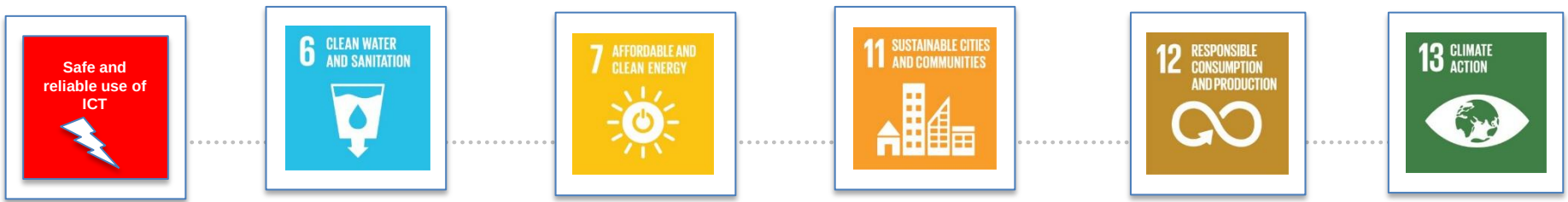
Wastes of digital technology

ITU's role and responsibilities on E-Waste Management and EMF

Jean-Jacque Massima-Landji
ITU Representative for Central Africa & Madagascar

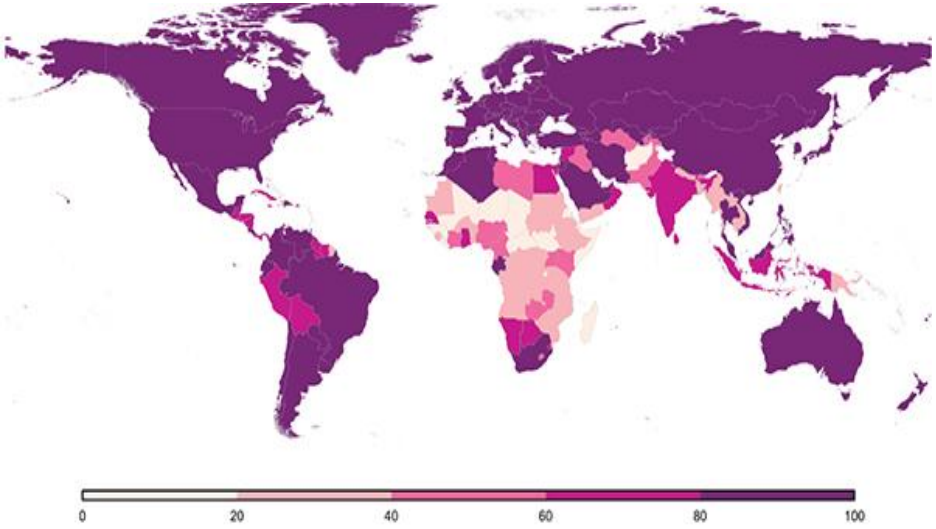


The ICT revolution

By end 2017, it is estimated that they were

- 7.74 billion people (more than 100 per cent of the global population own a mobile phone)- including cases of multiple ownerships
- ~95 per cent of the global population) live in an area that is covered by a mobile-cellular network
- ~ 4.2 billion mobile broadband users,
- More than half of them coming from the developing world
- 70% of the world youth are online

Proportion of youth (15-24) using the Internet, 2017*

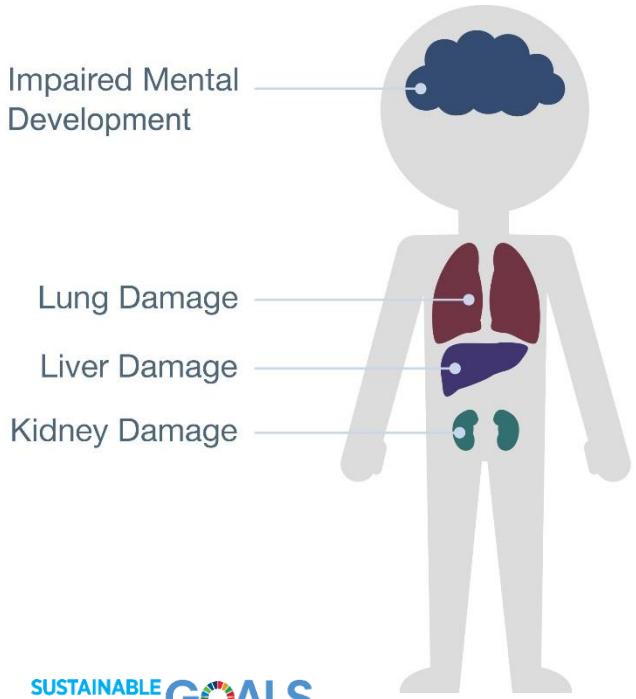


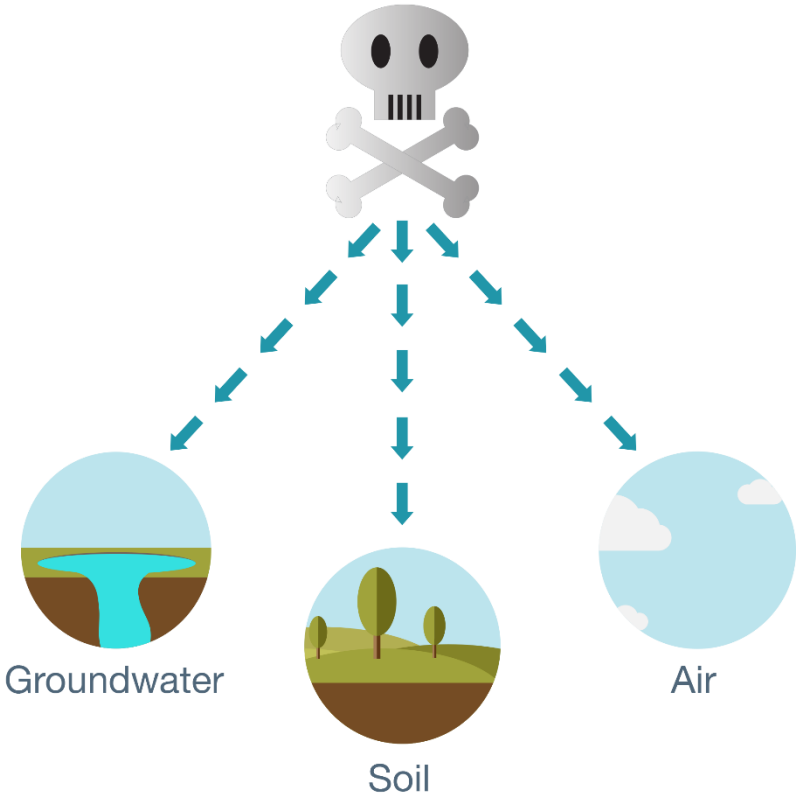
Source: ITU, *The World in 2017: ICT Facts and Figures*
www.itu.int/en/ITU-D/statistics

Key drivers of growing e-waste

- More people joining the information society
- Product lifecycles become shorter
- Many designs do not support repair or reuse

E-waste poses health/environmental risks if treated inadequately

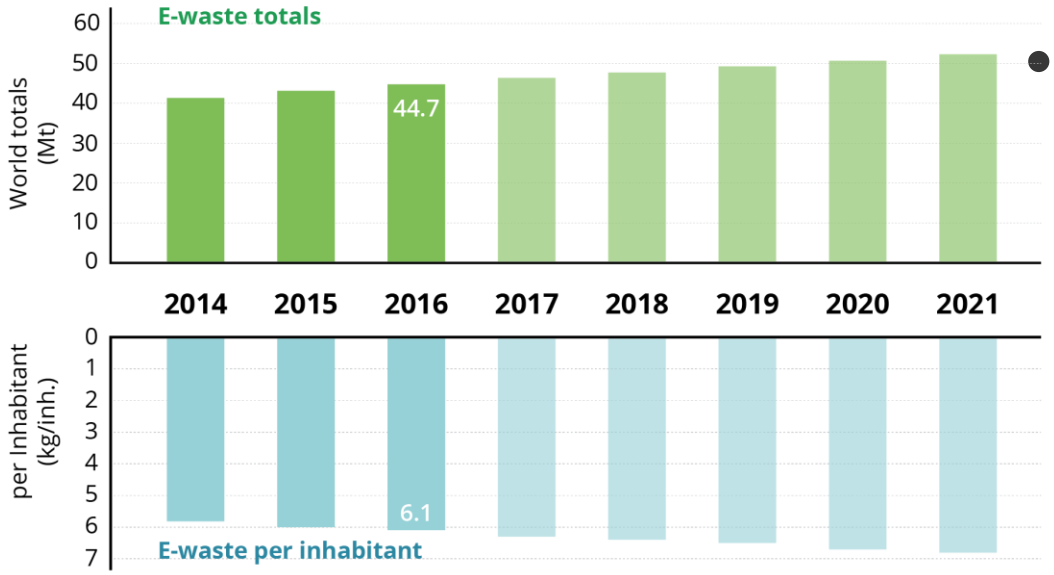




Challenges to the achievement of the SDGs

How much e-waste is generated?

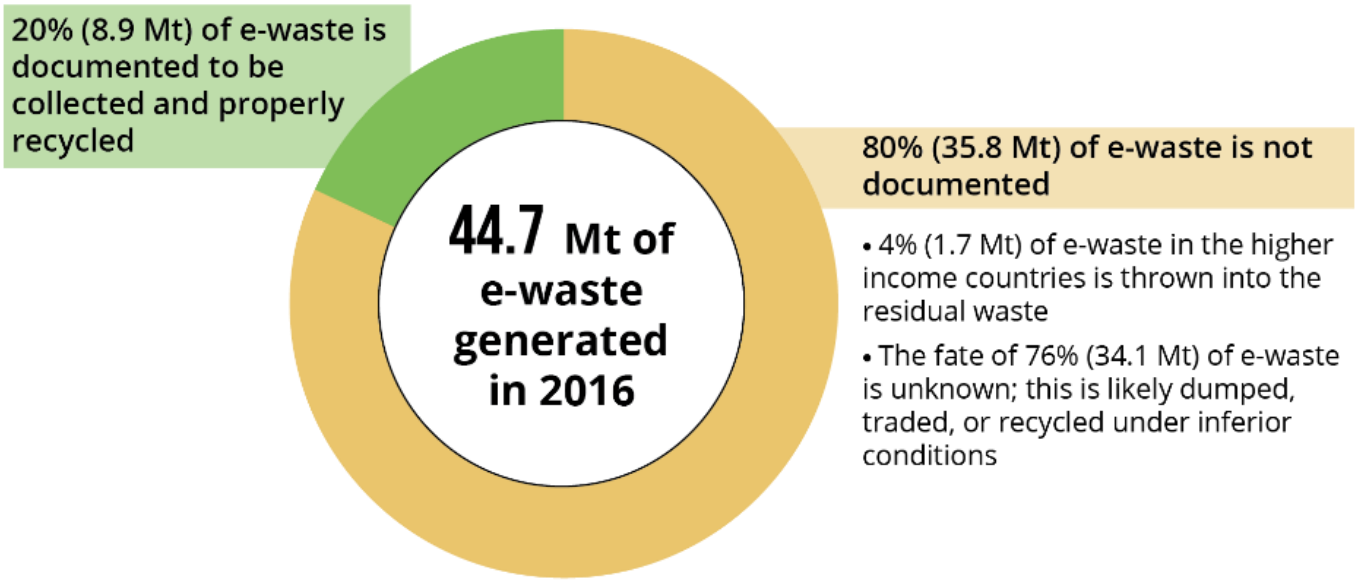
- Amount of e-waste grew 8% between 2014 and 2016
- 44.7 million metric tonnes of e-waste generated (2016)



Note: 2017-2021 are estimates

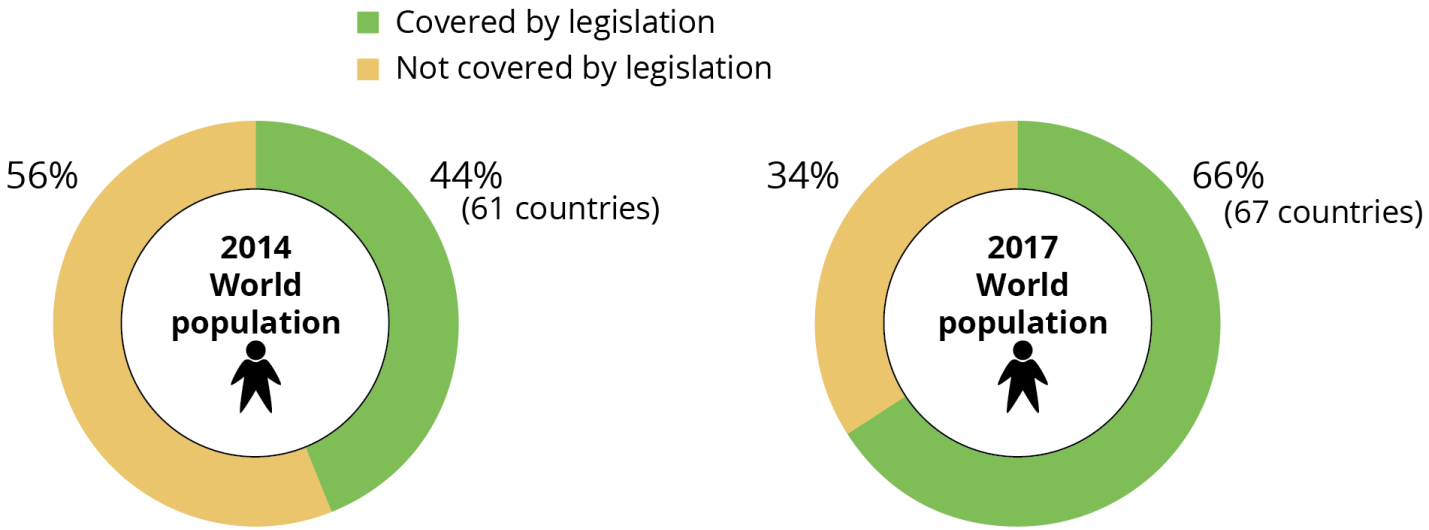
How much e-waste is recycled?

Globally, only 20% of e-waste is properly documented and recycled

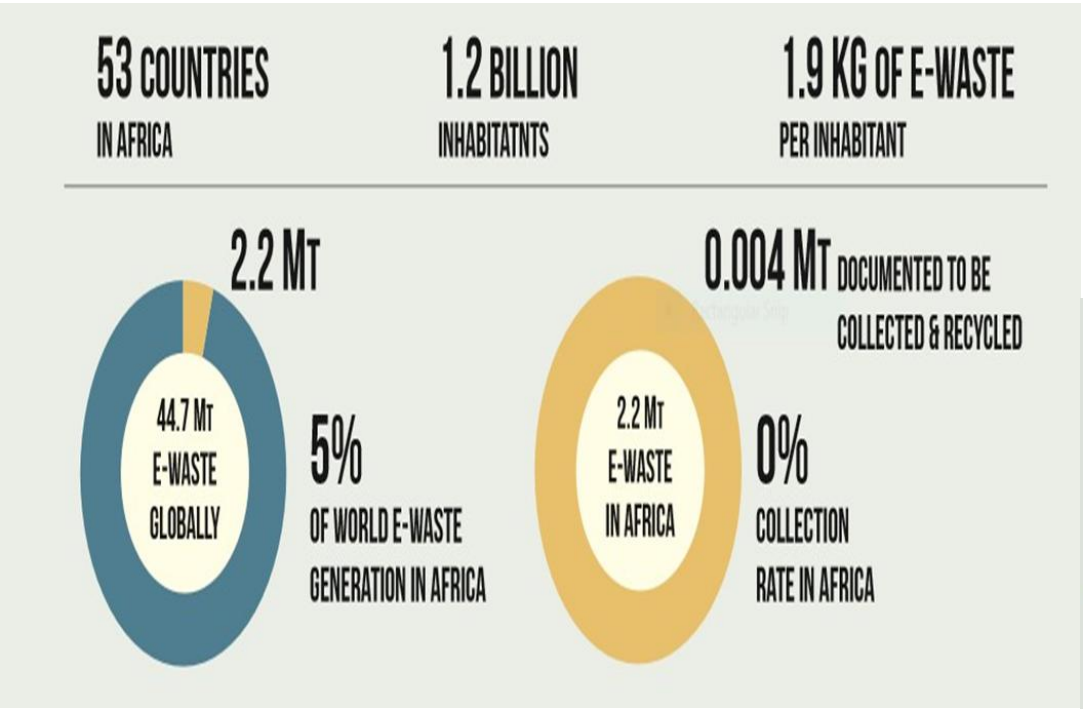


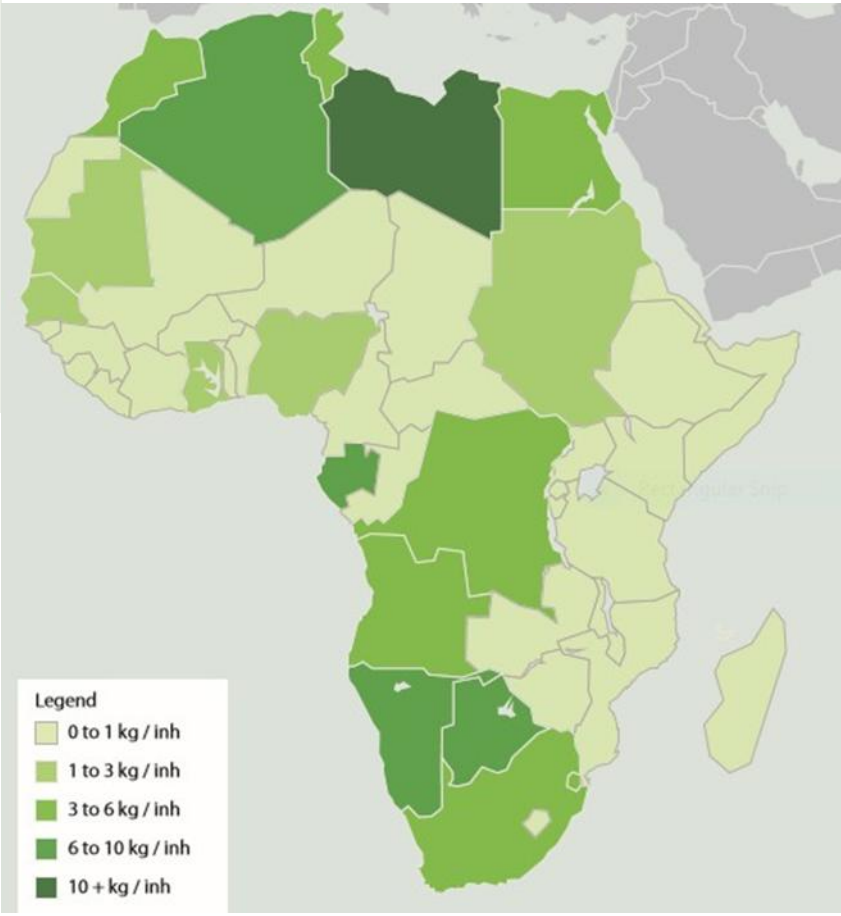
How many people & countries are covered by e-waste legislation?

67 countries have e-waste legislation



E-waste Management in Africa





Generation and Collection per region

Table 6.1: E-waste generation and collection per continent

Indicator	Africa	Americas	Asia	Europe	Oceania
Countries in region	53	35	49	40	13
Population in region (millions)	1,174	977	4,364	738	39
WG (kg/inh)	1.9	11.6	4.2	16.6	17.3
Indication WG (Mt)	2.2	11.3	18.2	12.3	0.7
Documented to be collected and recycled (Mt)	0.004	1.9	2.7	4.3	0.04
Collection Rate (in region)	0%	17%	15%	35%	6%

- Amount of eWaste generated and collected in Africa is close to zero%

YET?

ITU has a role to play on e-waste

- Raise awareness on role of ICT in tackling environmental challenge
- Support to Member states to Develop policies and Regulatory frameworks
- Set standards/recommendations
  - ITU-D Study Group: Question 6/2 on ICTs and the Environment
  - ITU-T Study Group 5: Environment, climate change and circular economy
- Advocate for safe disposal of e-waste and its environmentally sound management
- Undertake assessment of the size of e-waste: data & statistics
- Help companies becoming more sustainable and socially responsible
- Research and development on areas which include e-waste, energy efficiency and smart sustainable cities

ITU has a role to play on e-waste

- Current Connect 2020
  - Target 3.2: Volume of redundant e-waste to be reduced by 50% by 2020

- Working in Partnership with Major global and regional Stakeholders
  - Global E-waste Statistics Partnership

UNITED NATIONS UNIVERSITY
UNU-VIE SCYCLE
Sustainable Cycles Programme

ISWA
International Solid Waste Association

UNFCCC

ipcc
INTERGOVERNMENTAL PANEL ON climate change
WMO UNEP

world summit
on the information society
Geneva 2003 - Tunis 2005

Programs and activities :

- ICT and Climate Change Training Programme (ICT&CCTP)- under the ITU Academy-Global
- The E-waste Statistics Guidelines on classification and indicators- Global
- e-Waste Model framework and Strategy for RECs- process ongoing for SADC region
- Country specific policy frameworks-e.g. Malawi, Rwanda
- e-Waste measurement support- EACO, Rwanda- ongoing

Capacity building programs

Future Events on ICTs and Environment

- Regional Training Workshop on ICT and Climate Change Mitigation and Adaptation in Arab Region, Organized in collaboration with the Tunis-International Center for Environmental Technologies (CITET), 12-13 July 2017, Tunis, Tunisia
- WSIS Thematic Workshop: Addressing the Global e-Waste Challenge, co-organized with UNU and ISWA, 16 June 2017, Geneva, Switzerland
- WSIS Forum 2017: Action Line C7. E-environment: Environment, an Important Pillar to Building a Sustainable Future, 12 June 2017, Geneva, Switzerland
- WSIS Action Line C7. E-environment: Environment, an Important Pillar to Building a Sustainable Future, co-organized with WMO and UNEP-Basel Secretariat, 12 June 2017, Geneva, Switzerland
- "WMO Multi-Hazard Early Warning Conference, Session 3: Bringing the message to the communities-at-risk, organized by ITU, in cooperation with CENAPRED (Mexico), 22 May 2017, Cancun, Mexico
- 2017 Global Platform for Disaster Risk Reduction, contributing partner along with other UN agencies, 22-26 May 2017, Cancun, Mexico

Wastes of digital technology

EMF

The Cause; ICT Revolution

95 per cent of the global population) live in an area that is covered by a mobile-cellular network

The issue…

The electromagnetic fields are unknown and undetectable for people…

Lack of regulation and/or non-compliance…

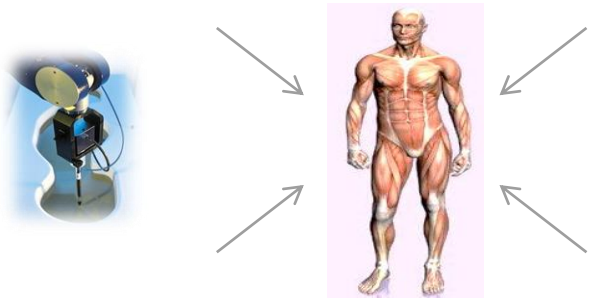
Lack of communication and information to citizens…

It can generate a lack of trust, which may become fear…

Regulation of non-ionizing radiations

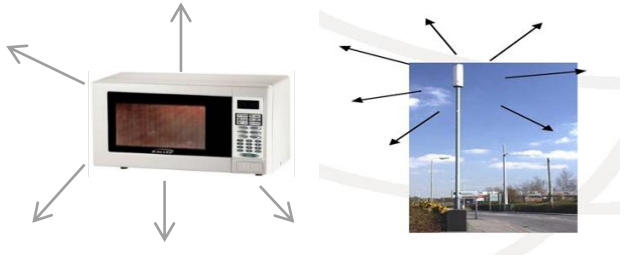
Exposure standards:

Specifications that limit the exposure of people to the Electromagnetic fields (EMF)



Emission standards:

Specifications that limit the emission of electromagnetic fields (EMF) from the devices



Global standards can help facilitate compliance with international standards, strengthen collaboration among stakeholders, ensure transparency, and promote communication with citizens.

ITU D-

- Resolution 62 (Rev. Buenos Aires, WTDC 2017); Assessment and measurement of human exposure to electromagnetic fields
- ITU Strategic Plan/WTDC Obj. 2- Modern and secure telecommunication/ICT infrastructure: Foster the development of infrastructure and services, including building confidence and security in the use of telecommunications/ICTs.
- STUDY GROUP

About ITU-D Study Groups

ITU-D study groups provide an opportunity for the membership to share experiences, present ideas, exchange views, and achieve consensus on strategies to address telecommunication/ICT priorities.

Main services:

- ***Knowledge platform***: Study Group outputs serve as guidance for the implementation of policies, strategies, projects and specific telecommunication/ICT initiatives in Member States and assist in strengthening the shared knowledge base.
- ***Information exchange***: Sharing and exchanging information on topics of common interest and dedicated topics of interest (study Questions) through face-to-face meetings, multilingual remote participation, online collaborative sites, etc. among members with the leadership of appointed chairmen, vice-chairmen, rapporteurs and vice-rapporteurs.

Key deliverables:

- ***Reports***, ***Guidelines***, ***Best Practices*** and ***Recommendations*** based on input gathered through contributions, case studies and surveys, which are made available to the membership through content management systems and web publication tools.

ITU-D Study Group 1 and 2 : Questions under study (2018-2021)

WTDC-17 Question 7/2 on **Strategies and policies concerning human exposure to electromagnetic fields (EMF)** will work to:

- Compile and analyze regulatory policies concerning human exposure to EMF.
- Describe strategies for increasing knowledge/awareness of EMF.
- Propose guidelines and best practices, etc..

SG2: ICT services and applications for the promotion of sustainable development

Study Question	Relevant SDG WSIS Action Line
Q1/2: Creating smart cities and society: Employing ICTs for sustainable social and economic development	
Q2/2: Telecommunications/ICTs for e-health	
Q3/2: Securing information and communication networks: Best practices for developing a culture of cybersecurity	
Q4/2: Assistance to developing countries for implementing conformance and interoperability (C&I) programmes and combating counterfeit ICT equipment and theft of mobile devices	
Q5/2: Utilizing telecommunications/ICTs for disaster risk reduction and management	
Q6/2: ICT and the environment	
Q7/2: Strategies and policies concerning human exposure to electromagnetic fields	

www.itu.int/ITU-D/study-groups/

chieving their SDG targets and development goals

Major milestones for the 2018-21 study period

Main meetings		Main deliverables and progress reports
First SG1 and SG2 meetings	30 April – 11 May 2018	Appoint management team members, identify experts, distribute tasks, agree on work plans and methods of action, review initial contributions, reply to liaison statements received. Ensure that the team has a good understanding of tools and working methods to conduct the work.
Rapporteur Group meetings	September/ October 2018	Review tables of content for Question deliverables, call for and review of detailed contributions, draft surveys. Case studies on the topics under study are appreciated. Prepare output reports to be put forward for approval at the annual meetings.
Second SG1 and SG2 meetings	March 2019	Present progress reports, approve tables of content, first outline of report, approve and launch of surveys (if applicable). Annual progress reports and approval of annual deliverables and reports.
Rapporteur Group meetings	September/ October 2019	Review contributions and input received through surveys, etc., chapter specific drafting/brainstorming groups. Case studies on the topics under study are appreciated. Prepare output reports to be put forward for approval at the annual meetings.
Third SG1 and SG2 meetings	February 2020	Present progress reports, review draft reports, guidelines, Recommendations, identify/ discuss next steps to complete work on time and how to overcome challenges encountered. Initial discussion on future study Questions. Annual progress reports and approval of annual deliverables and reports.
Rapporteur Group meetings	September/ October 2020	Finalize reports, finalize draft guidelines and Recommendations, propose/discuss possible study topics for the next period.
Fourth SG1 and SG2 meetings	March 2021	Fine-tune and approve reports, guidelines and Recommendations. Propose/discuss possible study topics for the next period. Agreement om deliverables to WTDC-21.
WTDC	Q4 2021	Study Group 1 and 2 Chairmen present results and deliverables to WTDC.

- The SG1/SG2 Chairmen report annually to TDAG on progress made.
- Thematic workshops, courses and seminars are to be held throughout the study period in Geneva and **the regions based on proposals received**.

www.itu.int/ITU-D/study-groups/

Additional Activities 2018-2020

Capacity Development

- Thematic workshops
- Courses
- seminars

To be held throughout the study period in Geneva and the regions based on proposals and requests received from Member states

Regional Offices

- Technical assistance to be extended to Regional Economic Communities (RECs) and or individual member states in developing Regional/national frameworks and guidelines for EMF