ITU SPECTRUM MANAGEMENT TRAINING PROGRAMME (SMTP)
BY
TELECOMMUNICATION DEVELOPMENT BUREAU

ITU Academy

presents

SPECTRUM MANAGEMENT TRAINING PROGRAMME

ADDRESSED PROBLEM

- Efficient running of Spectrum Management (SM) requires well educated professionals;

- Today there are no formal holistic 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.

THE SOLUTION: SMTP

- SMTP-first in a series of ITU training programmes

- Offers access to SM training and forward-looking professional vision

- It is a full set of high-level materials prepared by high caliber subject-matter experts

- Materials sanitized through Quality Assurance Mechanism

- Designed for anyone either a beginner or a specialist

- Provides provision of certain level of knowledge

- Provides possibility for different certification options

- Provides international recognition, with possible option of university credits/diploma

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PROGRAMME OBJECTIVES

- SMTP provides ITU membership with capacity building solutions in SM

- Provides access to the latest learning tools

- Builds human and institutional capacity by designing and making available high quality training materials

BENEFITS FOR ITU

- Preserving and spreading the wealth of SM knowledge accumulated in the ITU (BR/BDT and ITU-R SG: staff's know-how and Reports/Recs)

- Additional facet to the ITU's global leadership role as enabler and facilitator of ICT development

- Service to Member States and Sector Members

- Course completion certificate as quality reference for candidates assessment in ITU and administrations' hiring processes

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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.

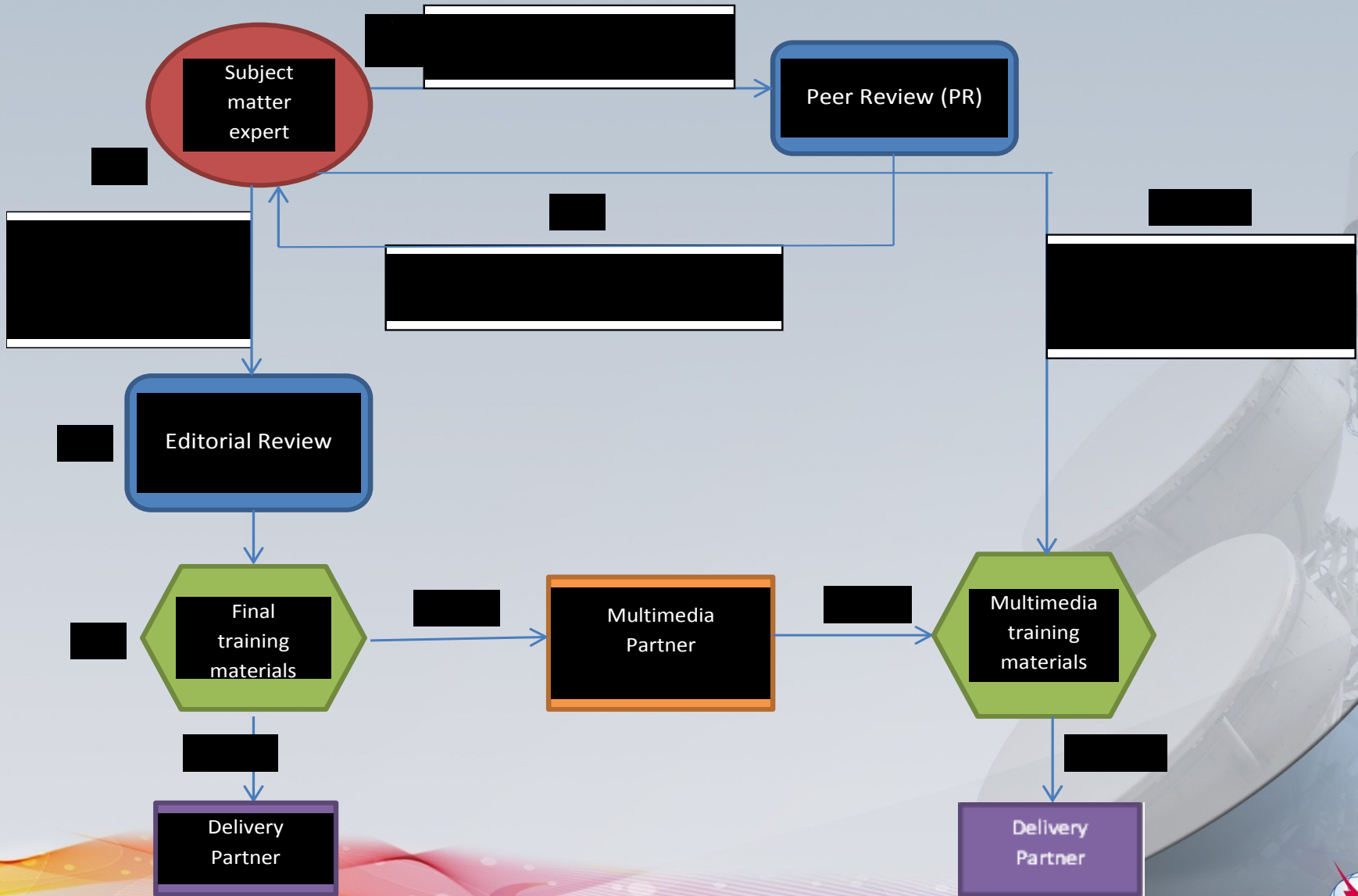**ITU**ACADEMY

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

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PROGRAMME ELEMENTS

- Combination of face-to-face, remote teaching and self-studying

- 20 slides per lecture with a total of approximately 600 slides per module

- 10 hours of tasks for practical exercises per module 9where applicable)

- Formal assessment in the end of each module (50-100 assessment questions available per module)

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WORKING MECHANISM

Subject matter expert → Peer Review (PR)

Editorial Review

Final training materials → Multimedia Partner → Multimedia training materials

Delivery Partner

Delivery Partner

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QUALITY ASSURANCE MECHANISM (QAM)

The QAM includes:

Peer Review

- Conducted by minimum 2 experts
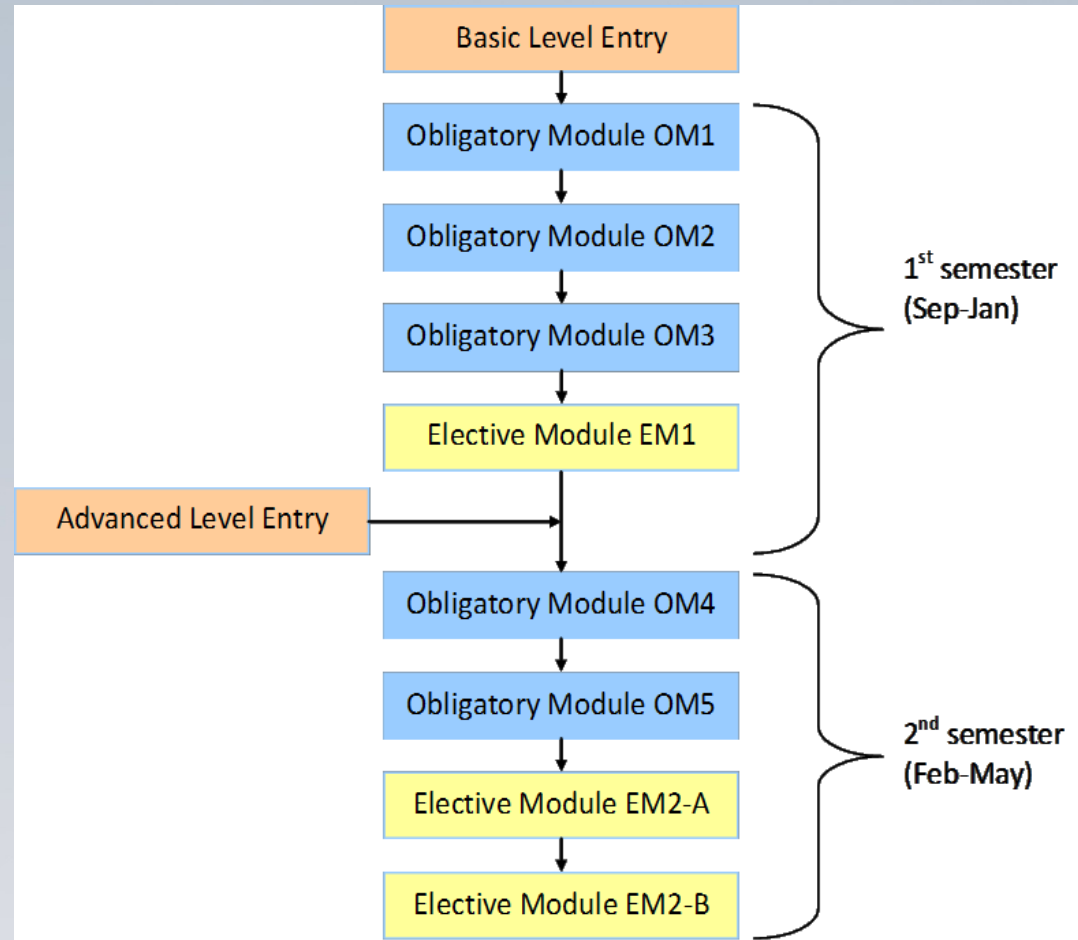- Ensures that materials are technically up to date and is of the highest standard

Editorial Review

- Ensures that language and terminology used in the training materials conforms to the rules, policies, procedures and instruments of the ITU.

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SMTP STRUCTURE, COMPOSITION AND POSSIBLE CERTIFICATION ROUTES

SMTP 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"

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COMPOSITION OF THE PROGRAMME
ADVANCED LEVEL

<u>Obligatory Modules (OM):</u>

- **OM4** "Economic and Market Tools of Spectrum Management"

- **OM5** "Strategic Planning and Policies for Wireless Innovation"
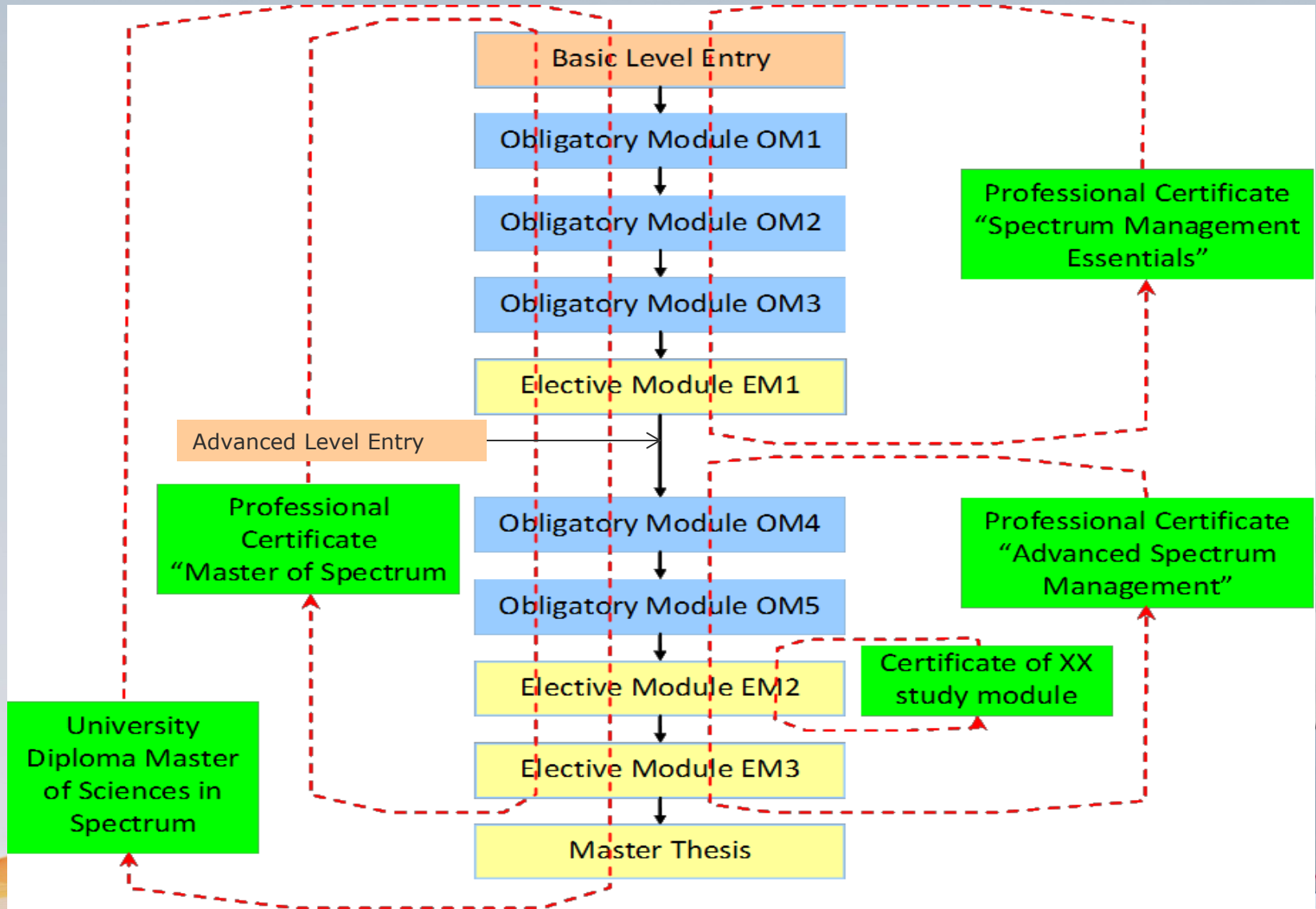
<u>Elective Module 2 (EM2):</u>

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"

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FLEXIBLE CERTIFICATION ROUTES

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

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ULTIMATE DELIVERY OPTIONS

QUALITY CoEs GUARANTEED

ITU CENTRES OF EXCELLENCE

OR

UNIVERSITY

ACADEMIA

+

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ITU ACADEMY

MEMBER STATES AND SECTOR MEMBERS

(OPERATORS, REGULATORS AND POLICYMAKERS)

STUDENTS

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WHAT IS NEXT ?

NEXT STEPS IN BRIEF

1. Finalizing all training materials;

2. Preparing modules for pilot testing (1 Basic module and 1 Advanced module) through the ITU Academy platform in the third quarter of 2014;

3. Continue discussions with private sector and academic institutions for SMTP delivery options;

4. Developing multimedia materials;

5. Inviting all stakeholders to participate and benefit from SMTP.

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NEXT STEPS: FINALIZING ALL TRAINING MATERIALS

- Some training modules are still going through Editorial Review;

- This review will be complete by the end of July 2014.

NEXT STEPS: PILOT TESTING

- Pilot will be run in the third quarter of 2014;

- Run one Basic Module on the ITU Academy platform , preferably OM1;

- Run one Advanced Module on the ITU Academy platform (to be selected);

- Identify institutions to pilot test modules or the whole programme with a view to giving critical/constructive feedback;

- Pilot can be run for two groups: students and trainers (people with academic background) in order to receive two types of feedback.

NEXT STEPS: SMTP DELIVERY

- Invite all stakeholders to participate in SMTP delivery;

- Identify delivery institutions;

- Continue discussions with private sector and academic institutions on possible delivery options;

- Identify suitable certification/accreditation routes depending on the type of delivery and delivery partner.

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NEXT STEPS: MULTIMEDIA MATERIALS

- The ultimate aim is to transform all training materials into multimedia materials;

- This is a very expensive and time consuming exercise;

- Identification of possible ways for development of multimedia product is ongoing.

CONCLUSIONS

- The SMTP is a first high quality training solution in the domain of Spectrum Management;

- SMTP will be a part of the ITU Academy content repository;

- SMTP will help to bridge the SM gap and will provide necessary tools and skills.

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THANK YOU!

We would like to thank all experts and institutions who participated in the development of SMTP

QUESTIONS?

For more information please contact

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or visit

http://academy.itu.int/news/item/1077/