

# How ITU-T develops Standards

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## What are Standards

- Definitions, Categories of Standards
- Benefits of applying Standards
- Standards versus Regulations , International Standards versus National Standards
- Role of ICT Standards and key ICT Standards Organizations
- How are Standards created: Principles of Standard development
- World Standard Cooperation

## How ITU-T develops Standards

- ITU - Who we are - Our Membership
- ITU-T Objectives , Open Standards
- ITU-T Standards in the Network, Study Groups and ITU-T Structure
- Work Item Life-cycle, Consensus based decision-making in ITU-T
- TAP, AAP, non normative texts
- Key Leadership roles

## Standardization in ITU-T SG15

- Study Group 15 (SG15) mandate
- Lead Study Group
- SG15 Structure
- Working Parties and Questions highlights
- Key Recommendations and future work
- Cooperation with other SDOs

## ITU – Who we are – Our Membership



UN agency for ICT  
Information and  
communication technology

193  
MEMBER STATES

800+  
PRIVATE SECTOR

150+  
ACADEMIA



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

**(ITU-R)**



**ITU Standardization**  
Establishing global standards

**(ITU-T)**



**ITU Development**  
Bridging the digital divide

**(ITU-D)**

*A unique platform for governments, private sector and academic institutions to build consensus on important and pressing ICT technical and regulatory issues facing our society today*



## Development of Standards

Develop non-discriminatory international standards (ITU-T recommendations), in a timely manner, and foster interoperability and improved performance of equipment, networks, services and applications



## Bridging the Standardization Gap

Promote the active participation of the membership, in particular developing countries, in the definition and adoption of non-discriminatory international standards with a view to bridging the standardization gap



## Telecommunication Resources

Ensure effective allocation and management of international telecommunication numbering, naming, addressing and identification resources in accordance with ITU-T recommendations and procedures



## Knowledge-Sharing

Foster the acquisition, awareness, sharing of knowledge and know how on the standardization activities of ITU-T



## Cooperation with SDOs

Extend and facilitate cooperation with international, regional and national standardization bodies

**Vision:** An information society, empowered by the interconnected world, where telecommunication/information and communication technologies (ICTs) enable and accelerate social, economic and environmentally sustainable growth and development for everyone.

**Mission:** ITU's mission is to promote, facilitate and foster affordable and universal access to telecommunication/ information and communication technology networks, services and applications and their use for social, economic and environmentally sustainable growth and development.

Our Strategic Goals:

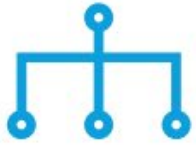
Goal 1 – **Universal Connectivity**

Goal 2 – **Sustainable Digital Transformation**

## *ITU-T has a long history of open standards development*

- Standards (named Recommendations), made publicly available, easily available for implementation and use
- Developed and maintained via a collaborative and consensus driven process
- Facilitate interoperability and data exchange among different products or services and are intended for widespread adoption
- Collaborative, reasonably balanced and due process
- Intellectual property rights (IPRs)
  - ✓ Essential to implement the standard to be licensed to all applicants on a worldwide, non-discriminatory basis
  - ✓ Either for free or on reasonable terms and conditions (which may include monetary compensation)
  - ✓ Negotiations are left to the parties concerned and are performed outside the SDO
- Quality and level of detail
  - ✓ Sufficient to permit the development of a variety of competing implementations of interoperable products or services.
- On-going support
  - ✓ Maintained and supported over a long period of time

# Technical Foundations



Transport,  
access and  
home networks



Multimedia



Service  
quality



Numbering  
& emergency  
comms



Artificial  
intelligence



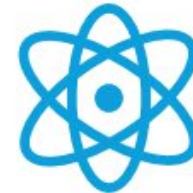
Cybersecurity



Internet  
of Things



Environmental  
efficiency

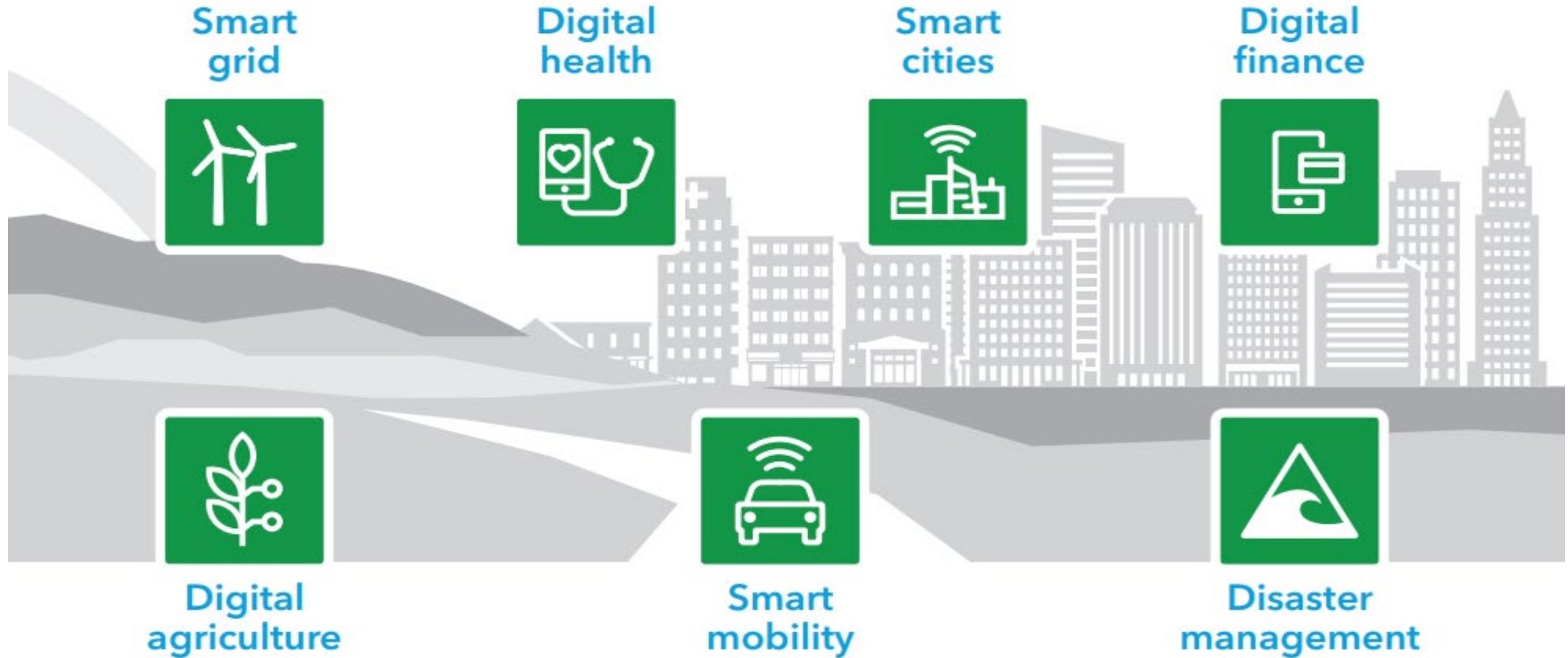


Quantum  
information  
tech

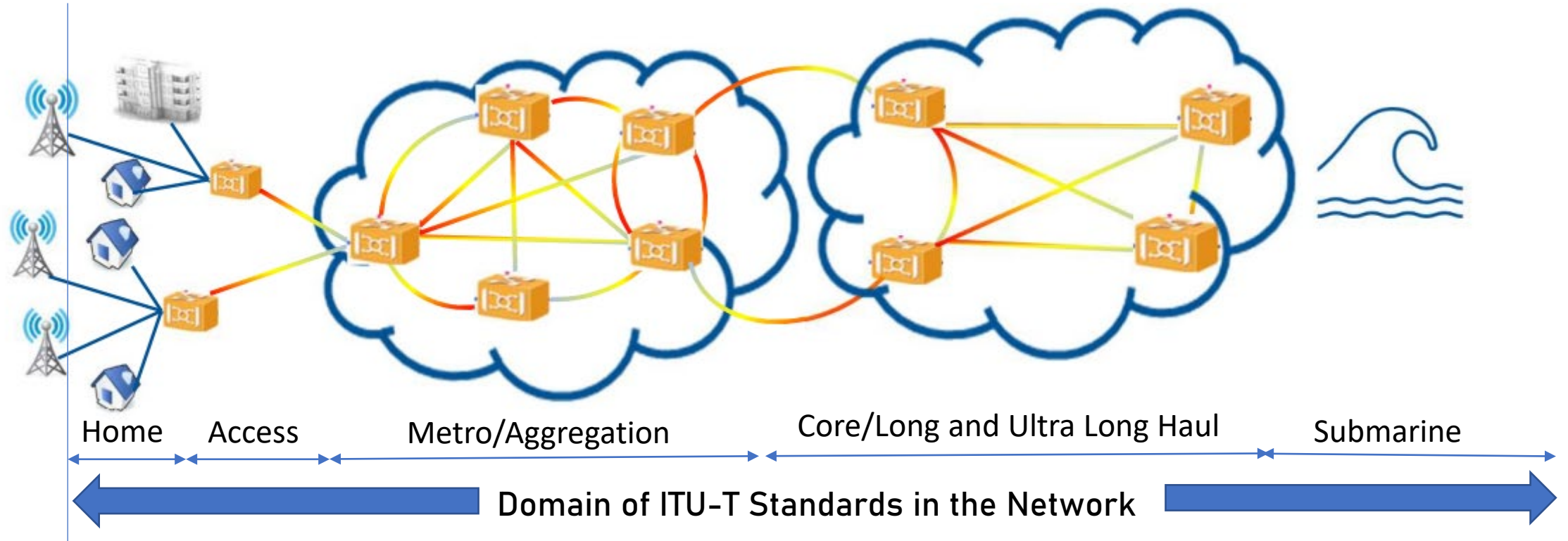


Accessibility

# Digital Transformation







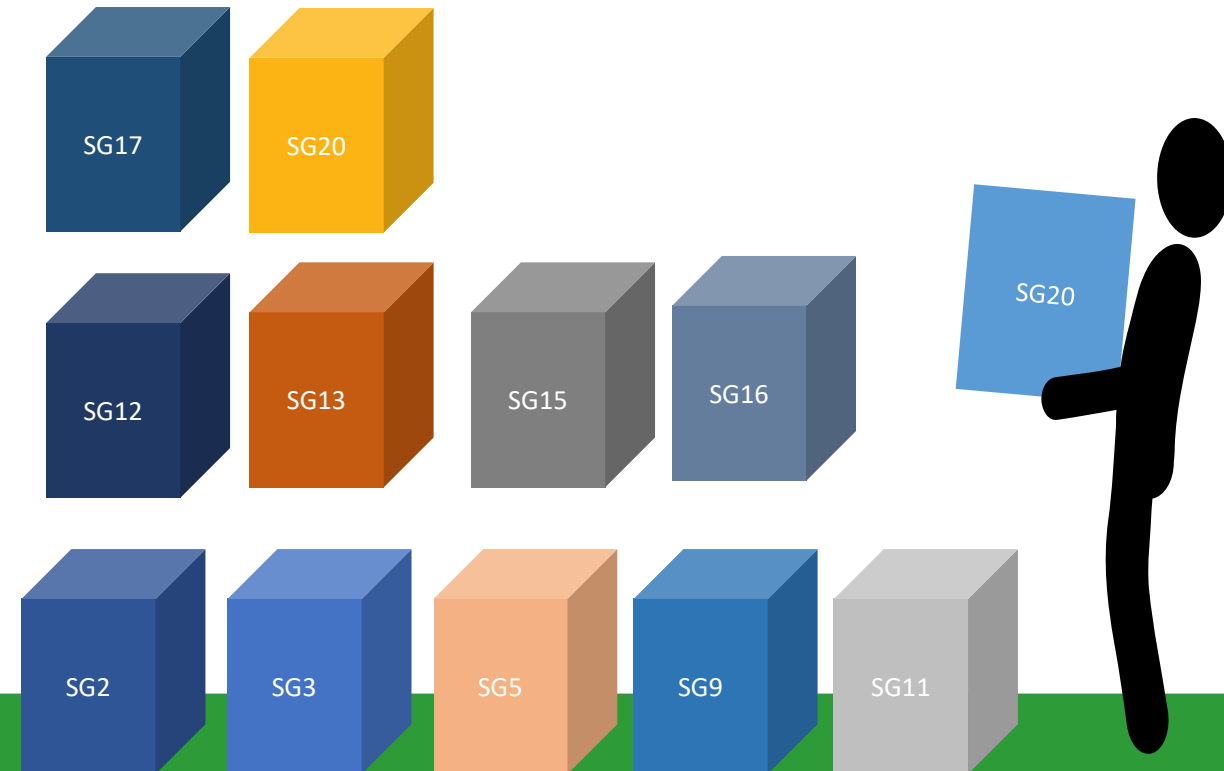
SG2 - Operational aspects	SG3 - Economic & policy issues	SG5 - Environment, EMF & circular economy	SG9 - Broadband cable & TV	SG11 - Protocols, testing & combating counterfeiting
SG12 - Performance, QoS & QoE	SG13 - Future networks	SG15 - Transport, access & home	SG16 - Multimedia & digital technologies	SG17 - Security
SG20 - IoT, smart cities & communities	Telecommunication Standardization Advisory Group (TSAG)		Focus Groups	Joint Coordination Activities

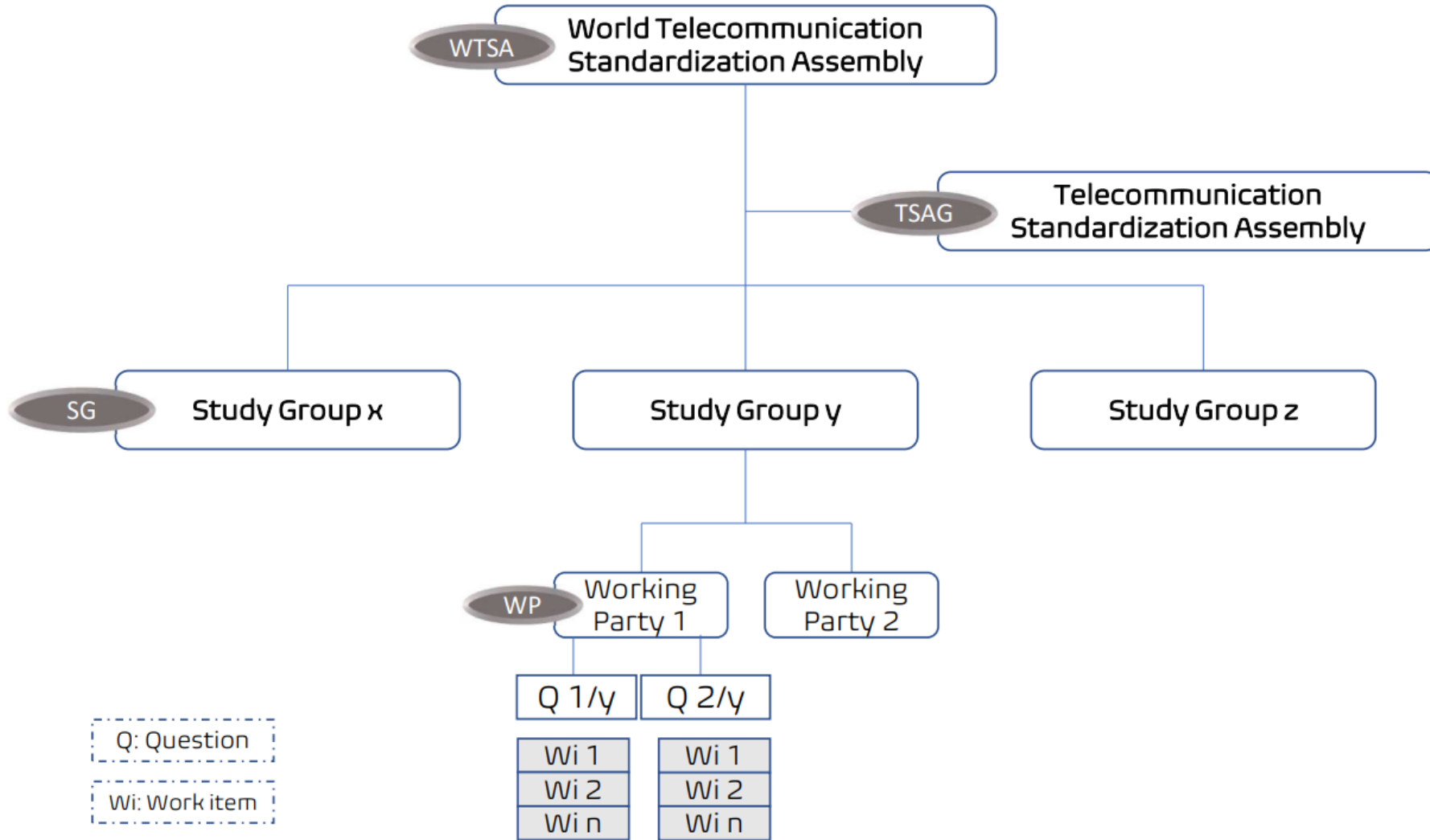
# ITU-T Study Groups

1 The standardization work of the ITU-T is organized by Study Groups (SGs), which act as “building blocks” of the standardization process

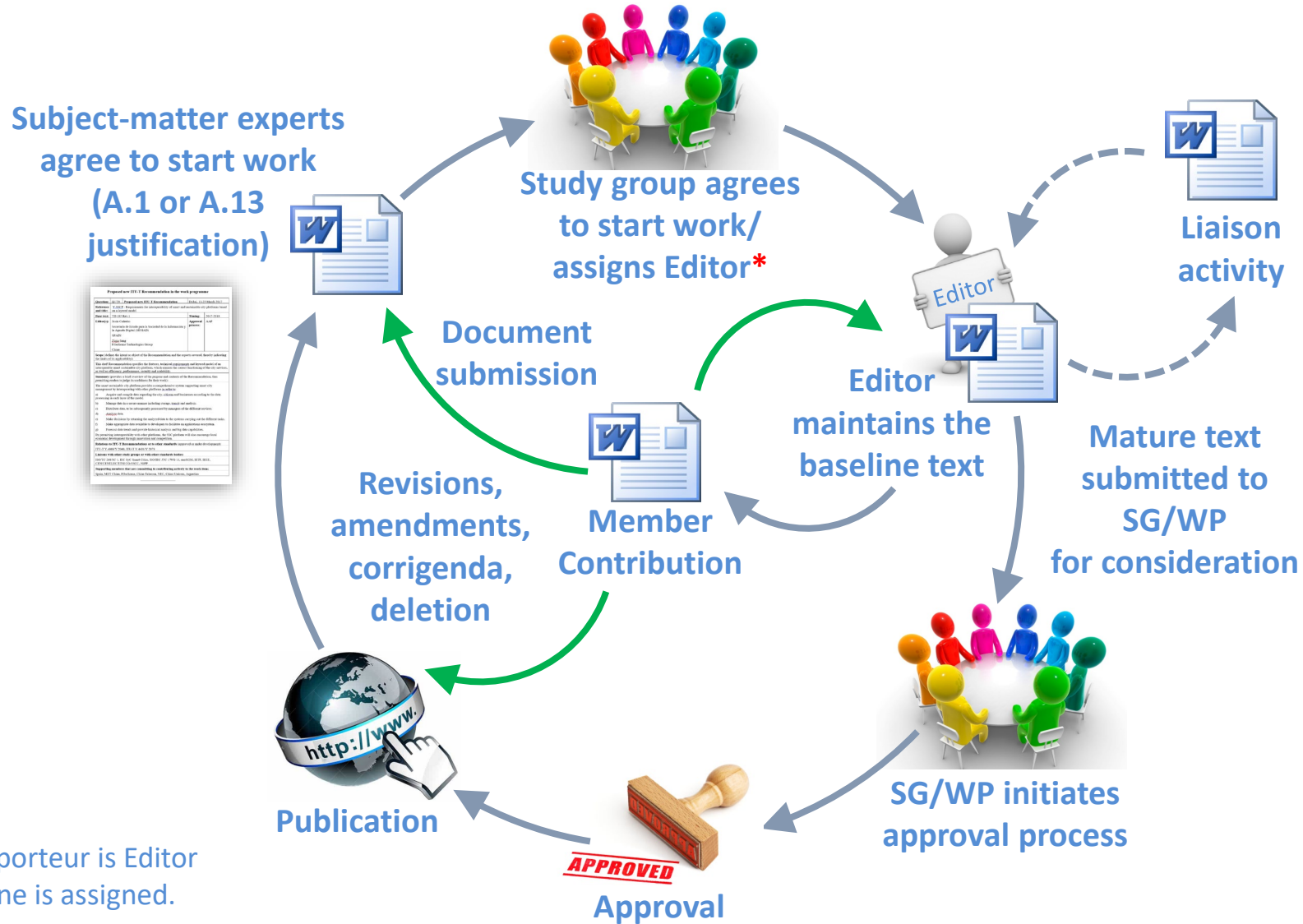
2 Members of the ITU-T Study Groups develop Recommendations (i.e. standards) for the various fields of international telecommunications, in a spirit of consensus.

3 Each study group (or SG) has its own area of responsibility, leadership, and authority to initiate, develop and propose ITU-T Recommendations and other deliverables.





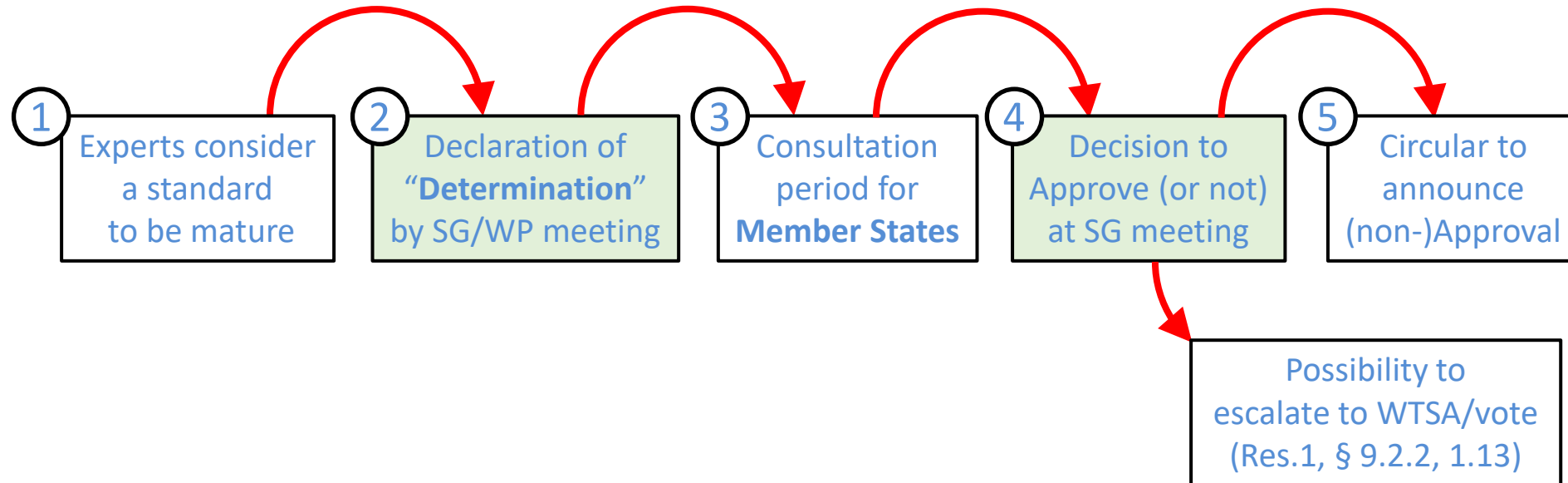
# Work item life cycle



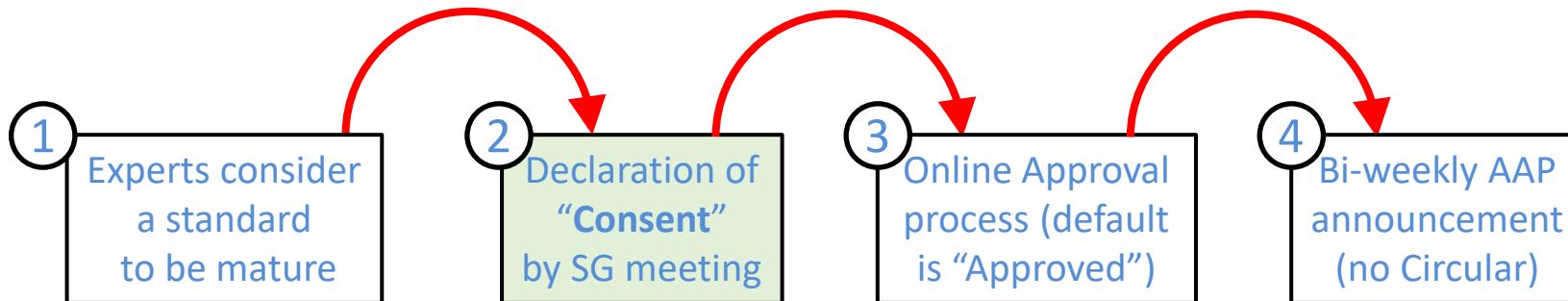
# Consensus based decision-making in ITU-T

1. Ensures win-win decisions
2. Avoid voting (limited to Member States)
3. Soft decisions (agreement, determination, etc.)
4. Quantifiable decisions (70% affirmation of Member State consultation, etc.)
5. Approval processes:
  - a) Traditional Approval Process (**TAP**): Policy or regulatory standards
  - b) Alternative Approval Process (**AAP**): Technical standards
  - c) World Telecommunication Standardization Assembly (**WTSA**): Sensitive or difficult standards
  - d) Study group **Agreement** of other (non-normative) texts

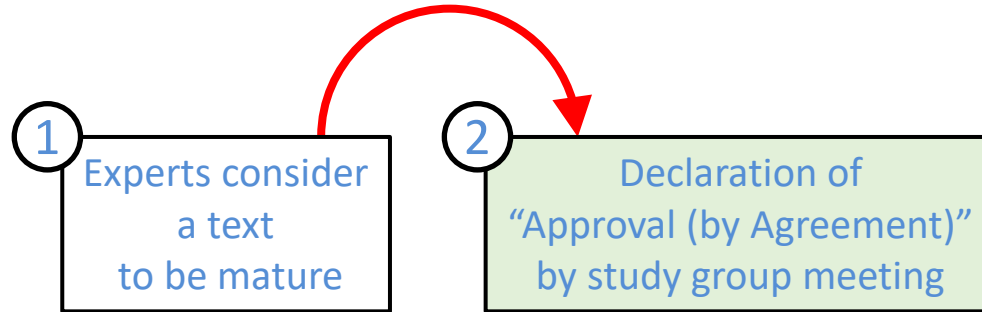
# Traditional Approval Process (TAP): Regulatory and policy issues



# Alternative Approval Process AAP: Quick and flexible



# Agreement: For non-normative texts



Non-normative (or "informative") texts include:

1. Supplements
2. Implementers' guides
3. Handbooks
4. Technical reports
5. Technical papers
6. Appendices



# Key Leadership roles

## Management team and membership:

- Study-group Chairmen / Vice-chairmen
- Working-party Chairmen / Vice-chairmen
- Rapporteurs / Associate rapporteurs
- Liaison Rapporteurs
- Editors

## TSB Secretariat:

- Counsellor/Advisor



