

# Introduction to



# Structure and Processes

**Bharat B Bhatia**

President, ITU-APT Foundation of India

Vice Chair, Asia Pacific, World Wireless Research Forum (WWRF)

Chair, ITU-R WP5D Group on Industrial 5G

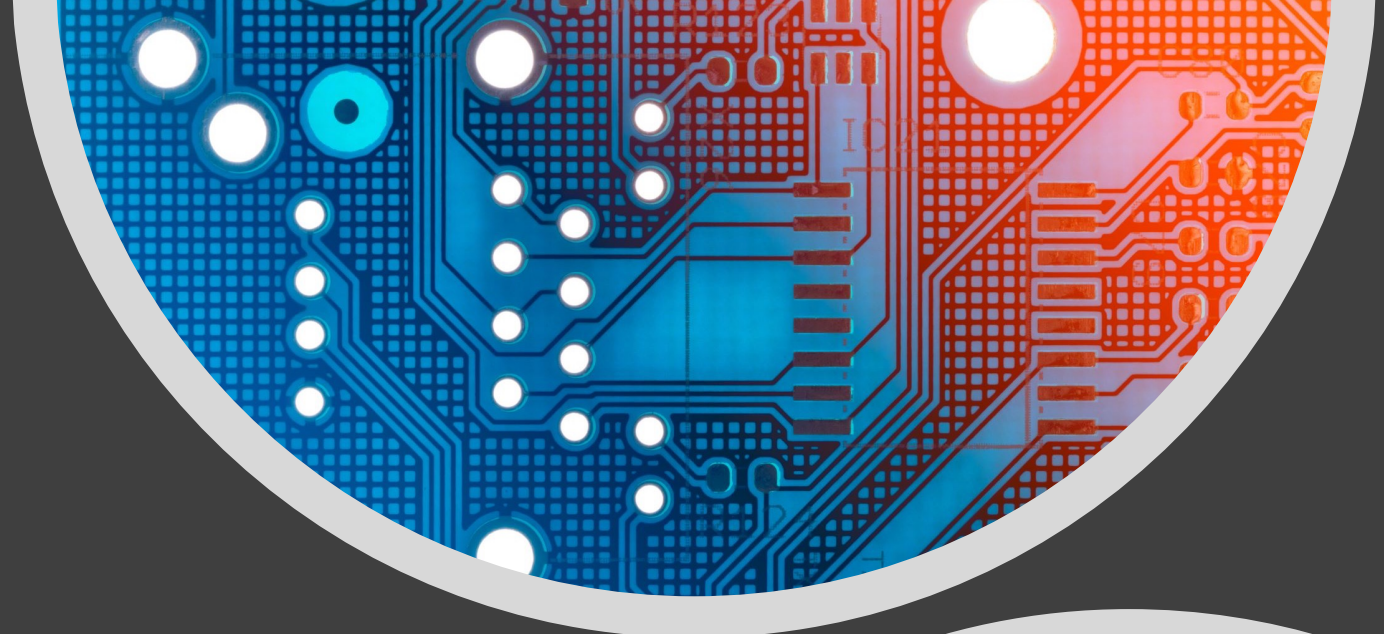
Chair, AWG Task group on PPDR

Member Steering Board WWRF



# Agenda

1. Introduction to ITU and its Structure
2. ITU Plenipotentiary Conference
3. ITU Radiocommunications Sector
4. ITU Telecom Standardization Sector
5. ITU Telecom Development Sector



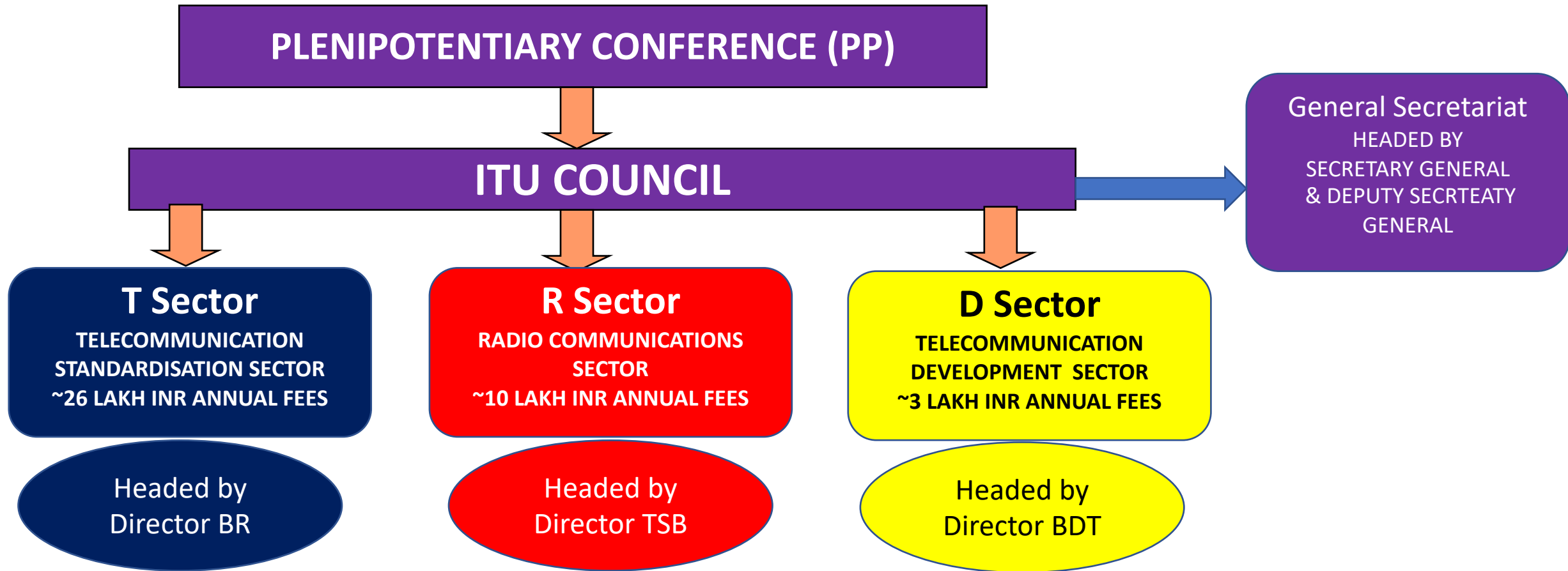


# International Telecommunication Union

- Created in 1865, based in Geneva, 193 Member States, around 900 private-sector entities and academic institutions
- 12 regional offices, about 700 staff
- ITU is structured into three operational Sectors and the General Secretariat:
  - ITU-R - Radiocommunications -> *global radio spectrum management and radiocommunication standardization*
  - ITU-T - Standardization -> *standardization of wireline networks, service aspects*
  - ITU-D – Development -> *assistance in the extension of ICTs to all the world's inhabitants, narrowing the digital divide*



# ITU STRUCTURE



ONE MEMBERSHIP FOR MEMBER STATES FOR ALL THREE SECTORS – FEES BASED ON NUMBER OF UNITS OPTED (1 unit ~ 2.6 cr INR)  
Separate membership for each sector for companies & academia (sector members)



**ITU  
PLENIPOTENTIARY  
CONFERENCE**

# PLENIPOTENTIARY CONFERENCE

**ITU PP**  
BUCHAREST<sup>2</sup> 022

26 September - 14 October 2022  
Bucharest, Romania

**ITU PP**  
*supreme organ of the Union*  
(CS, Art.7)



Determines the  
general policies for  
fulfilling the purposes  
of the Union

Elects the  
management team  
of the Union, the Council Member  
States and RRB Members

Amends CS & CV  
Adopts the  
Financial Plan &  
Strategic Plan

Held every

**4**

years

During

**3**

weeks

Attending

**+2000**

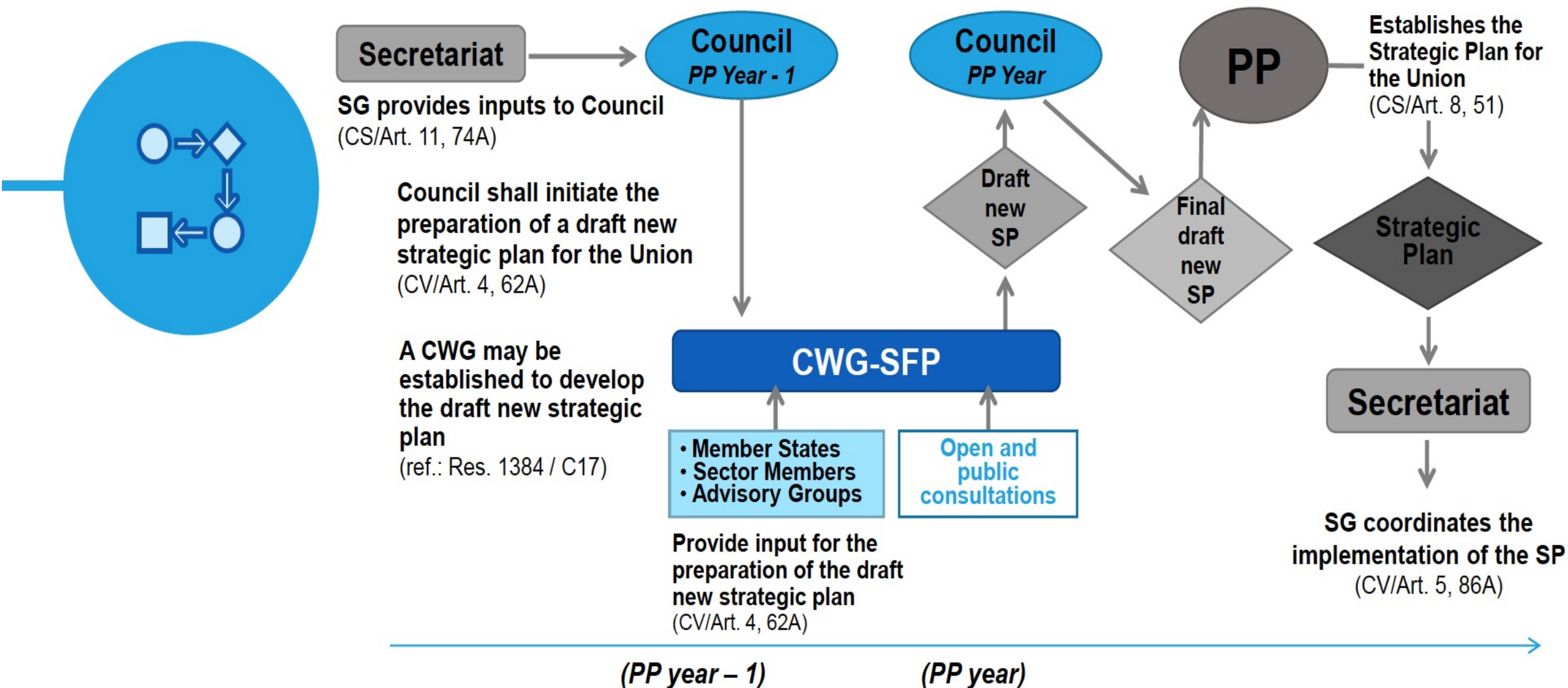
participants

- ✓ Elect the Member States which are to serve on the Council;
- ✓ Elect the Secretary-General, the Deputy Secretary-General and the Directors of the Bureaux of the Sectors as elected officials of the Union;
- ✓ Elect the members of the Radio Regulations Board

# Important dates regarding PP-22



# Process for the development of the Strategic Plan





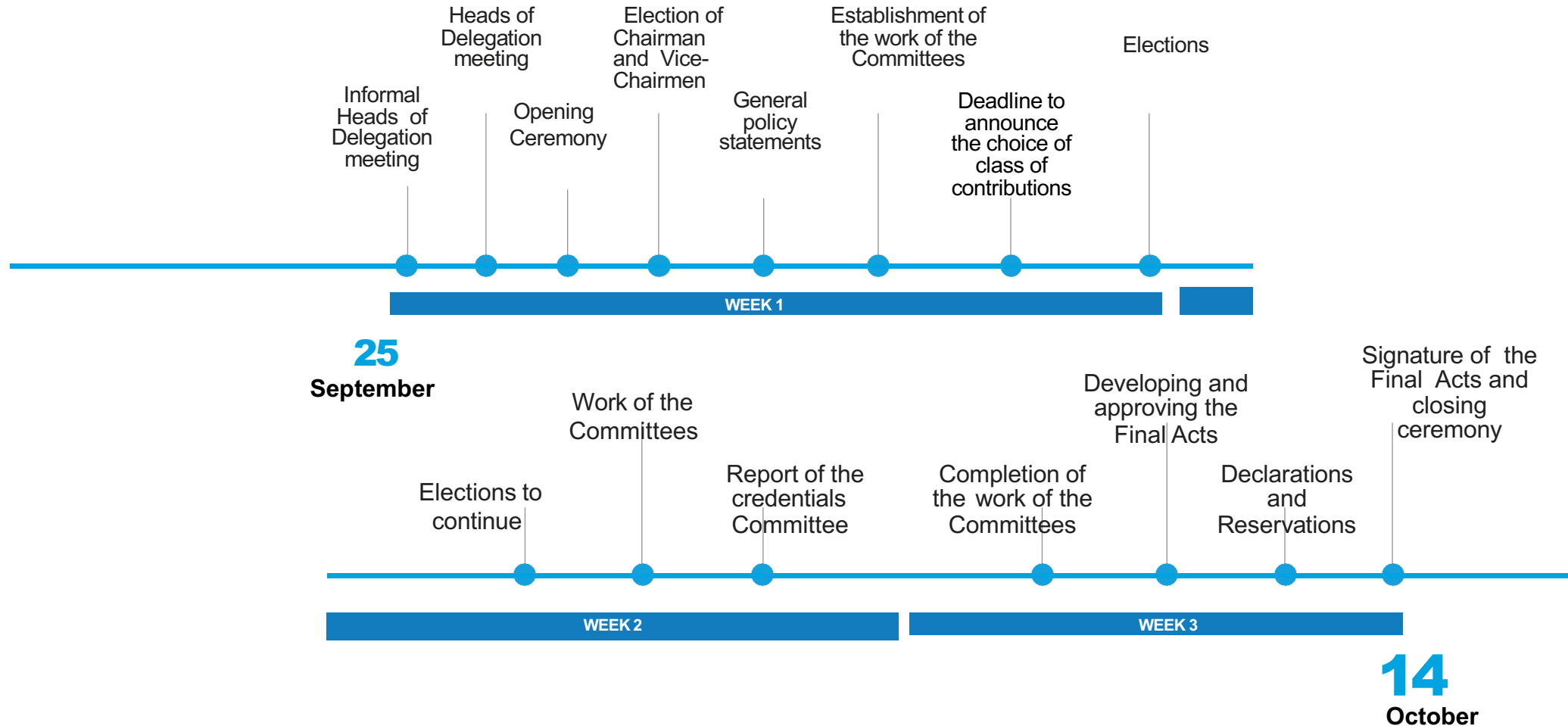
# Structure of ITU Plenipotentiary Conference

## Based on PP - 2018

COMMITTEE 1	COMMITTEE 2	COMMITTEE 3	COMMITTEE 4	COMMITTEE 5	COMMITTEE 6	WORKING GROUP OF THE PLENARY (WG-PL)
Steering Committee	Credentials	Budget	Editorial	Policy and legal issues	Administration and management	Issues related to public policies
						

# PP-22 Conference timeline

26 September – 14 October



# ELECTIONS

**ITU****PP**

PLENIPOIENTIARY CONFERENCE

*supreme organ of the Union  
(CS, Art. 7)*



# ANNOUNCED CANDIDATES FOR ELECTED OFFICIALS

## Secretary General



**Ms Doreen BOGDAN-MARTIN**

- Country: United States
- Region A: The Americas
- [CV and Vision Statement](#)
- [Brochure](#)
- [Campaign Video](#)



**Mr Rashid ISMAILOV**

- Country: Russian Federation
- Region C: Eastern Europe and Northern Asia
- [CV and Vision Statement](#)
- [Brochure](#)

## Director BR



**Mr Mario MANIEWICZ**

- Country: Uruguay
- Region A: The Americas
- [CV and Vision Statement](#)
- [Brochure](#)

No Candidate as yet  
for Director of the  
BDT

## Deputy Secretary General



**Mr Tomas LAMANAUSKAS**

- Country: Lithuania
- Region B: Western Europe
- [CV and Vision Statement](#)
- [Brochure](#)
- [Campaign Video](#)



**Dr Chaesub LEE**

- Country: Korea (Rep. of)
- Region E: Asia and Australasia
- [CV and Vision Statement](#)
- [Brochure](#)
- [Campaign Video](#)

## Director TSB



**Mr Seizo ONOE**

- Country: Japan
- Region E: Asia and Australasia
- [CV and Vision Statement](#)



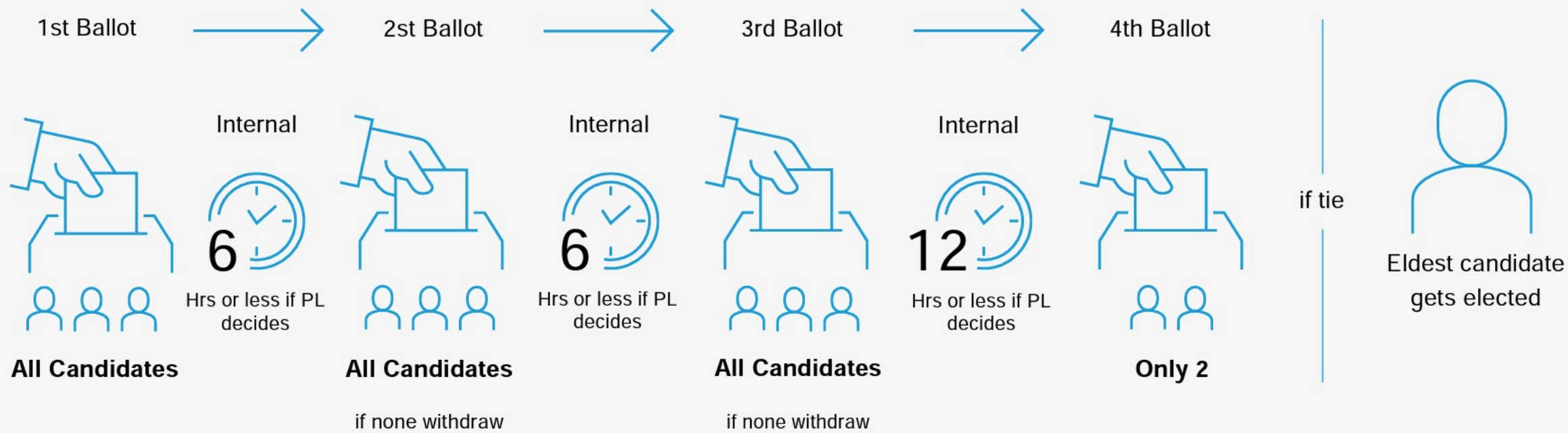
**Dr Thomas ZIELKE**

- Country: Germany
- Region B: Western Europe
- [CV and Vision Statement](#)
- [Brochure](#)



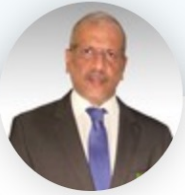
# ELECTIONS PROCESS

## For Elected Officials



# Announced Candidates for RRB in Asia

## Region E: Asia and Australasia (3 seats)



**Mr Majed ALKAHTANI**

🇸🇦 Country: Saudi Arabia

🌐 Region E: Asia and Australasia

📄 [CV and Vision Statement](#)



**Mr Jianjun CHENG**

🇨🇳 Country: China

🌐 Region E: Asia and Australasia

📄 [CV and Vision Statement](#)



**Dr Meiditomo SUTYARJOKO**

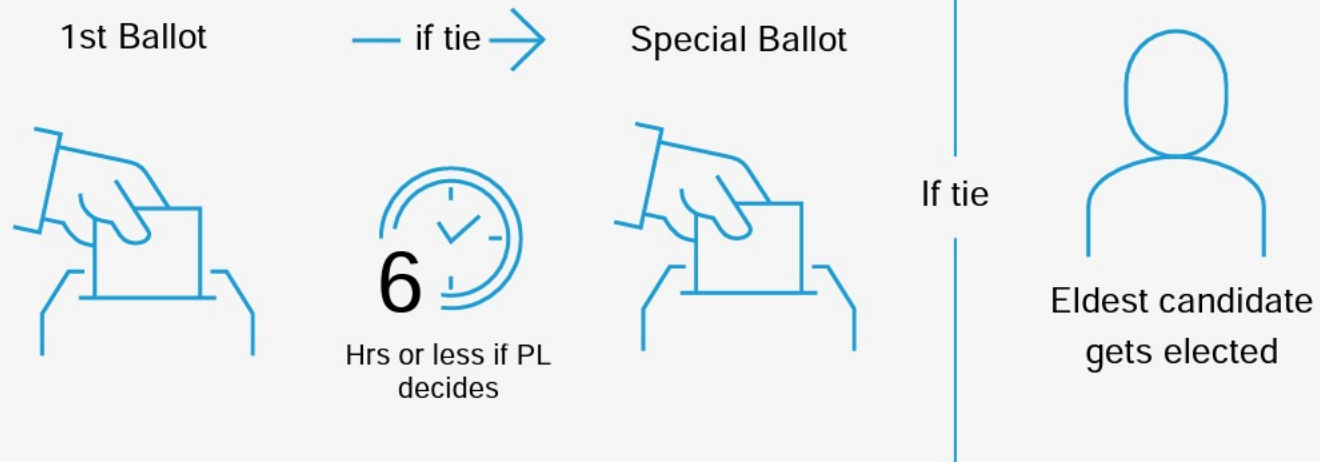
🇮🇩 Country: Indonesia

🌐 Region E: Asia and Australasia

📄 [CV and Vision Statement](#)

# ELECTIONS PROCESS

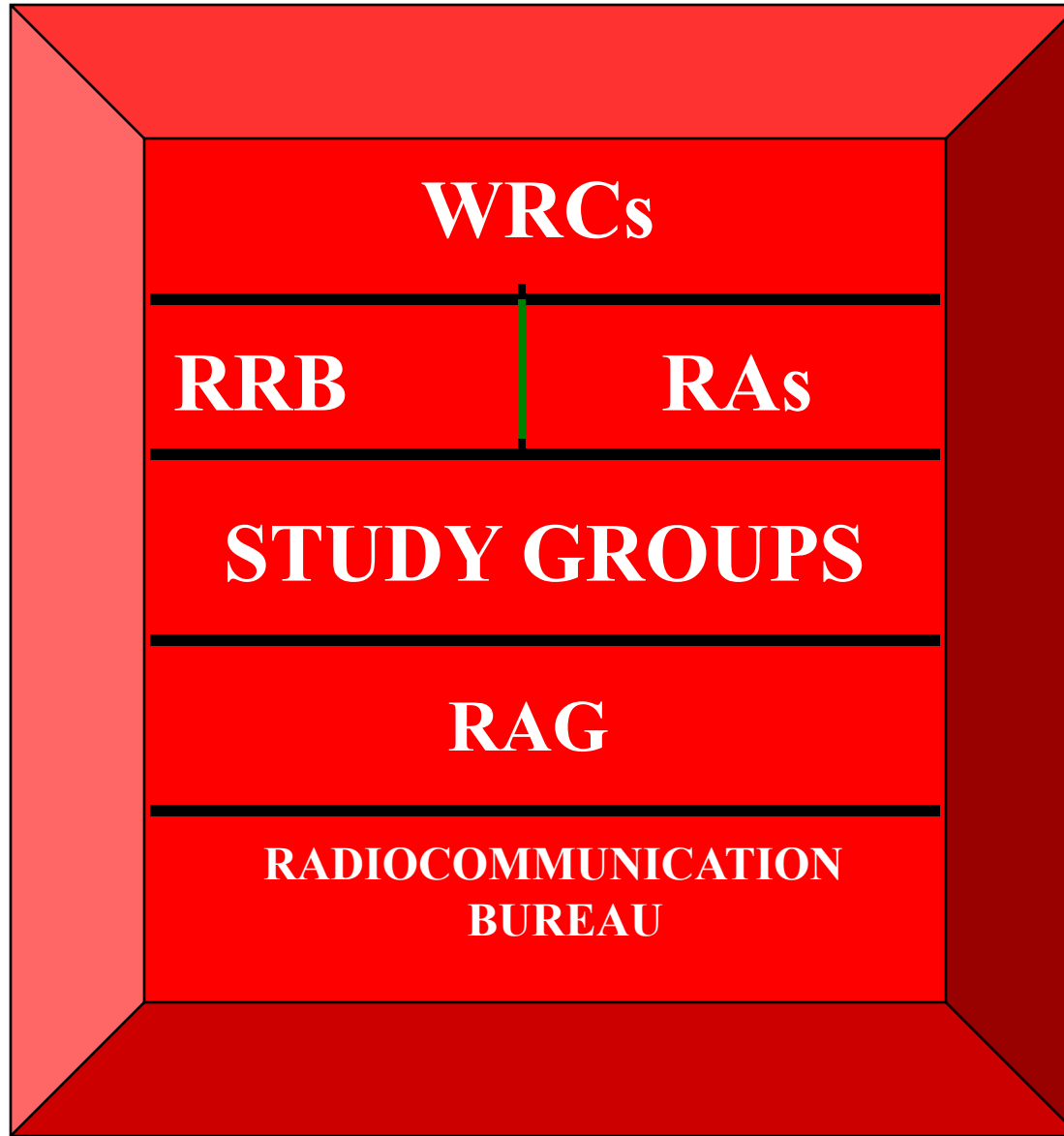
## For RRB Members elections



**ITU-R**  
**Radiocommunications**  
**Sector**



# Structure of ITU Radio Sector

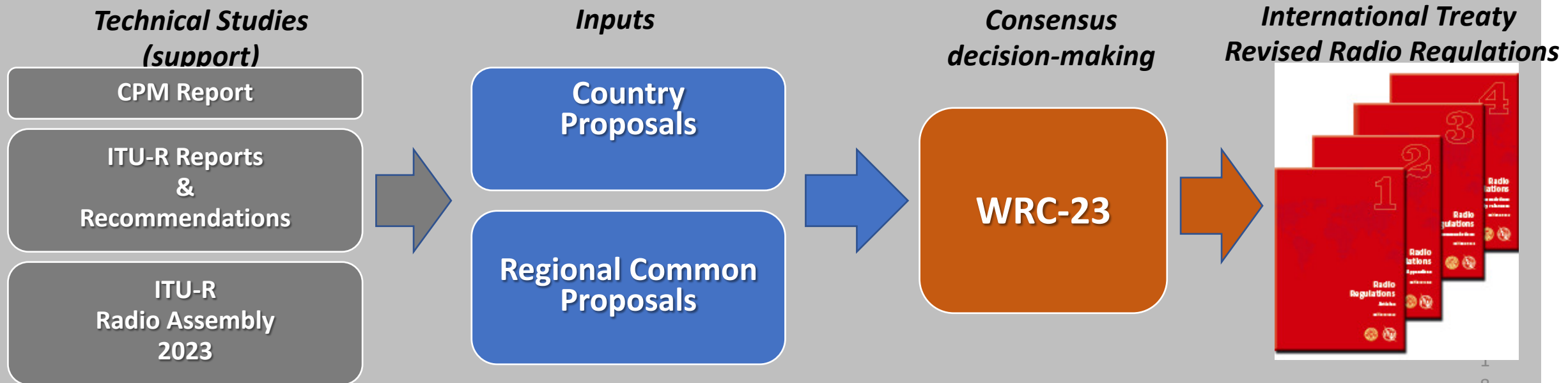


- **World Radio-communication Conference**
- **Radiocommunication Assembly**
- **Radio Regulations Board (RRB)**
- **Radio Advisory Group (RAG)**
- **ITU-R Study Groups: 1, 3, 4, 5, 6, 7, SC**
- **Radio Bureau (BR)**

# ITU World Radio Conferences decide which service gets what Frequency spectrum

- WRC is a Global conference organized by the ITU every 3-4 years to update Radio Regulations, the international legal treaty governing the use of the radio-frequency spectrum and satellite orbits
- Each WRC prepares the agenda for the next WRC and initiates a new study cycle, in preparation for the next WRC. Technical Studies for WRC Agenda items are done by ITU-R Study Group and are presented in the CPM Report to administrations and the WRC.

## High level process diagram of WRCs:

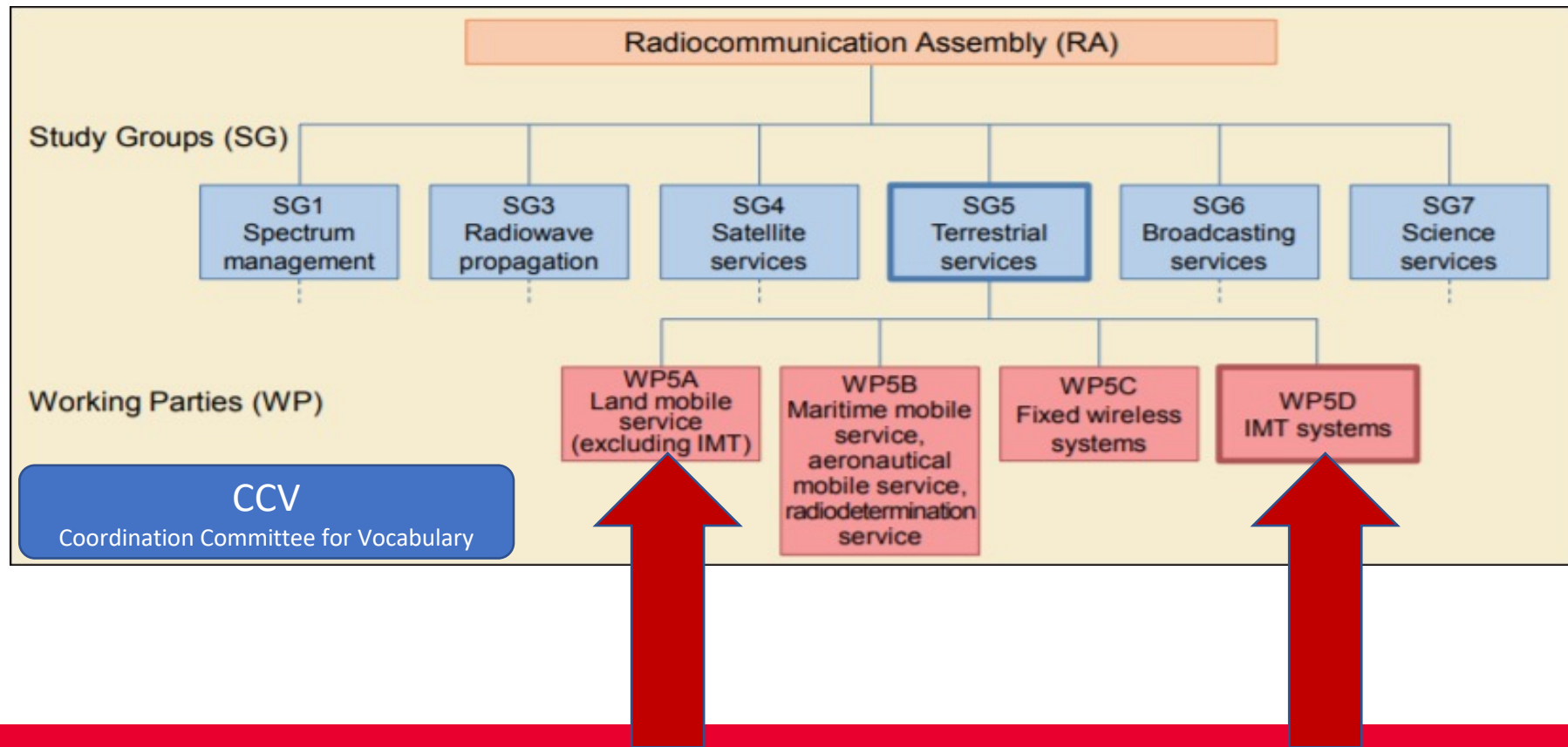


# Radio Regulations (RR)

- The Radio Regulations (RRs) have the status of a global *treaty*
- The RRs are a **Compilation of rules and procedures for use of spectrum internationally.**
  - Frequency block allocations to defined radio services in Article 5
  - Mandatory or voluntary **regulatory procedures** (coordination, plan modification, notification, recording) that are adapted to the allocation structure
  - Appendices, Resolutions, Recommendations and ITU-R Recommendations incorporated by reference
- *RRs* incorporate the decisions of the World Radiocommunication Conferences.
- The RRs are **Derived from Final Acts of the WRCs**



# ITU-R Study Group Structure

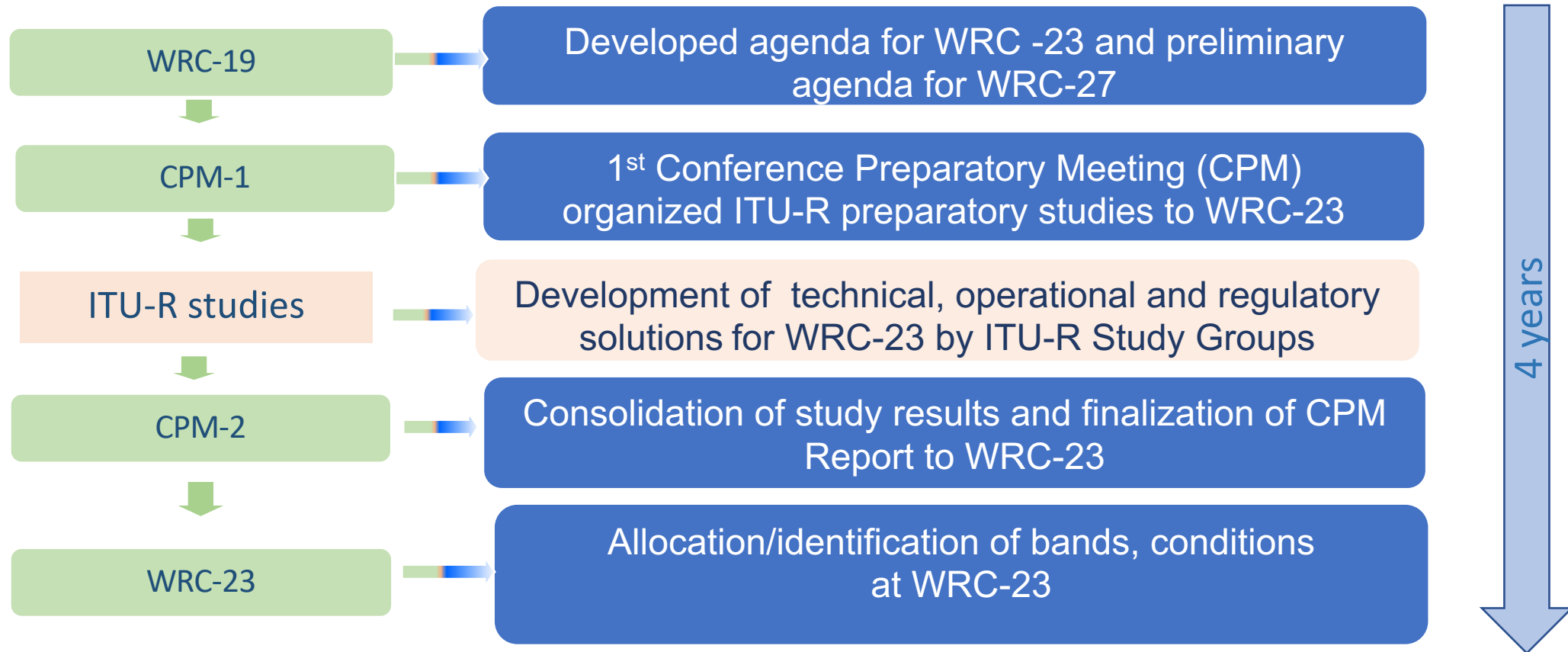


**Study Group 5 is responsible for fixed and mobile wireless technologies**  
**Within SG5, WP5D is responsible for mobile cellular Services, called as IMT is the ITU terminology**





# WRC



# 5G spectrum in mm wave bands above 24 GHz was the most important issue of WRC-19 (1.13)

- **WRC-19** identified in the following bands for IMT:
  - 24.25-27.5 GHz (**26 GHz**)
  - 37-43.5 GHz (**40 GHz**)
  - 45.5-47 GHz & 47.2-48.2 (**50 GHz**)
  - 66-71 GHz for IMT (**70 GHz**)
- A closed-door meeting convened by the Chairman Dr. Badavi to break the deadlock on the power limits and other conditions to protect satellites in the same and adjacent bands reached the main agreement on 5G limits after midnight of Wednesday 20th November after 5 hours of intense closed-door negotiations reached at WRC-19. India Played a crucial role in this.





# **WRC-19 was the First WRC held outside Geneva after 20 years**

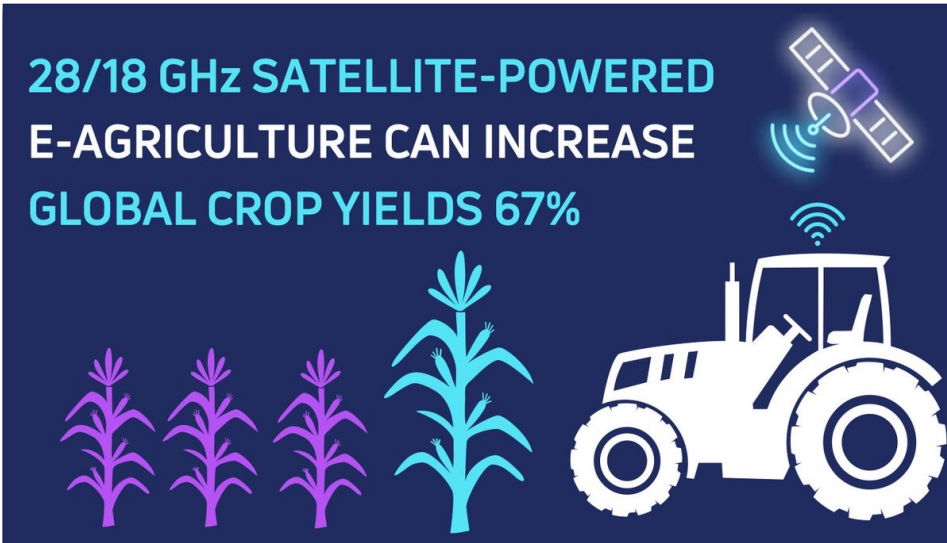
## **WRC-2000 was held in Istanbul, WRC-03, 07, 12 and 15 in Geneva**

Simultaneous work in six languages - English, French, Arabic, Chinese, Russian, and Spanish





WRC-19 also prescribed conditions for use of 18/28 GHz spectrum for Earth Stations in Motion (E-SIM) with suitable provisions to protect Terrestrial 5G and microwave links



The WRC-19 resolution lays out technical and regulatory conditions for any ESIM communicating with a GSO FSS space station within the frequency bands 17.7-19.7 GHz and 27.5-29.5 GHz



# WRC19 decisions on Haps and GSO will bring the Internet to the remote and rural areas that are still not connected

GEO



Altitude 36,000km

LEO



Altitude 1,200km

HAPS



Altitude 20km

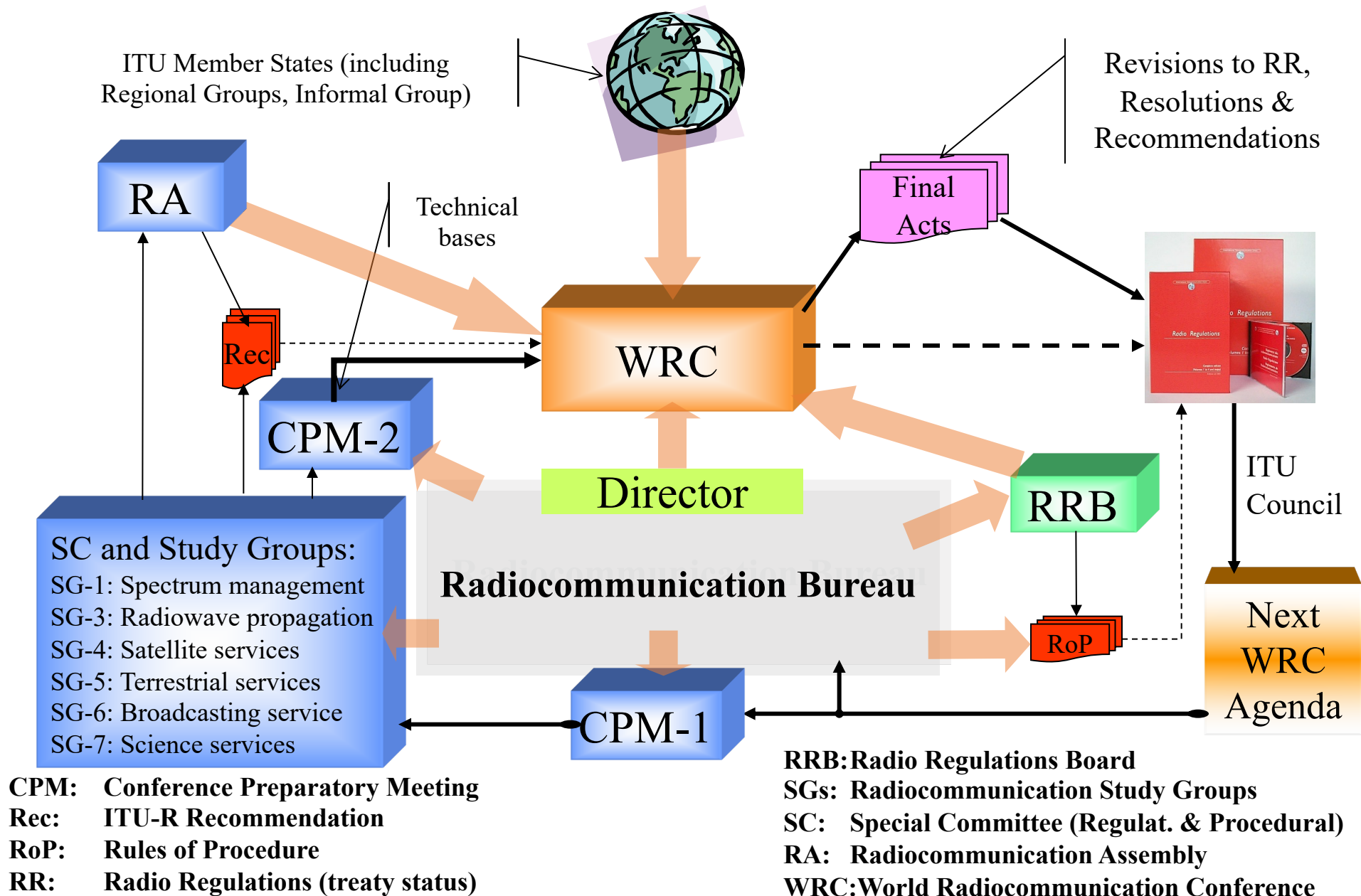


# WRC Decision on satellite filing procedure will spur growth of Small Satellite Constellations



WRC-19 under Agenda Item 7 issue A has established Regulatory procedures for non-geostationary satellite constellations in the fixed-satellite service, opening the skies to next-generation communication capabilities. Mega-constellations of satellites consisting of hundreds to thousands of spacecraft in low-Earth orbit are becoming a popular solution for global telecommunications, as well as remote sensing, space research and education.

# In Summary, ITU Radio Communications Sector (ITU-R)



**ITU-T**  
**Telecom**  
**Standardization Sector**



# ITU-T activities

## Standards

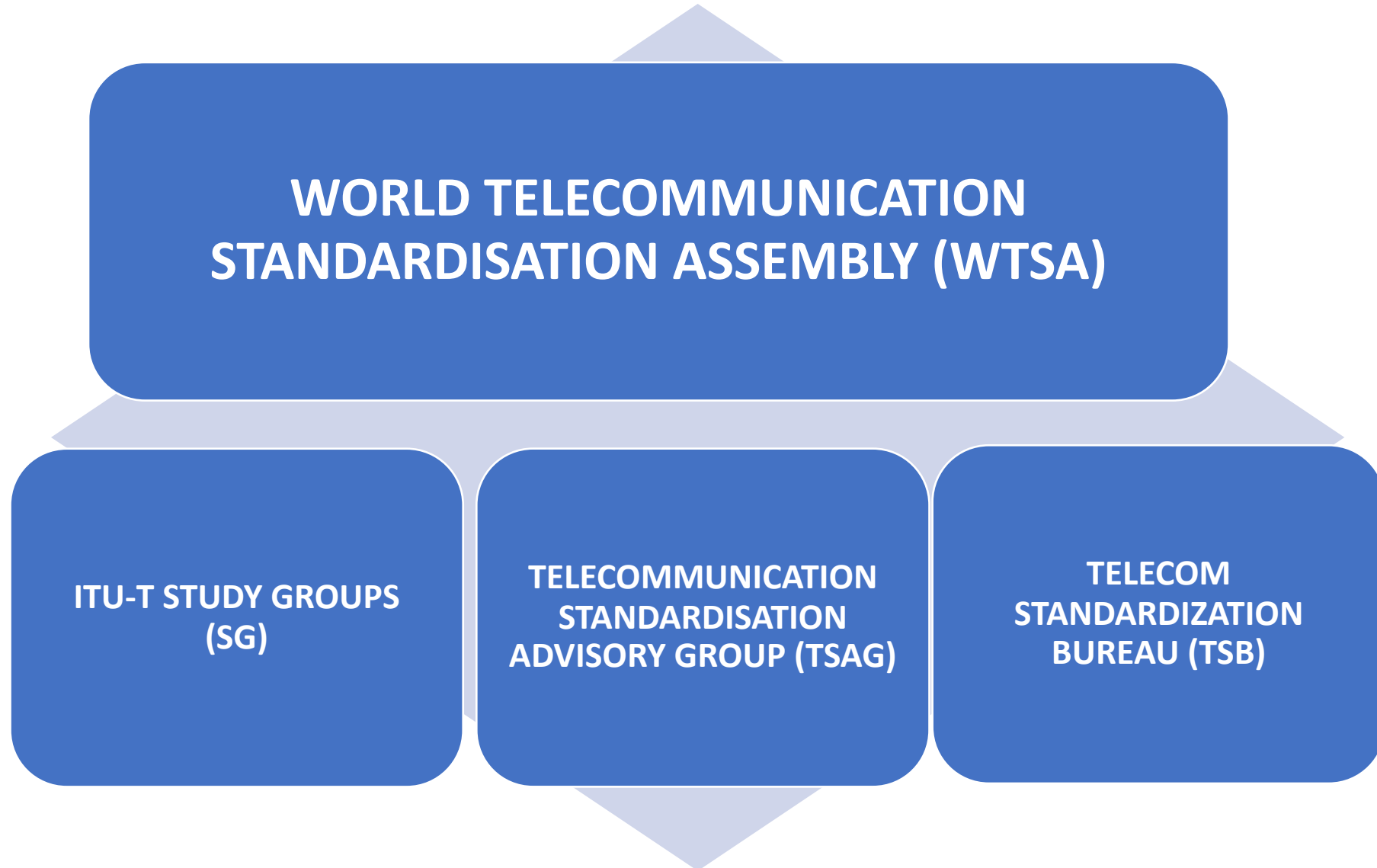
- **Output:** Wireline Standards direction
- **Where:** WTSA Resolutions
- **By whom:** WTSA
- **Contributors:** ITU-T membership, ITU-T Study Groups, Regional Groups, International organisations
- **How:** Member States driven

## Technology

- **Output:** Vision, overall requirements, specifications for all wireline services
- **Where:** ITU-T Reports & Recs
- **By whom:** ITU-T Study groups
- **Contributors:** ITU-T membership, other standard making bodies
- **How:** Industry and Governments driven

**ITU-T develops TELECOM STANDARDS**

# Structure of ITU Telecom Standardisation Sector



# ITU-T STUDY GROUPS

**SG2 - Operational aspects**

**SG3 - Economic and policy issues**

**SG5 - Environment and circular economy**

**SG9 - Broadband cable and TV**

**SG11 - Protocols and test specifications**

**SG12 - Performance, QoS and QoE**

**SG13 - Future networks (& cloud)**

**SG15 - Transport, access and home**

**SG16 – Multimedia**

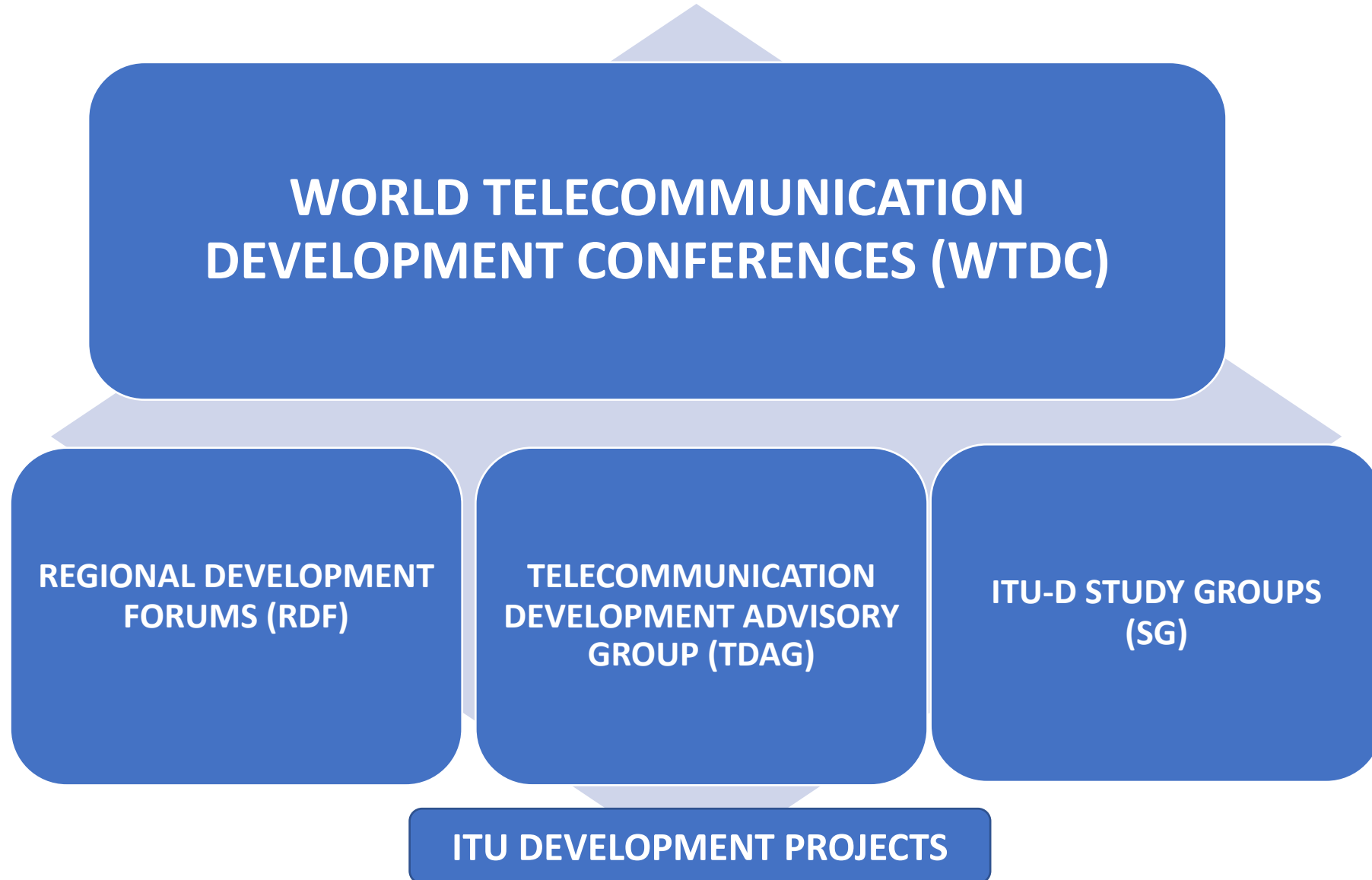
**SG17 – Security**

**SG20 - IoT, smart cities  
& communities**

# **ITU-D Development Sector**



# Structure of ITU Development Sector



# WTDC Preparations



Theme for WTDC-21 – ***“Connecting the unconnected to achieve sustainable development”***



Addition of a new, 2-3 day, Development/Partnership Segment or track with expanded participation, more interactive sessions, and delivering concrete development outputs



Development/Partnership segment should incorporate the HL segment with changes to the approach to policy statements



Development/Partnership segment to target International financial institutions, regional development banks, United Nations System, private sector, and other relevant stakeholders such as youth organizations, representatives from marginalized communities.



Working Group recommends a minimum of two and a maximum of three Inter-regional Meetings, to be held back-to-back with RPMs

# | About WTDC Regional Initiatives

## **Regional initiatives** (RIs)

- adopted in World Telecommunications Development Conferences (WTDC);
- RIs were introduced at the fifth WTDC, held in 2010 in Hyderabad;
- they address specific ICT priority areas, through partnerships and resource mobilization to implement small-, medium- and large-scale projects;
- The current cycle of RIs adopted at WTDC-17 covers the implementation period of 2018 to 2021.
- Under each RI, projects are developed and implemented to meet the region's needs.

## **ITU supports implementation** of RIs within its dual responsibility as:

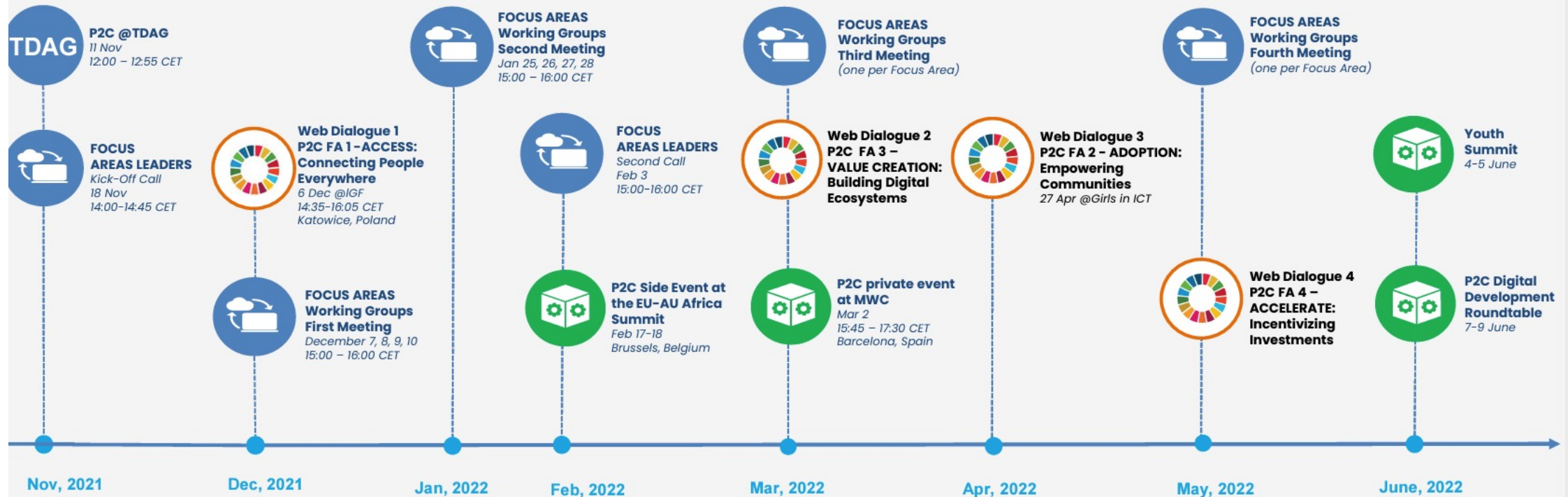
- a United Nations specialized agency
- and executing agency for implementing projects under the UN development system

## ITU can also support to **mobilize financial resources**

- To provide seed funding via ICT-DF funds and Council allocated funds to support implementation of WTD-17 RIs (RI funds)
- to facilitate seeking funding arrangements from third parties (resource mobilization)

# WTDC-21 Preparatory Process

## Time Line



# | ITU Projects

## Delivering impactful products and services

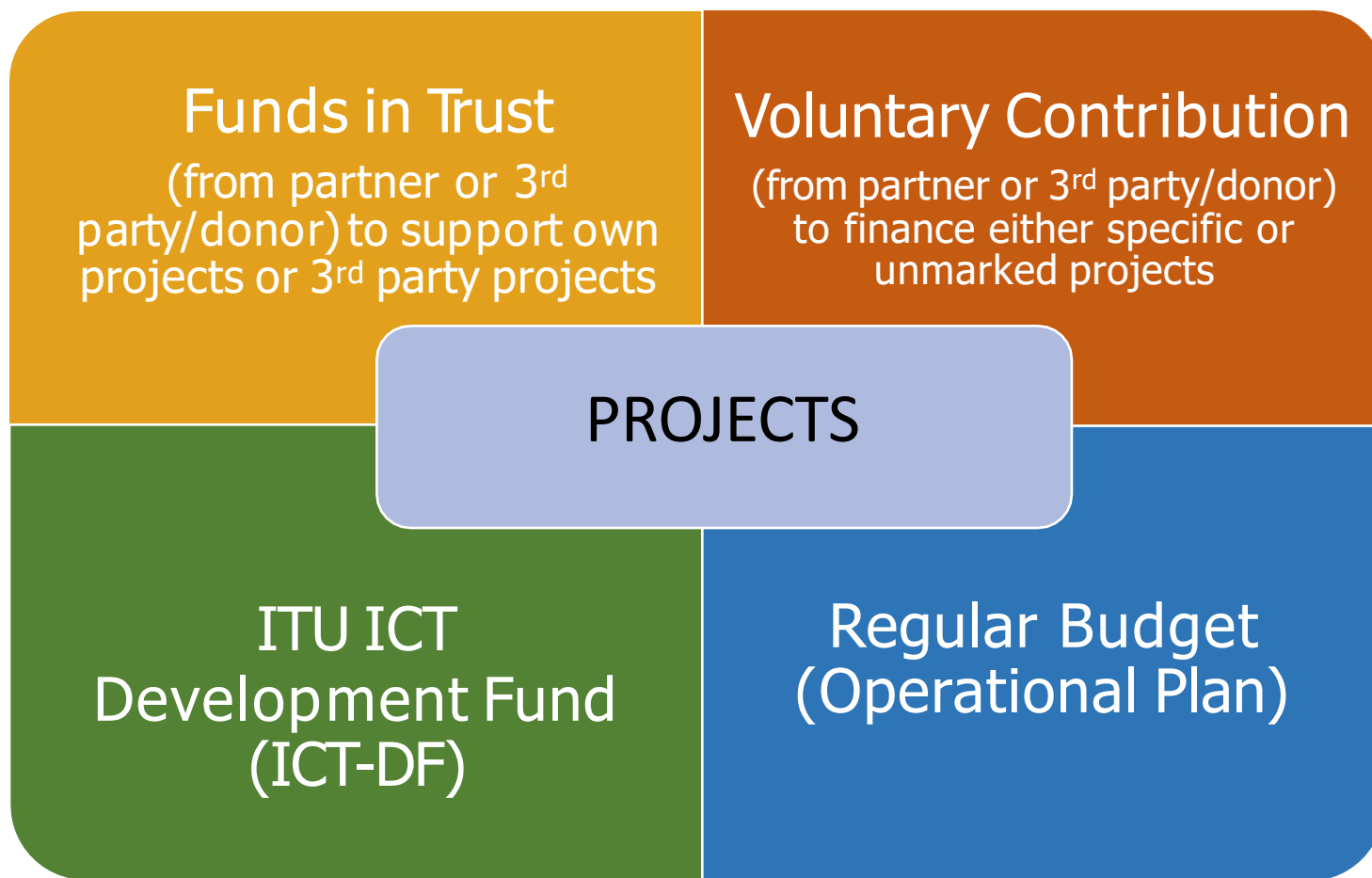
### **Impact**

Mechanism to implement WTDC Outcomes in Member States with sound management and accountability for impact (based on Results Based Management principles).

### **Technical assistance**

ITU projects are a mechanism to provide meaningful **assistance** and **expertise** to ITU Member States in all areas adopted as Thematic Priority and Regional Priority by WTDC through international cooperation and stakeholder partnerships.

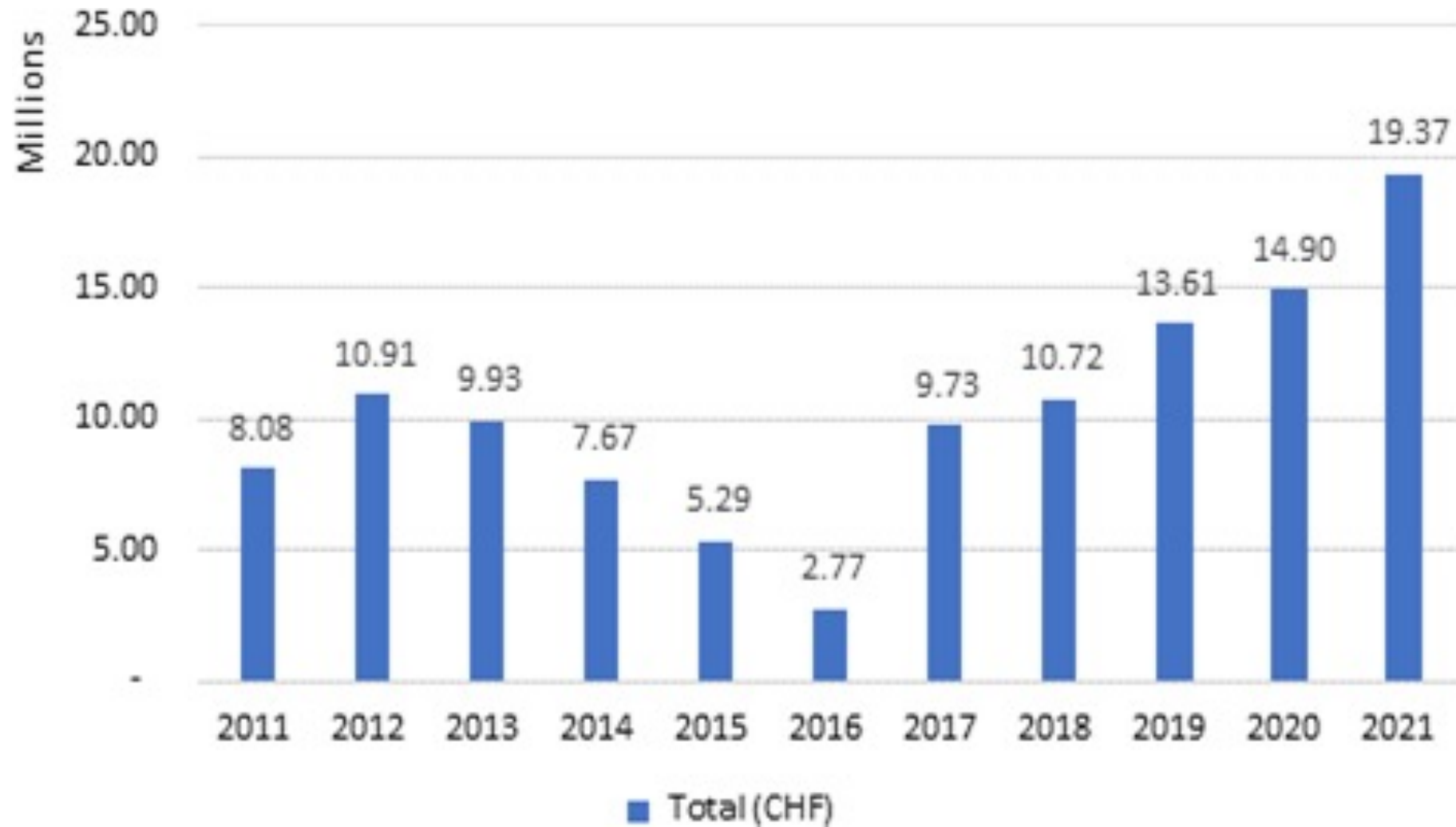
# | Financing Mechanisms for Projects



ITU is not a funding entity, but a specialized agency of the UN and executing agency.

Scope and scale of projects depend on the capacity of beneficiaries and partners to mobilize financial support.

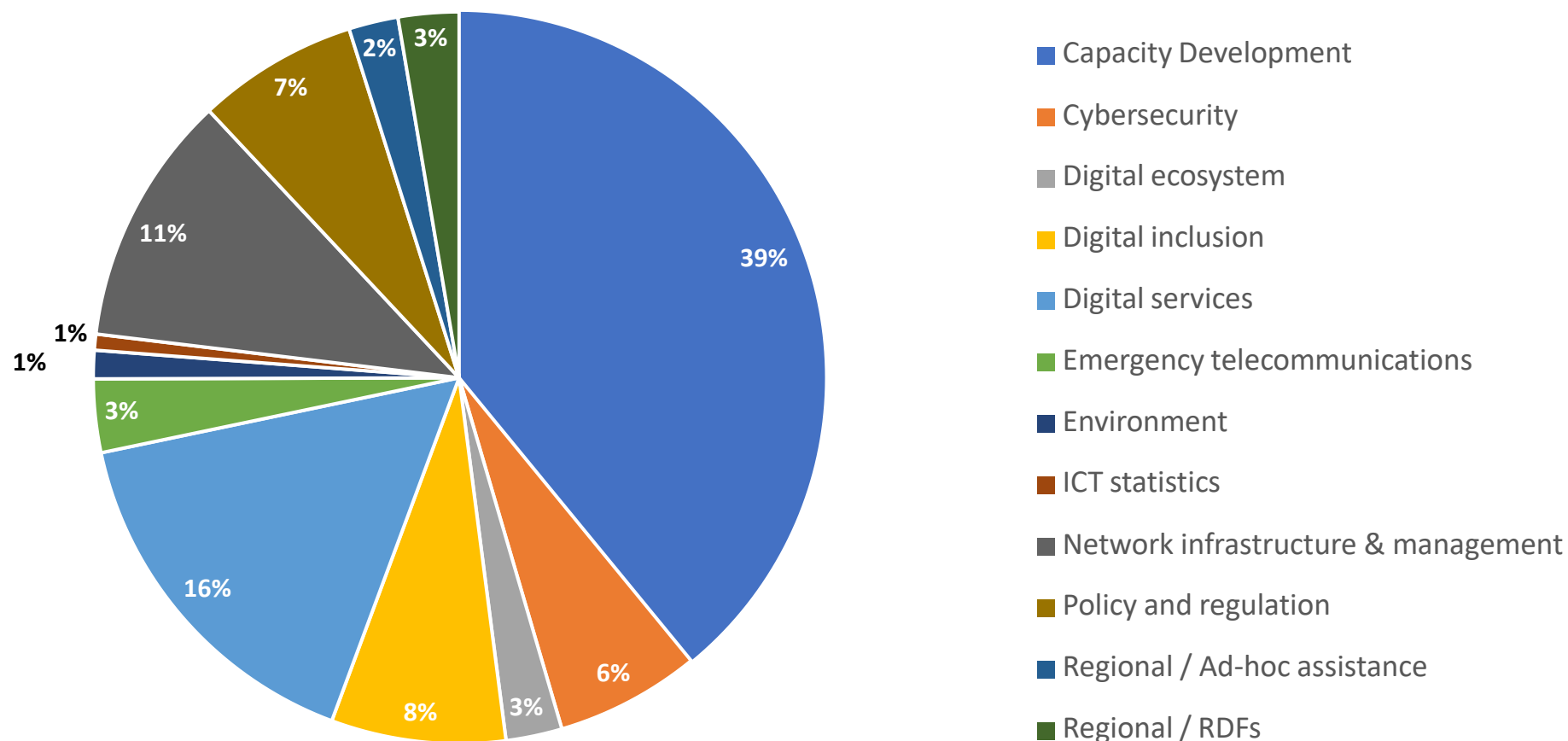
## Resources Mobilized in 2011– 2021(per year)





# ITU projects cover the full range of ITU expertise in digital development

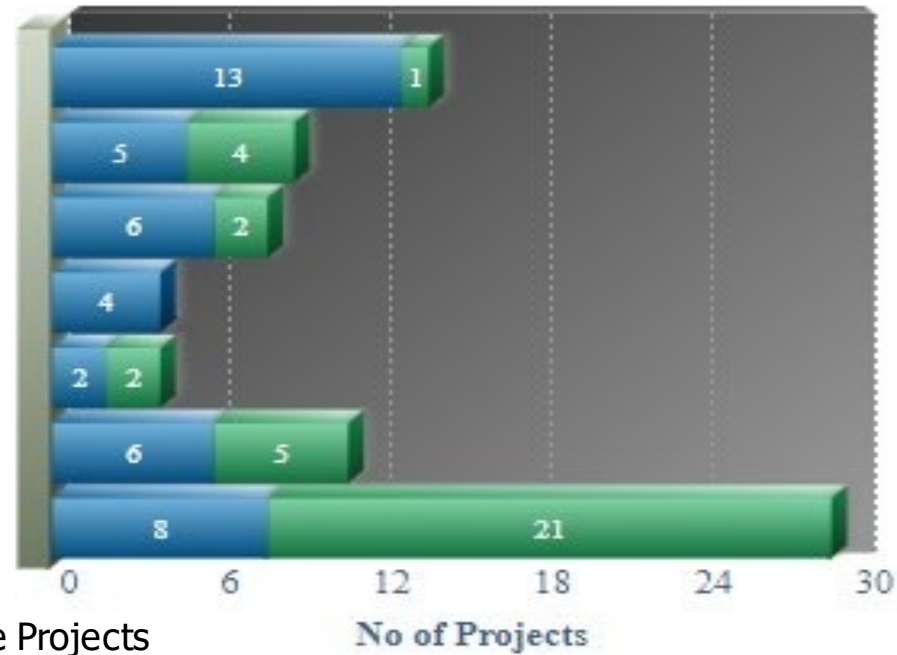
Distribution of projects per BDT Thematic Areas



# Current ITU Project portfolio by Region

## Ongoing Projects

Africa
Arab States
Asia & Pacific
CIS countries
Europe
The Americas
World or Multi-Regional



Regional Initiative Projects

Other Projects

## Overview of WTDC - 17

### Regional Initiatives for ASP

RI	Short name	Regional Initiative
ASP1	LDCs, SIDS and LLDCs	Addressing special needs of least-developed countries, small island developing states, including Pacific island countries, and landlocked-developing countries
ASP2	E-services and Digital Inclusion	Harnessing ICTs to support the digital economy and an inclusive digital society
ASP3	Network and digital infrastructure	Fostering development of infrastructure to enhance digital connectivity
ASP4	Policy and Regulation	Enabling policy and regulatory environments
ASP5	Cybersecurity	Contributing to a secure and resilient environment

## | Strengthening Oversight

In 2021, BDT established a **Projects Board** whose responsibilities include:

- Assessing progress or lack of it on project implementation
- Reviewing newly proposed projects before they are launched
- Providing guidance on challenging situations where there are Issues
- Providing oversight to ensure balanced implementation of Regional Initiatives
- Reviewing reports on closure of projects with the aim of ensuring that ITU procedures and rules are followed and that Member States are satisfied by the results

# Questions

