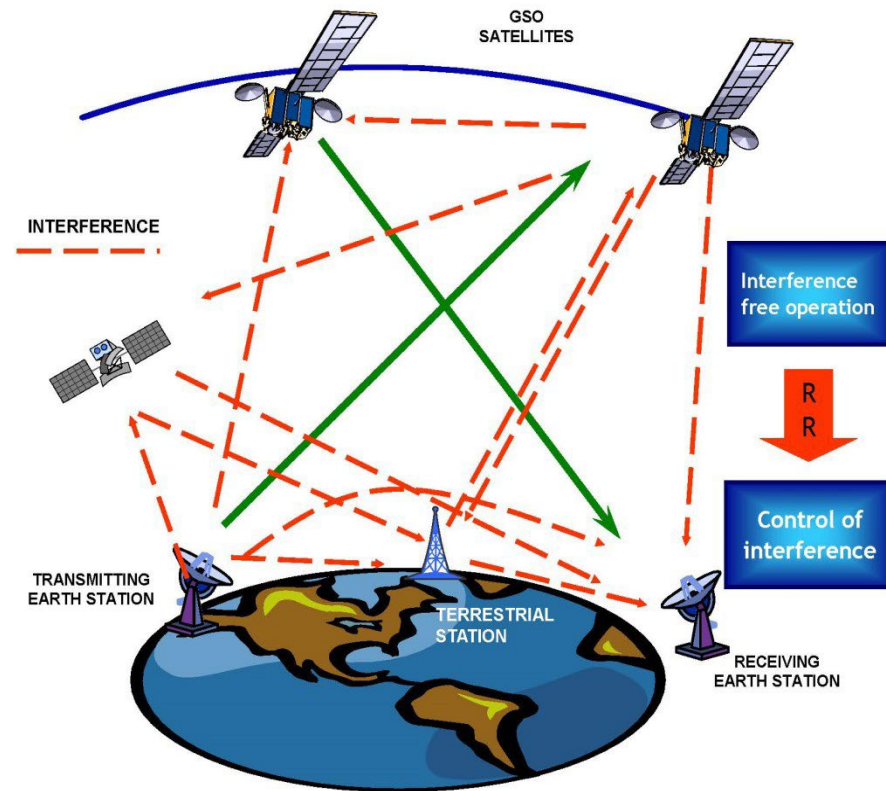
# Space Services Department (SSD)

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).

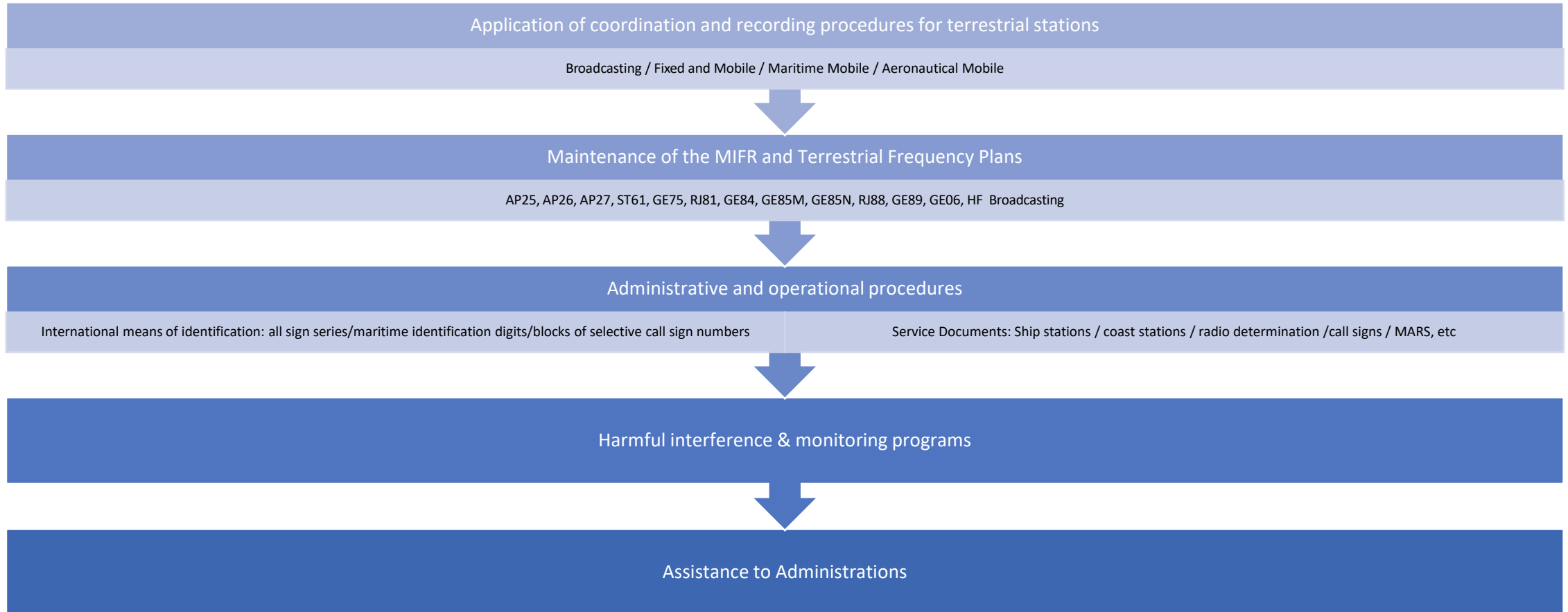
Procedures for space-related assignment or allotment plans

Assistance to administrations on all of the above issues





# Terrestrial Services Department (TSD)



# Study Groups Department (SGD)

## Study Group Activities include:

- ❖ Developing ITU-R Recommendations (*i.e.* standards) applicable to radio services
- ❖ Developing ITU-R Technical Reports and Handbooks and their updates
- ❖ Performing technical studies in preparation for the ITU-R Conferences

## Study Group Department activities include:

- ❖ Organizing and supporting the holding of RAs and CPMs
- ❖ Organizing Inter-regional Workshops in preparation for WRCs
- ❖ Providing Secretariat support for the ITU-R Study Groups and their Working Parties and Task Groups
- ❖ Capacity-building activities, including supporting the regional preparatory activities for RAs and WRCs
- ❖ Cooperating with external organizations, industry and academia on standardization activities



# INFORMATICS, ADMINISTRATION AND PUBLICATIONS (IAP) DEPARTMENT

## 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
- ❖ Strategic Communications, in coordination with ITU Corporate Communication
- ❖ 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)

Administration, Membership and Strategic  
Communications Division (AMSC)

# Thank you!

ITU – Radiocommunication Bureau

Questions to [brmail@itu.int](mailto:brmail@itu.int)



# BACKUP SLIDES

# 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)

# Study Groups Publications

Since RAG-21, the ITU-R Study Groups publications continued to be developed in accordance with Resolution ITU-R 1-8.

- ITU-R Questions
- ITU-R Recommendations
- ITU-R Reports
- ITU-R Handbooks

