9th SG13 Regional Workshop for Africa on
"Standardization of Future Networks and Emerging Network Technologies: African perspectives"

(Abidjan, Côte d'Ivoire, 19-20 September 2023)

Importance of African Involvement in ITU-T SG13 standardization activities

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Expected opportunities of Future Networks for Africa

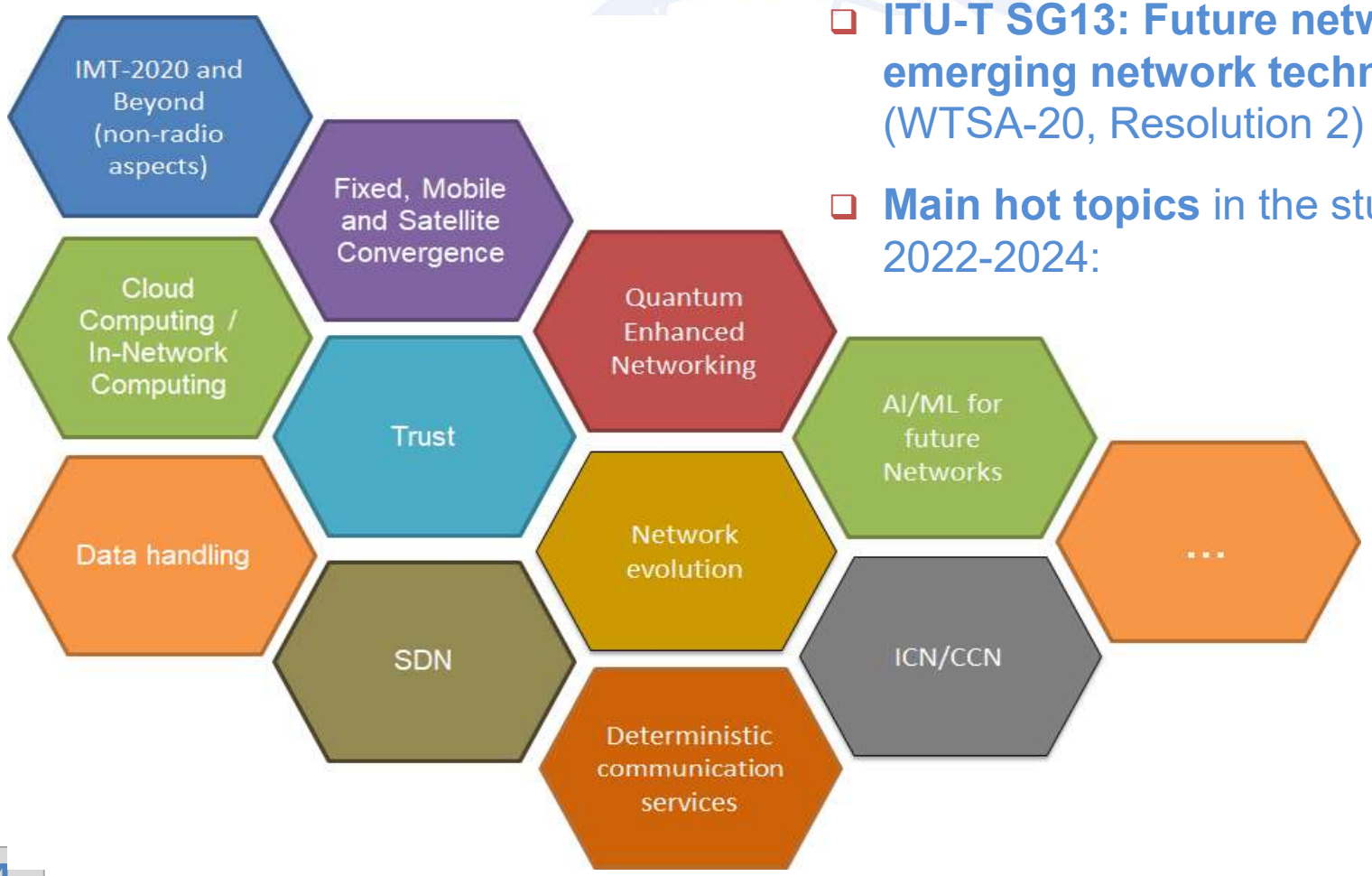
- Broadband Connectivity Expansion
- New business opportunities and economic growth
- Providing a platform for innovation and entrepreneurship
- Improved healthcare and education services
- Improved communication infrastructure
- Enhanced cybersecurity
- Financial Inclusion
- Bridging the digital divide
- Enabling Smart Agriculture
- Improved disaster response and management
- Contribution to environmental sustainability
- Improved governance and service delivery

These opportunities can't be enabled without the development of Standards in the field of future networks

Advantages of Standards

- Facilitate compliance with regulations
- Guarantee the quality and safety of products and services
- Facilitate interoperability and achieve economies of scale
- Provide common measurement tools
- Reduce costs and increase revenue
- Facilitate market access
- Use a unique platform for standard development, testing and application
- Strengthen business competitiveness and innovation
- Secure the strategic choices of companies
- Reduce the risks of new technologies
- Give confidence to consumers and users
- Facilitate the transfer and the adoption of new technologies

Future Networks Standardization within ITU-T: SG13



- **ITU-T SG13: Future networks and emerging network technologies** (WTSA-20, Resolution 2)
- **Main hot topics** in the study period 2022-2024:

Why should African Countries participate in the development of ICT Standards

- To ensure that **African perspectives and requirements are taken into account** when developing global standards
- To contribute to the development of **standards that specifically address the challenges and barriers** they face in bridging the digital divide
- **To stay updated on the latest technological advancements** and industry trends
- **To ensure that the standards developed are compatible with existing infrastructure and technologies**, both within the region and globally
- **To enhance their technical skills and knowledge** in the ICT field
- **To engage with international experts, learn from their experiences, and share best practices** which helps build local capacity in standardization processes

Participation of African Countries in SG13 Activities

African Involvement in Key SG13 Roles

African Expert		Role within SG13
	**Dr. Rim BELHASSINE CHERIF** *Tunisie Telecom, Tunisia*	• SG13 Vice-chairman • SG13RG-AFR Chairman • WP3/13 Vice-Chairman • Liaison rapporteur, ITU-T SCV
	**Ms. Soumaya BENBARTAOUI** *ARPCE, Algeria*	• SG13 Vice-chairman • SG13RG-AFR Vice-chairman • WP2/13 Vice-Chairman
	**Mr. Brice MURARA** *RURA, Rwanda*	• SG13 Vice-chairman • SG13RG-AFR Vice-chairman • Liaison rapporteur, JCA-AHF

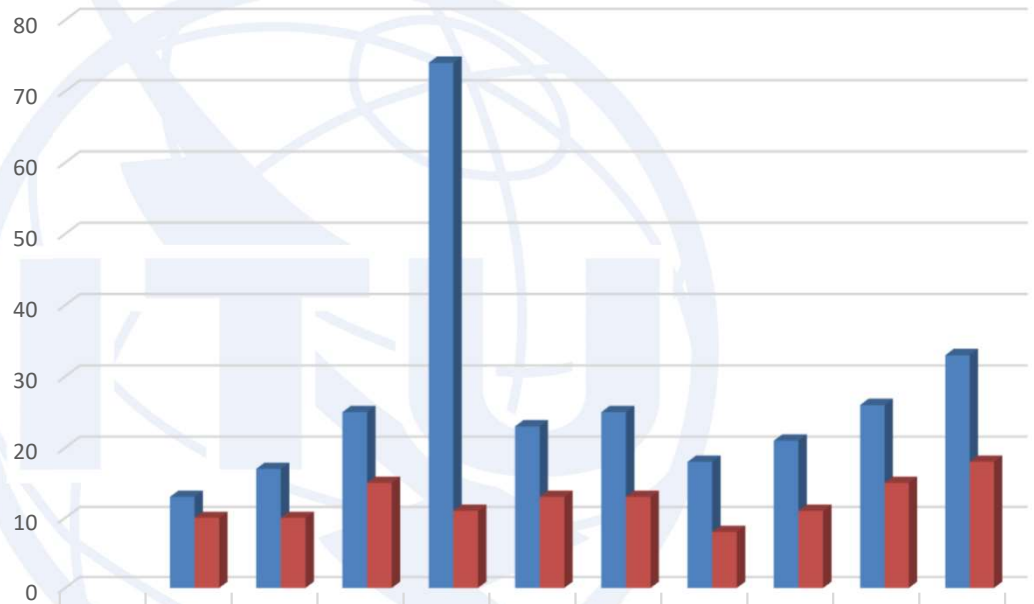
African Involvement in Key SG13 Roles

African Expert		Role within SG13
	**Mr. Elliot KABALO** *ZICTA, Zambia*	• Rapporteur, Q5/13 • SG13RG-AFR Vice-chairman
	**Mr. Mamadou Oury SAKHO** *Ministère des Postes, des Télécommunications et de l'Economie Numérique, Guinea*	• Associate Rapporteur, Q5/13

SG13 Vice-Chairman	WP Vice-Chairman	Rapporteur	Associate Rapporteur	Liaison Rapporteur	SG13RG-AFR Management team
3	2	1	1	2	4

African Participation in ITU-T SG13's Meetings

- ✓ The number of countries participating in SG13's meetings is still insuffisant
- ✓ Important African participation in the meeting of **March 2019** which was held in **Zimbabwe**

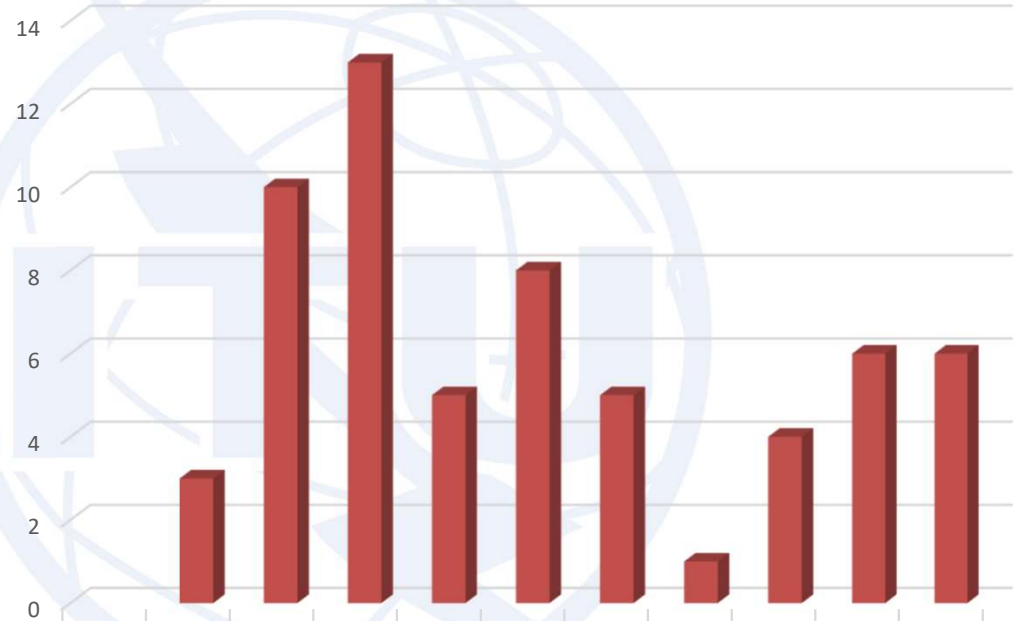


	Feb. 2017	Nov. 2017	July 2018	March 2019	Oct.2019	July 2020	March 2021	Nov. 2021	July 2022	March 2023
Number of Participants from Africa	13	17	25	74	23	25	18	21	26	33
Number of African Countries	10	10	15	11	13	13	8	11	15	18

Hosting SG13 meetings in an African country is a good initiative to increase the number of participants from African countries, mainly from the host country and neighboring ones

African Contribution to ITU-T SG13's Meetings

- ✓ The number of contributions varies from one meeting to another
- ✓ The majority of contributions are addressed to Q5/13: ***Applying Future Networks and innovation in developing countries***



	Feb. 2017	Nov. 2017	July 2018	March 2019	Oct.2019	July 2020	March 2021	Nov. 2021	July 2022	March 2023
Number of Contributions per Meeting	3	10	13	5	8	5	1	4	6	6

Necessity to increase the number of contributions from Africa to the upcoming SG13 meetings, especially those including the proposal of new work items

Work Items & Resulting Documents

Suppl. 66 : ***ITU-T Q.1740-series - Supplement on scenarios and requirements in terms of services and deployments for IMT and IMS in developing countries***

- ***Date of approval:*** 18/07/2014
- ***Editors:*** UCC (Uganda)
- ***Question:*** Q5/13
- ***Scope:*** Providing **advisory information**, especially to developing countries, on the **requirements for migration to IMT and IMS**, **challenges to migration** and **some scenarios of migration** to IMT and IMS drawn from feedback from developing countries

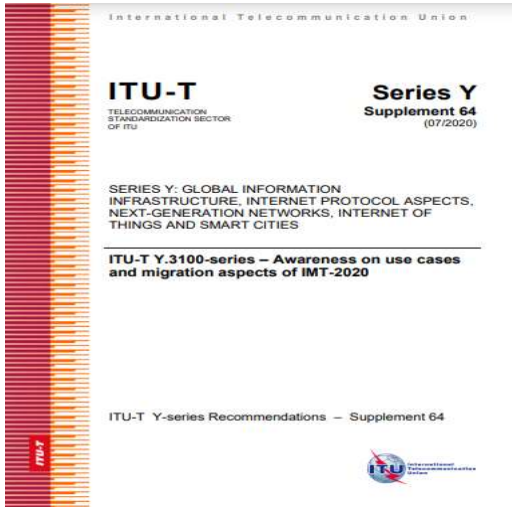
Work Items & Resulting Documents

Suppl. 46 : ***ITU-T Y.3500-series - Requirements and Challenges Regarding Provision and Consumption of Cloud Computing Services in Developing Countries***

- ***Date of approval:*** 17/11/2017
- ***Editor:*** Tunisie Telecom, ZICTA, UCC, ARTCI
- ***Question:*** Q5/13
- ***Scope:***
  - **Assess the status of the deployment** of Cloud services in developing countries
  - **Identify the encountered challenges** and the aspects favoring the adoption of Cloud services in these countries
  - **Highlight the current requirements for the provision and deployment of Cloud services**

Work Items & Resulting Documents

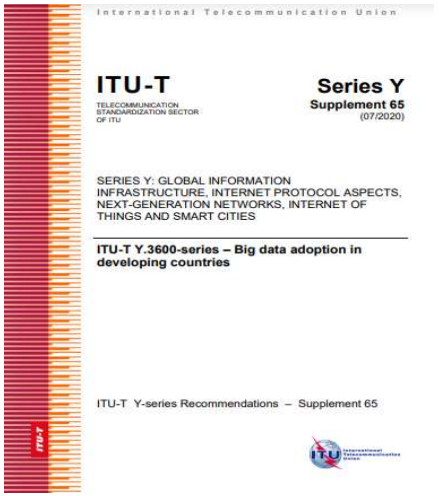
Suppl. 64 : ***ITU-T Y.3100-series – Awareness on use cases and migration aspects of IMT-2020***



- ***Date of approval:*** 31/07/2020
- ***Editor:*** University of Nigeria, ZICTA, NCC
- ***Question:*** Q5/13 (with initial collaboration of Q20/13)
- ***Scope:***
  - Investigate Q20/13 work on the study of the **requirements, capabilities, architecture and key technologies** to realize IMT-2020 networks, and the ecosystem from business models and use cases
  - **Study of several migration aspects** between existing technologies and IMT-2020

Work Items & Resulting Documents

Suppl. 65 : ***ITU-T Y.3600-series – Big data adoption in developing countries***



- ***Date of approval:*** 31/07/2020
- ***Editors:*** Tunisie Telecom, ZICTA, UCC
- ***Question:*** Q5/13
- ***Scope:***
  - **Assess the situation of the use of big data technologies in developing countries** based on data collected mainly via a survey that targeted ITU-T members from developing countries
  - **Study the main use cases** for big data technologies within organizations from developing countries + their **requirements**, mainly in terms of standards
  - **Identify challenges for big data deployment as well as the opportunities** it can offer (mainly to achieve SDGs)

Work Items & Resulting Documents

Technical report TR-BSG:

Use of ITU-T Recommendations by developing countries

- ***Date of approval:*** 31/07/2020
- ***Editor:*** UCC, ZICTA
- ***Question:*** Q5/13
- ***Scope:***
  - **Examine the extent to which developing countries use ITU-T standards** compared to those of other standardization development organizations (SDOs)
  - The technical report was based on the results of a dedicated questionnaire

Proposed New Work Items

Contribution of African countries as editors/co-editors in new work items at Question 5/13

Work Item	Subject/Title	Type	Editors
Y.DSNETDN	**Data Standardization for New and Emerging Technologies in Developing Nations**	Recommendation	• NCC, Nigeria
Y.expBDtech-frame	**Requirements and Framework for the exploitation of Big Data/Artificial Intelligence technologies in developing countries**	Recommendation	• Ministry of Posts and Telecommunications, Cameroon • ZICTA, Zambia
Y.MBIMT2020-Gen	**General Requirements for Migrating Existing Network Technologies (2G, 3G, 4G) to IMT 2020 and beyond**	Supplement	• NCA, Ghana • Tunisie Telecom, Tunisia • ZICTA, Zambia
Y.Supp-Y.IMT2020-EE	**IMT-2020 network enhancements to improve energy efficiency in Developing Countries**	Supplement	• China Mobile, China • Tunisie Telecom, Tunisia • ZICTA, Zambia
Y.Supp-Y.Sat-Use-Cases	**Use cases of satellite communications in Developing Countries**	Supplement	• China Mobile, China • Tunisie Telecom, Tunisia • ZICTA, Zambia

Towards an Enhanced Participation of African Countries in SG13 Activities

Question 5/13

Q5/13 : Applying networks of future and innovation in developing countries

Main Tasks (2022-2024):

- **Prepare gap analysis on the current status and trends** of IMT-2020, future networks, cloud computing, trust in ICT, big data, SDN, AI, ML and any other new technologies, from a viewpoint of developing country telecom networks
- **Develop requirements and use cases in terms of services and deployments** for applying IMT-2020, future networks, NGN, cloud computing, Trust, big data, SDN, AI, ML and any other new technologies in Developing Country telecom networks
- **Produce Supplements and Technical Papers on how best developing countries can implement emerging technologies** or migrate to emerging technologies
- **Produce and promote work items for study** by Question 5/13 and by SG13 Questions, relevant to the specific needs of developing countries
- **Develop recommendations** of specific interest to the needs of developing countries

SG13 Regional Group for Africa
(SG13RG-AFR)

- SG13 RG-AFR is the 1st regional group of SG13, whose creation was approved by WTSA-12 in **November 2012**
- Its first meeting took place in **September 2013**
- **Main objective**

  To **encourage** national authorities and operators from countries in Africa **to work together and better contribute to ITU-T SG13 activities in general and to priority areas in particular** in line with SG13 mandate.

SG13RG-AFR ToRs

Main Tasks

To encourage active collaboration and participation of African administrations, regulators and operators in the work of ITU-T SG13

To establish training needs on current standardization areas and coordinate the organization of technical tutorials in the region with ITU-T SG13

To encourage participation of African countries in workshops, Rapporteur meetings and other ITU-T SG13 events

Act as facilitator for contributing to SG13

To reflect the relevant priorities of the region as per ITU-T SG13 mandate

SG13RG-AFR ToRs

Main Tasks

To encourage African countries to contribute to the development of new/revised ITU-T Recommendations and report on their respective activities

To disseminate relevant information provided by ITU-T on current standardization areas and document relevant use cases, architectures and services including emerging mobile services

Encourage Academia involvement into the activities of SG13RG-AFR and SG13

To serve an incubator of new ideas for future technologies and their implementation scenarios shaped to the best to work in Africa

To serve a platform to share the expertise and experience in early implementation of the parent group standards

To collaborate with African Telecommunication Union (ATU)

Structure of SG13RG-AFR

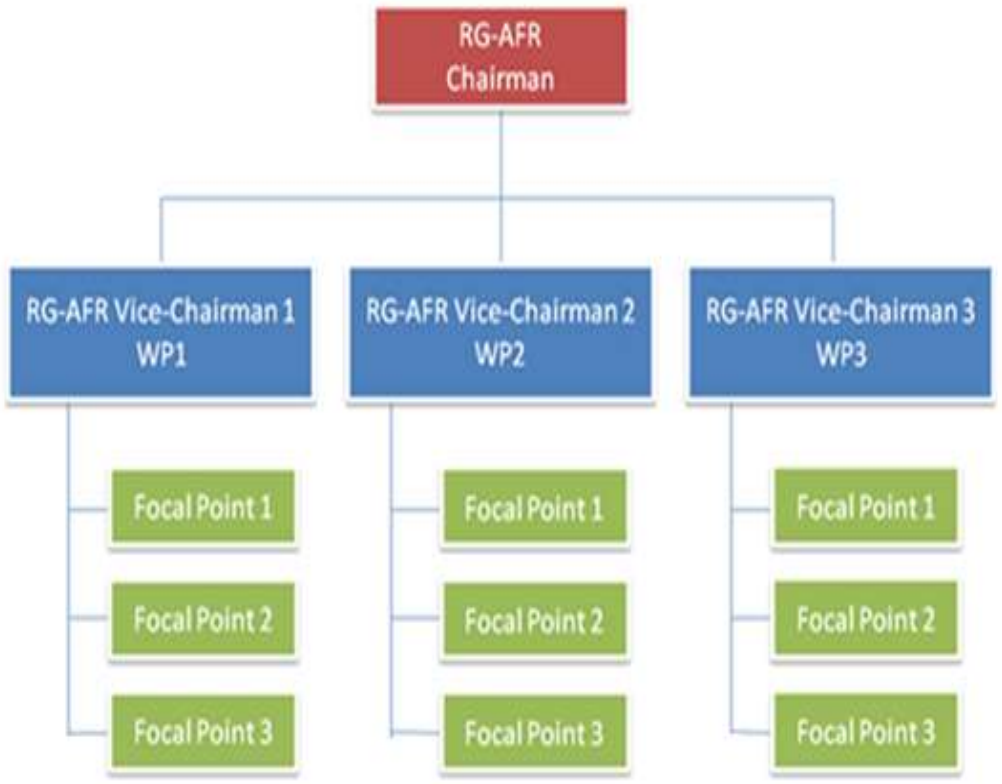
Management Team

1 Chairman

3 Vice-Chairmen
responsible each of the questions related to one of the SG13 WPs

A team of 9 Focal Points

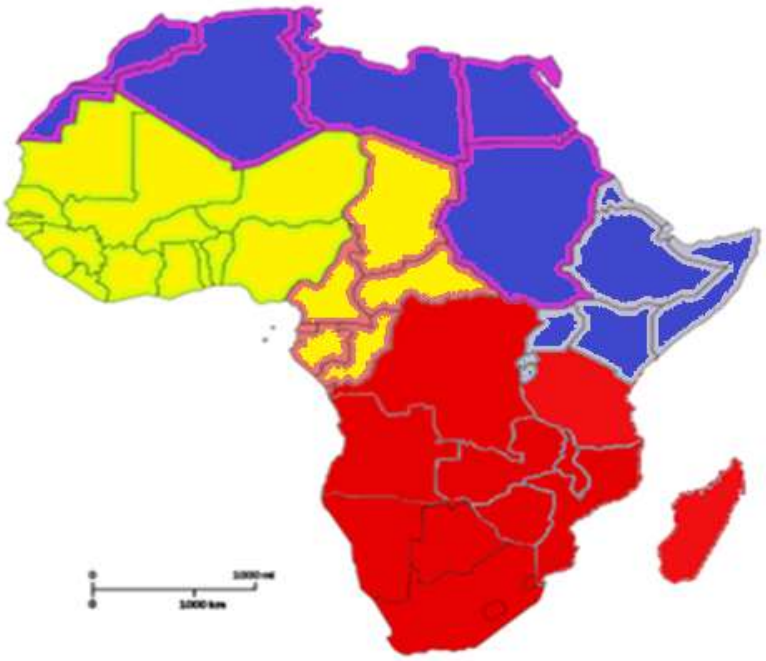
3 focal points for each Working Party so that every Focal Point represents one of the 3 African sub-regions



Structure of SG13RG-AFR

The 3 African Sub-regions

- **sub-region 1 :** Northern Africa and Eastern Africa
- **sub-region 2:** Central Africa and Western Africa
- **sub-region 3:** Southern Africa



The partitioning of sub-regions was *based on the partitioning of UN + the definition of the southern Africa region considered by the Southern African Development Community (SADC)*

Structure of SG13RG-AFR

Main Advantages

- Encouraging active participation of regional stakeholders in the maximum of SG13 work items
- Stimulating the participation of all sub-regions to SG13 activities
- Adequate workload division that makes the group's work more efficient and accurate
- Easier coordination and collaboration between each regional and parent working party
- Decentralized and efficient coordination inside the group
- Creating a task force in the region including high skilled experts in the SG13's topics
- Efficient and easier interaction with sub-regions thanks to focal points

SG13RG-AFR was pioneer in proposing such structure which was also proposed to be a reference structure for all ITU-T regional groups during the RevCom meeting in January 2015

Structure of SG13RG-AFR

Management Team

Dr. Rim BELHASSINE-CHERIF

Tunisie Telecom, Tunisia

SG13RG-AFR Chairman

Mr. Brice MURARA

RURA, Rwanda

SG13RG-AFR Vice-chairman, WP1

Miss. Soumaya BENBARTAOUI

ARPCE, Algeria

SG13RG-AFR Vice-chairman, WP2

Mr. Elliot KABALO

ZICTA, Zambia

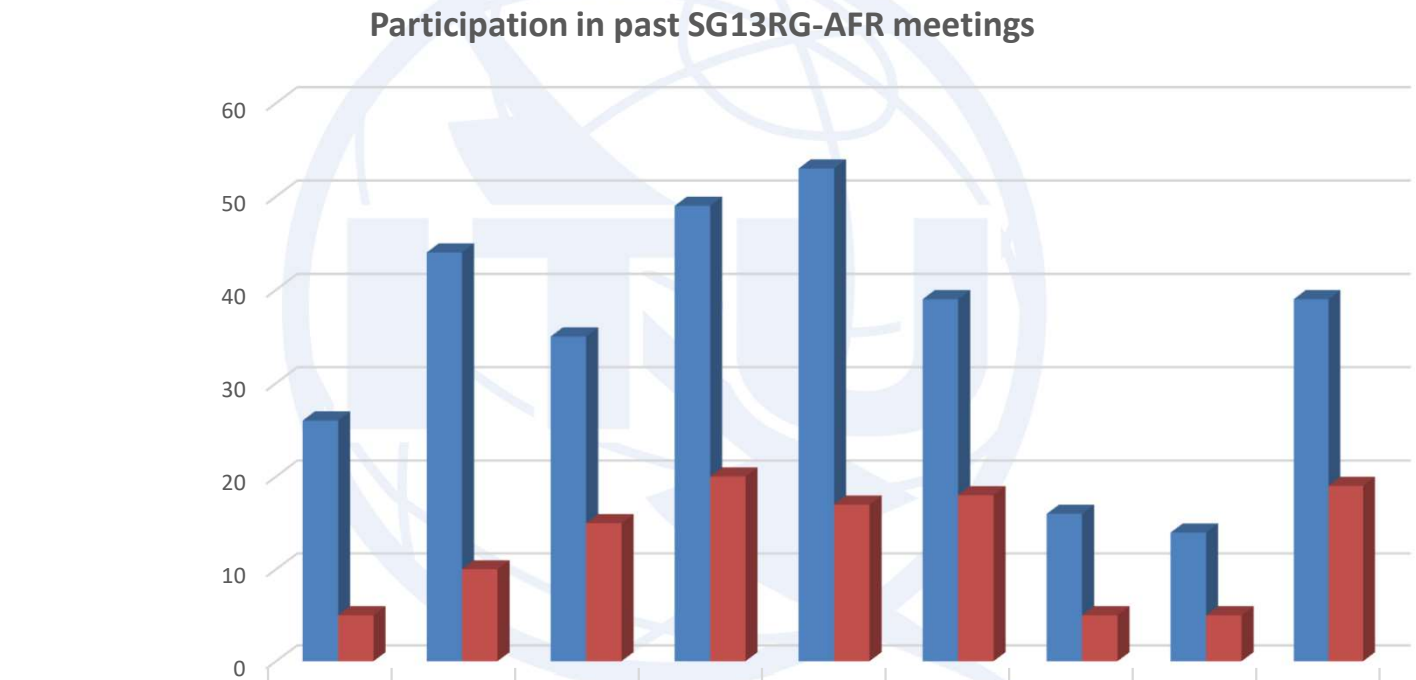
SG13RG-AFR Vice-chairman, WP3

SG13RG-AFR Meetings

RG is 10 years old now!

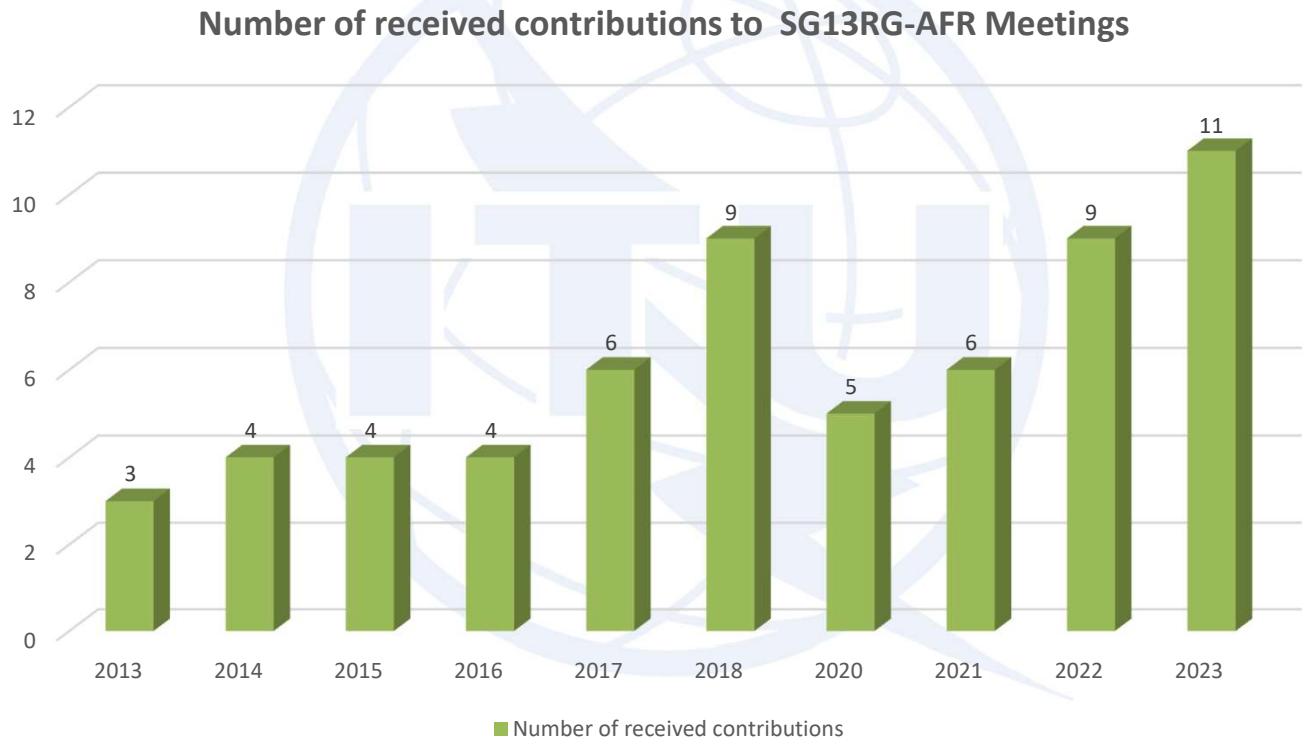
Meeting	Place	Date	Host
1	Algiers, Algeria	10-11 September 2013	ARPT
2	Tunis, Tunisia	29-30 April 2014	Tunisie Telecom
3	Livingstone, Zambia	25-26 February 2015	ZICTA
4	Accra, Ghana	16-17 March 2016	NCA
5	Cairo, Egypt	4-5 April 2017	NTRA
6	Abidjan, Côte d'Ivoire	28-29 March 2018	ARTCI
7	Abuja, Nigeria	5-6 February 2020	Federal Ministry of Communications - supported by the University of Nigeria
8	Virtual Meeting	2 June 2021	ITU
9	Virtual Meeting	20 October 2022	ITU
10	**Abidjan, Côte d'Ivoire**	**21-22 September 2023**	**ARTCI**

Participation in SG13RG-AFR Meetings



	2013	2014	2015	2016	2017	2018	2020	2021	2022
Number of Participants	26	44	35	49	53	39	16	14	39
Number of Countries	5	10	15	20	17	18	5	5	19

Contributions to SG13RG-AFR Meetings



SG13 Regional Workshops for Africa

	Theme	Place	Date
1	Standardization on IMT, M2M, IoT, Cloud Computing and SDN	Alger, Algeria	8 September 2013
2	Future Networks: Cloud Computing, Energy Saving, Security & Virtualization	Tunis, Tunisia	28 April 2014
3	ITU-T Standardization Challenges for Developing Countries Working for a Connected Africa	Livingstone, Zambia	23-24 February 2015
4	Future Networks for a better Africa: IMT-2020, Trust, Cloud Computing and Big Data	Accra, Ghana	14-15 March 2016
5	ITU-T Standardization Work on Future Networks: Towards a Better Future for Africa	Cairo, Egypt	2-3 April 2017
6	Standardization of future networks: What opportunities for Africa?	Abidjan, Côte d'Ivoire	26-27 March 2018
7	Standardization of future networks towards Building a better connected Africa	Abuja, Nigeria	3-4 February 2020
8	"Standardization and Future Networks: Opportunities for Africa beyond 2020"	Virtual	1 June 2021
9	**Standardization of Future Networks and Emerging Network Technologies: African perspectives**	**Abidjan, Côte d'Ivoire**	**19-20 September 2023**

BSG Trainings

Alongside SG13RG-AFR Meetings

Date	Location	No. of Participants
6 March 2016 ((SG 13 RG-AFR)	Accra, Ghana	45
3 April 2017 (SG11 &13 RG-AFR)	Cairo, Egypt	48
28 March 2018 (SG 13 RG-AFR)	Abidjan, Côte d'Ivoire	28
5 February 2020 (SG 13 RG-AFR)	Abuja, Nigeria	54
22 September 2023 (SG13 & 2 RG-AFR)	Abidjan, Côte d'Ivoire	-

BSG trainings are also scheduled alongside the SG13 meetings

Recommendations

Continue raising awareness regarding the importance of standards for African countries in order to increase their participation in the standardization activities of SG13 while continuing discussions on the necessary mechanisms to encourage the participation of SMEs, start-ups and Academia

Encourage the establishment of national standards bodies in African countries

Encourage the creation of task forces in Africa on future networks and emerging technologies such as Cloud Computing, IMT-2020 and beyond, fixed-mobile convergence and Machine Learning

Recommendations

Continue organizing training sessions on how to prepare, submit and negotiate contributions which could help increase the number of contributions from Africa to upcoming SG13 and SG13RG-AFR meetings

Encourage African countries to host SG13 meetings to help promote SG13 activities in Africa and increase African participation and contributions

Disseminate Surveys at the end of regional workshops to collect feedback from participants (ITU members and non-ITU members) and to identify standardization priorities for African countries in relation to SG13 topics

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Thank you for your Attention

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