



Conformance and Interoperability (C&I): Regulatory framework and practical SAR, RF, DTT and EMF tests including Creation of Basic lab facilities.

Virtual workshop delivered by NCA, Ghana
16th – 27th November 2020

16 th November 2019	
12:00 - 12:30	<p>Welcoming, Registration and Opening</p> <p>Welcoming speech ITU</p> <p>Welcoming speech NCA</p> <ul style="list-style-type: none"> • NCA Managing Director • ITU Regional Director for Africa
12:30 - 14:00	<p>Session 1: ITU – Presentation of the C&I Programme – including activities and status of Study group 2 Question 4/2 including CITP updates and related WSIS Action Lines</p> <p>Objective: To understand ITU's work on C&I with contributions to WSIS Action line 1 and Sustainable Development Targets.</p> <p>Learning Outcome: At the end of this session, participants would have clear understanding of the importance of C&I in the ICTs industry</p> <p>Outline: This session will focus ITU work on C&I and demonstrate relationship to WSIS Action Lines and Sustainable Development Goals.</p> <p>ITU C&I Programme: Study Group 2 Question 4 and C&I Africa Group Activities</p> <ul style="list-style-type: none"> ➤ Key activities on Study Group 2 Question 4 /2 ➤ Structure and details of the question ➤ Format and Submission of contributions ➤ Africa Group Activities ➤ CITP updates

	<p>➤ Related WSIS Action Lines</p> <ul style="list-style-type: none"> • Chali Tumelo (ITU) • Vladimir Daigele
14:00 – 15:00	<p>OM 1 – Establishing Conformity and interoperability Regimes.</p> <p>1.1 Understanding of common minimum requirements for Type Approval (from FCC and EC)</p> <p>1.2 Use of Proxies (FCC and EC)</p> <ul style="list-style-type: none"> • ITU Expert, Mr. Keith Mainwaring
Day 2 17th November 2020	
12:00 – 13:00	<p>Session 2: Introduction to Conformance and Interoperability (C&I) testing regime in COVID-19 response and recovery (as demand of ICTs use increases), Technical and Regulatory requirements for ICT equipment</p> <p>Objective: To understand the technical and regulatory requirements for ICT equipment authorisation, in the exponential demand in the use of ICTs as well as share Ghana's experience in C&I testing as use of ICTs increase during and after Covid-19 pandemic effects and shocks</p> <p>Learning Outcome: At the end of this session, participants would have clear understanding of the process of the administrative, regulatory and technical requirements needed for equipment authorisation (type approval) are in line with national regional and international standards.</p> <p>Outline: This session will focus on conformance and interoperability testing. Essentially the session will discuss in detail the following key areas which are the basis for resilient C&I testing regime</p> <ul style="list-style-type: none"> • Overview of C&I with emphasis on Ghana's C&I testing regime • Processes of national standards settings • The technical requirements <ul style="list-style-type: none"> - Health and Safety - Electromagnetic Compatibility (EMC) - Radio Frequency(RF)/Interference <p>➤ NCA</p> <p>➤ NCA</p>
13:30 – 15:00	<p>Session 2 Cont'd</p> <ul style="list-style-type: none"> • Regulatory Requirements <ul style="list-style-type: none"> - Legal framework

	<ul style="list-style-type: none"> - Type Approval Management System - Proxy & Administrative approvals
Day 3 18th November 2020	
12:00 – 13:30	<p>Session 2 Cont'd</p> <ul style="list-style-type: none"> • C&I in Corona Virus (COVID-19) response and recovery <ul style="list-style-type: none"> - Equipment Authorization and testing experience - Market Surveillance activities - Enhanced testing and community engagement • Priority areas for testing
13:30 – 15:00	<p>Session 3: Strategy for building laboratories with discussions priority areas such as EMF, SAR, DTT, RF, IoT as well as estimated costs and requirements for capacity building.</p> <p>Objective: To present the different types of C&I Labs, the process for building C&I Lab and cost estimates including specifications and labs working together through agreement.</p> <p>Learning Outcome: At the end of this session, participants would have clear understanding of the process and specifications of establishing test labs as well as estimated cost including the needed requirements for capacity building, this would help participants to initiate the process of setting up C&I lab in their various countries.</p> <p>Outline: Presentations will focus on the different types of C&I labs. High level processes in building C&I Labs with emphasis on case of Ghana. Discussion on cost estimate of selected labs and associated specifications.</p> <ul style="list-style-type: none"> • Overview of the following laboratories <ul style="list-style-type: none"> - Broadband Access (BBA) Laboratory - Electromagnetic Compatibility (EMC) Laboratory - Internet of Things (IoT) laboratory <ul style="list-style-type: none"> • NCA • NCA
Day 4 19th November 2020	

12:00 – 13:30	<p><i>Session 3 Cont'd: Strategy for building laboratories with discussions priority areas such as EMF, SAR, DTT, RF, IoT as well as estimated costs and requirements for capacity building.</i></p> <ul style="list-style-type: none"> - Mobile test laboratory - Digital Terrestrial TV (DTT) Laboratory
13:30 – 15:00	<p><i>Session 3 Cont'd :</i></p> <ul style="list-style-type: none"> • Understanding the need for test lab (Requirements for setting up a C&I Laboratory) • Standards and Technical requirements • Specifications, Processes and estimated cost for building C&I Laboratory • Requirements for Capacity Building <ul style="list-style-type: none"> • NCA • NCA
Day 5 20th November 2020	
12:00 – 13:30	<p><i>Session 4 : Introduction to Group Project and Presentation</i></p> <p>Objective: To avail participants an opportunity to interact and share experiences.</p> <p>Outcome: Participants will have understanding of how to implement C&I projects</p> <p>Outline: In this sessions participants will learn about different projects and will share their countries' experiences.</p> <ul style="list-style-type: none"> • SAR Project • EMF Project • RF & Signalling Project • DTT Project • Broadband Access Project • Mobile project • NCA <p>Member States</p>

13:30 – 15:00	<p><i>Session 5: Criteria and Specifications for building different types of test labs Criteria of accreditation of testing Labs referred to ISO 17025 standard with introduction to the whole set of C&I laboratories, Mini Labs for market surveillance including specifications and costs estimates.</i></p> <p><i>Case study of conformity certificate and test report</i></p> <p><i>Practical Work focusing on parameters : Low voltage testing (ISO EN 60950)</i></p> <p>Objective: To ensure participants know about different types of international standards.</p> <p>Outcome: Participants will understand conformity and interoperability certificate and test report</p> <p>Outline: In this session participants will learn about practical work focusing on parameters of tests.</p> <ul style="list-style-type: none"> • NCA
	<i>Day 6 23rd November 2020</i>
12h:00 – 13:30	<p><i>Session 5 Cont'd: Criteria and Specifications for building different types of test labs Criteria of accreditation of testing Labs referred to ISO 17025 standard with introduction to the whole set of C&I laboratories, Mini Labs for market surveillance including specifications and costs estimates.</i></p> <p><i>Case study of conformity certificate and test report</i></p> <p><i>Introduction to C&I Laboratories with focus on the following scope</i></p> <ul style="list-style-type: none"> • Radio Frequency and Signalling (RF & Signalling) Lab • Specific Absorption Rate (SAR) lab • Electromagnetic Field Strength (EMF) Lab • Digital Terrestrial Television (DTT) Receiver Lab
13:30 – 15:00	<p><i>Session 5 Cont'd : Presentation of Radio Frequency and Signaling (RF & Signalling) laboratory and Specific Absorption Rate (SAR) Project and Practical Work : Equipment specifications of the lab and parameters of Lab testing RF Signalling and Specific Absorption Rate (SAR) Lab</i></p> <ul style="list-style-type: none"> • NCA • NCA

	<ul style="list-style-type: none"> • NCA
Day 7 24th November	
12:00 – 13:30	<p><i>Session 5 Cont'd: Presentation of Electromagnetic Field Strength (EMF) and Digital Terrestrial Television (DTT) receiver projects including Practical Work : Equipment specifications of the lab and parameters of Lab testing on EMF and DTT</i></p> <ul style="list-style-type: none"> • NCA • NCA • NCA
13:30 – 15:00	<p><i>Session 6: Introduction to the whole set of C & I Labs, Mini Labs for market surveillance including specifications and costs estimates.</i></p> <p><i>Objective:</i> To present the different types of C&I Labs, the process for building C&I Lab and cost estimates including specifications, operational cost and Labs working together through agreements(MRA)</p> <p><i>Learning Outcome:</i> The different types of C&I Labs, processes in building C&I Labs and associated specifications and costs estimates of selected Labs. The cost will also include operational cost.</p> <p><i>Outline:</i> This session will focus on introduction to C & I Labs indicating the uses, scope (i.e. SAR, RF & Signaling, EMF & DTT), specifications and the estimated cost of the Lab. The role of a Lab in market surveillance activities will also be discussed including Ghana's experience.</p> <ul style="list-style-type: none"> • Introduction to C & I Lab with focus on the following scope: <ul style="list-style-type: none"> - RF & Signaling Lab - SAR Lab - EMF Lab - DTT Lab ***** • The role of a Lab in market surveillances • Specifications of the Labs

	<ul style="list-style-type: none"> • Cost estimates of the Labs <ul style="list-style-type: none"> - Cost of calibrating the equipment - cost of maintenance and support contract with the vendors - cost of acquiring and maintaining accreditation - cost of training - other operational cost • Virtual tour of the Labs including demonstration in each of the Lab <ul style="list-style-type: none"> • NCA • NCA
	<i>Day 8 25th November 2020</i>
12:00 – 13:30	<p><i>Session 7: Introduction to establishing innovative way of testing through Mutual Recognition Agreements (MRAs)</i></p> <p>To understand the technical and regulatory requirements for ICT equipment authorisation, in the exponential demand in the use of ICTs</p> <p>Learning Outcome: The training aims at ensuring knowledge understanding and competence in MRA aspects of the administrative, regulatory, and technical requirements for equipment authorisation in line national, regional and international standards.</p> <p>Outline: The session will focus on understanding MRA's and how to leverage MRA's for C&I testing.</p> <ul style="list-style-type: none"> • Standards & Technical requirements • Processes of standards setting • Mutual Recognition Agreements/Arrangements (MRA) • Why MRA's • Interoperability issues • Contribution of Testing Laboratories to C&I • framework for one stop shop Type Approval and harmonization of standards <ul style="list-style-type: none"> • NCA • NCA

13:30 – 15:00	<p><i>Session 7 Cont'd</i></p> <ul style="list-style-type: none"> • MRA's and Conformity Assessment Bodies (CAB's) • Types and Benefits of MRA's • MRA framework and operation including key attributes • Procedures for designation of CAB's under an MRA • MRA Case Study • ITU program to promote establishment of MRAs
	<i>Day 9 26th November 2020</i>
12:00 - 13:30	<p><i>Session 8: The ITU activities on C&I with focus on Pillars 3 & 4 of the C&I Programme and CITP updates</i></p> <p><i>This session will focus on ITU activities on C&I testing. It will highlight relevant resolutions from the ITU sectors, including the PP resolution. It will introduce the ITU C&I Programme and specifically focus on Pillars 3 and 4, deliverables, including the outcomes of WTDC-17, WTSA-16, ITU-D and ITU-T SGs and Questions relating to C&I</i></p> <ul style="list-style-type: none"> • ITU
13:30 – 15:00	<i>Session 8 Cont'd:</i>
	<i>Day 10 27th November 2020</i>
12:00 – 13:30	<i>Test/Exam</i>
13:30 – 15:00	<p><i>Session 9: Brainstorming, Q&A and Evaluation</i></p> <p><i>Closure</i></p> <p><i>Member States/NCA/ITU</i></p>