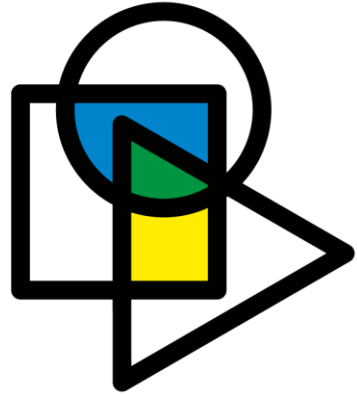


WORLD TELECOMMUNICATION  
STANDARDIZATION ASSEMBLY



# ITU WTSAs-20

GENEVA2022

1- 9 March 2022  
Geneva, Switzerland

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## ITU-T Study Group 11

### Signalling requirements, protocols, test specifications and combating counterfeit products

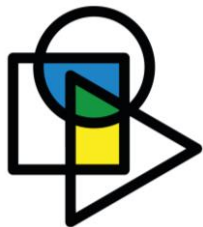
Achievements and future plans

Andrey Kucheryavy, Chairman ITU-T SG11

March 2022



[www.itu.int/wtsa2020](http://www.itu.int/wtsa2020)



# Areas of study of SG11 (2017-2021)

**Protocols**

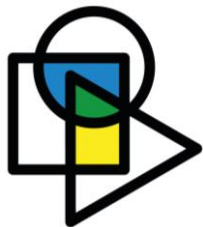
**Signalling and protocols, including for IMT-2020 technologies**

**Testing**

**Establishing test specifications, conformance and interoperability testing for all types of networks, technologies and services that are the subject of study and standardization by all ITU-T study groups**

**Combating counterfeiting and ICT theft**

**Combating counterfeiting of ICT devices and the use of stolen ICT devices**



# SG11 structure and related groups

## Vice-chairmen:

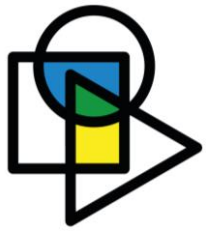
- Isaac Boateng (Ghana)
- Jose Hirschson Alvarez Prado (Argentina)
- Shin-Gak Kang (Korea, Rep.of)
- Karim Loukil (Tunisia)
- Awad Ahmed Ali Hmed Mulah (Sudan)
- Khoa Nguyen Van (Viet Nam)
- João Alexandre Moncaio Zanon (Brazil)
- Xiaojie Zhu (China)

## Secretariat (TSB):

- Denis Andreev (Advisor)
- Carolina Lima (Administrative assistant)



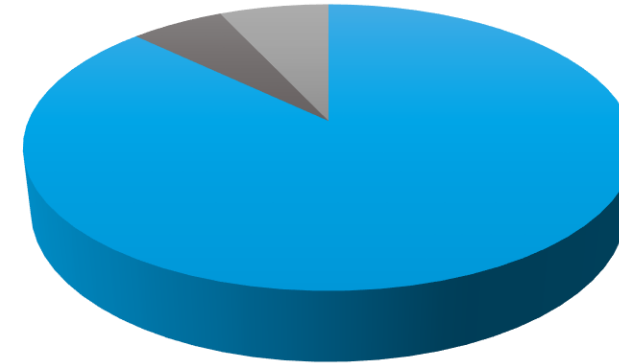
**SG11 Chairman**  
**Andrey Kucheryavy**  
**(Russian Federation)**



# General statistic of SG11 (2017-2021)

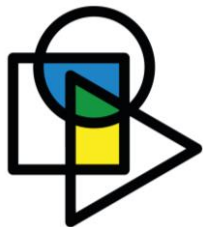


Approved texts



■ Recommendations ■ Technical papers/reports ■ Supplements

- **88 Recommendations**
- **12 Technical papers and Supplements**
- **1231 Participants (76 countries)**
- **660 Contributions**
- **3 SMEs**
- **New Focus Group (FG-TBFxG)**



# SG11 structure and related groups

**5**

**WORKING  
PARTIES  
& CASC**

**14**

**QUESTIONS**

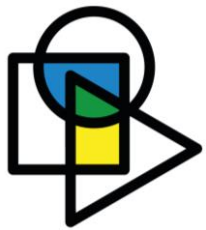
**2**

**REGIONAL  
GROUPS  
(AFR, EECAT)**



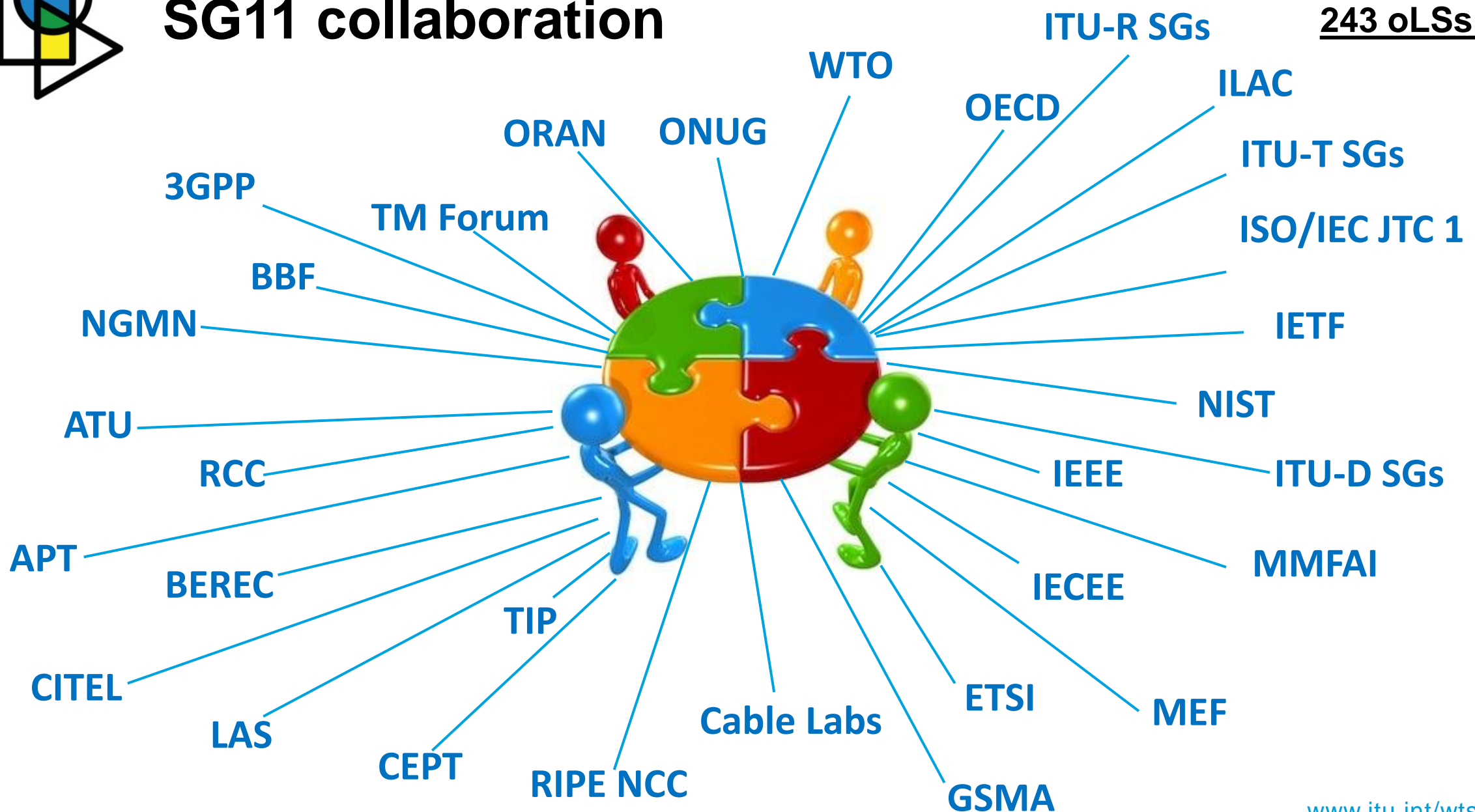
**1**

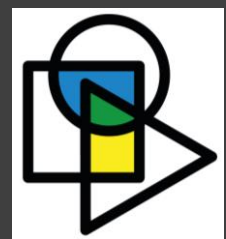
**FOCUS  
GROUP  
(FG-TBFxG)**



# SG11 collaboration

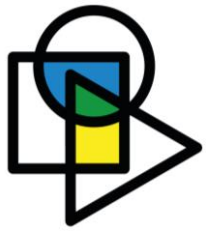
243 oLSs sent



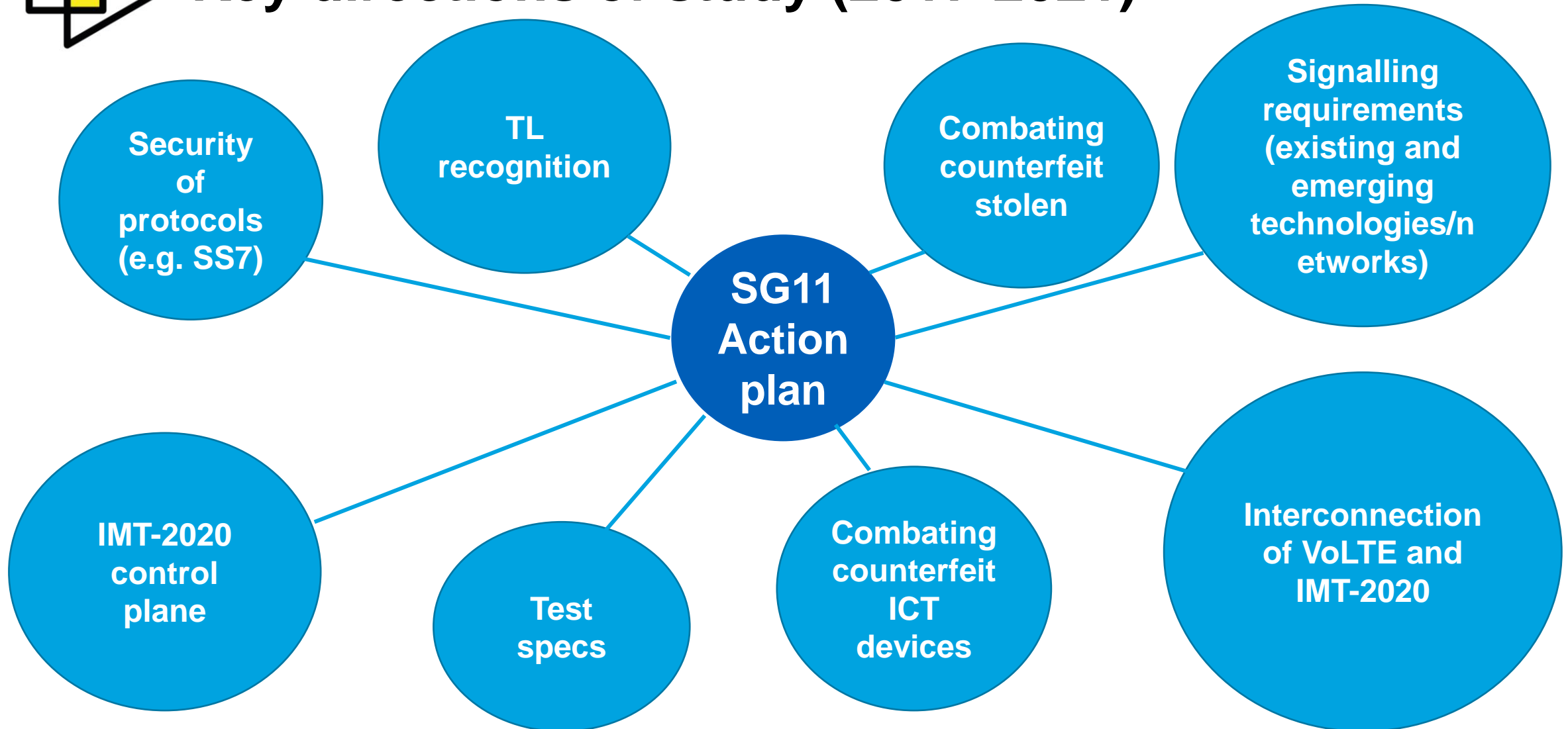


# SG11 organized 17 Workshops (2017-2021)

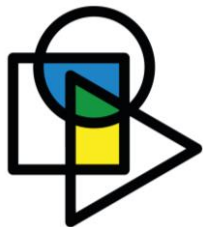




# Key directions of study (2017-2021)







## New-subcategories of Q.series

Q.5000-Q.5049

Signalling requirements and protocols for IMT-2020

Q.4100-Q.4139

Protocols and signalling for P2P communications

Q.4060-Q.4099

Testing specifications for IMT-2020 and IoT

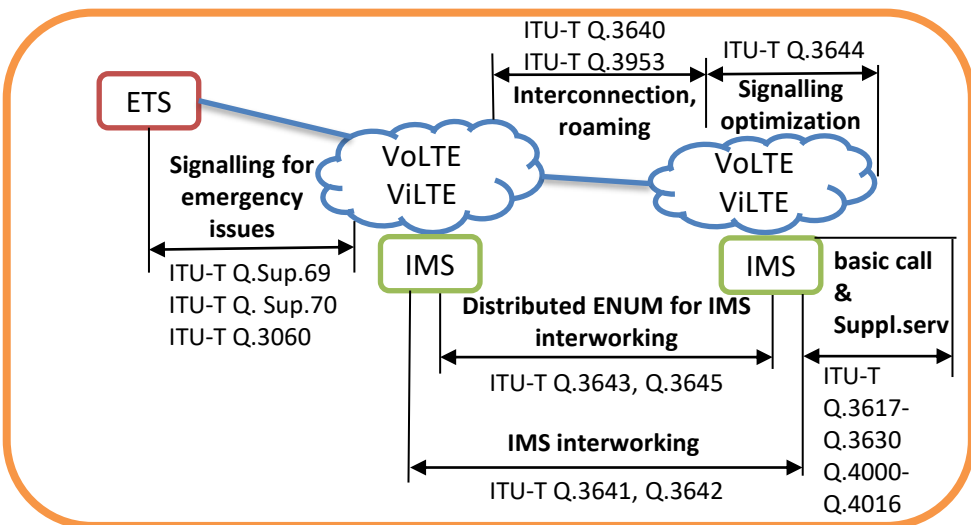
Q.5050-Q.5069

Combating counterfeiting and stolen ICT devices

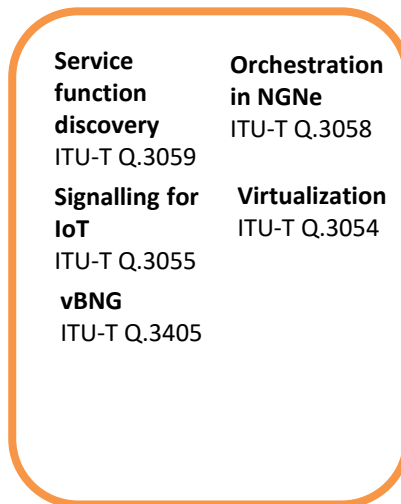


# Key achievements: Signalling (2017-2021)

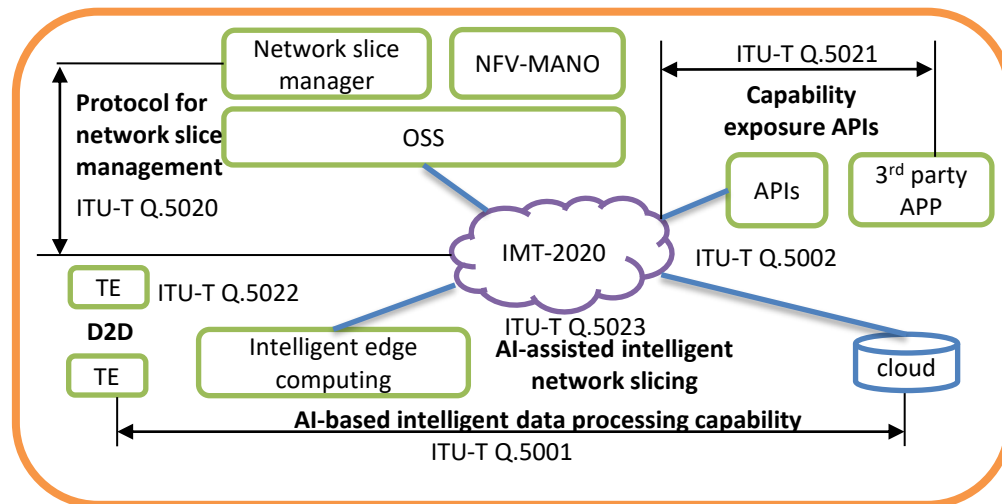
## VoLTE/ViLTE signaling



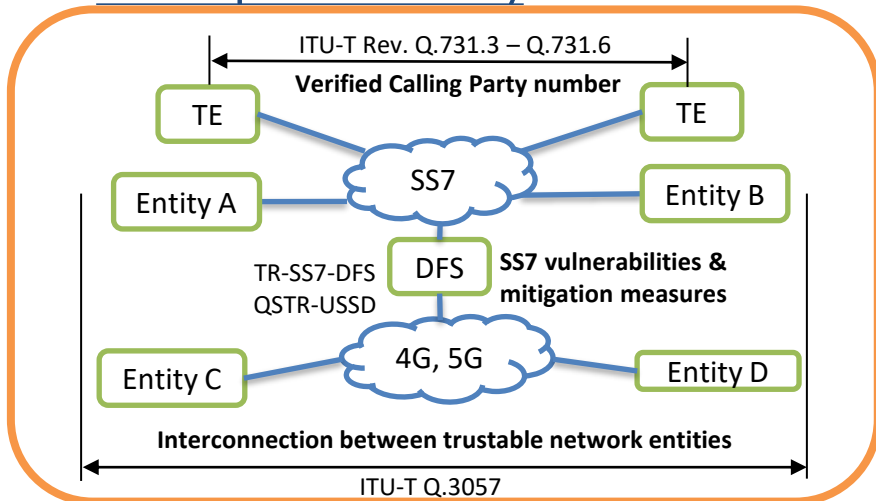
## Network signaling



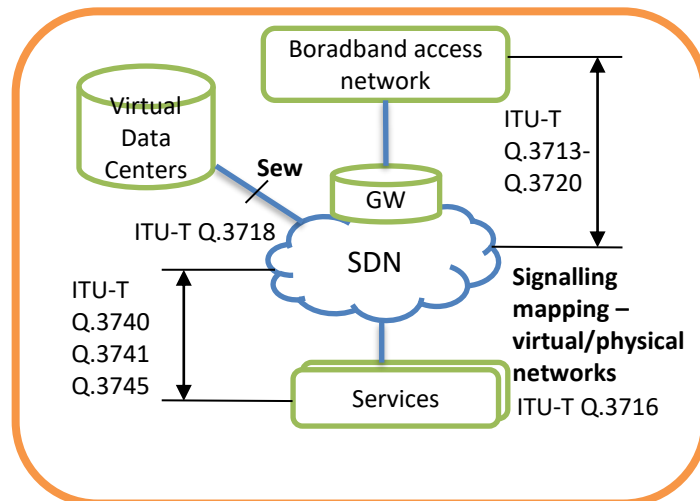
## IMT-2020 signaling



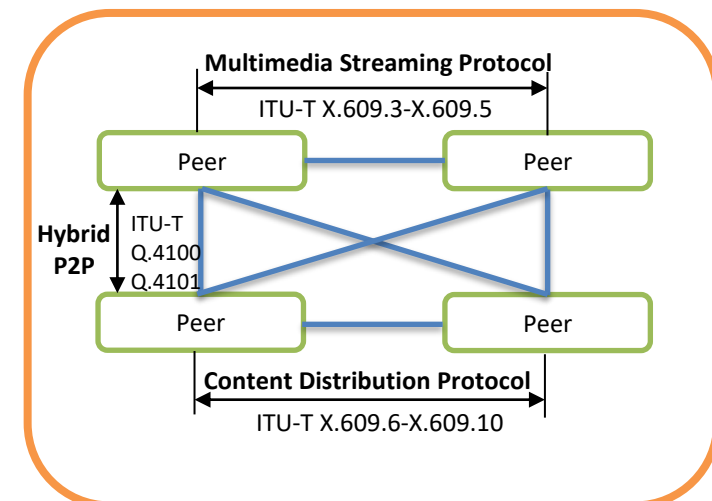
## SS7 and protocols security

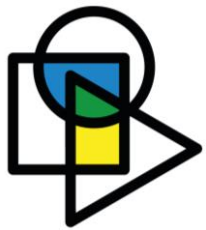


## SDN signalling



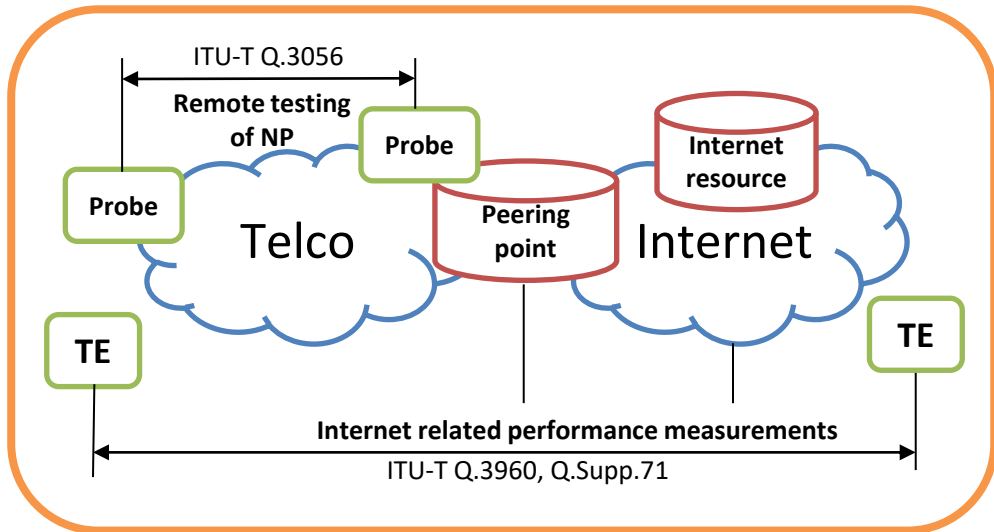
## P2P communications



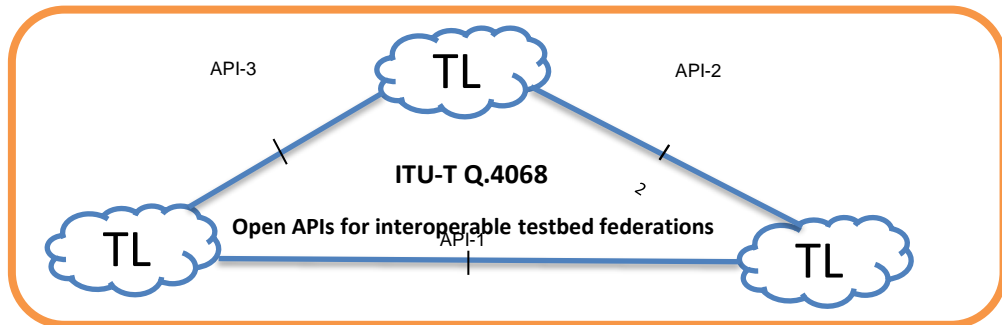


# Key achievements: Testing (2017-2021)

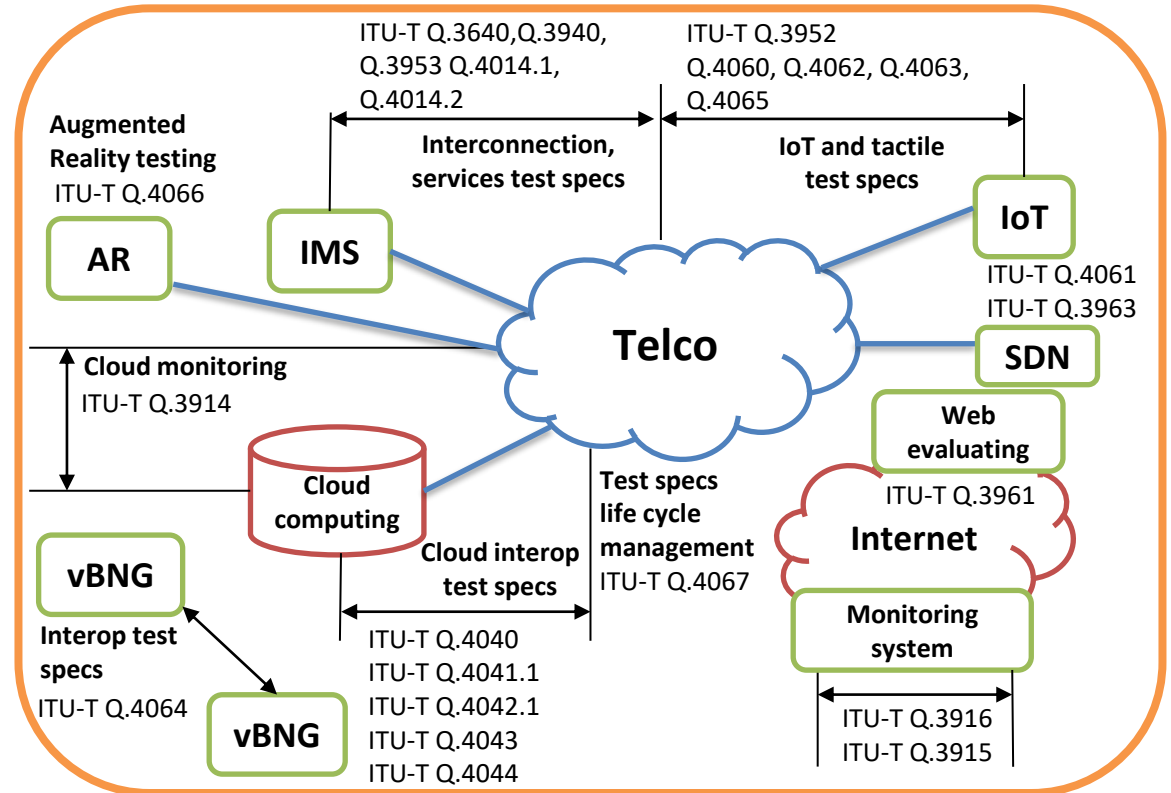
## Internet measurements, remote testing



## Testbed federations

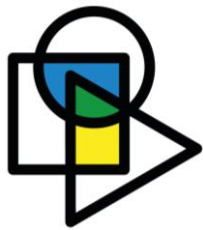


## Protocols test specs, monitoring



## ITU C&I Programme

- Reference table of ITU-T Recommendations to be used for C&I
- Pilot projects on C&I







# Key achievements: CASC (2017-2021)

[Conformity Assessment Steering Committee \(ITU-T CASC\)](#) collaborates with International Laboratory Accreditation Cooperation (ILAC) on establishing ITU Testing Laboratory recognition procedure

## Outcomes:

- SG11 approved the ITU Guidelines which define the high-level framework on TL recognition procedure and appointment of ITU technical experts who can be involved in the TL's assessment team.
- Appointed 11 ITU-T Technical experts on ITU-T Recommendations H., K., M. and X.series.
- SG11 agreed that ITU recognizes the TLs which are accredited by an Accreditation Body (AB) that is a signatory to the [ILAC Mutual Recognition Arrangement \(MRA\)](#) for testing, which scope of accreditation contains ITU-T Recommendation(s).
- Any TL, including non-ITU member, needs to approach AB that is a [signatory to the ILAC MRA](#). Once accredited, TL can be recognized by ITU based on the request submitted via [online form](#).


## ITU Testing Laboratories Database - Application form

YOU ARE HERE: [HOME](#) > [ITU-T](#) > [ITU CONFORMITY AND INTEROPERABILITY](#) > [ITU TESTING LABORATORIES DATABASE - APPLICATION FORM](#) SHARE    

**1. APPLICANT**

Testing Laboratory Name \*:   
Note: please provide the name as identified by the Accreditation Body of ILAC MRA signatory in the scope of accreditation

Laboratory ID:   
Note: please indicate the registration number provided by the Accreditation Body of the ILAC MRA signatory to the testing laboratory, if applicable

Accreditation validity \*:    
(yyyy-MM-dd)  
Note: please indicate the date when the given accreditation is expired

Street/P.O. Box \*:

Town/City \*:

Country \*:

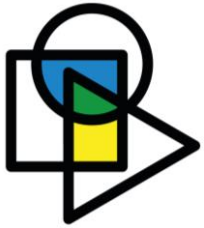
Website \*:

Contact Person \*:

Job title \*:

Phone \*:

Email \*:



# Key achievements: Counterfeit & ICT theft (2017-2021)

## Combating counterfeiting of ICT devices

[Web portal](#)

**Resolution 96 of WTSA-16**  
ITU Telecommunication Standardization Sector studies for combating counterfeit telecommunication/information and communication technology devices

- Technical Report on Counterfeit ICT Equipment (2015)
- QTR-CICT - Survey report on counterfeit ICT devices in Africa region (2017)
- ITU-T Q.5050 “Framework for solutions to combat counterfeit ICT devices” (2019)
- Questionnaire on Reliability of International Mobile Equipment Identity (IMEI)

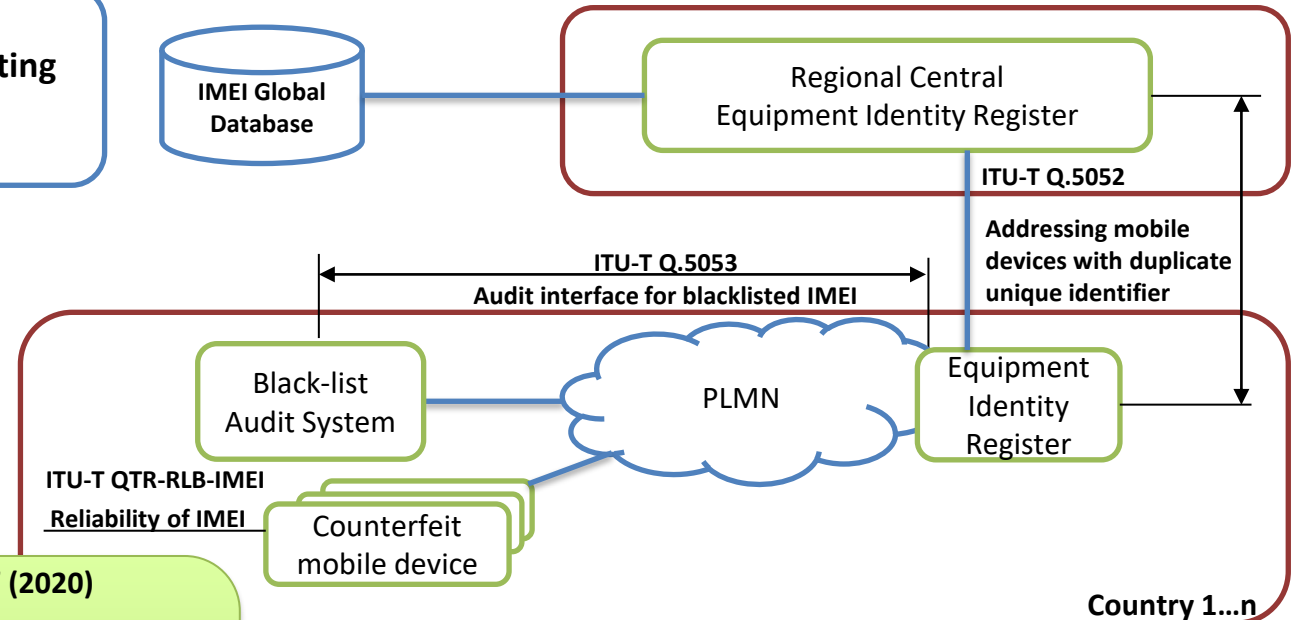
ITU-T Q.5052 “Addressing mobile devices with a duplicate unique identifier” (2020)

ITU-T Q Suppl.73 “Guidelines for Permissive versus Restrictive System Implementations to address counterfeit, stolen and illegal mobile devices” (2021)

ITU-T Q Suppl.74 “Roadmap for the Q.5050-series - Combat of Counterfeit ICT and Stolen Mobile Devices” (2021)

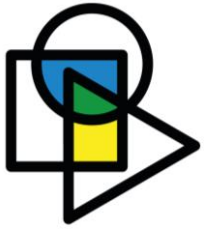
ITU-T Q.Suppl.75 “Use cases on the combat of counterfeit ICT and stolen mobile devices” (2021)

**Resolution 97 of WTSA-16**  
Combating mobile telecommunication device theft



## Combating the use of stolen ICT devices

- ITU-T Q.5051 “Framework for combating the use of stolen mobile devices” (2020)

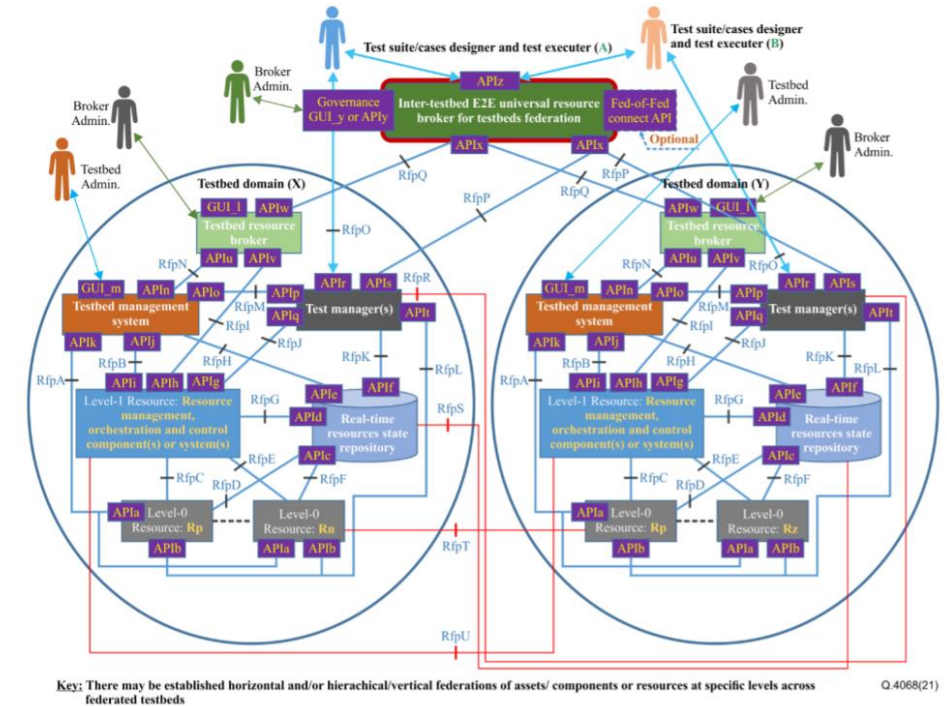


# ITU-T Focus Group on Testbeds Federations for IMT-2020 and beyond (FG-TBFxG)

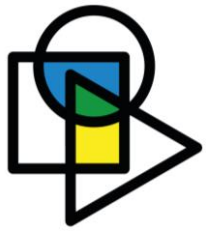
First meeting: [virtual, 4-7 April 2022](https://www.itu.int/go/fgtbf)

[www.itu.int/go/fgtbf](https://www.itu.int/go/fgtbf)

- Harmonize testbeds specifications across SDOs/Fora
- Develop the required application program interfaces (APIs) aligned with the Testbeds Federations Reference Model (ITU-T Q.4068)
- Define a set of use cases for Federated Testbeds and associated APIs, such as “Testbed-as-a Service” (TaaS)

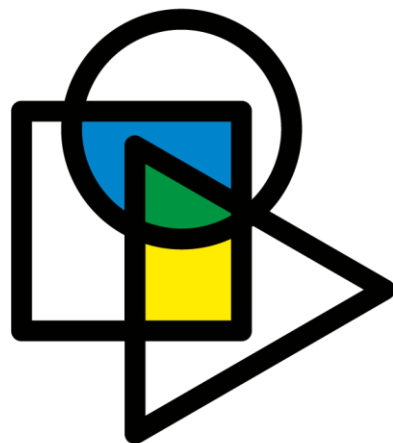


[ITU-T Q.4068](https://www.itu.int/q4068) “Open application program interfaces (APIs) for interoperable testbed federations”



## Future plans (2022-2024)

- Lead on developing protocols for all types of networks and its applications, including NFV, QKDN, IMT-2020 and beyond
- Enhance security of signalling protocols using digital certificate-based approach for ICT communications including those to be used in DFS
- Develop signalling and test specifications for interconnection of networks
- Develop APIs for Testbed Federations and test specifications for remote testing
- Combat counterfeit and stolen telecommunication/ICT devices and counterfeit or tampered telecommunication/ICT software
- Implement C&I programme and develop test specifications
- Facilitate recognition of TLs and continue collaboration with existing accreditations bodies (e.g. ILAC)



# ITU WTSa-20

GENEVA2022

*Setting the standard*

1- 9 March 2022  
Geneva, Switzerland