

ITU ACADEMY

Presentation to Steering Committees

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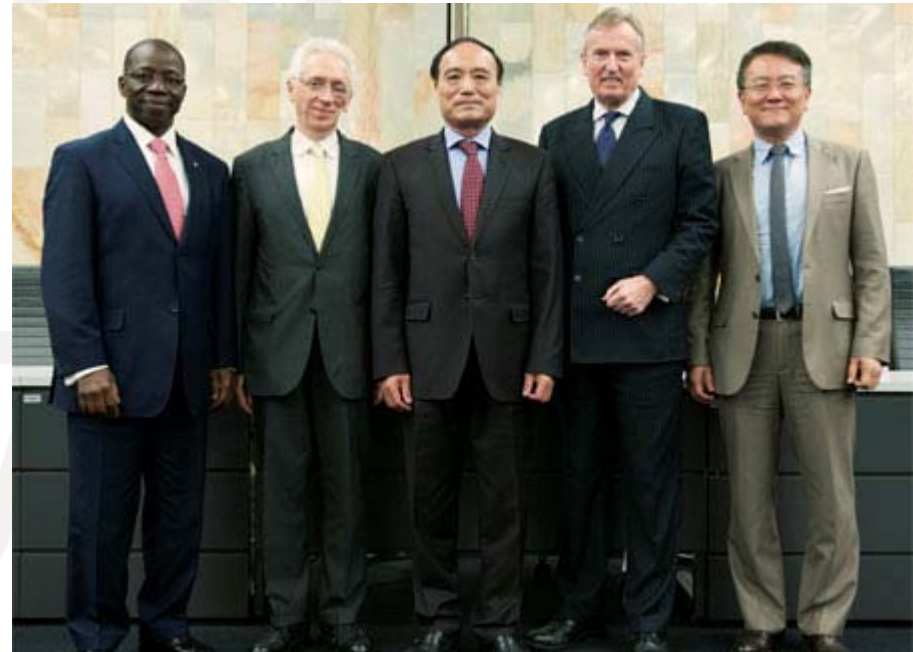
OUTLINE

- Brief Background on ITU
- ITU-D Sector
- ITU-D: Global Development Objectives (2015-2018)
- ITU Academy
- Development of training under the ITU Academy
- Spectrum Management Training Programme
- Quality of Service Training Programme
- Conclusions

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ITU IN BRIEF

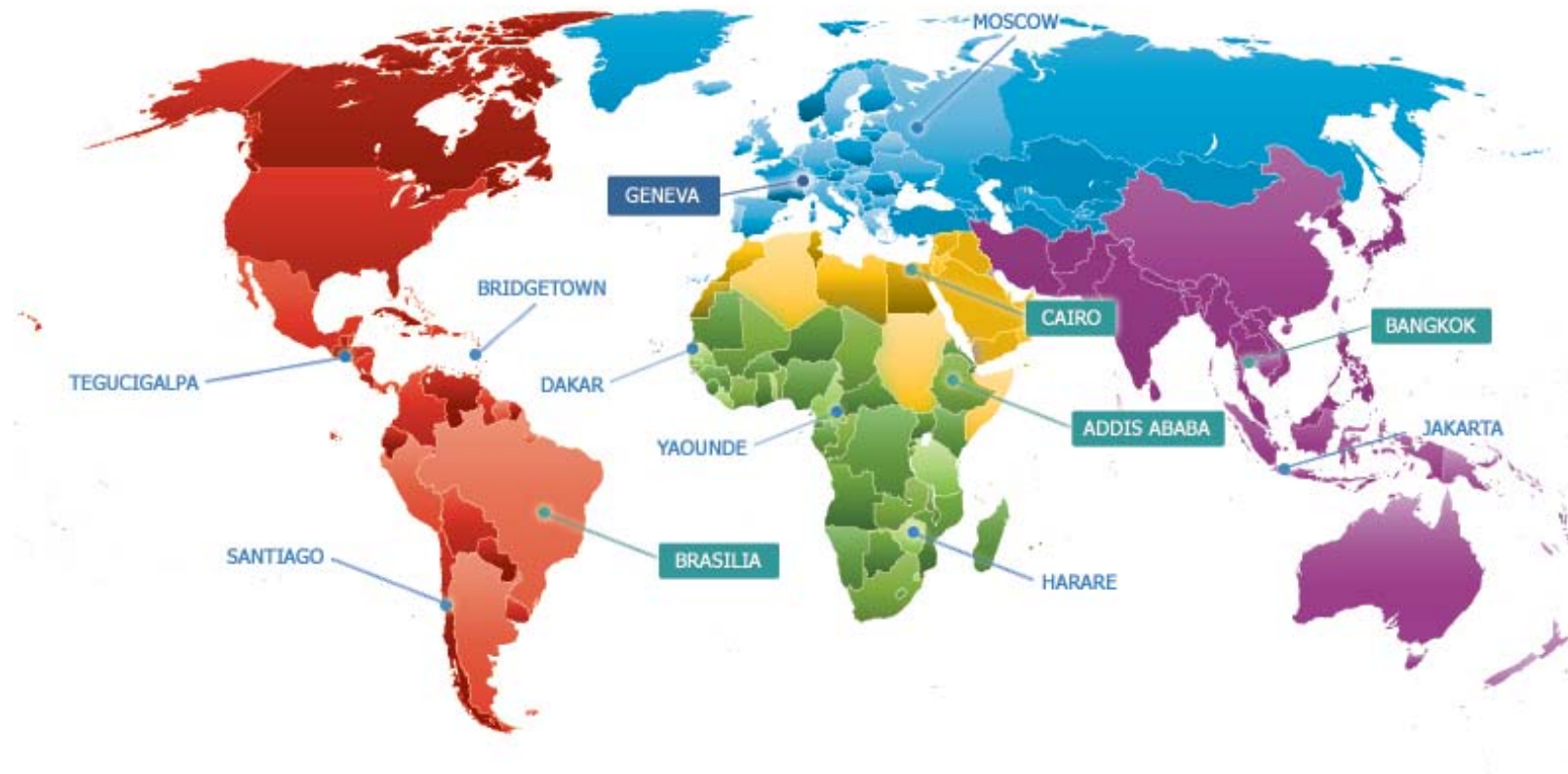
- Leading United Nations Agency for ICTs.
- 193 Member States, 750+ Sector Members
- Three sectors:
 - **Radiocommunication**
 - **Standardization**
 - **Development**
- ITU TELECOM Events



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ITU'S GLOBAL PRESENCE



ITU Headquarters is in Geneva, Switzerland
There are 5 regional offices and 8 area offices around the world

ITU-D: THE VISION

To be the leading organization for promoting the availability and application of telecommunications/ICTs for socio-economic development

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ITU-D: THE MISSION

- A catalyst for multi-stakeholder partnerships, resource mobilization
- A neutral broker between government and industry
- An executing agency for project implementation and expert assistance to countries

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ITU-D: Global Development Objectives (2015-2018)

Objective #1 Foster international cooperation on telecommunication/ICT development issues

Objective #2 Foster an enabling environment conducive to ICT development and foster the deployment of telecommunication/ICT networks as well as relevant applications and services, including bridging the standardization gap

Objective #3 Enhance confidence and security in the use of telecommunications/ICTs, and roll-out of relevant applications and services

Objective #4 Build human and institutional capacity, provide data and statistics, promote digital inclusion and provide concentrated assistance to countries in special need

Objective #5 Enhance environmental protection, climate-change adaptation and mitigation, and disaster-management efforts through telecommunications/ICTs

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OBJECTIVE 4

CAPACITY BUILDING

Main Activities within the **Capacity Building** are the following:

1. Development of high training materials under the ITU Academy
2. Delivery of training through various challenges such as the Centre of Excellences, partner institutions, and Internet Training centres.
3. Knowledge sharing and knowledge exchange through organisation of regional and global capacity building events and fora.
4. Research into sector trends and priorities thorough regular surveys and data collection
5. Publications on developments within the ICT sector and their implication on capacity building.

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ITU ACADEMY

An overview of the ITU Academy and its role in developing and delivering the strategy for ICT human capacity-building

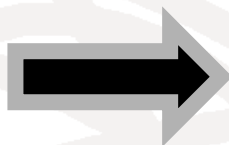


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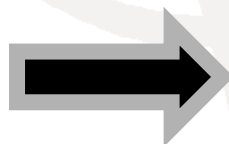
DEVELOPMENT INITIATIVES

M-Powering:



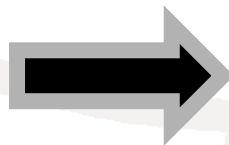
To extend the benefits of mobile telephony to everyone

Smart Sustainable Development Model:



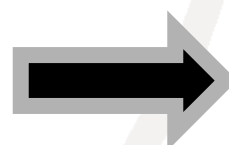
To link rural communications development to disaster risk reduction

ITU Academy:



To share the human capacity-building agenda

Connect the World:



To mobilize resources and forge partnerships

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ITU Academy
empowering minds

Home News Topics Training & Events Regional Activities My Courses FAQ About Us

ITU-D Home

THE NEW CENTRES OF EXCELLENCE STRATEGY

Upcoming Events

| Status | Course Name | Start Date |
|--------|--|------------|
| ● | Estrategias de Negociación en el Sector de las Telecomunicaciones (Modulo 2 - GET 2014/2015) | 14.04.14 |
| ● | Tecnologías de Redes de Cuarta Generación | 14.04.14 |
| ● | Gestión de Riesgos en Proyectos TIC | 21.04.14 |
| ● | ICT Policy and Regulation (with emphasis on Licensing) | 21.04.14 |
| ● | Fostering Innovation and Partnerships in the Human Capacity Building: Enhanced Engagement of Academia in the International Telecommunication Union | 28.04.14 |
| ● | Telecomunicaciones para no Tecnicos | 28.04.14 |

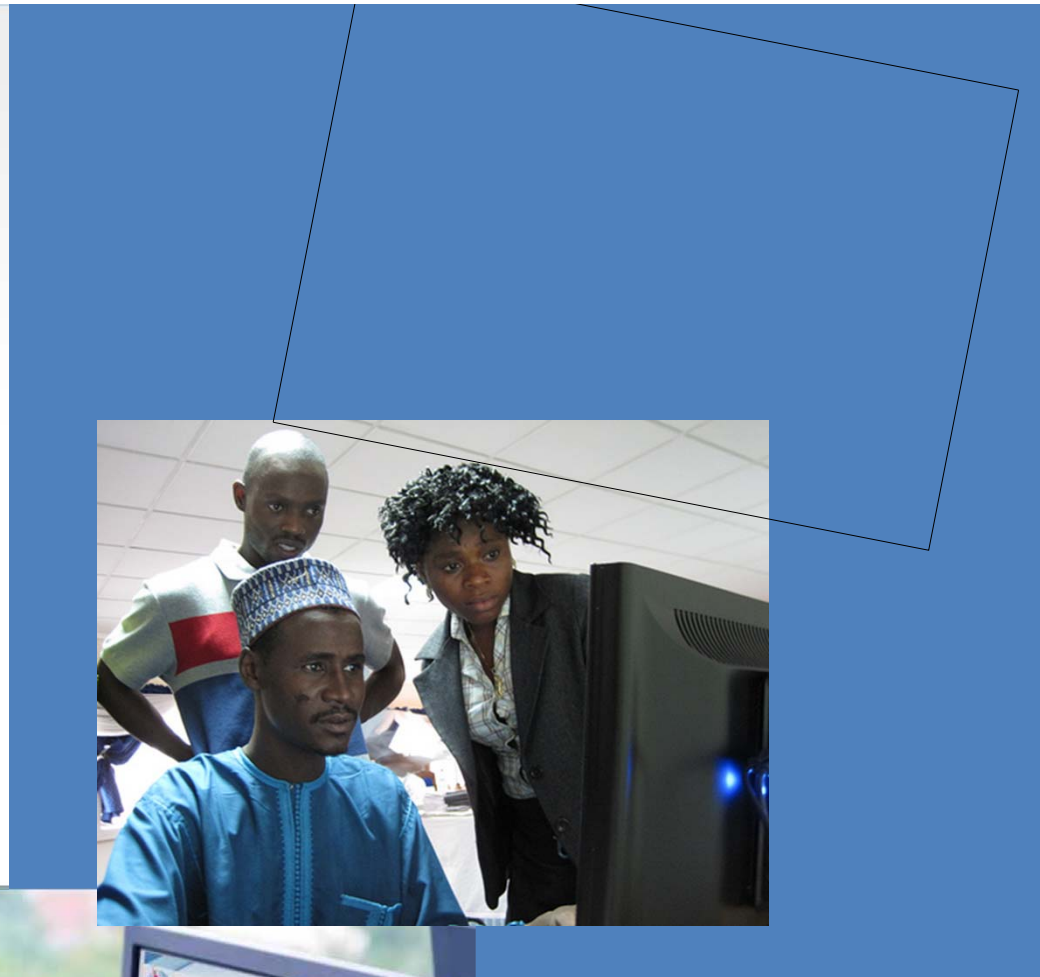
Featured Events
Wireless Broadband Network Planning - Workshop (05 Nov - 08 Nov 2013)

Featured News
CALL FOR PAPERS - The 6th ITU Kaleidoscope

SELECT LANGUAGE
Select Language

HIGHLIGHTS

SMP BROCHURE





ITU Academy: Official Launch

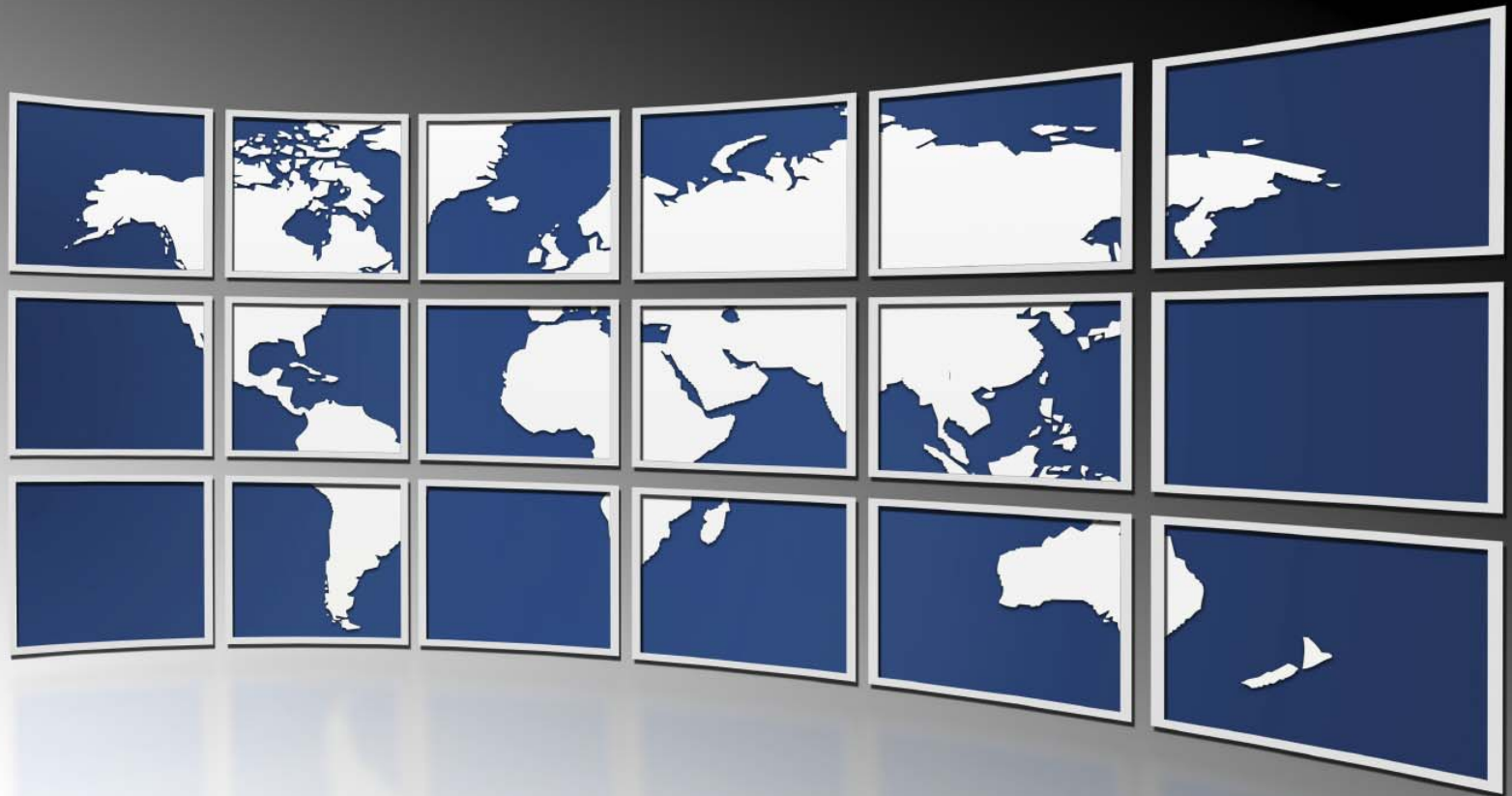
**Global ICT Forum on Human Capacity Development
October 2012, Cape Town, South Africa**



THE VISION

The ITU Academy aims to become **the leading supplier** and the **repository of reference materials** for all training and professional development programmes relating to the ICT sector





Provide single visibility on all ITU-D
capacity building activities

THE CONCEPT

- The ITU Academy has been established as the lead agent for all ITU human capacity-building activities
- ITU Academy responds to demands for knowledge and skills in ICT training, teaching and research.
- ITU Academy offers a wide and growing range of general and specialized courses on all aspects of telecommunications.

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International
Telecommunica
Union



TARGET AUDIENC F

Principally, the programmes serve a varied audience:

- Policy-makers
- Telecommunications/ICT business managers and practitioners
- Government officials from Ministries of ICT and regulatory authorities
- Diplomats and representatives
- Students and teachers of telecommunications/ICT
- Civil Society





Content repository
Delivery of training
Development of training

ITU-D

ITU-T

ITU-R

ITU Member States and Sector Members

PORTAL FUNCTIONALITIES

- The cornerstone of the ITU Academy portal is the delivery of capacity-building related training and educational opportunities.
- In order to adequately deliver these training interventions, the portal utilizes:
 - ✓ Learning Management System (LMS – **Moodle**), and
 - ✓ Content Management System (CMS – **Joomla**).



MOODLE and JOOMLA together

The LMS Moodle and CMS Joomla work together to facilitate an enhanced learning environment which allows for:

- **Distance Learning** (i.e., eLearning) modules,
- knowledge transfer regarding **face-to-face** training offerings (through the provision of presentations from workshops, summary reports of proceedings, etc.),
- multiple language postings, social networking and collaboration tools.



ITU Academy - Training & Events

Training & Events

[UPCOMING TRAINING & EVENTS](#)
[WORKSHOP](#)
[DISTANCE LEARNING](#)
[PAST TRAINING & EVENTS](#)

| Code | Title | Region | Country | Start Date |
|----------------|--|--------|----------------------|------------|
| 14WS13341AFE-E | Wireless Networking for Developing World(WNDW) | AFR | Kenya | 27.10.14 |
| 14WS13346AFE-E | ICT Application Products and Services | AFR | South Africa | 21.10.14 |
| 14WS13353AFR-F | Atelier de formation sur les communications par satellites pour les pays d'Afrique | AFR | Togo | 08.09.14 |
| 14WS13802AFE-E | Workshop on satellites communication | AFR | Rwanda (Republic of) | 01.09.14 |
| 14DL13347AFE-E | Broadband Ecosystem | AFR | South Africa | 04.08.14 |
| 14WS13837ASP-E | Strategic Costing and Quad Play Planning | ASP | Thailand | 28.07.14 |
| 14DL13786AMS-S | IPTV-OTT: fundamentos y panorama actual | MUL | ITU Academy | 21.07.14 |
| 14WS13820ARB-E | Fundamentals of Cloud Computing | ARB | Morocco | 16.07.14 |
| 14WS13652AFR-E | IPV6 | AFR | Rwanda (Republic of) | 14.07.14 |
| 14WS13836ASP-E | IPv6 Infrastructure Security (2014) | ASP | Thailand | 30.06.14 |

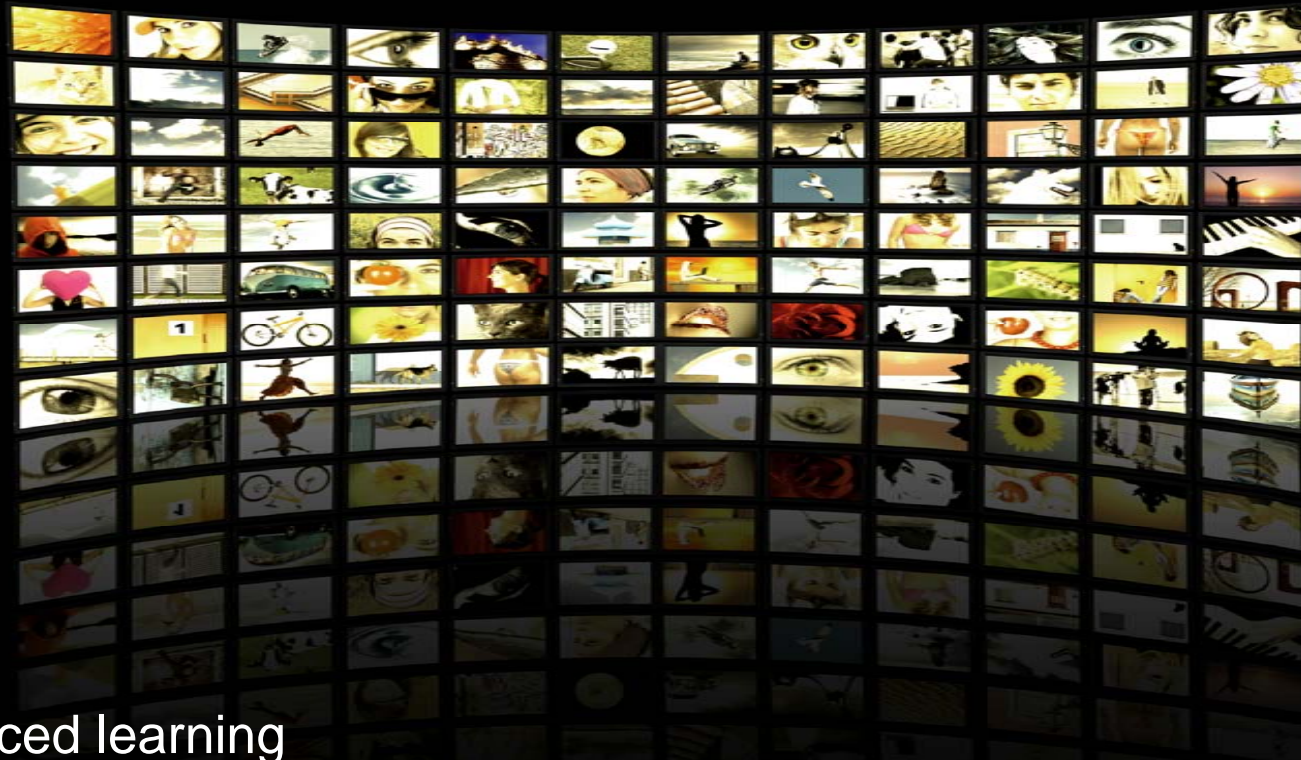
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HIGHLIGHTS



MULTIPLE DELIVERY CHANNELS



Self-paced learning

High-quality on-line content

Learning discussion forums or groups

Trainer-led lectures or reading materials

Online attainment testing (e.g., quizzes)

Web-based reading materials (e.g., in .pdf)

ITU CENTRES OF EXCELLENCE AND ITU ACADEMY

A network of over 32 training Centres of Excellence operating across 8 global regions.

- They provide advanced-level technical and managerial programmes.

The benefits of ITU training delivery through Centres of Excellence include:

- Tutor-led courses via the ITU Academy;
- Access to ITU Academy training materials;
- ITU Academy as a medium for capacity-building of managers and engineers, but also other with interdisciplinary interests in telecommunications/ICT

DEVELOPMENT OF STANDARDISED TRAINING MATERIALS UNDER THE ITU ACADEMY

- Spectrum Management Training Programme (SMTP)
- Quality of Service Training Programme (QoSTP)

ITU SPECTRUM MANAGEMENT TRAINING PROGRAMME (SMTP)

ADDRESSED PROBLEM

- Need for (SM) requires well educated professionals in Spectrum Management;
- No formal complete SM education programmes;
- Spectrum managers must also have a clear understanding of legal and economic issues;
- Large institutions train SM staff by seconding them to experienced workers, but this offers narrowed vision and no formal quality check. This is not possible in smaller institutions.

PROGRAMME OBJECTIVES

- SMTP provides ITU membership with capacity-building solutions in Spectrum Management
- Provides access to the latest learning tools (for our members)
- Builds human and institutional capacity by designing and making available high quality training materials

IMPLEMENTATION PROCESS

- Identification of **Subject-Matter Experts** within the global SM community
- Preparation of high level training materials by experts
- Establishment of the **Quality Assurance Mechanism**
- Instructional design and editing of SMTP training modules
- Establishment of partnership with universities and other institutions in order to deliver the SMTP.

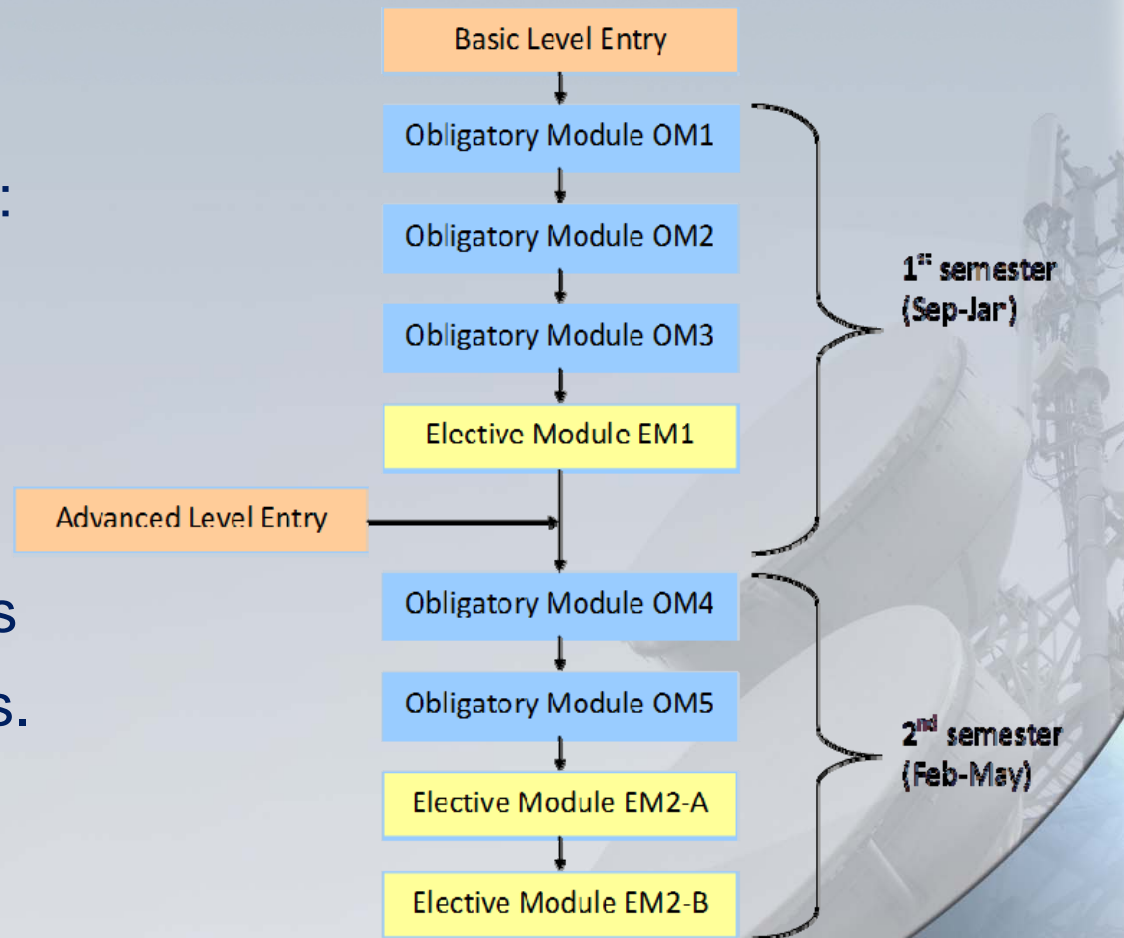
PROGRAMME DURATION

- 4-5 weeks module duration
- All modules can be completed in no more than 1 year
- Approximately 125 hours per module, 40 hours of classroom training

SMTTP STRUCTURE, COMPOSITION AND POSSIBLE CERTIFICATION ROUTES

SMTTP STRUCTURE

- Two entry levels
- Specialisation possibility:
 - Technical
 - Legal/economic
- Accordingly structured set of obligatory modules and specialised electives.



COMPOSITION OF THE PROGRAMME

BASIC LEVEL

Obligatory Modules (OM):

- **OM1** “Legal Basis and Regulatory Framework of SM”
- **OM2** “Spectrum Engineering Fundamentals”
- **OM3** “Wireless Telecommunications Technologies”

Elective Module 1 (EM 1) includes 6 options:

- **EM1-1** “Spectrum Monitoring”
- **EM1-2** “Enforcement and Type Approval of Equipment”
- **EM1-3** “SM for Satellite Systems”
- **EM1-4** “SM for HF Systems, Science, Maritime and Amateur Services”
- **EM1-5** “SM for Aeronautical and Radio Determination Services and Military Systems”
- **EM1-6** “Computer-aided Spectrum Management”

COMPOSITION OF THE PROGRAMME

ADVANCED LEVEL

Obligatory Modules (OM):

- **OM4** “Economic and Market Tools of Spectrum Management”
- **OM5** “Strategic Planning and Policies for Wireless Innovation”

Elective Module 2 (EM2):

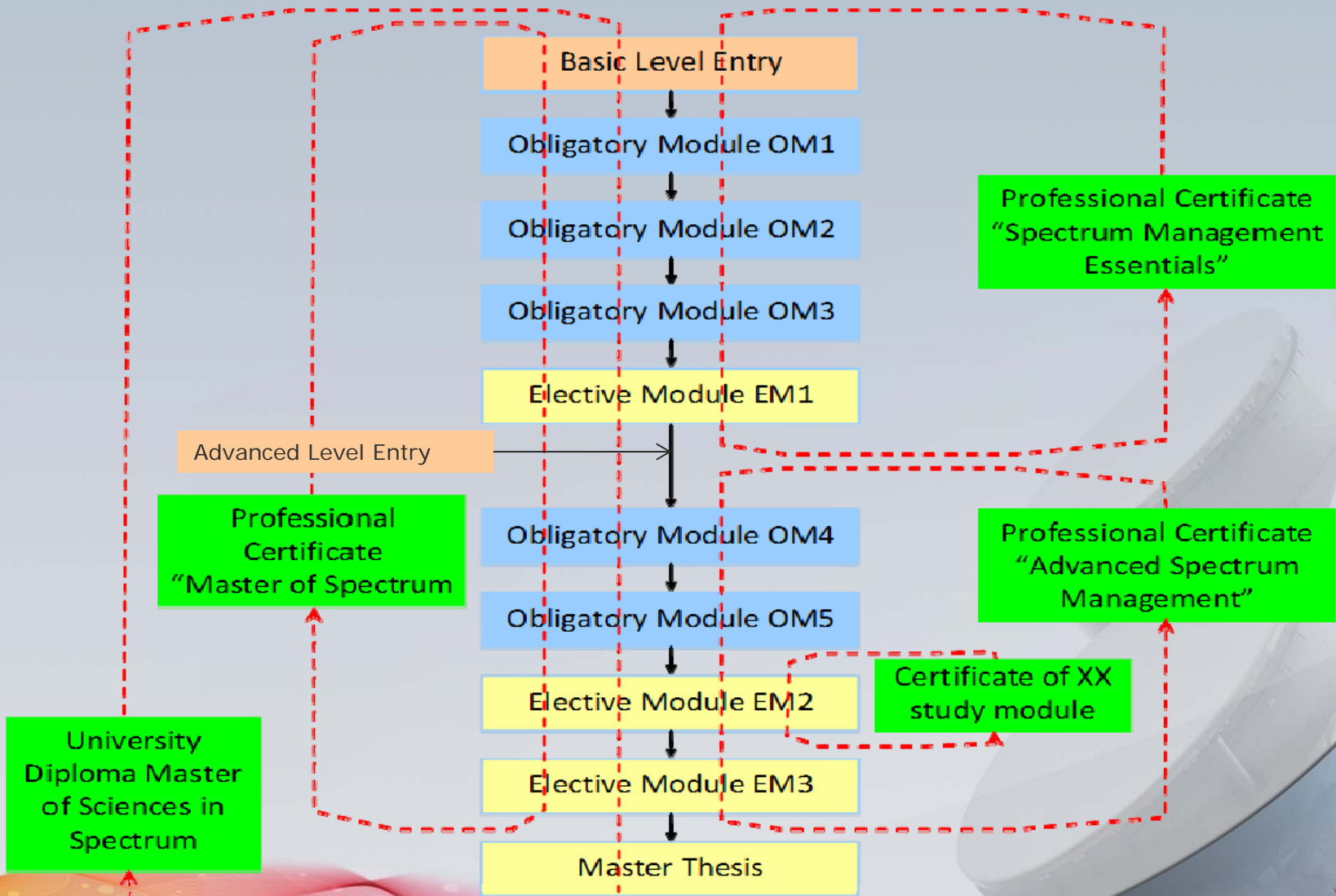
Legal Specialization:

- **EM 2-1** “Advanced Spectrum Authorization Regimes”
- **EM 2-2** “Socio-Economic Impact of Spectrum Regulation; Competition and Consumer Protection”

Technical Specialization:

- **EM 2-3** “Terrestrial TV Broadcasting Planning and Digital Transition”
- **EM 2-4** “Opportunistic Spectrum Access and Cognitive Radio”

FLEXIBLE CERTIFICATION ROUTES



ULTIMATE DELIVERY OPTIONS



ITU CENTRES
OF EXCELLENCE

OR



ACADEMIA



ITU ACADEMY



MEMBER STATES AND SECTOR MEMBERS
(OPERATORS, REGULATORS AND POLICYMAKERS)



STUDENTS

ULTIMATE DELIVERY OPTIONS

1. International University Master course:

- 1) Courses organized via collaboration of university/ies and ITU as well as ITU-R sector members;
- 2) Diploma conferred by partner university/ies.

2. International professional SM certificate:

- 1) Developed content becomes a guide for self-studies, supported by practical experience in administrations
- 2) ITU Academy administers the remote testing to established standard and issues ITU certificate to those who successfully passed the exams

3. Combination of the above

WHERE ARE WE NOW

1. All modules at Basic Complete

- 1) They have all been Peer reviewed
- 2) Editorial work has been completed

2. All modules at Advanced Level complete

- 1) Only two modules are awaiting finalization of Peer review
- 2) Editorial work done except for these two modules. ITU

Academy administers the remote testing to established standard and issues ITU certificate to those who successfully passed the exams

3. Rollout Strategy has been developed and is ready for implementation in 2015.

NEXT STEPS

NEXT STEPS IN BRIEF

1. Pilot testing of SMTP
2. Continuing discussions with private sector and academic institutions for SMTP delivery options;
3. Developing multimedia materials;
4. Inviting all stakeholders to participate and benefit from SMTP.

NEXT STEPS: PILOT TESTING

- Four weeks free online pilot (on the ITU Academy platform)
- Obligatory Module 1: “Legal Basis and Regulatory Framework of Spectrum Management” is the first out of 15 modules of SMTP
- Pilot course is designed for anyone wishing to enhance professional knowledge
- The course timeframe: **1 December 2014 – 4 February 2015**
- Participants should provide critical/constructive feedback at completion;

QUALITY OF SERVICE
TRAINING PROGRAMME
(QoS_{TP})

PROBLEM STATEMENT

- QoS is increasingly becoming an important Regulatory issue;
- It is closely linked to the issue of consumer rights and consumer protection;
- There is an need to disseminate firm and solid QoS understanding for all stakeholders, such as operators, equipment manufacturers, administrations, regulatory bodies, end-users and their representatives;
- Availability of service is no longer a primary issue;
- Today there are no formal complete QoS training programmes.

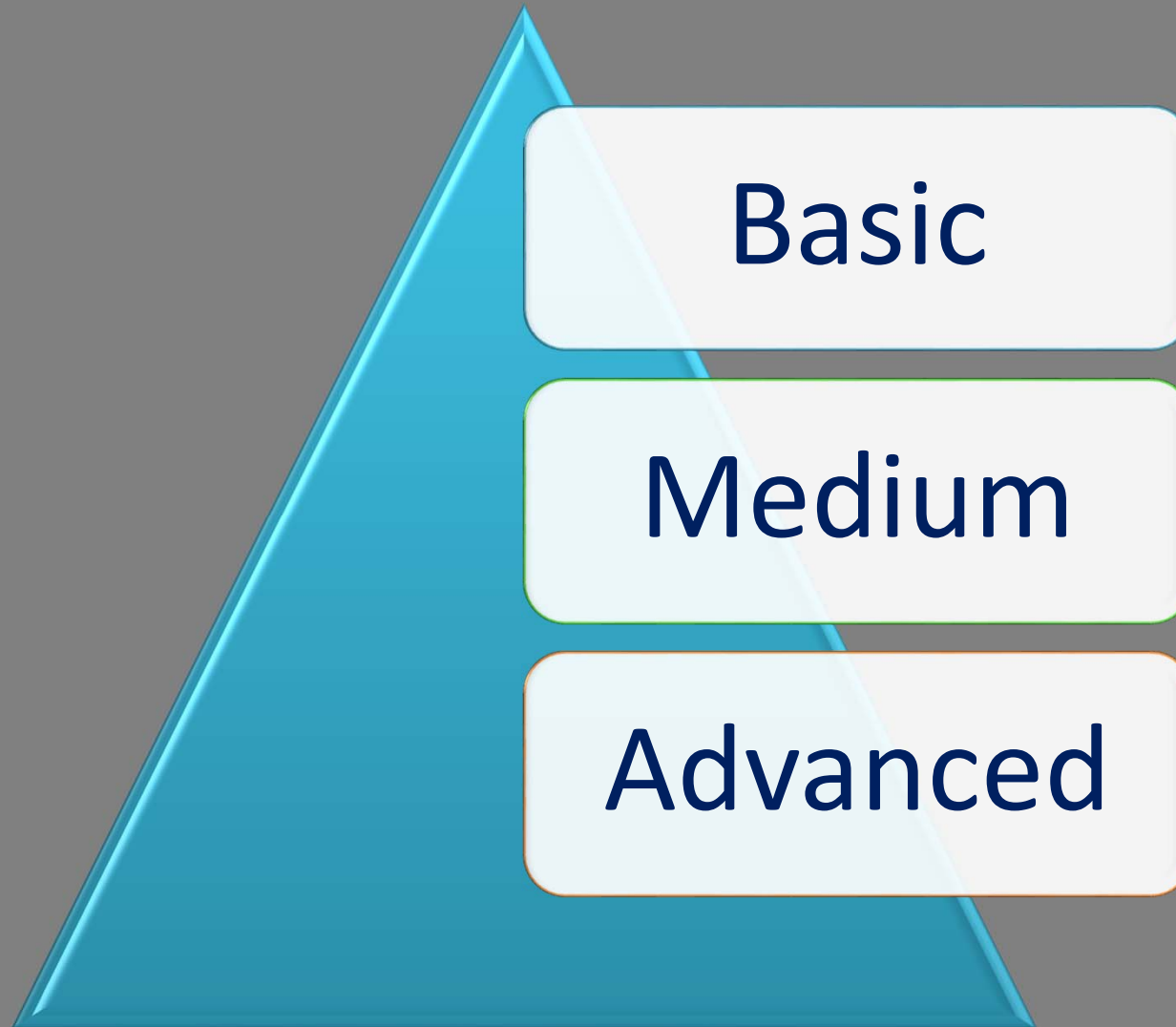
QoSSTP OBJECTIVE

- To provide ITU membership with capacity building solutions in all areas of QoS;
- To provide access to the latest learning tools;
- To offer certification/accreditation at completion.

PROGRAMME ORGANIZATION:

- 4 Obligatory Modules
- 3 Elective Modules
- 2 options per each Elective Module
- Assessment questions
- Laboratory & practical Exercises and Demonstrations (Depending on Selected Delivery Option)

QoSTP ORGANIZATION: LEVELS



PROPOSED ORGANIZATION OF MODULES

The definition of the modules and their organization into study tracks based on the required specialization and level (basic, medium or advanced) of immersion is proposed below. Obligatory modules (OM) contain essential and overview knowledge relevant to the given study track, while elective modules (EM) are options designed to deepen the student's knowledge in specific areas of QoS.

The QoS modules are as follows:

| | | | |
|-------------|--|-------------|---|
| OM1: | Introduction - QoS and quality of experience (QoE) | EM1: | EM1.1: Telephony |
| | | | EM1.2: Network performance and operation, administration and maintenance (OAM) for performance measurement |
| OM2: | Subjective assessment of voice quality | EM2: | EM2.1: Hands-free communication and user interfaces in vehicles |
| | | | EM2.2: Traffic management |
| OM3: | Objective assessment of voice quality | EM3: | EM3.1: QoS for mobile services |
| | | | EM3.2: Bit-rate measurement of Internet connections |
| OM4: | QoS and QoE for multimedia and assessment methods | | |

QoS/STP LEVELS: BASIC

- *QoS/QoE General overview: OM1*

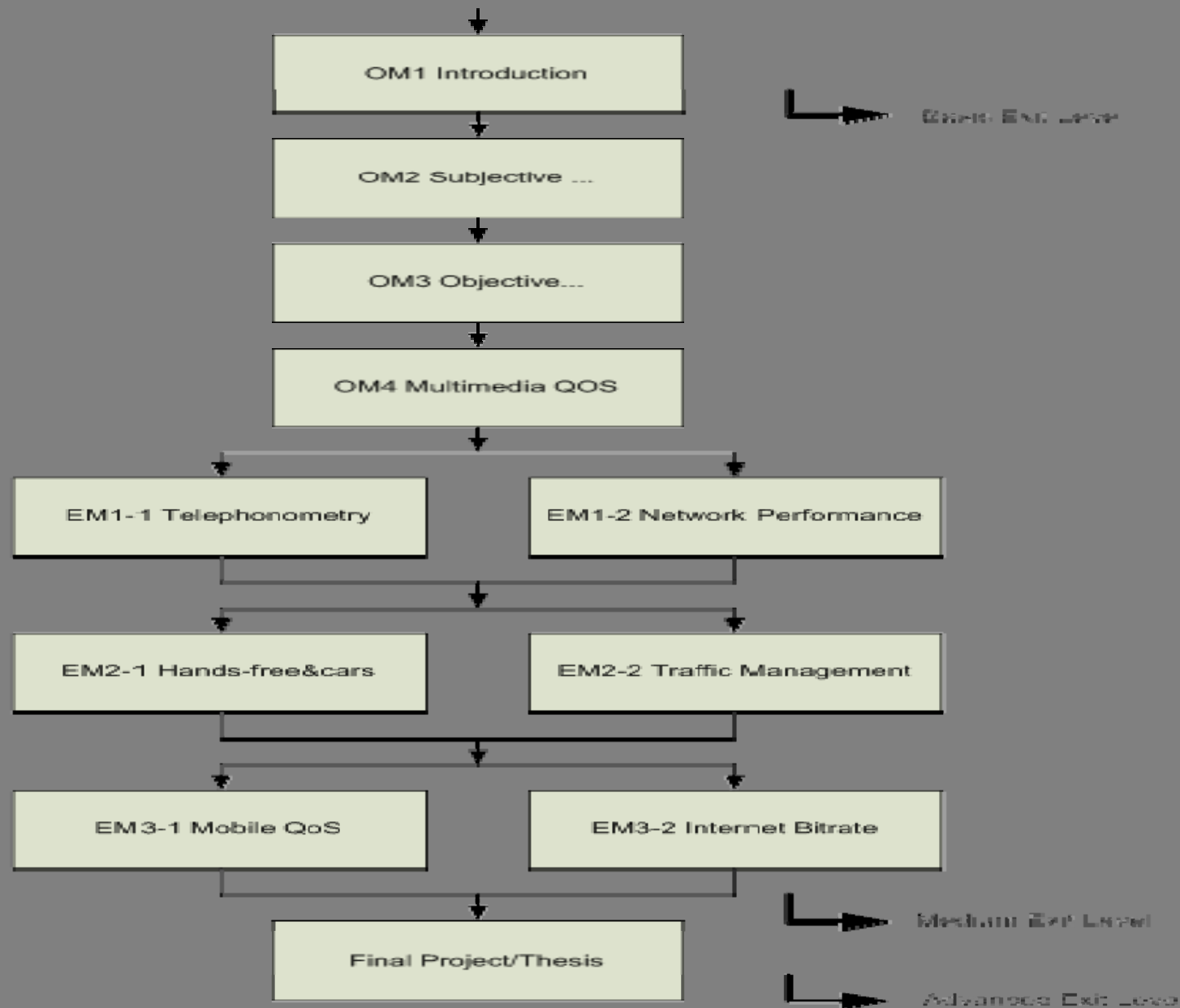
QoS/STP LEVELS: MEDIUM

- *QoS/QoE Specialist:*
OM1-OM2-OM3-OM4;
- *End-user Equipment QoS Specialist:*
OM1-OM2-OM3-OM4-EM1.1-EM2.1-EM3.1
- *Fixed Network QoS Specialist:*
OM1-OM2-OM3-OM4-EM1.2-EM2.2-EM3.2
- *Mobile Network QoS Specialist:*
OM1-OM2-OM3-OM4-EM1.2-EM2.2-EM3.1

QoSTP LEVELS: ADVANCED

- *Advanced End-user Equipment QoS Specialist.*
OM1-OM2-OM3-OM4-EM1.1-EM2.1-EM3.1-final project/thesis
- *Advanced Fixed Network QoS Specialist.*
OM1-OM2-OM3-OM4-EM1.2-EM2.2-EM3.2-final project/thesis
- *Advanced Mobile Network QoS Specialist.*
OM1-OM2-OM3-OM4-EM1.2-EM2.2-EM3.1-final project/thesis

QoSSTP ORGANIZATION: LEVELS



POSSIBLE CONTRIBUTORS TO THE DEVELOPMENT OF QoSSTP

- ITU-T and its Study Groups (primarily SG12);
- ITU-D and its Study Groups (e.g. dealing with relevant QoS standards);
- organizations participating in running of the ITU CoEs in various regions;
- national regulatory authorities (NRAs), especially those who already have their national QoS training programmes and facilities;
- regional telecommunication organizations (e.g. CEPT);
- universities and research centers;
- organizations and companies which currently run educational programmes for QoS
- sector-specific industry associations (e.g. IETF, 3GPP);
- companies prominent in the field of telecommunication equipment, especially producers of QoS software tools, QoS monitoring equipment, wireless network (e.g. drive-test) equipment manufacturers

IMPLEMENTATION PROCESS

- Identification of subject-matter experts within the global QoS community
- Preparation of high-level training materials by experts;
- Quality Assurance Process;
- Editorial Process;
- Establishment of partnership with universities and other partner institutions in order to deliver the QoSSTP and provide accreditation/certification
- There is an intention to transform training materials into multimedia content. Subject to availability of funds

IMPLEMENTATION TIMEFRAME

Selection of experts

August – September 2014



Development of Training materials

October 2014 –April 2015



Peer and editorial review

May-July 2015



Delivery

Starting from September 2015

CONCLUSION

- The QoSTP is a first high quality training solution in the domain of Quality of Service;
- QoSTP will be a part of the ITU Academy content repository;
- QoSTP will help to bridge the QoS knowledge gap and will provide necessary tools and skills.

ITU Academy...



What's next...



What's next...



Enhancing the capabilities of the ITU Academy

- Upgrading the main applications used on the ITU Academy (Joomla, Moodle, Joomla)
- Implementation of the new features, new functionalities and introduction of semi-automated quality assurance processes
- The database migration from the old platform to the new one

What else?...

- Aggregating & tagging resources, uploading content, courseware, training & events
- Strengthening partnerships with policy makers, regulators, industry and academia to develop high quality learning/training resources
- Multi-media high quality e-learning content



CONCLUSION

- The ITU Academy is more than just about training
- It is a platform for sharing all capacity building activities within the Union
- It is about creating partnerships for capacity building
- It is about creating seamless opportunities for learning
- It is about preparing people for a knowledge society.



What is the ITU Academy?

What looks small...

...can be big and powerful

Halima shared **a video** with you!

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Muito Obrigado
Muchos Gracias

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