

ITU: an overview

*Getting to know the United Nations specialized agency
for information and communication technologies*

*Alexandra Gaspari - ITU
Programme Coordinator
Focal point for Regional and National
Standards Bodies*

01 | *About us*

what we do



UN Agency for ICTs



The International Telecommunication Union (ITU) is the United Nations specialized agency for **information and communication technologies (ICTs)**



Promoting international collaboration for a **connected world**

WHAT WE DO



WHAT WE DO



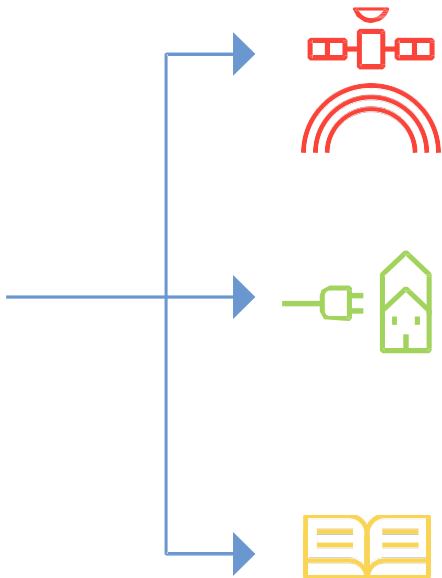
**Committed to
Connecting the
World**



WHAT WE DO



**Committed to
Connecting the
World**



Coordinating radio spectrum and **managing** satellite orbital frequencies

Bridging the digital divide

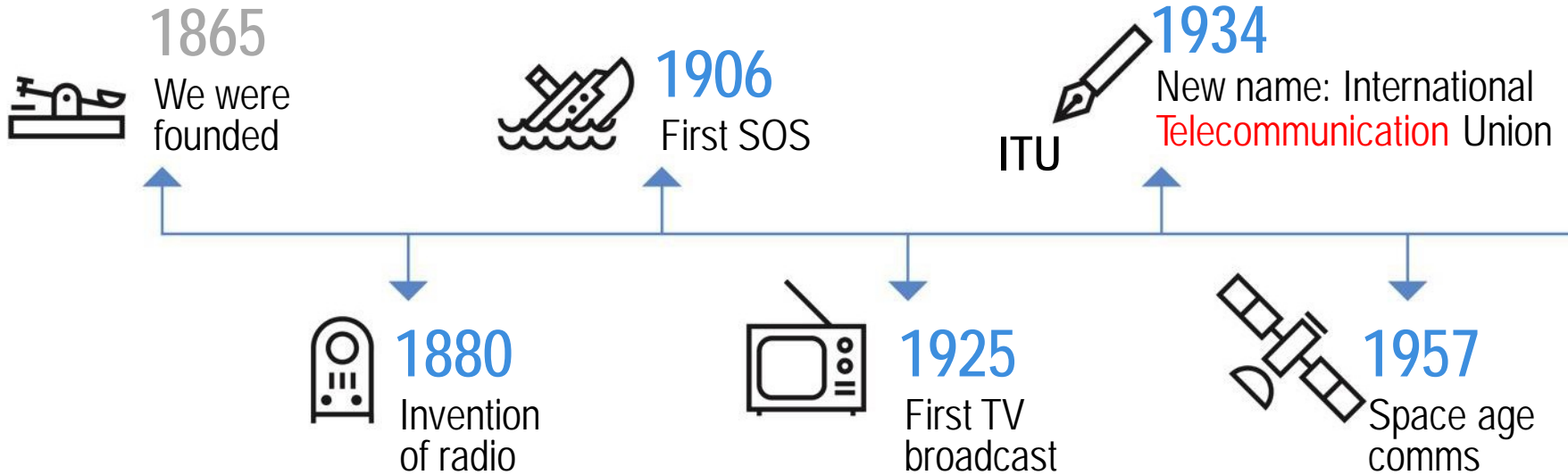
Establishing global standards



02 | *How we got here*

timeline

Timeline



Timeline



1973

First mobile phone call



2010

Broadband Commission



2015

Let's celebrate!



1969

Roots of Internet



2003/5

WSIS/Bridging the Digital Divide



2014

ICT innovation and Digital Inclusion

03 | *Where are we?*

Regional presence



PRESENCE

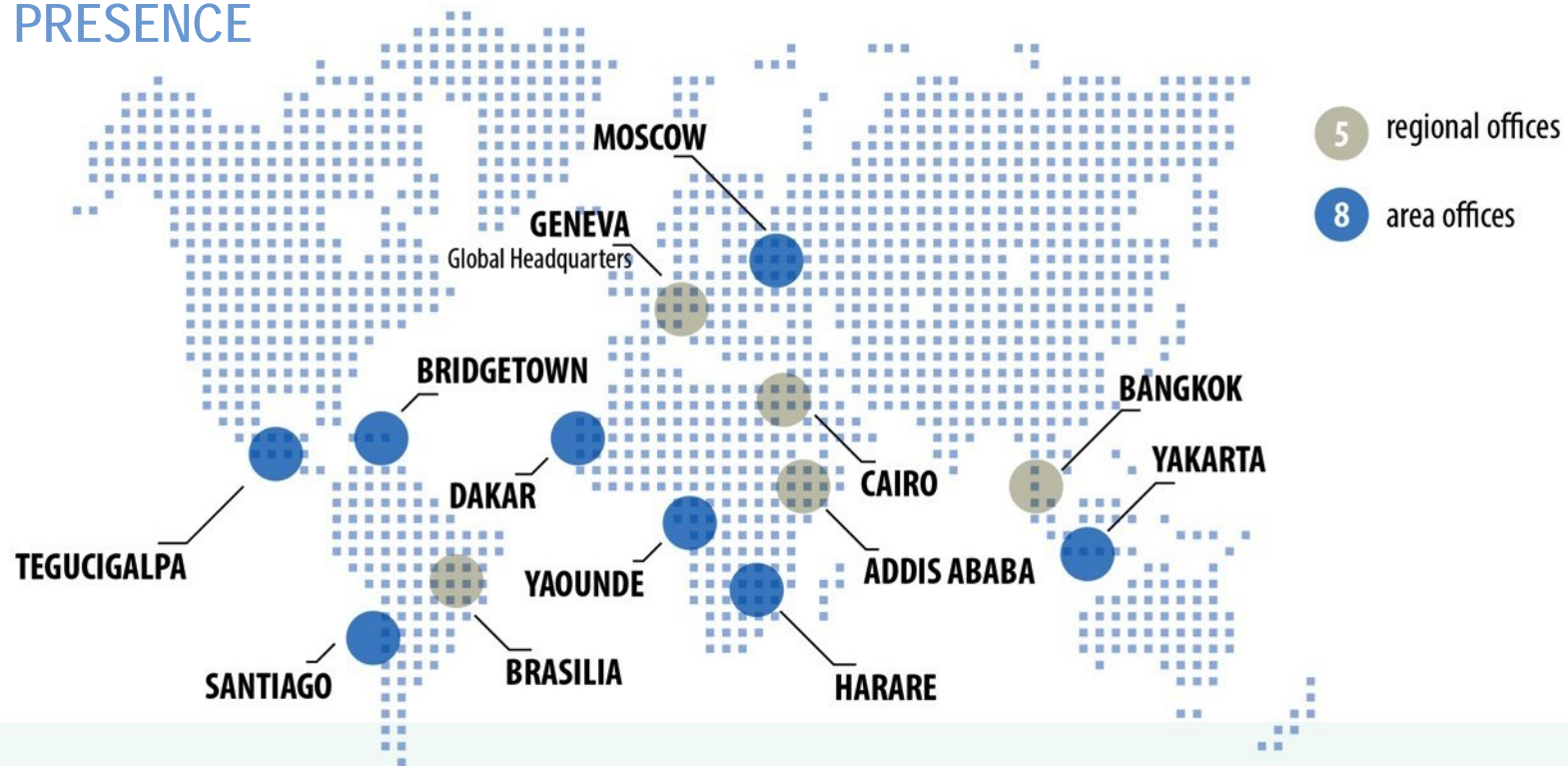


PRESENCE

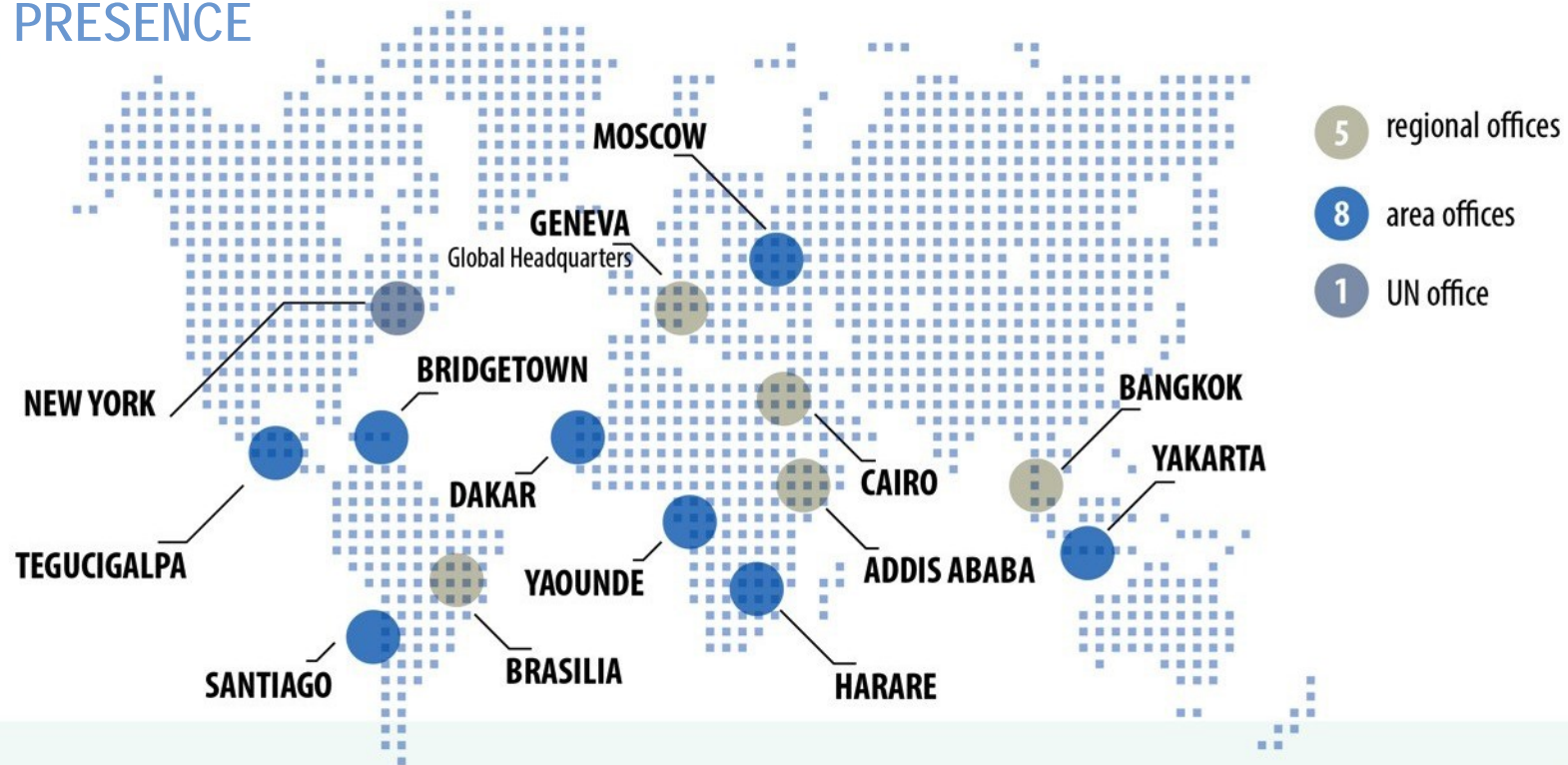


5 regional offices

PRESENCE



PRESENCE



04 | *Meet us*

Who are we?



WHO ARE WE?

Our numbers

193

MEMBER
STATES



WHO ARE WE?

Our numbers

193

MEMBER
STATES



700+

PRIVATE SECTOR
ORGANIZATIONS



WHO ARE WE?

Our numbers

193

MEMBER
STATES



700+

PRIVATE SECTOR
ORGANIZATIONS



140

ACADEMIA
MEMBERS



WHO ARE WE?

ITU Elections

ITU Officials



WHO ARE WE?

ITU Elections

ITU Officials

5

ELECTED
OFFICIALS

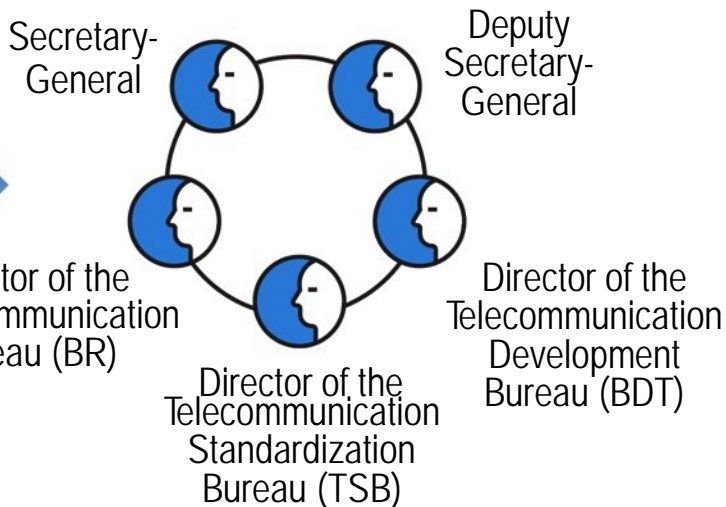
WHO ARE WE?

ITU Elections

ITU Officials

5

ELECTED
OFFICIALS

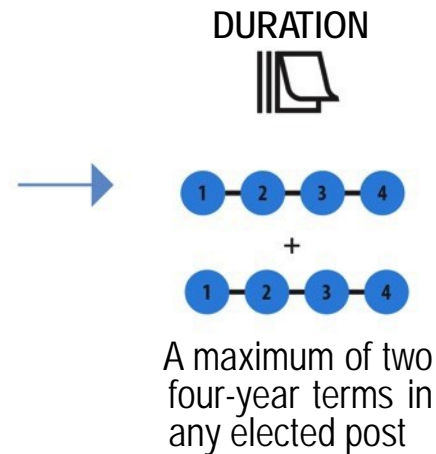
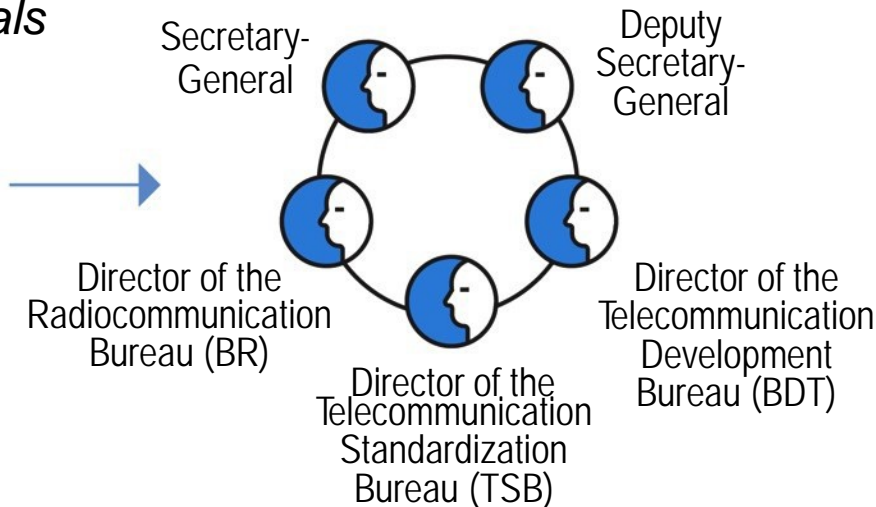


WHO ARE WE?

ITU Elections

ITU Officials

5
ELECTED
OFFICIALS



WHO ARE WE?

ITU Elections

ITU Council



WHO ARE WE?

ITU Elections

ITU Council

48

MEMBERS

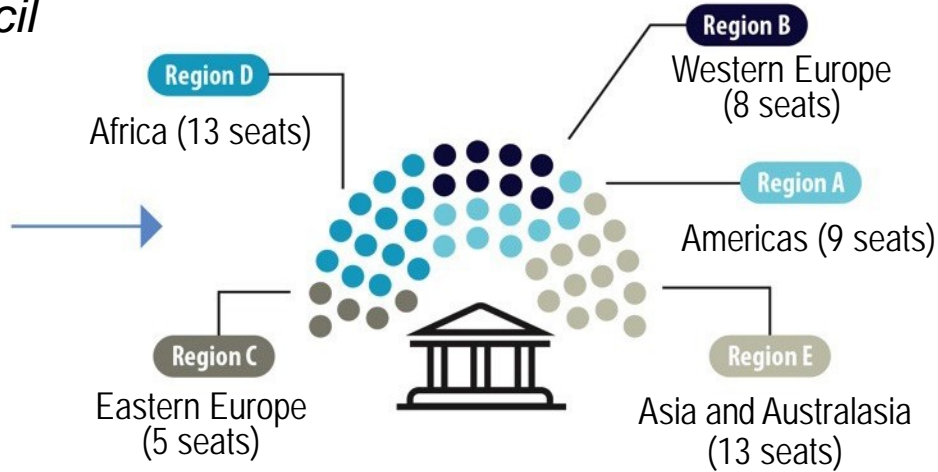


WHO ARE WE?

ITU Elections

ITU Council

48
MEMBERS

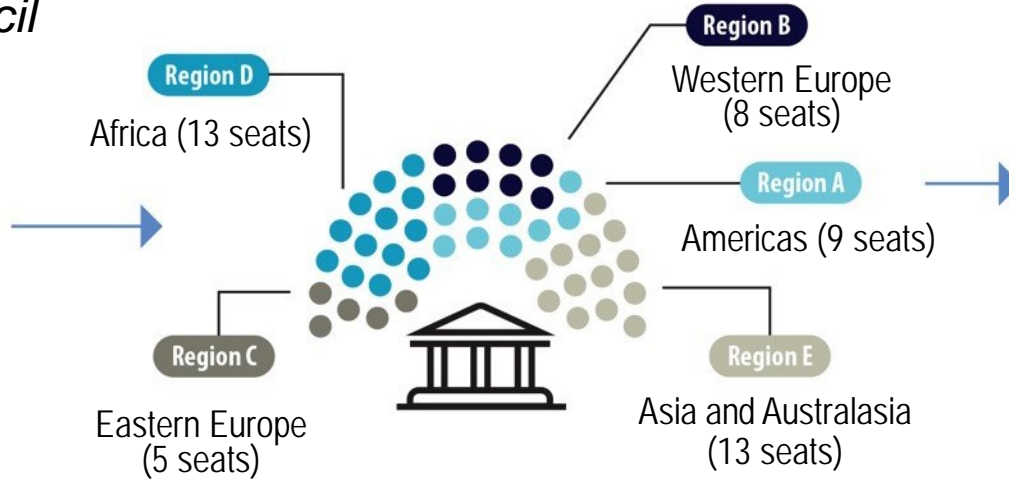


WHO ARE WE?

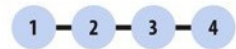
ITU Elections

ITU Council

48
MEMBERS



DURATION



Elected for a four-year term

WHO ARE WE?

ITU Elections

Radio Regulations Board (RRB)

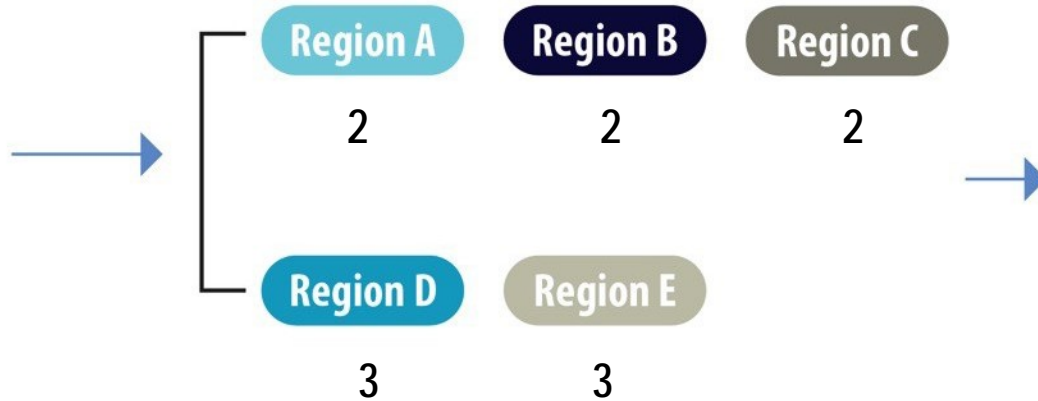


WHO ARE WE?

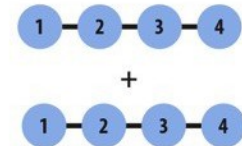
ITU Elections

Radio Regulations Board (RRB)

12
MEMBERS



DURATION



A maximum of two
four-year terms in
any elected post

WHO ARE WE?

Organization



WHO ARE WE?

Organization

3

SECTORS

WHO ARE WE?

Organization

3
SECTORS



Standardization

Radiocommunications

Development

WHO ARE WE?

Organization



05 | *Meet the sectors*

ITU-R

/RADIOCOMMUNICATION/



05 | *Meet the sectors*

ITU-R

/RADIOCOMMUNICATION/



05 | *Meet the sectors*

ITU - R



KEY
ROLE





KEY ROLE

Global management of **radio-frequency spectrum and satellite orbital frequencies**

Ensures equal and **efficient use of radio-frequency spectrum** to accommodate huge growth in demand for spectrum

ITU-R **coordination of orbital slots** prevents radio interference **preventing malfunctioning** of satellite services

05 | *Meet the sectors*

ITU - R



MAJOR ACHIEVEMENTS





MAJOR ACHIEVEMENTS

IMT-2000 and **IMT-Advanced**
technical frameworks underpin
mobile 3G and 4G networks

Excellent track record in maintaining
harmonious **satellite coordination**

05 | *Meet the sectors*

ITU - R



WORLD RADIOCOMMUNICATION CONFERENCE





WORLD RADIOCOMMUNICATION CONFERENCE

Reviews and revises the Radio Regulations in a rapidly evolving market for wireless devices and services

05 | *Meet the sectors*

ITU - R



WORLD RADIOCOMMUNICATION CONFERENCE





WORLD RADIOCOMMUNICATION CONFERENCE

Ensures reliable radio services
remain **available at all times**

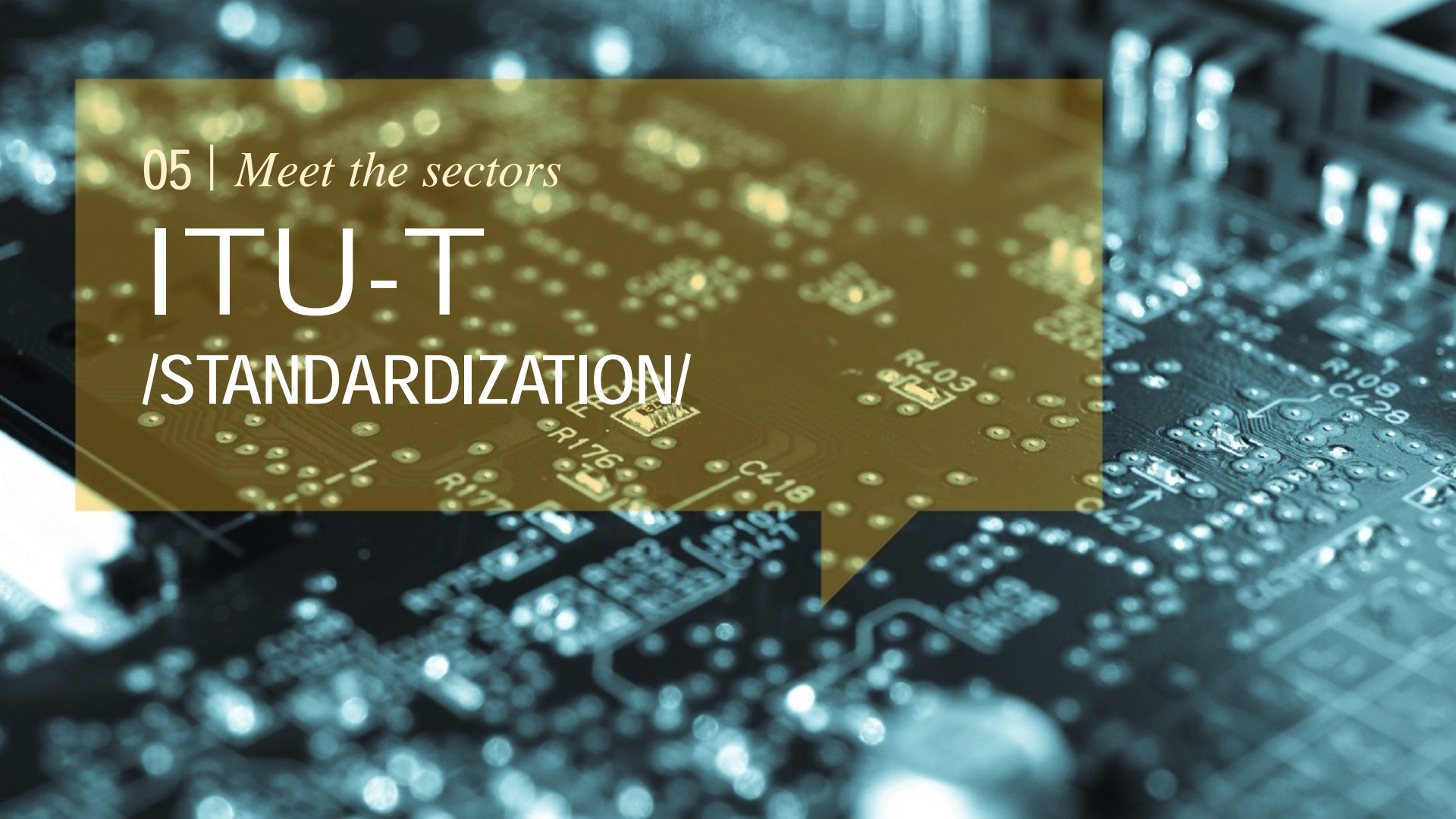
**Addresses all
radiocommunication matters** of a
global nature

Reviews and instructs the Radio
Regulations Board (RRB) and the
Radiocommunication Bureau

05 | *Meet the sectors*

ITU-T

/STANDARDIZATION/



05 | *Meet the sectors*

ITU - T



KEY
ROLE



**KEY
ROLE**

We develop international standards (ITU Recommendations) that enable the interconnection and interoperability of ICT networks and devices

200 - 300 new
international standards
approved every year, with
over **4,000** in use today



STANDARDS enable global communications by ensuring ICT networks and devices **speak the same language globally.**





MAJOR ACHIEVEMENTS

PKI

Public-key infrastructure, central to e-commerce



G.fast

New broadband standard designed to deliver access speeds of up to 1Gbit/s over existing telephone wires

ADSL & VDSL

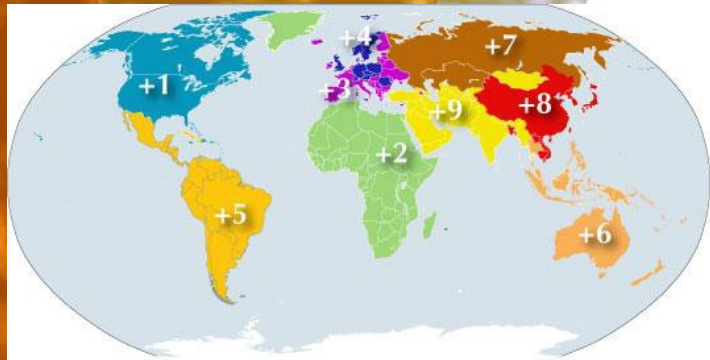


H.264/MPEG-4

The primetime **Emmy award** (to ITU, ISO and IEC) winning **video codec** and its successor, H.265



Country codes





WORLD TELECOMMUNICATION STANDARDIZATION ASSEMBLY

[WTSA-16 Four years report](#)

Draws up the ITU-T **Action Plan**

Sets ITU-T Study Group top **priorities and questions**



The Groups of Experts

- SG2 - Operational aspects
- SG3 - Economic and policy issues
- SG5 - Environment and climate change
- 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 and applications, smart cities

A composite image featuring a woman in a green headscarf talking on a mobile phone in the background, and a child in traditional beaded headgear in the foreground. The background is a desert landscape under a clear blue sky. A semi-transparent green box is overlaid on the left side of the image, containing text.

05 | *Meet the sectors*

ITU-D /DEVELOPMENT/

05 | *Meet the sectors*

ITU - D



KEY
ROLE



KEY ROLE

Promotes equitable and affordable **access to telecommunications** to help stimulate social and economic development

Fosters human capacity-building in developing and least developed countries (LDCs)

Helps to ensure that people everywhere are empowered **to reap the benefits that connectivity delivers**



MAJOR ACHIEVEMENTS



MAJOR ACHIEVEMENTS

Measuring the Information Society
report (ICT Development Index)

Enhancing cybersecurity in LDCs
– CIRT programme and cyber-drills



MAJOR ACHIEVEMENTS

Providing vital emergency telecommunications

to assist rescue and relief operations in the
immediate aftermath of a disaster

06 | *Our areas of action*

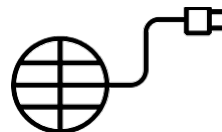
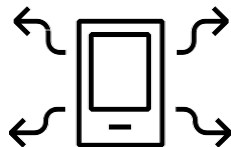
digital divide



DIGITAL DIVIDE



World connection



60% of the world's population still not online

ICTs improve access to basic services like education and healthcare, create jobs, and empower communities

Connect the World initiative: Regional Summits mobilizing resources and partnerships for ICT development

07 | *Our work programme*

Examples of areas of action



07 | *Our areas of action*

Emergency telecoms



EMERGENCY TELECOMS



Disasters

1

In times of disaster, communication links are essential to humanitarian efforts

ITU framework for
Cooperation in Emergencies

2

Standards for interconnection and
call prioritization

EMERGENCY TELECOMS



Disasters

3

In times of disaster, communication links are essential to humanitarian efforts

Effective **frequency** use for emergencies

Disaster-resilient networks

EMERGENCY TELECOMS



Disasters

5

In times of disaster, communication links are essential to humanitarian efforts

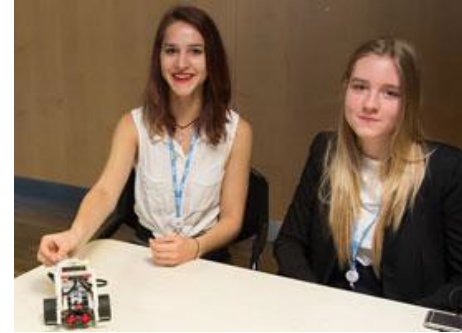
6

Telecommunication equipment for relief efforts

Rehabilitation of affected networks

08 *Our work programme*

Involving the Academia and research world



ITU KALEIDOSCOPE

- The ITU Kaleidoscope is an international events bringing **academia** and **industry** together

Call for original academic papers that offer innovative and bold approaches relevant to technology, business and policy aspects of data management and analysis and encourage the development of applications and services building on data technologies to improve society.

Key dates for the 2017 edition:

- Submission of full paper proposals: 19 June 2017
- Notification of paper acceptance: 18 September 2017
- Submission of camera-ready accepted papers: 6 October 2017



ITU KALEIDOSCOPE
NANJING 2017
Challenges for a data-driven society
27-29 November
Nanjing, China

In partnership with:

Hosted by:

Co-located with:

Organized by:



ITU Journal: *ICT Discoveries*

Scholarly, professional, peer-reviewed, digital, online

- First special issue on “The impact of Artificial Intelligence (AI) on communication networks and services”
- Call for Papers coming in April 2017
- Launch at ITU Telecom World, Busan, Republic of Korea, 25-28 September 2017
- Contact: journal@itu.int

09 | *Our areas of action*

Gender and

Opportunities for the youth



Gender Programmes

Gender Divide | *Estimated 200 million fewer women online than men in 2013, read the [article](#)*



Girls in ICT Day – 5,200 events in 150 countries around the world. Over 176,000 girls encouraged to study STEM and take up ICT careers

Gender Programmes

Women and girls must be a part of the digital revolution. **EQUALS** is a global partnership putting the power of modern technologies into the hands of women to accelerate global progress.



EQUALS

The Global Partnership for Gender Equality
in the Digital Age



Areas of Action to Close the Gender Digital Divide



ACCESS

250 million fewer women than men use the Internet

200 million fewer women own a mobile phone



SKILLS

Women account for only 10% of tech jobs in Silicon Valley

Only 6% of app developers around the world are women



LEADERSHIP

With a projected skills gap of 2 million ICT jobs

Women and girls with ICT skills can succeed!

- Action Oriented
- Cross-Cutting Research
- Evidence Based Approach
- Global Advocate for Sustainable Development Goal 5



DIGITAL EQUALITY



3 areas of action:

- ✓ **ACCESS** – Achieve equal access to digital technologies by 2030
- ✓ **SKILLS** – Empower women and girls with skills to become ICT creators
- ✓ **LEADERS** – Promote women as ICT leaders and entrepreneurs

<http://equals.org/>



Gender Programmes

ITU Women in Standardization Expert Group (WISE)

WISE is dedicated to making the world of standardization and telecommunication/ICTs development attractive to women through:

1. Organizing events on standardization and facilitating networking among women in ICT.
2. Advocating for women in leadership roles in telecommunication/ICTs and the standardization industry.
3. Developing a pipeline of potential candidates for leadership positions.
4. Establishing a mentorship program for young women to obtain advice from senior members of ITU WISE.
5. **Generating resources to offer scholarships and internships at ITU to young women in the field of ICTs.**



Internships in ITU/Standardization Bureau – Useful information

Internship opportunities

For students: improve your skills and gain experience working in the UN agency for ICT... Positions are for a duration of one to six months and cater to a broad range of skill sets.

Financial Assistance to academia for internship at ITU

Two programmes have been identified as applicable to providing financial assistance to academia for internships at ITU. They are national initiatives in no way connected or endorsed by ITU

Germany: Carlo Schmid Programme.

Please see <http://www.daad.de/csp> for a description of the programme and the latest internship positions in ITU-T.

Japan: The SCOPE (Strategic Information and Communication R&D Promotion) Programme. It offers fellowship opportunities that can be used for internship at ITU. See this [link](#) for more information (only available in Japanese).



An overhead photograph of five business professionals in a meeting. They are arranged in a circle on a light-colored tiled floor, engaged in conversation. The scene is captured from a high angle, showing their heads and upper bodies. A semi-transparent blue rectangular overlay is positioned in the center of the image, containing text.

10 | *What we do*

ITU as platform for other events

EVENTS

Global Symposium for Regulators / GSR



The only event to unite the global community of ICT regulators to **examine and debate** the latest ICT regulatory challenges

EVENTS

World Conference on International Telecommunications (WCIT)



Reviewed the
International
Telecommunication
Regulations (ITRs) in
2012 to **help improve
global connectivity**

EVENTS

World
Telecommunication
Policy Forum
(WTPF)



A high-level international event designed to **stimulate discussion** on emerging ICT policy and regulatory matters

EVENTS

World Summit on the Information Society (WSIS)



Held in Geneva in 2003 & Tunis in 2005, WSIS established internationally agreed foundations for the Information Society to **ensure digital opportunities for all**. WSIS Forum is held annually to review the implementation of the Summit outcomes.



EVENTS

World
Telecommunication
and Information
Society Day
(WTISD)



Held annually on 17 May
to mark the founding of
ITU in 1865.

Aims to promote
awareness about the
benefits of ICTs for
societies and economies,
and ways to bridge the
digital divide



10 | *What we do*

ITU Telecom World

community wo
belonging to



TELECOM WORLD



Busan 25-28 September

An annual event offering a platform for **strategic debate, innovation- showcasing and networking** for the global ICT community

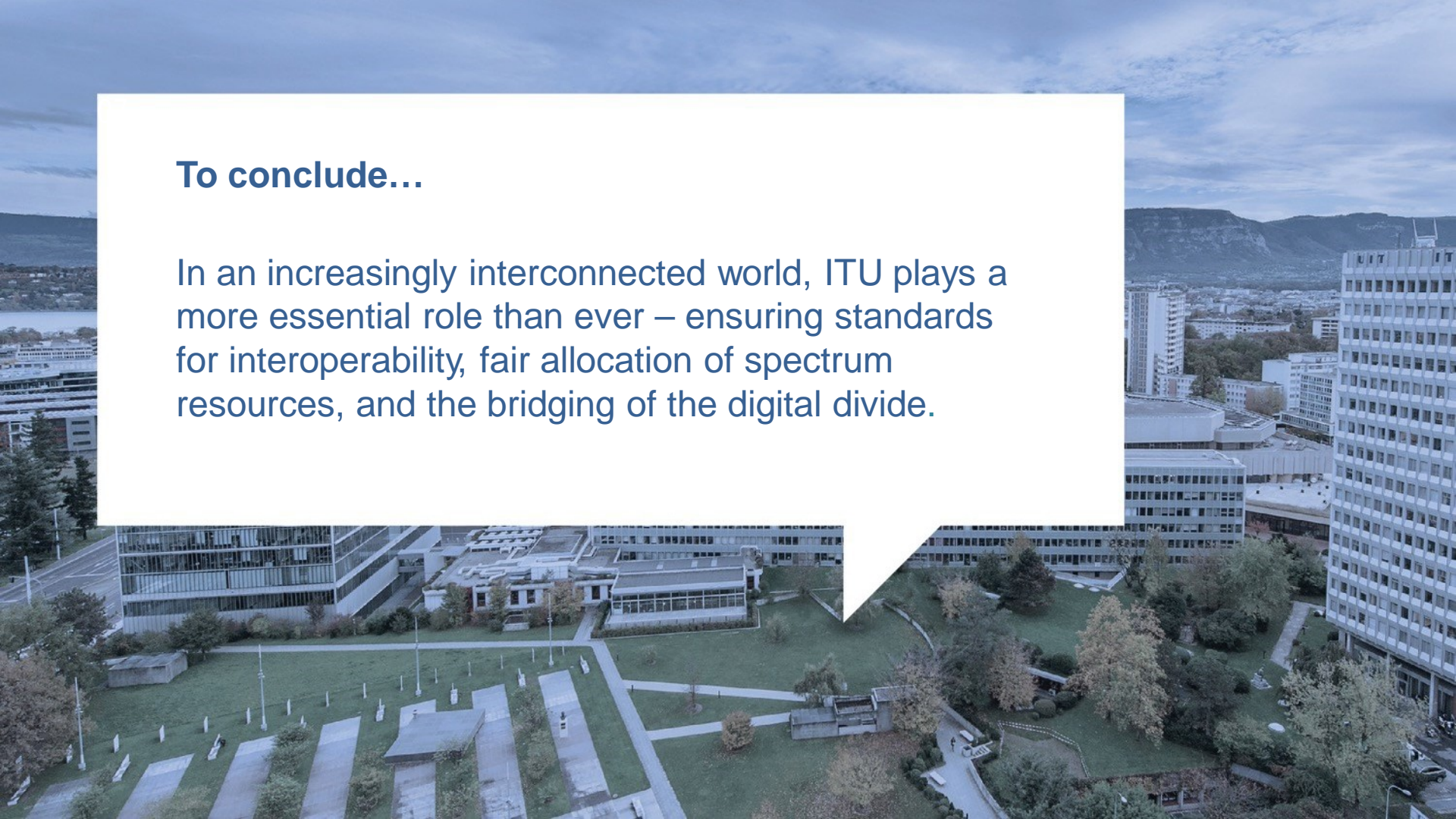
A unique mix of **public and private sector leaders** work together to drive the success of the sector

Integrates a world-class forum of **interactive debates** with an **exhibition of innovations, investment and partnership opportunities** from around the world and across the industry



To conclude...

In an increasingly interconnected world, ITU plays a more essential role than ever – ensuring standards for interoperability, fair allocation of spectrum resources, and the bridging of the digital divide.



THANK YOU



www.itu.int

Alexandra Gaspari - ITU
Programme Coordinator
Focal point for Regional and National
Standards Bodies

COPANT-PASC Annual General Meetings - Vancouver 2017
“Regional Collaboration in a global environment”

**ICTs, the United Nations Sustainable
Development Goals (SDGs)
and the role of ITU-T**

COPANT-PASC Mutual Updates
Vancouver, 3 May 2017

Alexandra Gaspari, ITU
Focal Point for Regional and National Standards Organizations
alexandra.gaspari@itu.int



1. Introduction to the SDGs

2. ICTs and SDGs

- ❑ ICTs as a key, cross-cutting ENABLER

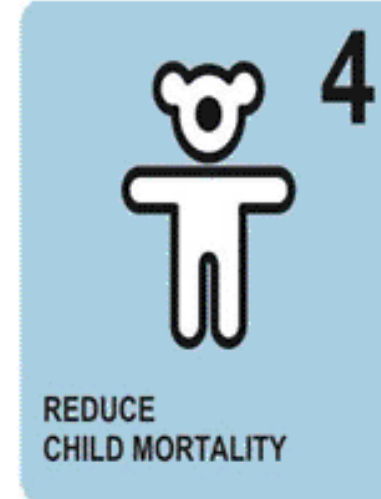
3. ITU-T and SDGs

- ❑ Mapping SDGs and ITU-T work
- ❑ Actions towards contributing to the SDGs



MDGs → poverty eradication, education and health goals for **DEVELOPING** countries.

SDGs → cover economic, social and environmental pillars of sustainable development to be applicable to **ALL** countries.



Millennium Development Goals



Who → Heads of State and Government and High Representatives

Where and when → United Nations HDQ in New York, Sept 2015 (70th anniversary of the UN)

What → “Transforming our World: The 2030 Agenda for Sustainable Development” comprising 17 Goals known as the Sustainable Development Goals (SDGs) and 169 targets.

Three dimensions of sustainable development

SDGs → not only replace the MDGs but also build on them, making them more **ACTION-ORIENTED**, “integrated and indivisible, **global** in nature and **universally applicable**”.

**Economic
Growth**



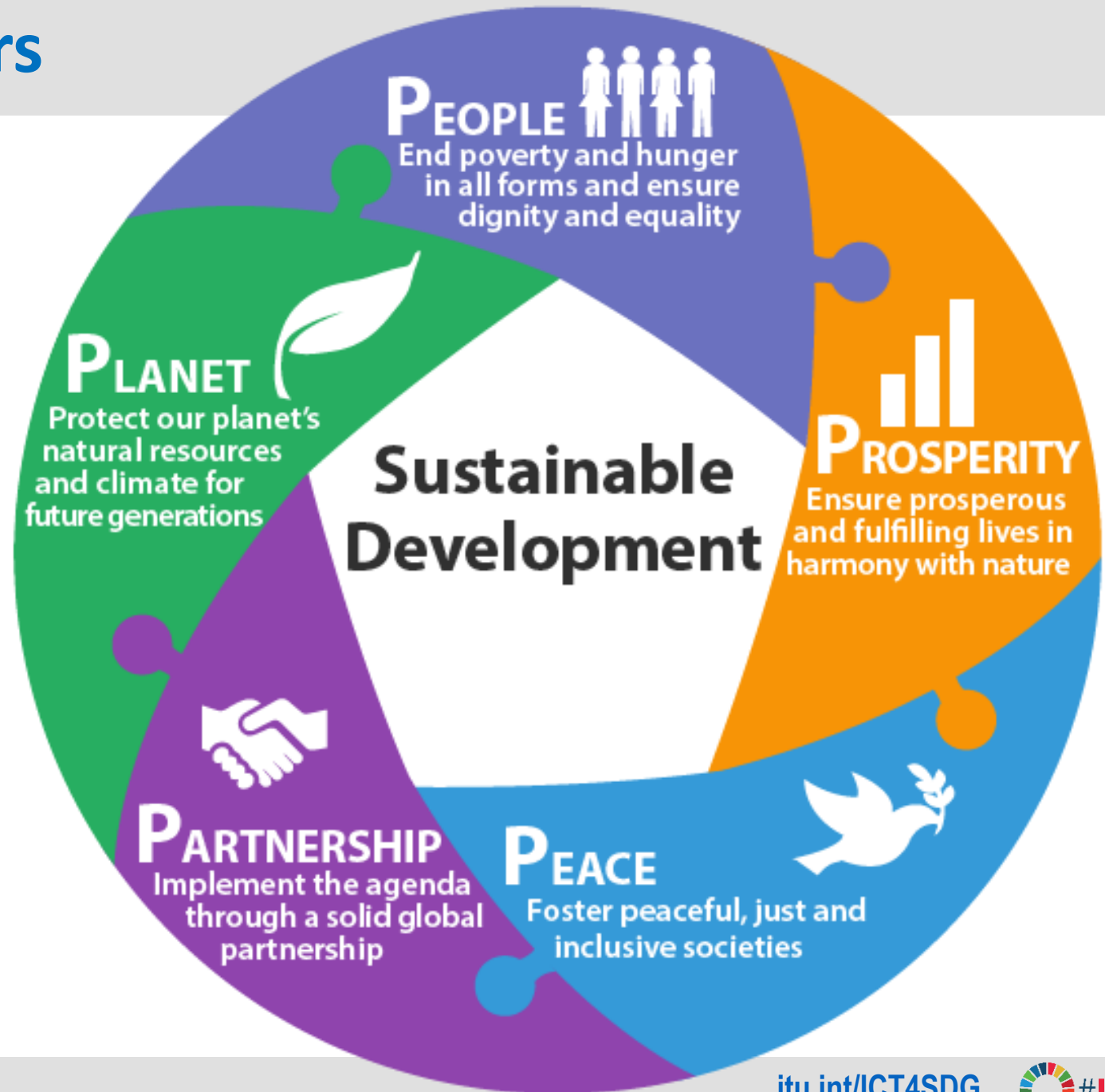
**Social
Inclusion**



**Environmental
Sustainability**



The Goals and targets will stimulate action over the next fifteen years in areas of critical importance for humanity and the planet.



17 Sustainable Development Goals

Introduction To SDGs



ICTs as an Enabler



ICTs play a crucial role to make development activities more **TRANSPARENT, EFFICIENT, INNOVATIVE** across all sectors of SDGs by providing diverse solutions for:

1. Knowledge sharing;
2. Indiscriminative social/economic inclusion;
3. Precise measurement;
4. On-time delivery.

ICTs as an enabler for each SDG

SDG1 - NO POVERTY: by providing timely and accurate information services which will help ensure equal rights to economic resources.

SDG 2 – ZERO HUNGER: ICTs give farmers new ways of accessing information and services for increased productivity and effectiveness of agriculture.

SDG 3 – GOOD HEALTH and WELL BEING: ICTs have the potential to deliver incredible benefits across the global healthcare ecosystem.

SDG 4 – QUALITY EDUCATION: There is tremendous potential to improve education globally, and especially in the developing world, with the power of ICTs.

SDG 5 – GENDER EQUALITY: ICTs allow women and girls to access information of importance to their productive, reproductive and community roles and to obtain additional resources.

SDG 6 – CLEAN WATER AND SANITATION: ICTs will play a crucial role in ensuring the availability and sustainable management of water and sanitation for all

SDG 7 – AFFORDABLE AND CLEAN ENERGY: ICTs will play a vital role in improving energy efficiency, and in reducing emissions in many sectors of the economy.

SDG 8 – DECENT WORK AND ECONOMIC GROWTH: ICT capacity building must be prioritized in national youth employment and entrepreneurship strategies in all countries.

SDG 9 - INDUSTRY, INNOVATION AND INFRASTRUCTURE: Essential role in building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation.

SDG 10 – REDUCED INEQUALITIES: within and between countries, ensuring that all people have equal opportunity to manage their own development.

SDG 11 – SUSTAINABLE CITIES AND COMMUNITIES: offering innovative approaches to managing cities more effectively and holistically through applications for smart cities.

SDG 12 – RESPONSIBLE CONSUMPTION AND PRODUCTION: potential to foster sustainable consumption and production through product-specific improvements, increased dematerialization and virtualization, and smart technologies.

SDG 13 – CLIMATE ACTION: ICT applications have the potential to improve the environment and tackle climate change. ICTs also help to foster sustainable consumption and greener lifestyles.

SDG 14 – LIFE BELOW WATER: significant role in the conservation and sustainable use of the oceans through monitoring and reporting.

SDG 15 – LIFE ON LAND: significant role in the conservation and sustainable use of terrestrial ecosystems and the prevention of the loss of biodiversity.

SDG 16 – PEACE, JUSTICE, and STRONG INSTITUTIONS: important role in crisis management, humanitarian aid and peacebuilding, and have proved to be a powerful aid in many areas.

SDG 17 – PARTNERSHIPS FOR THE GOALS: great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies.

SDGs - Key Focus on ICTs

PART 2.
SDGs &
ICTs

Key Focus
on ICTs

4
QUALITY
EDUCATION



4.b By 2030, substantially increase support for scholarships available to developing countries, for enrolment in higher education, including vocational training and **ICT**, technical, engineering and scientific programmes, in developed countries and other developing countries.

5
GENDER
EQUALITY



5.b Enhance the use of enabling technology, in particular **ICT**, to promote the empowerment of women.

9
INDUSTRY, INNOVATION
AND INFRASTRUCTURE



9.c Significantly increase access to **ICT** and strive to provide universal and affordable access to the **Internet** in least developed countries by 2020.

17
PARTNERSHIPS
FOR THE GOALS



17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular **ICT**.

Targets - 5 ICTs indicators

Key Focus
on ICTs

4 QUALITY
EDUCATION



Target 4.4: Proportion of youth/adults with ICT skills, by type of skills.

5 GENDER
EQUALITY



Target 5b: Proportion of individuals who own a mobile telephone, by gender.

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



Target 9c: Percentage of the population covered by a mobile network, broken down by technology.

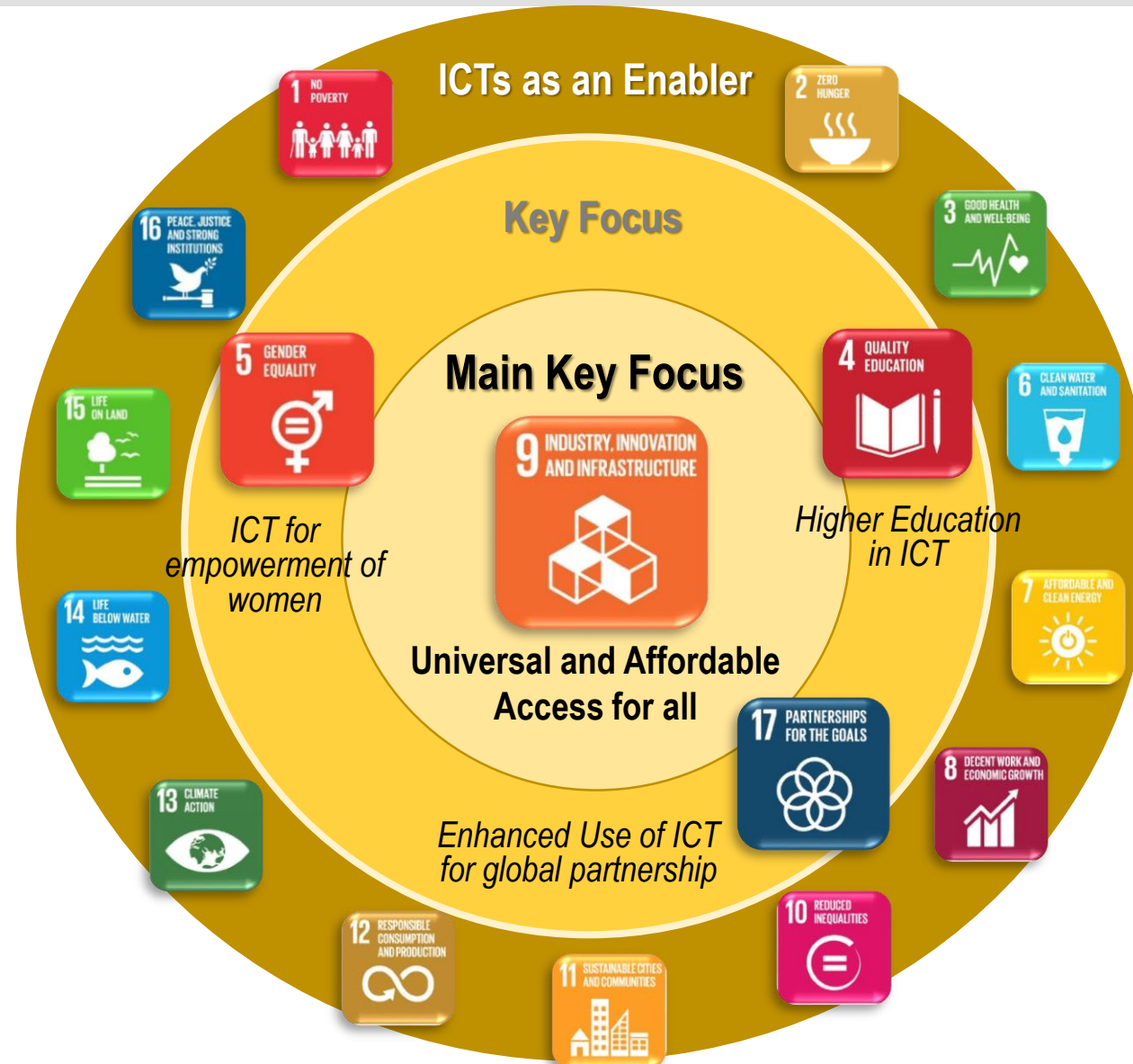
17 PARTNERSHIPS
FOR THE GOALS



Target 17.6: Fixed Internet broadband subscriptions, broken down by speed.

Target 17.8: Proportion of individuals using the Internet.

SDGs and ICTs : Framework



IoT applications for sustainable cities

SDG 9: Industry, Innovation and Infrastructure: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation



SDG 11. Sustainable Cities and Communities: Make cities and human settlements inclusive, safe, resilient and sustainable

SDG 12. Responsible Consumption and Production: Ensure sustainable consumption and production patterns

SDGs and ITU-T work programme - 2

Smart water management, e-waste and green ICTs



SDG 6. Clean Water and Sanitation: Ensure availability and sustainable management of water and sanitation for all

SDG 7. Affordable and clean Energy: Ensure access to affordable, reliable, sustainable and modern energy for all

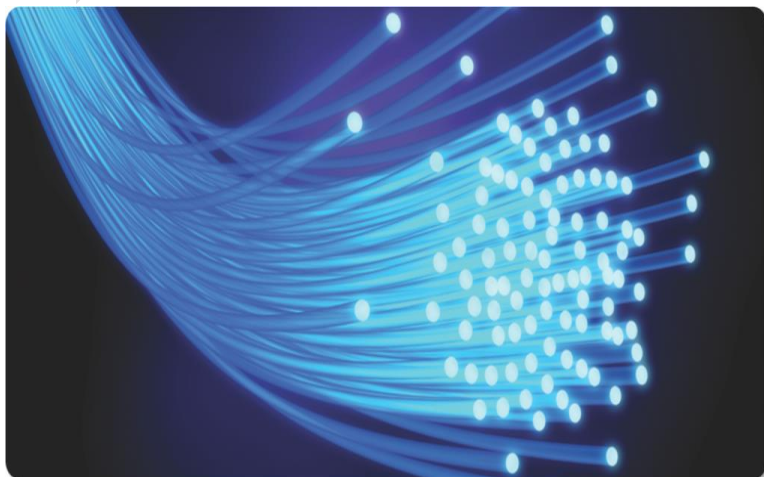
SDG 12. Responsible Consumption and Production: Ensure sustainable consumption and production patterns

SDG 13. Climate Action: Take urgent action to combat climate change and its impacts

SDGs and ITU-T work programme - 3

5G, broadband access, optical networks

To promote affordable access to ICT and Internet, through the development of standards



SDG 9: Industry, Innovation and Infrastructure: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

SDGs and ITU-T work programme - 4

e-health, e-business and e-agriculture applications

SDG 3. Good Health and Well-Being: Ensure healthy lives and promote well-being for all at all ages



SDGs and ITU-T work programme - 5

Submarine cables, Smart Grid for energy efficiency



SDG 14. Life Below Water: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

SDG 7. Affordable and clean Energy: Ensure access to affordable, reliable, sustainable and modern energy for all

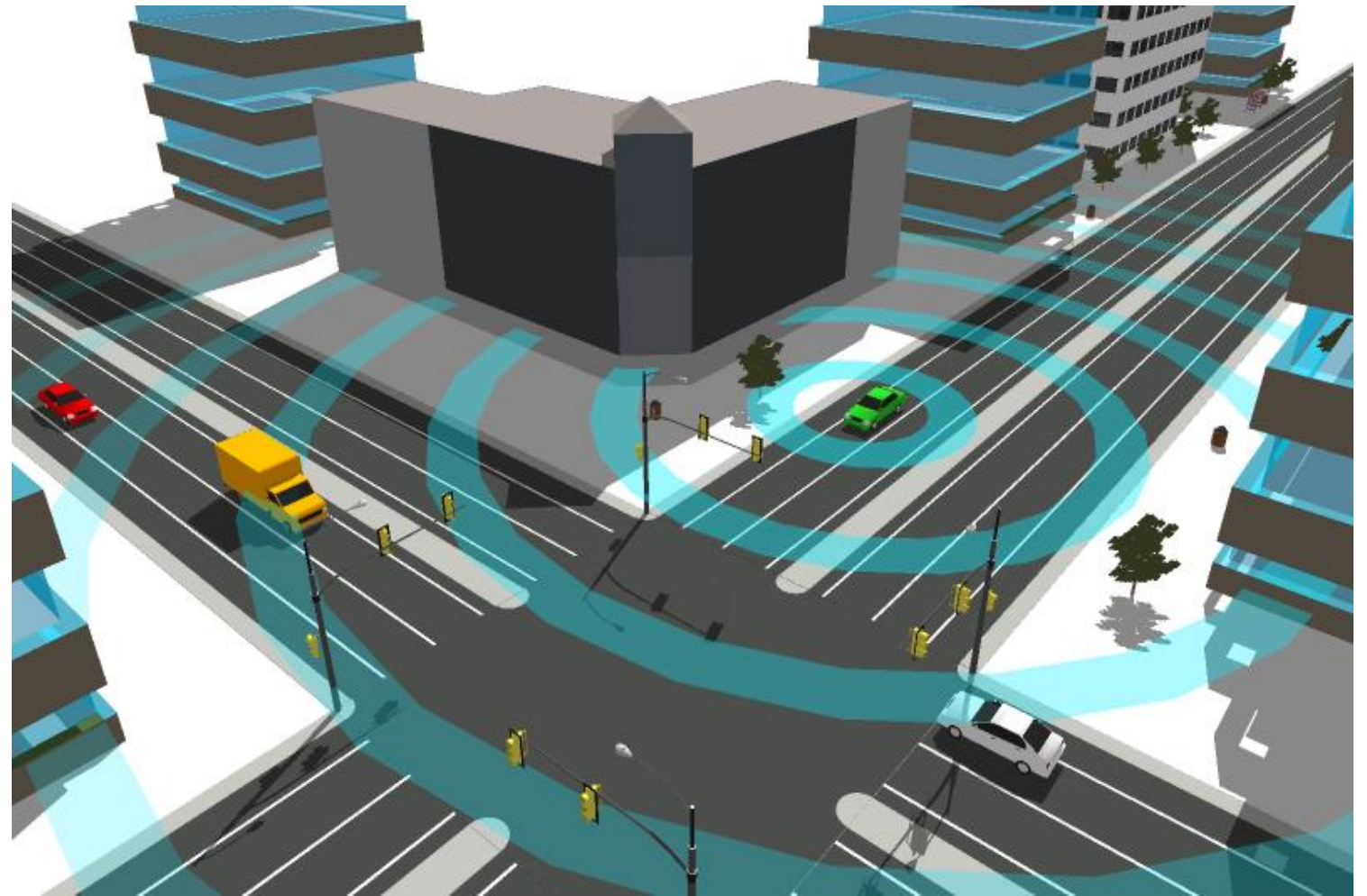


Intelligent Transport System for reduction of traffic accident



SDG 9: Industry, Innovation and Infrastructure: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

SDG 11. Sustainable Cities and Communities: Make cities and human settlements inclusive, safe, resilient and sustainable



Technical specifications for the interoperability of technologies

SDG 9: Industry, Innovation and Infrastructure: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation



Conformity programme for the deployment of internationally interoperable services



SDG 12. Responsible Consumption and Production:
Ensure sustainable consumption and production patterns

Digital Financial Services

DIGITAL FINANCIAL SERVICES FOR FINANCIAL INCLUSION

2 billion adults do not have access to a bank account,
but 1.6 billion of them have a mobile phone.



ICT solutions for combatting counterfeit

Academic and gender programmes

SDG 4: Quality Education: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

International
Girls in ICT Day

27 April 2017

*Expand horizons,
change attitudes*

#GirlsinICT
itu.int/Girlsinict

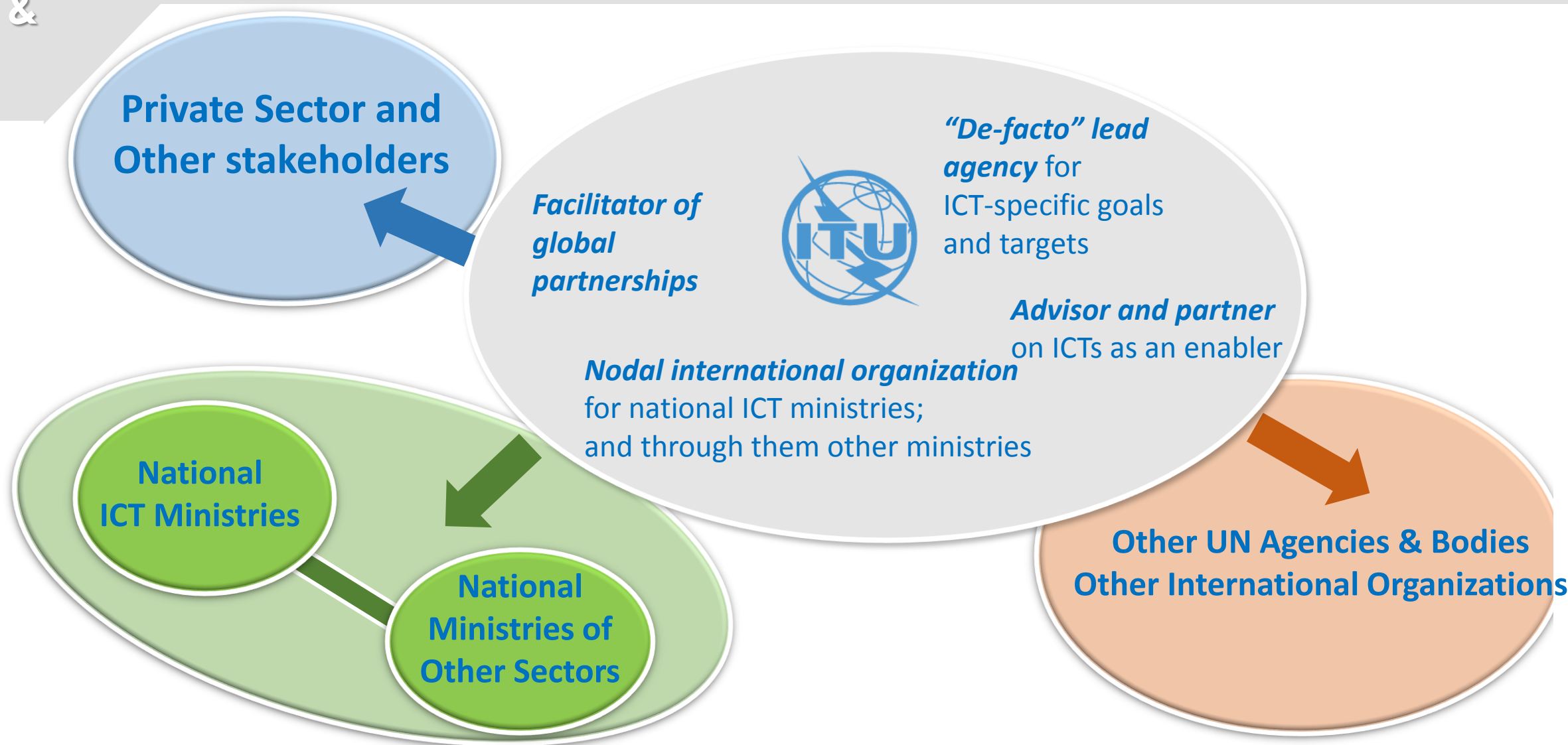


SDG 5 – Gender Equality: ICTs allow women and girls to access information of importance to their productive, reproductive and community roles and to obtain additional resources.

Technical meetings and events



SDG 17 Partnerships for the Goals: Strengthen the means of implementation and revitalize the global partnership for sustainable development



An aerial photograph of a university campus, likely the University of Twente, showing several large, modern, multi-story buildings with glass facades and concrete structures. The campus is interspersed with green lawns, walkways, and trees. In the background, a cityscape and mountains are visible under a cloudy sky. A semi-transparent blue rectangle is overlaid on the top left portion of the image, containing white text.

Introducing ITU-T in the context of “Regional Collaboration in a global environment”

Joint COPANT PASC Updates
Vancouver, 3 May 2017

Alexandra Gaspari - ITU
Programme Coordinator
Focal Point for Regional and
National Standards Organizations

- The first inclusion/mention of national standards organizations arrives in 2014 when the Plenipotentiary Conference of the Union takes place in Guadalajara (PP-14).
- It is not only a mention, but a mention with “honor”, the cooperation with national and regional, considered from then on, among the five strategic Objectives of the Union.
- In particular, the **Objective T.5 of the Strategic Plan** (2016 – 2019) names them: *“Extend and facilitate cooperation with international, **regional** and **national** standardization bodies”*

01 | *Positioning of Regional and National Standards Bodies (in ITU)*

More in details...

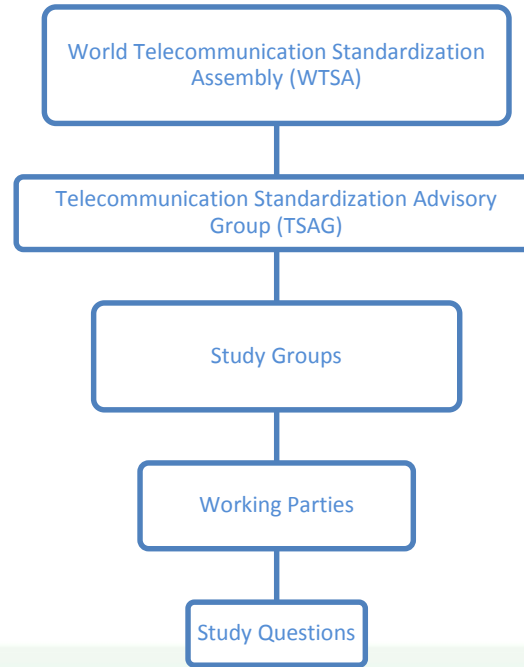
- Increased communication with other standards organizations
- Increased number of MoUs/collaboration agreement with other organizations
- Increased number of workshops/events organized jointly with other organizations

In practice...

- It is what you have seen since one year and half, the invitations from the TSB Director, Dr Chaesub Lee, to join ITU events, that you have received...
- In the future, possibly, to consider other forms of collaboration, in the standards work, like agreeing on cooperation agreements



ITU-T structure



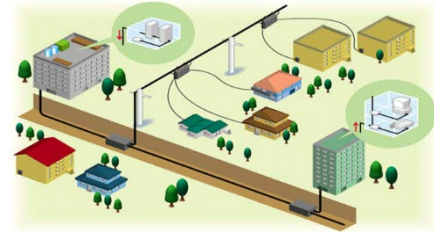


ITU-T structure: ITU-T Study Groups

- SG2 Operational aspects
- SG3 Economic and policy issues
- SG5 Environment and climate change
- SG9 Broadband cable and TV
- SG11 Protocols and test specifications
- SG12 Performance, QoS and QoE
- SG13 Future networks (incl. cloud)
- SG15 Transport and access
- SG16 Multimedia
- SG17 Security
- SG20 IoT & Smart Cities

03 | Areas of work

- Internet Broadband Access (xDSL, G.fast, Fiber to the x, Powerline communication)
- Transport and Optical Fiber
- Multimedia (video coding: ITU-T H.264 and H.265)
- IPTV, Smart Cable Television
- Numbering and Identification Resources
- Conformance and Interoperability Testing
- Bridging the Standardization Gap



03 | *Areas of work*

- Software-defined Networking (SDN)
- Cloud Computing
- Big Data
- M2M and Internet of Things (IoT)
- Cybersecurity, Identity Management, Child Online Protection
- Performance, Quality of Service (QoS) and Quality of Experience (QoE)



03 | *Areas of work*

- Intelligent Transport Systems (ITS)
- Smart Grid
- ICT and Climate Change, Smart Sustainable Cities, Smart Water Management
- E-Health
- ICT Accessibility and Human factors
- Emergency Communications, Disaster Relief Systems, Network Resilience and Recovery



04 | *Hot Topics*

- 5G (non-radio) and Future networks
- IoT including M2M, MOC, WoO (for Smart Sustainable Cities)
- Security, Privacy and Trust
- Transport, Access, Home
- Video coding, e-everything (e.g., e-health)
- ICT and the environment
- Digital Financial Service (e.g., Mobile money)
- Global roaming, Over The Top
- Bridging Gaps (standards, technology)



Vision 2020 Key Topics



**Secure
(Safe)**

Smart

Intelligent



FUTURE NETWORKED CAR > 9-MAR-17

Geneva International Motor Show



5G



Organized by:



Annual Symposium organized by ITU and UNECE at Geneva International Motor Show
[Highlights video](#) (6:45 min)

Session on Mitigating cybersecurity threats to automotive systems

First international standard on over the air vehicle software/firmware updates (ITU-T X.1373: “Secure software update capability for ITS communication devices”)

New dedicated Question on ITS security aspects
Separate entity to increase visibility, autonomy and responsiveness of automotive cybersecurity work in ITU-T



[Resolution 92](#) – Enhancing non-radio aspects related standardization activities in ITU-T on international mobile telecommunications:

Focus Group on IMT-2020: concluded in December 2016:

9 [Deliverables](#) submitted to ITU-T SG13 in December 2016:

- Draft standards
 - Requirements of IMT-2020 from network perspective
 - Framework for IMT-2020 network architecture
 - Requirements of IMT-2020 fixed mobile convergence
 - IMT-2020 network management requirements
 - Network management framework for IMT-2020

[Demo day video](#)

(Wireline Technology Enablers for 5G – Highlights, 7 December 2017)





Security, Privacy and Trust in Standardization

24 October 2016 - Hammamet, Tunisia



GSS-16: Guidance on security, privacy and trust in standardization
Guidance on standards bodies' approach to security, privacy and trust

- Latest:
- CTOs Meeting of leading ICT companies in North America have reaffirmed fixed-mobile convergence will be fundamental to the success of 5G systems [communiqué](#) (San José, USA), 30 March 2017 [Newslog of 7 April 2017](#)
- CTOs were briefed on the results of the [ITU WTSAS-16](#), in particular the agreement of the new [WTSA Resolution 92](#) calling for ITU-T standardization to expand its study of the wireline networking innovations required to achieve the ambitious performance targets of 5G systems.

- Previous opportunities:
- CxO Meeting (Hammamet, Tunisia, 23 October 2016): [Communiqué](#), [List of Participants](#)
- CTO Meeting (Bangkok, Thailand, 13 November 2016): [Communiqué](#), [List of Participants](#)

On the line of the theme for these Assemblies, *“Regional Collaboration in a global environment”*:

Here is the work of the Study Groups in three ITU Regions

Americas:

[ITU-T SG2 Regional Group for the Americas](#)

[ITU-T SG3 Regional Group for Latin America and the Caribbean](#)

[ITU-T SG5 Regional Group for the Americas](#)

Newly created - ITU-T SG20 Regional Group for the Latin America Region

In Asia and the Pacific

[ITU-T SG3 Regional Group for Asia and Oceania](#)

[ITU-T SG5 Regional Group for Asia Pacific](#)



Regional Study Groups for three ITU Regions:

Africa:

[ITU-T SG2 Regional Group for East Africa](#)

[ITU-T SG3 Regional Group for Africa](#)

[ITU-T SG5 Regional Group for Africa](#)

[ITU-T SG11 Regional Group for Africa](#)

[ITU-T SG12 Regional Group on QoS for the Africa Region](#)

[ITU-T SG13 Regional Group for Africa](#)

[ITU-T SG17 Regional Group for Africa](#)

Newly created - ITU-T SG20 Regional Group for the Africa Region

DIGITAL FINANCIAL SERVICES FOR FINANCIAL INCLUSION

2 billion adults do not have access to a bank account, but 1.6 billion of them have a mobile phone.



#DigitalFinanceITU



Workshop on Security Aspects of Blockchain



Hosted at ITU
Geneva, 21 March 2017

7th Green Standards Week

Circular Economy and Smart Sustainable Cities

3 - 5 April 2017
Manizales - Daldas



Organizers:



With the support of:



Hosts:



ITU KALEIDOSCOPE

ICTs for a Sustainable World
The 8th ITU Kaleidoscope academic conference

2016

Bangkok, Thailand
14-16 November 2016



Upcoming groups of experts, open to non-members, working on:

ITU-T Focus Group on **Data Processing and Management to support IoT and Smart Cities & Communities** (FG DPM): first meeting planned 17 – 19 July 2017.

Objectives:

- Promote the establishment of data management frameworks
- Study trust in data management frameworks including digital identification and certification
- Investigate the role of emerging technologies to support data management, e.g., blockchain
- Identify standardization challenges for data processing and management

ITU-T Focus Group Work on **Blockchain**:

to be decided at the [Advisory Group of ITU-T \(TSAG\)](#) early May 2017.

WWW.IOTFORUM.ORG



WWW.IOT-WEEK.EU

IOT WEEK 2017

06-09 June, Geneva

Internet of Things

- Emerging Technologies
- Sustainable Development (SDGs)
- Security and Privacy
- Finance, Market and Industry 4.0

AI for GOOD GLOBAL SUMMIT

Hosted at ITU in Geneva
7-9 June 2017

#AIforGood

SPONSORSHIP PROPOSAL

XPRIZE ITU

Artificial Intelligence will change the way we shape our world.



ITU invites you to

**Smart
ABC**



Busan 25–28 September

at ITU Telecom World 2017





ITU KALEIDOSCOPE NANJING 2017

Challenges for a data-driven society

27-29 November
Nanjing, China

In partnership with:



The 9th ITU Kaleidoscope academic conference

Call for original academic papers that offer innovative and bold approaches relevant to technology, business and policy aspects of data management and analysis and encourage the development of applications and services building on data technologies to improve society.

Important dates:

- Submission of full paper proposals: **19 June 2017**
- Notification of paper acceptance: **18 September 2017**
- Submission of camera-ready accepted papers: **6 October 2017**

Visit: <http://itu.int/go/K-2017>

Today's participation to your Joint COPAN –PASC general meeting:

Further step of a growing cooperation and collaboration

Next steps...

Thank You All



**our Host, Standards Council of Canada/Conseil Canadien des Normes,
COPANT, PASC
and Beautiful Vancouver**



Benefits of participation in ITU-T

April 2017

ITU-T at a glance

- The Telecommunication Standardization Sector (ITU-T) coordinates standards for global telecommunications.
- ITU-T (through its membership) works to establish consensus based global interoperable standards (ITU-T Recommendations) that foster the interconnection of communication systems.
- The work of ITU-T is predominantly undertaken across 11 Study Groups which focus on a wide range of ICT/Telecommunication topics.
- These Study Groups bring together 193 member government administrations and their regulators, and over 500 member companies.

ITU-T Members

Public-private platform: ITU-T is the only place where governments and their regulators work hand in hand with the industry and Academia to develop ICT standards.

International participants: Nowhere else will you meet ICT standards experts coming from 193 countries that make up the United Nations.

From small to big members: Being at the cross-section of the ICT sector, ITU-T welcomes the world's largest manufacturers and carriers, to small, innovative players working with emerging technologies.

Stakeholders from the full ICT spectrum: Whether you are an operator, a manufacturer or a service provider, your whole business ecosystem comes to ITU-T. New stakeholders from vertical industries are also members.

Diversity of member profiles: ITU-T involves more than just governments and companies. Universities, NGOs, business associations, and intergovernmental organizations are among our members too.

How do NSOs benefit from participation in ITU-T?

Engage in real time standardization and stay at the forefront of technology

Set the agenda of tomorrow's technologies by proposing new work items in all ITU-T Study Groups.

Enjoy credibility and leadership in the industry by holding chair positions study groups.

Stay up-to-date on the latest technologies with new or updated ITU-T Recommendations published on a daily basis.

Get an early view of emerging technologies and know which standards will impact the industry before they become public.

Benefit from the credibility of ITU-T standards in developing countries as impartial and open, with a clear IPR policy.

Work with private sector, public administrations and regulators to help shape regulations that will stimulate national ICT markets.

Contact other members, including all governments, companies and universities registered with ITU, through our [member database](#).

Meet stakeholders at ITU meetings. ITU's membership team will work to connect your organization with potential partners.

Influence high-level policy and decision-making meetings

WTSA - The World Telecommunication Standardization Assembly is held every four years and defines the next period of study for ITU-T.

TSAG - TSAG acts as an advisory body to the study groups, membership and staff of ITU-T. It is responsible for working procedures and the organization of the ITU-T work programme.

TSB Director's Ad Hoc IPR Group - The TSB Director's Ad Hoc Group on IPR matters is responsible for studies relating to the patent policy and its guidelines for implementation, the software copyright guidelines, and the marks guidelines.

Participate in all ITU-T Study Groups

ITU-T standardization work is carried out by 11 technical Study Groups (SGs) in which representatives of the [ITU-T membership](#) develop [Recommendations](#) (standards) for the various fields of international telecommunication.

[ITU-T Study Group 2:
Operational aspects](#)

[ITU-T Study Group 3:
Economic and policy
issues](#)

[ITU-T Study Group 5:
Environment, climate
change and circular
economy \(EMF&EMC\)](#)

[ITU-T Study Group 9:
Broadband cable and
TV](#)

[ITU-T Study Group
11: Protocols and
test specifications](#)

[ITU-T Study Group 12:
Performance, QoS
and QoE](#)

[ITU-T Study Group
13: Future networks
\(5G, Cloud, Big data\)](#)

[ITU-T Study Group 15:
Transport, Access and
Home](#)

[ITU-T Study Group 16:
Multimedia](#)

[ITU-T Study Group
17: Security](#)

[ITU-T Study Group 20:
IoT and applications,
smart cities](#)

ITU-T regional activities

ITU's network of thirteen field offices, which includes regional offices in Addis Ababa (for Africa), Bangkok (for Asia and Pacific), Brasilia (for Americas), Cairo (for the Arab States), a Europe Coordination office at ITU Headquarters, an office in Moscow (for the CIS countries) and several Area Offices, help maintain direct contact with national authorities, regional telecommunication organizations and other key stakeholders.



Regional and Areas offices

The Regional Office for Asia and the Pacific in **Bangkok** and its Area office in **Jakarta** serve some 38 Member states, as well as the ITU Sector Members and Associates, most of which have their headquarters in the Region.



[Contact information](#)

Partners in the region

- [Asia-Pacific Telecommunity \(APT\)](#)
- [Global ICT Standardisation Forum for India \(GISFI\)](#)
- [Asia-Pacific Telecommunity Standardization Program \(ASTAP\)](#)
- [Asia-Pacific Broadcasting Union \(ABU\)](#)

Current regional groups

Within ITU-T Study Groups, regional groups aim to ensure that ITU-T Recommendations address the needs of all the world's regions.

- [ITU-T SG3 Regional Group for Asia and Oceania](#)
- [ITU-T SG5 Regional Group for Asia Pacific](#)



ITU-T Action Plan for Americas

Action Plan for the Americas can be found [here](#)

Partners in the region

- [CITEL - Organization of American States](#)
- [COMTELCA](#)
- [UNESCO's Regional Bureau for Science in Latin America and the Caribbean](#)
- [Basel Convention Regional Centre for the South American Region in Argentina](#)
- [Basel Convention Regional Centre for the Central America Sub-region including Mexico in El Salvador](#)
- [Latin American Association of Research Centers and Telecommunication Enterprises \(AHCJET\)](#)
- [Convergencia Latina](#)

Regional and Areas offices

The ITU provides assistance and support in the Americas region through a Regional Office based in Brasilia, hosted by the government of **Brazil** and other three Area Offices located in Bridgetown (**Barbados**), Santiago (**Chile**) and Tegucigalpa (**Honduras**).



[Regional office contacts](#)

[Area office contacts](#)

Current regional groups

Within ITU-T Study Groups, regional groups aim to ensure that ITU-T Recommendations address the needs of all the world's regions.

- [ITU-T SG2 Regional Group for the Americas](#)
- [ITU-T SG3 Regional Group for Latin America and the Caribbean](#)
- [ITU-T SG5 Regional Group for the Americas](#)

Gain visibility through ITU's communication channels and activities

ITU Digital News Magazine and other digital platforms



Since going all-digital in January 2016, ITU News now sends its Magazines to over 80,000+ ITU members, key stakeholders and other ICT professionals worldwide via email. The Magazine is published six times per year, timed for key events or signature ITU topics. ITU News's audience is roughly 50% public sector and 50% private sector.

Promotional opportunities for members

We offer full-page ad spaces in the magazine as well as prominent placement within our weekly ITU Newsletter. Promotion in these channels is discounted 50% for ITU Members. We would welcome your proposals for articles, advertising or sponsor content solutions.



ITUnewsblog could be used to highlight your standardization activities in ITU.



ITU's YouTube channel offers members interviews where they can discuss and promote their activities in ITU-T.



ITU's LinkedIn members group provides an additional platform for organizations to network with delegates of other members.



Share your views on how you would like to see the international community approaching the biggest questions surrounding the future of Artificial Intelligence - which is a strategic topic for ITU-T going forward. ITU will be co-organizing the first [AI for Good Global Summit](#) with together with XPRIZE on 7-9 June 2017.

Collaborative workshops and speaking opportunities at ITU events



ITU regularly organizes a number of [workshops, seminars and webinars](#) to progress both existing work and explore new topics. Your company could play an active role in these events through speaking opportunities.