

Getting Involved in ITU-T SG15 Standardization

Empowering African Participation through SG15 activity

Xiang YUN, ITU-T SG15 Expert

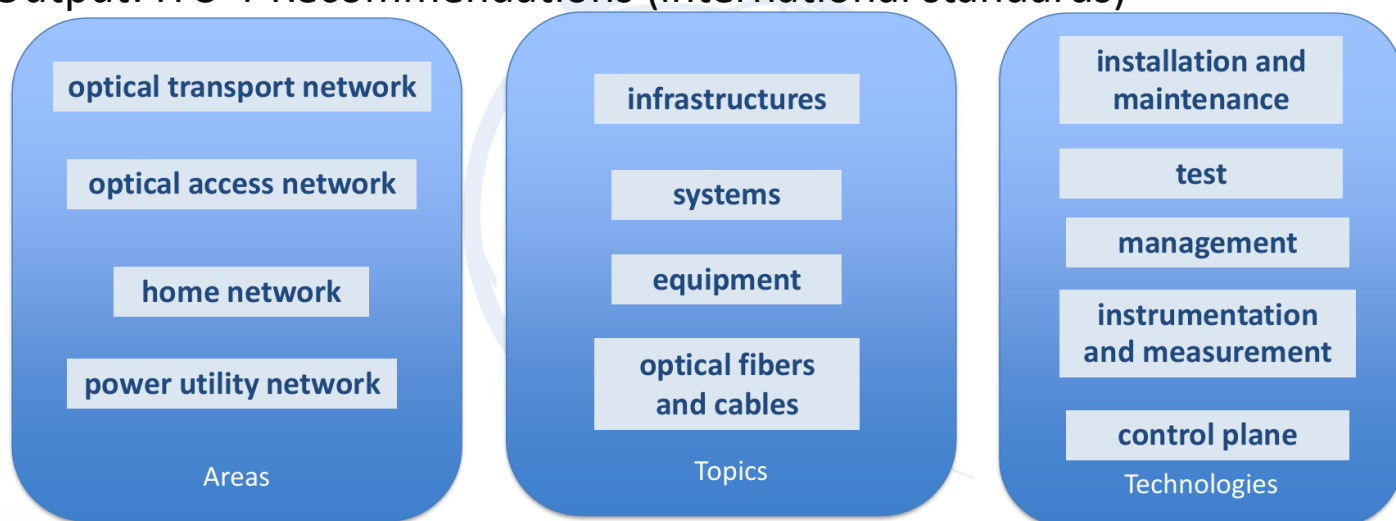
yunxig@fiberhome.com

19 May 2026, 10:30 - 12:30



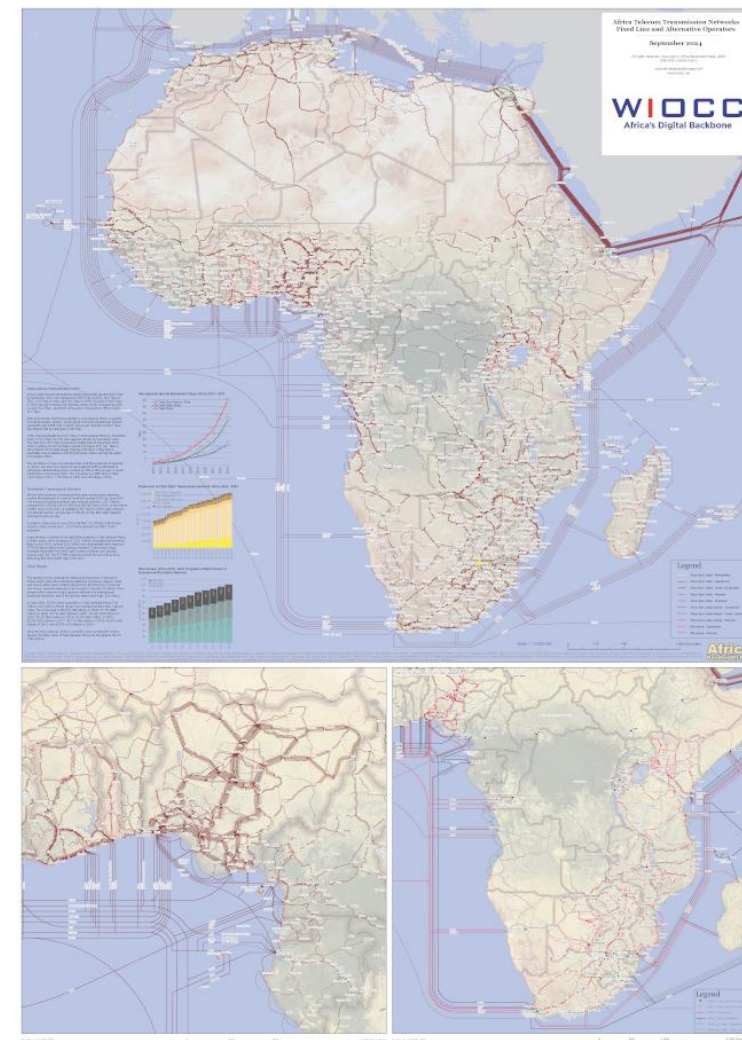
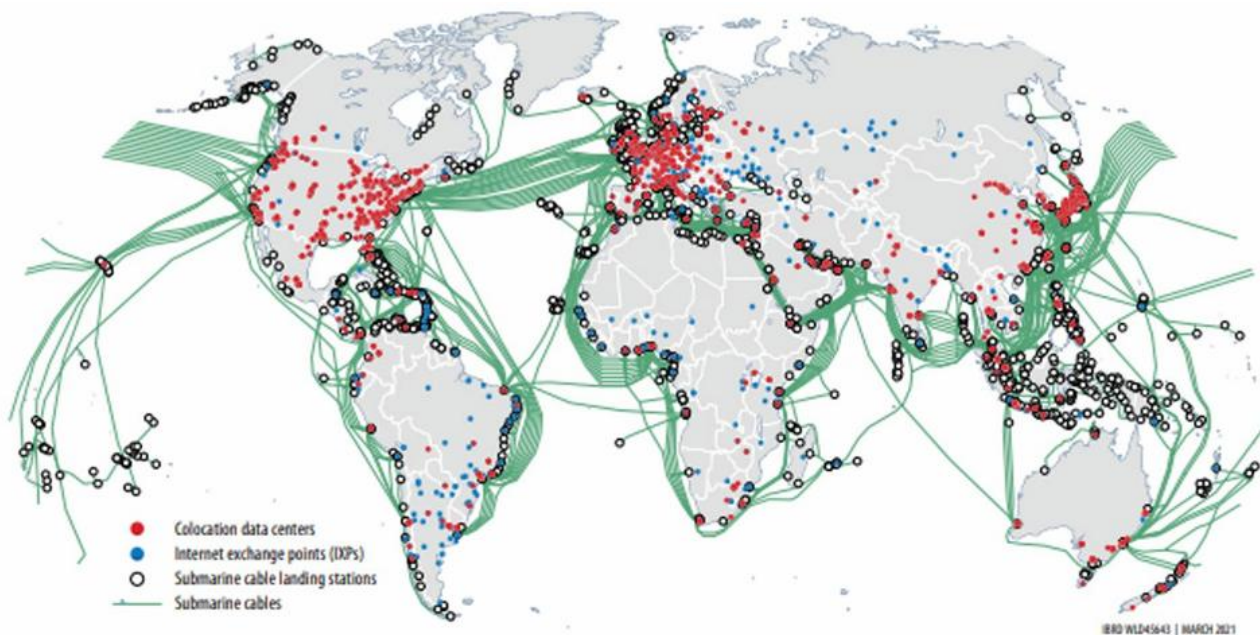
What is ITU-T SG15?

- Official name: ITU - International Telecommunication Union
 - The International Telecommunication Union (ITU) is the United Nations specialized agency for information and communication technologies – ICTs.
 - ITU's global membership includes 194 Member States as well as some 1000 companies, universities, and international and regional organizations.
- SG15 is the leading Study Group on Networks, technologies and infrastructures for transport, access and home
- Focus Areas: optical transport, broadband access, home networking, synchronization, management & control
- Output: ITU-T Recommendations (international standards)



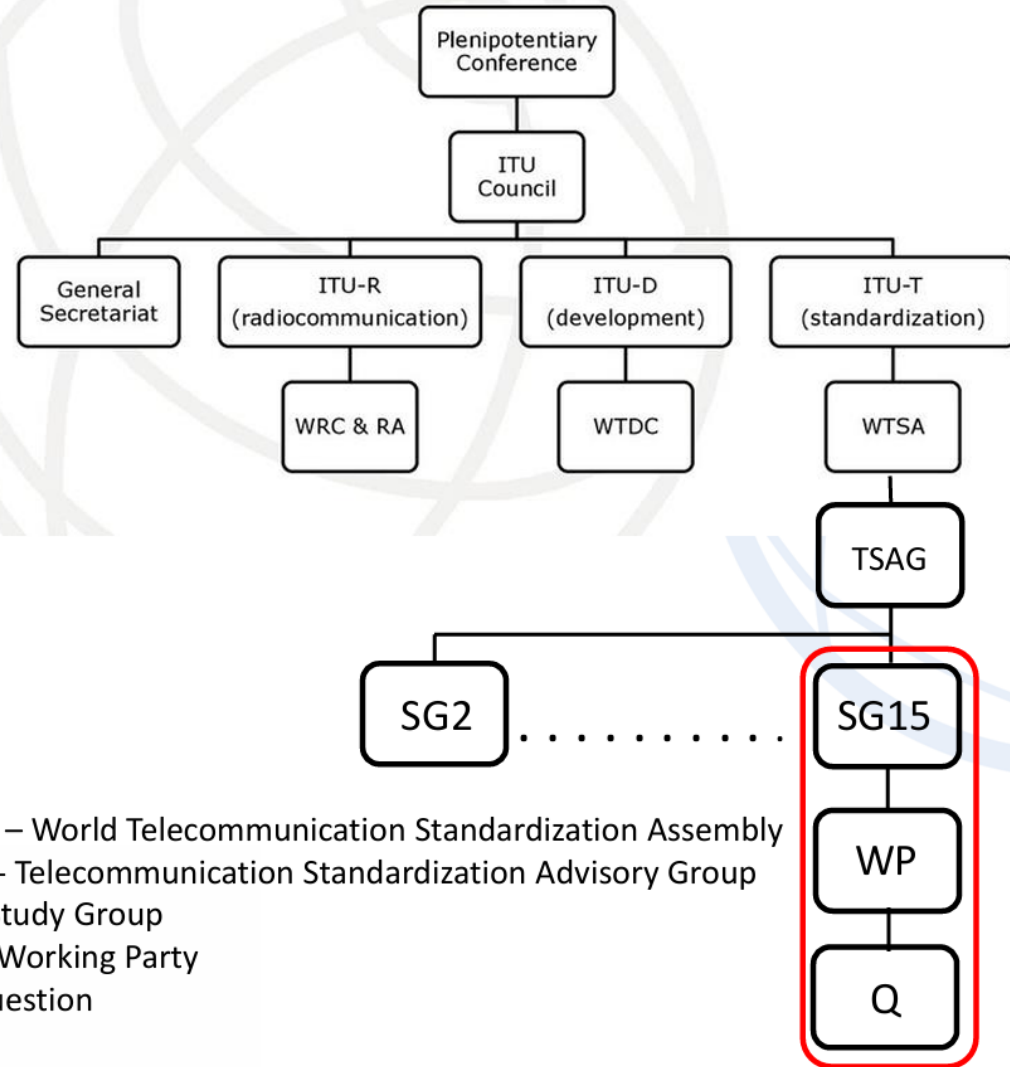
Why Africa Needs to Engage in SG15

- Africa's ICT growth depends on robust transport, access, and home networks.
- SG15 defines global standards in these areas.
- Bridging the Standardization Gap (BSG) ensures African requirements are included.
- SG15 is the regional gateway for Africa's engagement.



Source: © Africa Bandwidth Maps 2024, www.africabandwidthmaps.com

SG15 Structure (2025-2028)



- Chair: Glenn Parson (Ericsson)
- Vice-Chairs: Mohamed Amine BENZIANE(Algérie Télécom), Tom Huber (Nokia), Fatai Zhang (Huawei)
- Working Parties:
 - WP1/15: Access, home, smart grid
 - WP2/15: Optical tech & physical infrastructure
 - WP3/15: Transport network characteristics
- 13 Questions (Q2-Q14) covering PON, OTN, MTN, synchronization, management

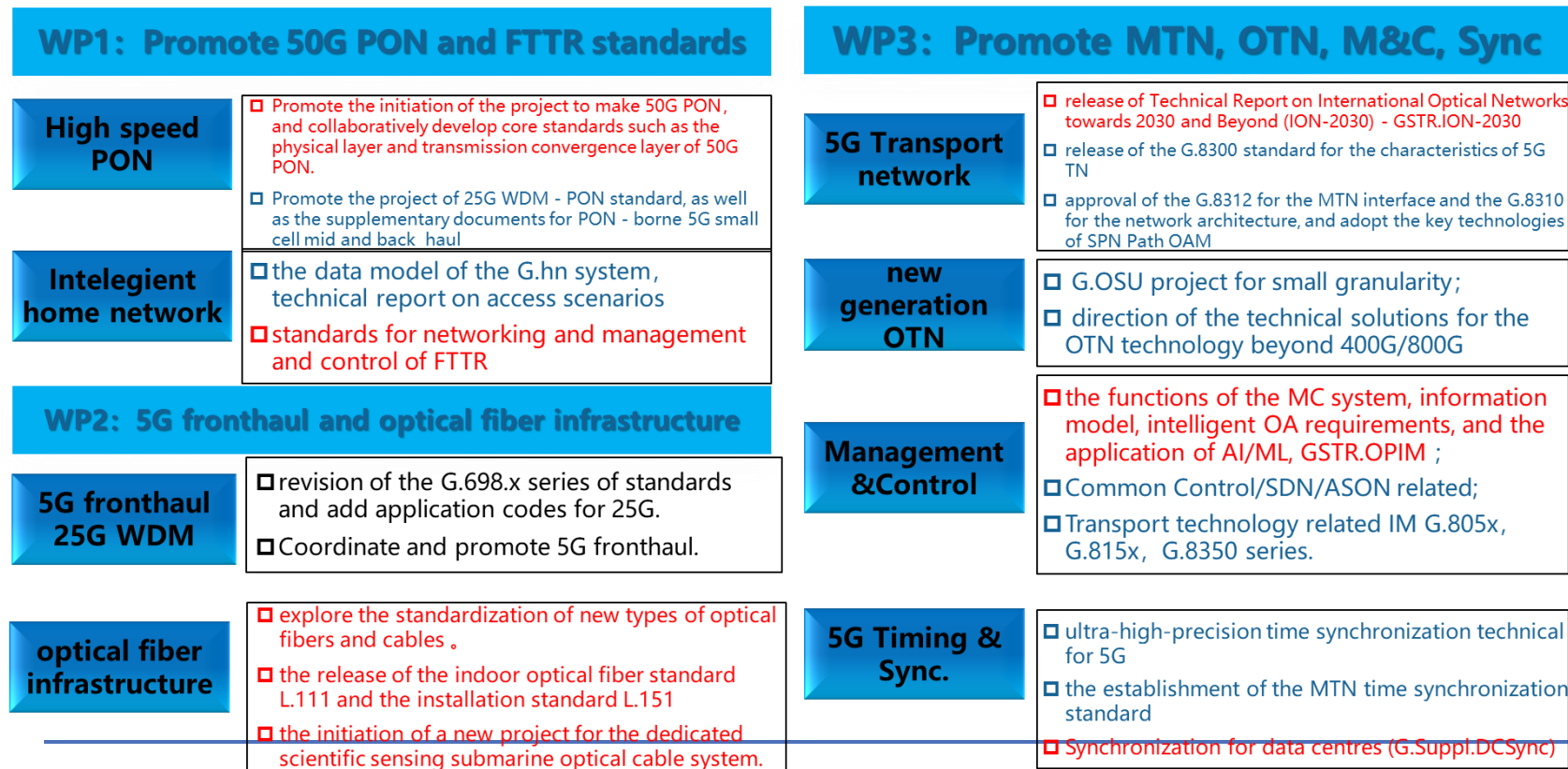
	ACRONYM	TITLE
WP1	Q2/15	Optical systems for fibre access networks
	Q3/15	Technologies for in-premises networking and related access applications
	Q4/15	Broadband access over metallic conductors
WP2	Q5/15	Characteristics and test methods of optical fibres and cables, and installation guidance
	Q6/15	Characteristics of optical components, subsystems and systems for optical transport networks
	Q7/15	Connectivity, operation and maintenance of optical physical infrastructures
	Q8/15	Characteristics of optical fibre submarine cable systems
WP3	Q10/15	Interfaces, interworking, OAM, protection and equipment specifications for packet-based transport networks
	Q11/15	Signal structures, interfaces, equipment functions, protection and interworking for optical transport networks
	Q12/15	Transport network architectures
	Q13/15	Network synchronization and time distribution performance
	Q14/15	Management and control of transport systems and equipment

WTSA – World Telecommunication Standardization Assembly
 TSAG - Telecommunication Standardization Advisory Group
 SG – Study Group
 WP – Working Party
 Q - Question

Examples of SG15 Work

- Access: 50G PON, FTTR, MGfast, WDM-PON
- Transport: MTN, fine-grain OTN
- Infrastructure: Submarine cables with sensing (G.smart)
- Management: YANG models, AI/ML in network control
- Synchronization: Ultra-precise timing for 5G, Sync. for Data Centers

Image: PON generations table + MTN architecture diagram



© How to Get Involved

- 1. Join via National Administration (ITU Member State delegate)
- 2. Participate in SG15 Plenary meetings, Rapporteur meetings, workshops
- 3. Submit Contributions (technical papers, use cases)
- 4. Collaborate with industry & academia
- 5. Leverage BSG resources (training, mentoring, funding)

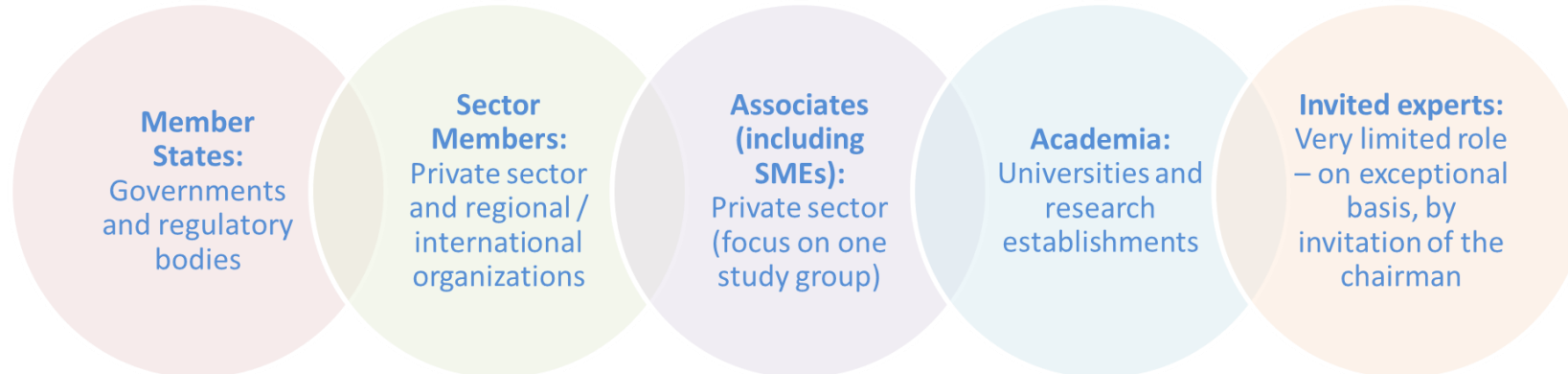
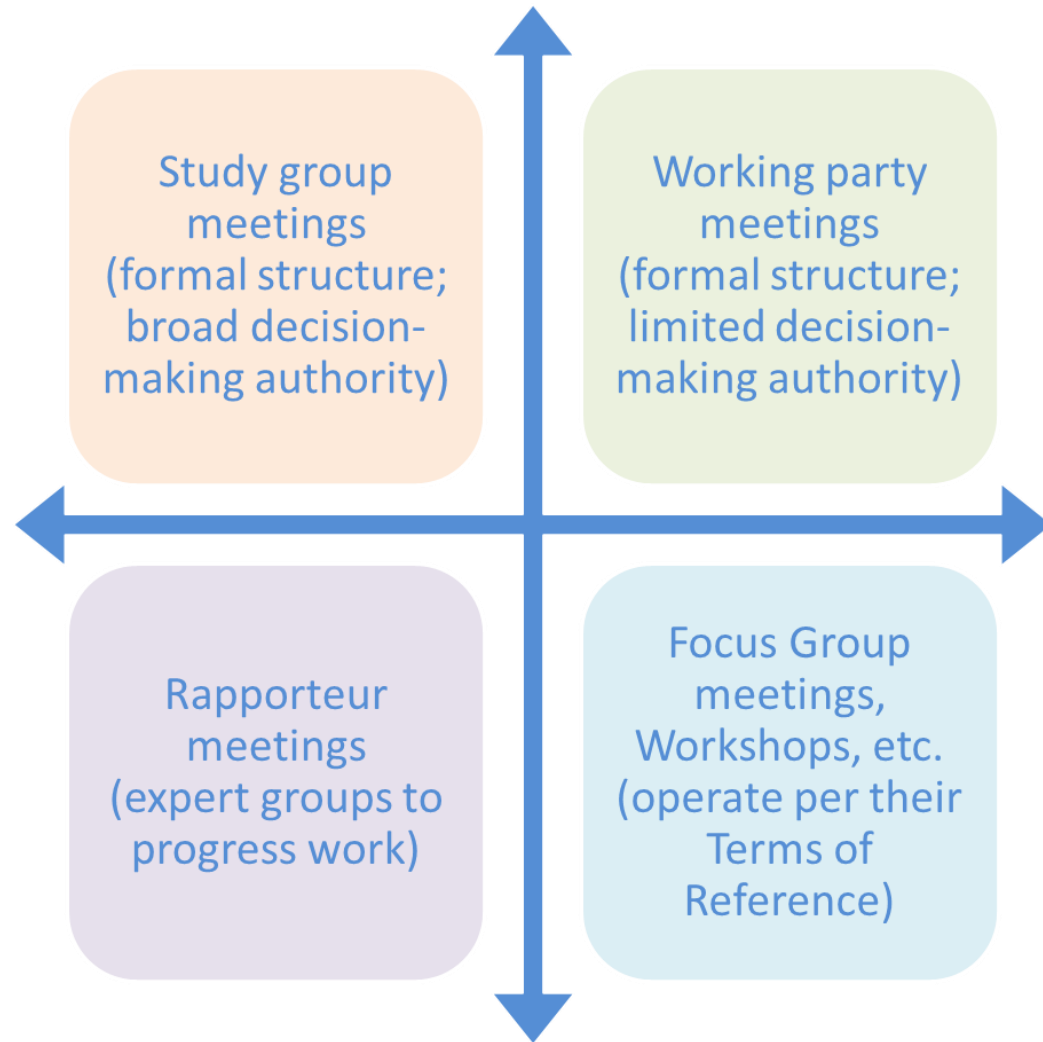


Image: Flowchart graphic

Meetings



- Physical meetings
- Physical meetings with remote participation
- Virtual meetings
- Meetings outside Geneva
- Languages (interpretation vs translation)

Contribution Lifecycle

- 1. Identify need
- 2. Prepare contribution
- 3. Work item approval
- 4. Drafting & review
- 5. Final approval & publication

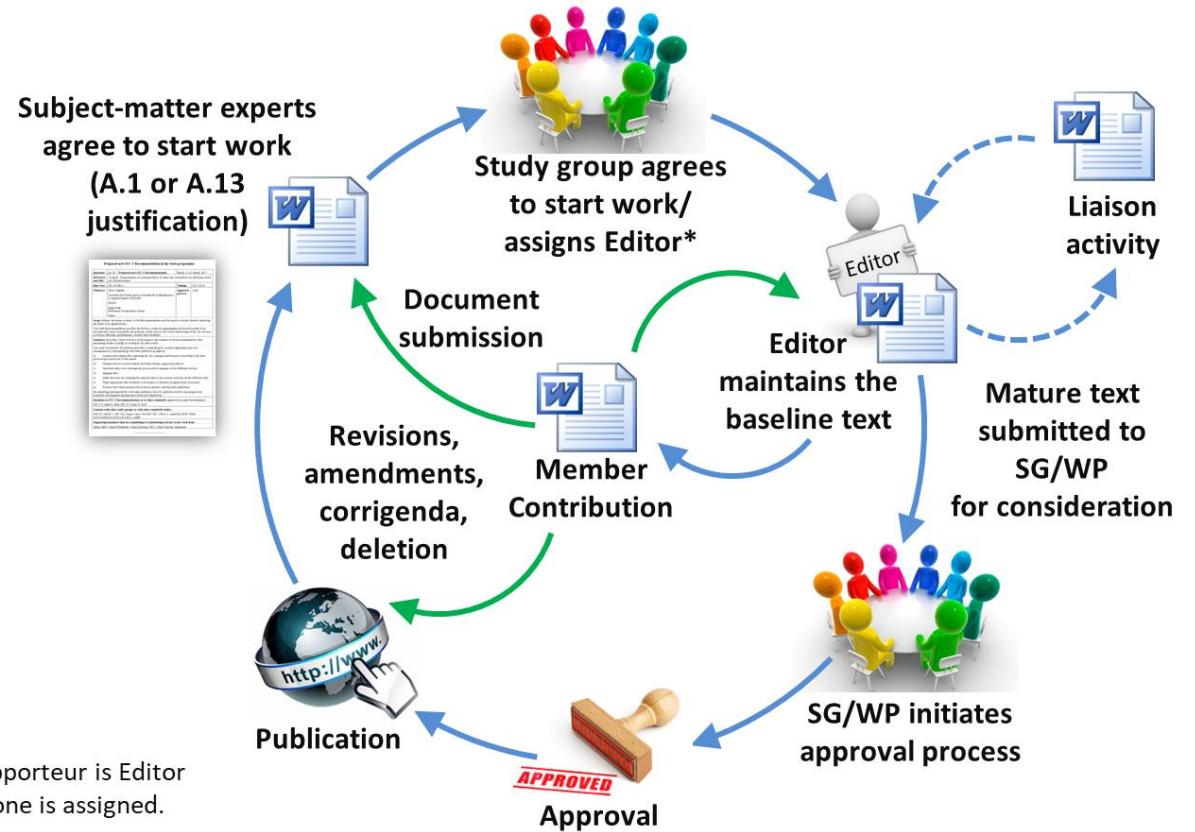
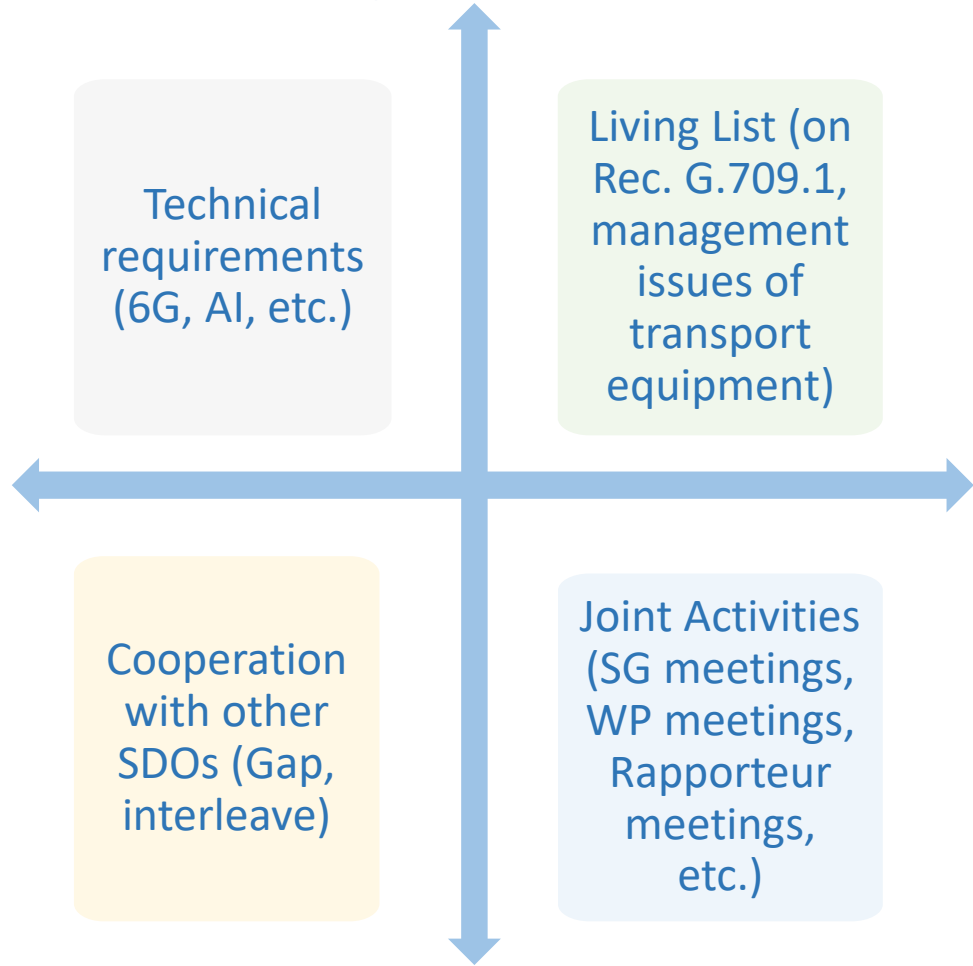


Image: 5-step lifecycle diagram

Preparing Contributions: 4 tips



Formal meeting documents (SG15 home page):

- **Contributions:** Submitted by members
- **TDs:** Produced by management team and TSB
- **Collective letters:** Announce meetings
- **Circulars:** Other announcements
- **Reports:** Meeting reports and draft texts
- **Liaison statements:** Formal communication to/from liaison partners

Working documents (collaboration site, FTP):

- Rapporteur Group Meetings documents, etc.
- Some key documents are subsequently submitted to the parent group as formal meeting documents (as TDs)

Initial thoughts

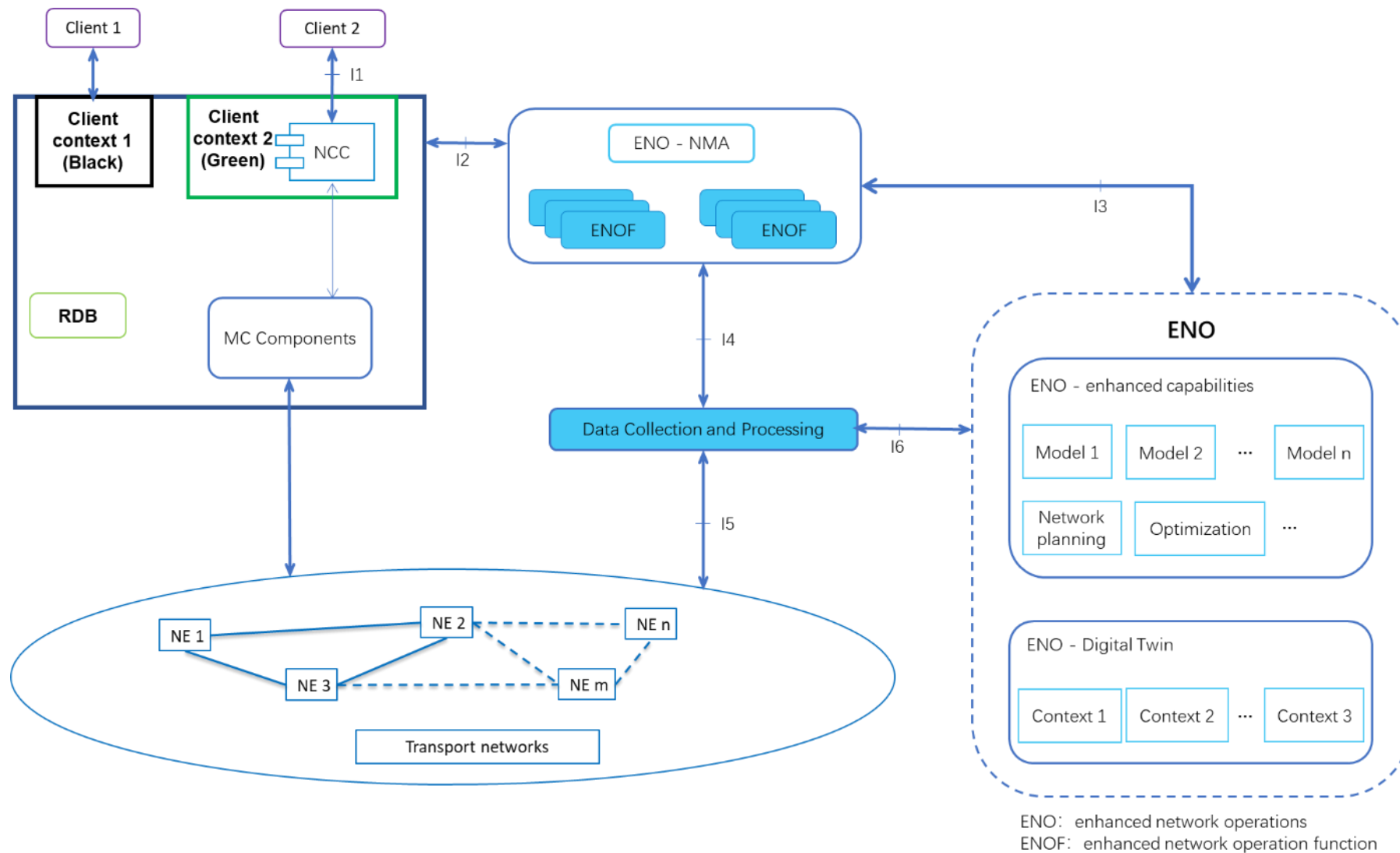
Demonstrate telco's capabilities to 3rd parties

Standards-based solution to assisting multi-vendor interoperability

New technology enabling high quality service and premium user experience



Reference architecture for intelligent transport networks (Q12+Q14)



Collaboration with Other SDOs

- BBF, IEEE, FSAN, MEF, OIF, IETF
- Joint work on PON, Ethernet, OTN, synchronization
- African stakeholders can join multiple forums



Image: SDO collaboration table

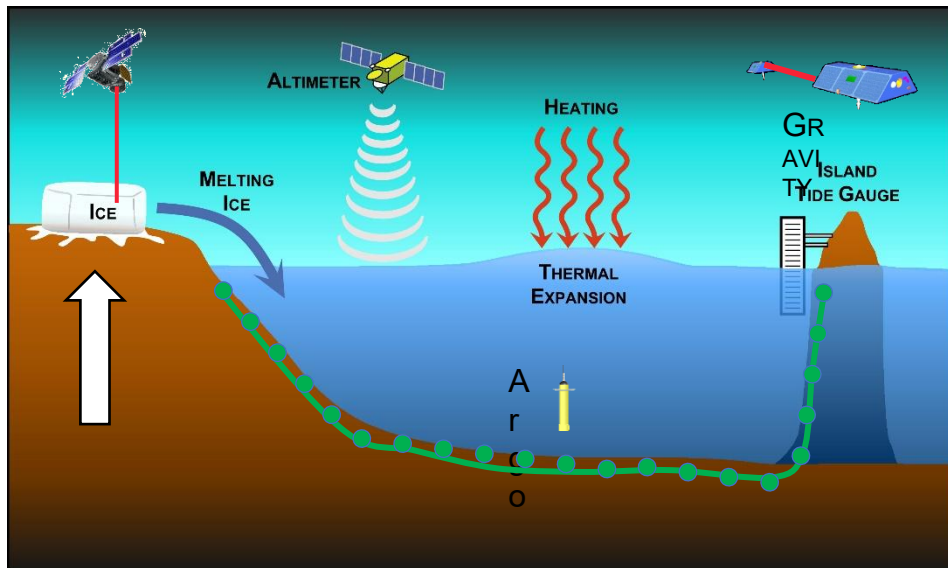
© Building African Expertise

- Training workshops (SG15 basics, contribution writing)
- Mentorship programs
- Virtual participation tools
- Collaboration platforms (mailing lists, FTP)

Image: Photos of training workshops

African Impact in SG15

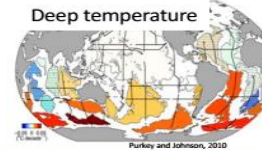
- African delegation shaped submarine cable resilience standards
- Regional input on rural broadband access specs
- Joint research on smart-grid transport requirements



Science and Early Warning - Observables

Climate and Oceans

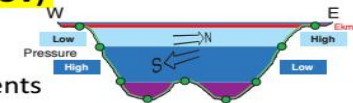
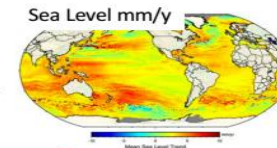
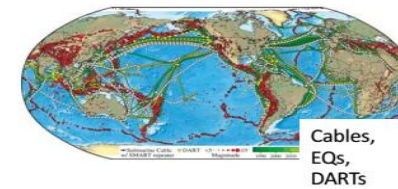
Temperature



- SMART → **Subsurface temperature, EOV**
- Deep ocean warming → sea level rise.
- Δ deep ocean temperature → Δ circulation, Δ climate.

Circulation, sea level rise, mass distribution

- SMART **Ocean bottom pressure (OBP, eEOV)** → expansion, melting ice → sea level change (x,t).
- Δ_x between OBP → depth-averaged currents and ocean circulation.



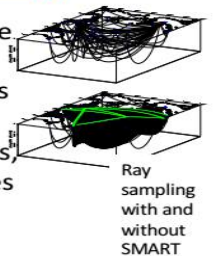
Hazards

Tsunami, Earthquake Warning

- SMART cables - vastly increase existing ocean **pressure/seismic sensors**
- Improve tsunami warning precision, Reduce unnecessary warnings/evacuations.

Seismology

- SMART **Seismic accelerometers** → advance seismology:
- Detect, locate small quakes below ocean floor
- Rupture type and dynamics, larger offshore earthquakes
- Image Earth's interior



Next Steps for Africa

- Register interest with national ITU focal point
- Attend next SG15 meetings
(Montreal, 29 June - 10 July 2026)
- Prepare & submit first contribution
- Engage continuously

MEETING IN FOCUS

Montreal, 29 June - 10 July 2026

- ▶ [Announcement](#)
- ▶ [Registration](#)
- ▶ [Information on requirements to enter into Canada](#)
- ▶ [Invitation letter request form](#)
- ▶ [Montreal information](#) 🍁
- ▶ [Tenth Joint IEEE 802 and ITU-T Study Group 15 Workshop – Emerging standards in the AI/ML world - Workshop Registration](#) 🍁
- ▶ [2026 July IEEE 802 Plenary](#) 🍁
- ▶ [Fellowship form](#)
- ▶ [Meeting room allocation](#) | [Mobile friendly version](#)
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[Guides: [delegates](#) | [moderators](#)]
- ▶ **Captioning October 2025:**
[Live captioning](#)
- [File Opening Plenary](#)
- [File Closing Plenary](#)
- ▶ [Webcast:Live](#) | [Archives](#)

Last executive summary

[2025-10](#) - [2025-03](#) - [2024-07](#)

MEETING DOCUMENTS

- ▶ [Recently posted](#) | [Search](#)
- ▶ [Documents \[July 2026\]](#)
[All Docs](#) - [Cs](#) - [TDs](#) - [LS](#) In
- ▶ [Documents \[October 2025\]](#)
[All Docs](#) - [Cs](#) - [TDs](#) - [LS](#) In
[Plenary meeting photos](#)
- ▶ [Documents \[March 2025\]](#)
[All Docs](#) - [Cs](#) - [TDs](#) - [LS](#) In
[Plenary meeting photos](#)
- ▶ [All SG & WP Meetings and Consolidated lists](#)
- ▶ [Informal FTP area \(IFA\) | RGM platform documents](#)
- ▶ [Direct Document Posting \(to submit Contributions\)](#)
- ▶ [Document Templates](#)
- ▶ [Author's Guide](#)

Image: Checklist graphic

The Future of International Standardization

- Global standardization development trend
 - Digital
 - Systematization
 - Cooperation
- Innovation! Focus on the new technology!
- The government, enterprises, industry, university, research cooperation, cultivate professionals, invest funds, and train talents through practical exercises!
 - New Working Mechanism
 - New standard projects
 - Actively participate in innovation standards organizations

© Discussion & Next Steps

- Thank you for your attention
- Any questions?

ITU Vision, Mission and Strategy

ITU Strategic Plan 2024-2027

Strategic framework

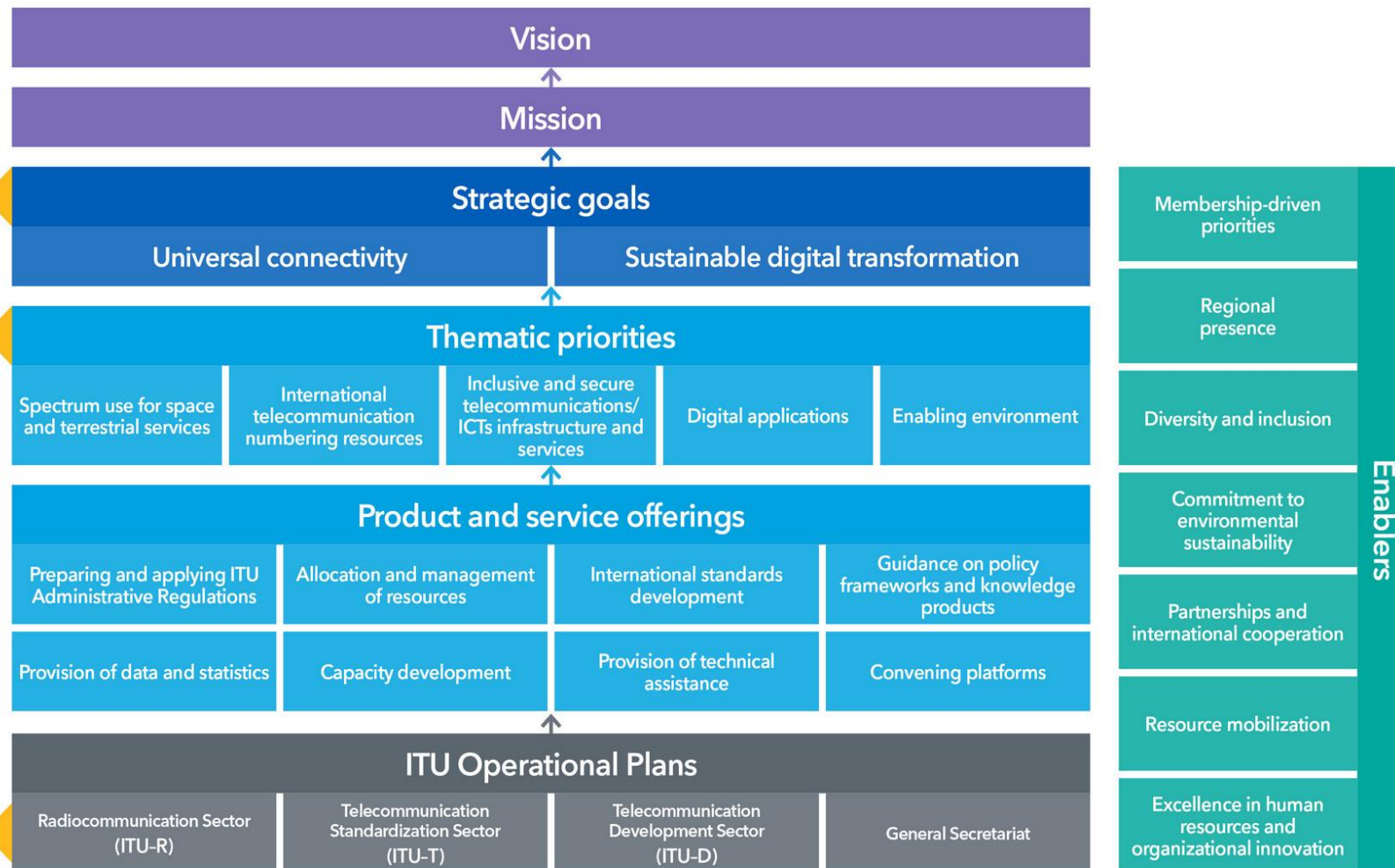


2030 TARGETS



2027 OUTCOMES

OUTPUTS



ICTs = Information and communication technologies