Training Course Outline

Hybrid Training Course on

Business Planning for ICTs Broadband Infrastructure development for Arab States

Physical: 19-21 November 2023

Djibouti, Djibouti City

Online: 26 November to 17 December 2023

Through ITU Academy

Title	Business Planning for ICTs Broadband Infrastructure development for Arab States
Modality	Phase1: Physical – 3 days classroom in Djibouti, Djibouti City (18h) Phase2: Online - 3 weeks attendance (8h/week)
Level	Phase1: Fundamental and Phase2: Advanced
Dates	Physical: 19-21 November 2023 Online: 26 November to 17 December 2023 Through ITU Academy
Duration	3-days (In person) Djibouti, Djibouti City+ 3 weeks (Online)
Language	English
Region	Arab States
Registration type	Application and selection
Registration deadline	01/11/2023
Training fees	Free

Description	The ICT infrastructure business planning training course offers regulators, policymakers, and stakeholders a practical approach for the accurate economic evaluation of broadband infrastructure installation and deployment plans. The expert guidance offered in this course is based on the ITU ICT infrastructure business planning toolkit - 5G networks, 2023 and has the aim at facilitating the development of a credible and coherent business plans adaptable to a wide range of broadband infrastructure deployment projects. Additionally, the course aims at exploring alternative use cases where the satellite connectivity emerges as a techno-economic, rational path towards bridging digital divides in remote, unpopulated areas. The main objective of this hands-on training is to build knowledge and skills of participants on the principles of business planning and practicing it, in the context of supporting policy and regulatory decision-making on infrastructure development. It will discuss on the main aspects related to the theme, such as: estimation of demand, expected revenues and operational costs, definition of parameters related to investments and definitions related to the Weighted Average Cost of Capital – (WACC). There is also a specific section aimed at identifying public mechanisms for financing ICT infrastructure projects.
Training topics	Telecommunication/ICT Broadband infrastructure
Certification	*Certificate*
Code	*To be filled by ITU*

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Page **2** of **6**

1. TARGET POPULATION

Regulators and ICT professionals in need to get a deep understanding of ICT Business Planning design and implementation.

2. ENTRY REQUIREMENTS

Participants should have English language and Microsoft Excel intermediate level knowledge, as well as good knowledge of the main gaps in the telecommunications infrastructure of their country.

The selection of candidates is at the discretion of the Programme Committee. Due to the nature of the training, the number of participants will be limited to a total number of 40. The training is open mainly to professionals from national regulatory authorities and ministries from Arab States.

Confirmation of selection will be provided by close of business of 1st of Nov 2023.

3. TRAINING OBJECTIVES

Upon completion of this course, participants will be able to:

- Summarize theories related to how to evaluate projects by using the Net Present Value (NPV) of a cash flow;
- Apply practical methodology for the accurate economic evaluation of broadband infrastructure installation and deployment plans;
- Analyze the principles and technical practices related to building business plans that support policy and regulatory decision-making for infrastructure development;
- Explain the main aspects regarding using business planning as a public policy tool;
- Analyze and compare different infrastructure projects;
- List the key elements for a successful business planning implementation for ICT infrastructure development (estimating demand, revenues, CAPEX, OPEX and WACC);
- Explain the financing mechanisms for the implementation of a broadband public policy;
- Identify, quantify and objectively compare different infrastructure projects in order to evaluate a given public policy based on solid technical parameters;
- Estimate the demand for broadband services;
- Estimate the revenues from broadband services provision;
- Estimate the investments required to deploy fixed and mobile broadband networks;
- Estimate operational expenses (OPEX) related to the provision of broadband services;
- Estimate the weighted average cost of capital (WACC) of a broadband infrastructure project;
- Analyze the financing mechanisms related to broadband infrastructure projects.

4. METHODOLOGY

The training course is proposed to be taught in two phases:

1. In the first phase (3 days) the ICT Business Planning Toolkit will be covered including practical hand-on exercises.

2. in the second phase (3 weeks) there will be the Business Planning Clinics for each participant country/groups.

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Page **3** of **6**

For the first phase, the students will need to read proposed listed documents, execute practical exercises using the MS Excel, interact in the class.

During **phase 2 on Business Planning Clinics**, each participant country will select a project to run an assisted real case using the Business Planning model.

1. Weekly instruction (by group): 1 hours per group with the instructor.
    a. Explanation of the assistance and objectives of this exercise, and assistance to the countries on selecting the infrastructure projects that will be addressed.
2. Project Execution: 5h dedication expected per participant per week using the business planning model. Preparation of a presentation and 5 pages final report outlining the main assumptions and results.
3. Project evaluation:
    a. 15 minutes/group presentation - The objective is to present the results from the Business Planning project implemented by group.
    A short quick-wins video (3 min) may be requested to report back on the ITU impact achieved through this activity.

    b. Final Report – 5 pages report outlining the main assumptions and results.

Reference reading material: ITU ICT infrastructure business planning toolkit - 5G networks, 2023 (link) – available in the six UN Official languages.

5.ASSESSMENT AND GRADING

Phase 1 – Business Planning in person sessions (100 points)

- Attendance to the Live Lectures: 30 points
- Participation in two discussions in the Forum per week: 20 points
- Final Exam: 50 points

Passing Score: 60 points

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Phase 2 – Business Planning on-line Clinic (100 points)

- Clinic Results Presentation: 60 points
- Clinic's Final Report: 40 points

Passing Score: 60 points

ITU Academy Certificate - Advanced level

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Page **4** of **6**

6. TRAINING DETAILS & INSTRUCTIONAL APPROACH

Session	Activity	Modules, exercises and interactions
Phase 1 In Person Training		
Day 1	- Training lectures - Exercises - Questions & answers	**Module 1: Broadband Business Planning** – Challenges in developing a business plan; business planning as a public policy tool, the ICT Business Planning Toolkit. **Module 2: Estimating demand for broadband services** - estimating demand through econometric methods and the Delphi method; decomposition of demand into different segments; estimating the market share of the potential new operator. **Module 3: Estimating revenue from broadband service provision** - Basic Approach in estimating revenue; main challenges; estimating revenue for mobile, fixed broadband projects and transport network projects; revenue behaviour throughout the project.
Day 2	- Training lectures - Exercises - Questions & answers	**Module 4: Estimating investments in broadband networks (CAPEX)** – estimation for 4G/5G Mobile broadband access networks; FTTH Fixed broadband access networks; Optic fiber transport networks, and satellite connectivity. **Module 5: Estimating operational expenditures (OPEX) for broadband service provision** - Concepts of OPEX; using cost models; using past costs and expenses; using benchmarks. **Module 6: Estimating Weighted Average Cost of Capital (WACC)** - WACC parameters, estimating the Cost of debt, the Cost of equity (the Market Risk Premium (MRP) and the local capital asset pricing model (CAPM) or global CAPM); converting nominal WACC to real WACC.
Day 3	- Training lectures - Exercises - Questions & answers	**Module 7: Estimating the net present value (NPV) of broadband infrastructure projects** – overview and steps of calculation and interpretation of results. **Module 8: Financing Mechanisms to Enable Broadband Infrastructure Projects** - project and licensing financing mechanisms; infrastructure deployment financing mechanisms; service provision financing mechanisms. **Final Examination** **Introduction of the Phase 2**: Business Planning Clinics
Phase 2 Clinics on Business Planning		
Week 1	Phase 2.1 –Clinics (1h/group)	Up to 6h of hands-on off-line work, including up to 1h of mentoring with the instructors 26/11/23 - Tutoring session with the instructor

Week 2	Phase 2.2 a – Clinics (1h/ group)	Up to 6h of hands-on off-line work, including up to 1h of mentoring with the instructor 3/12/23 - Tutoring session with the instructor
Week 3	Phase 2.3 – Presentations + video interview (1h/group)	Up to 6h of hands-on off-line work, including up to 1h of mentoring with the instructor 10/12/2023 - Tutoring session with the instructor 17/12/2023 - Final workshop.

7. TUTORS/INSTRUCTORS

NAME OF TUTOR(S)/INSTRUCTOR(S)	CONTACT DETAILS
Tiago Sousa Prado	E-mail: tiago@gnfconsult.com
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8.TRAINING COURSE COORDINATION

Host contact	ITU coordinators
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Page **6** of 6