



Training Microstructure

WP 2.1. Training Toolkit

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1 Introduction

INNOLEA project aims to fill an apparent gap in the area of specialized services for the leather sector with the establishment of four leather centres in local Universities, two in Jordan and two in Egypt, utilizing the experience and expertise of EU partners in the area of services for the leather sector.

Through the creation of these centres and the further tasks that will be implemented in this project, the leather sectors in Jordan and Egypt will be offered access to business development services, such as quality testing, product certification, training, fashion trends, production organization, BtoB and funding opportunities, and subsequently the Jordanian and Egyptian leathers sector will have a valuable ally for its further development.

The project also aims to create and maintain a link between Universities and businesses of the leather sector that will foster innovation and the manufacturing of high value quality products, as well as further cooperation between EU and Jordan and Egypt Universities and leather businesses.

The project also aims to help encourage the Egyptian and Jordanian governments to favour the establishment of leather centres within universities and to promote research and projects between EU and Egypt and Jordan universities in the leather sector, by creating a research innovation and training network, which will continue to operate and after the end of the current project.

2 Description of WP2: Capacity Building Programme

After the analysis implemented in the framework of *WP1: Preparation*, a capacity building programme will be prepared and implemented in the project, in order to enhance the skills of Jordanian and Egyptian experts in running and managing leather centres, followed by the actual setup and operational organization of the Leather Centres. The activities carried out in this stage are depicted in detail in WP2 – Development.

Work Package 2 (WP2) represents the core part of the project. It aims both at creating and delivering a capacity building programme and at setting up and equipping the leather centres as well as making them fully operational.

In this Work package, a capacity Building Programme will be prepared to enhance the skills of Jordanian and Egyptian experts in running and managing leather centres.

The first step to prepare the capacity building programme will be the creation of the training macrostructure (methodology) and micro-structure, which means the detailed structure of the capacity building programme (contents, layout for presentation of the contents, agenda, criteria for the selection of experts, evaluation measures, timetable). This task has been assigned to UPB, supported by NTUA.

The second step to prepare the Capacity Building Programme is the creation of training contents and materials by UPB, CRETHIDEV, CTIC, ICPI, CIAPE and KTU. Training materials will be prepared according to the microstructure developed. Each partner will be in charge of specific parts, assigned according to the expertise. These contents and materials will be assembled in the training toolkit by UPB.

3 Training Microstructure

The training microstructure represents the contents of the capacity building programme, its detailed structure. The capacity building programme consists of four training units, detailed as follows:



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3.1 Training Unit 1: Quality Control and Standardization

3.1.1 Objectives

1. To acquire technical competences and skills (on standardization and quality control);
2. To acquire key skills and competences;
3. To acquire more knowledge about quality characteristics of raw hides and skins, semi-processed, finished leather
4. To know evaluation technics for assessing quality of materials
5. To have a deep understanding about quality and certification issues

3.1.2 Methodology

Each lesson will comprise a theoretical part (half of the time) and a practical part of applications in the laboratory (half of the time)

3.1.3 Contents

Quality management in a laboratory accredited according to ISO/IEC 17025/ physical-mechanical tests for leather/ chemical tests for leather/ chemical tests for auxiliaries used in leather processing / physical-chemical characteristics of the main leather assortments.

3.1.4 Lessons

1. Quality management in a laboratory accredited according to ISO/IEC 17025:

- Quality management following the ISO/IEC 17025 standard
- Products certification
- Enterprise certification
- Quality labels

2. Physical – mechanical tests for leather:

- Physical and mechanical quality controls available
- Evaluation techniques for assessing the quality of materials
- Quality tools

3. Chemical tests for leather:

- Chemical quality controls available
- Evaluation techniques for assessing the quality of materials

4. Chemical tests for auxiliaries

- Standardized chemical quality controls available for auxiliary substances
- Common practice chemical tests for auxiliaries

5. Physical – chemical characteristics of the main leather assortments

- Quality characteristics of leather types
- Quality characteristics of raw hides and skins
- Quality characteristics of semi-processed (wet blue, crust, pickled...)
- Quality characteristics of the finished leather

3.1.5 Assessment method

Exam consisting in a quiz in the form of test questions, administered at the completion the training session.



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3.2 Training Unit 2: Modern Production Technologies for Leather

3.2.1 Objectives

1. To acquire technical competences and skills on tanning process development
2. To acquire key skills and competences
3. To acquire knowledge on the different types of leather, their properties and applications
4. To be able to implement properly all different steps in the leather processing
5. To know in details all tools, machines and instruments used for treating and processing leather

3.2.2 Methodology

Each lesson will comprise a theoretical part (half of the time) and a practical part of applications in the laboratory and/ or pilot unit (half of the time)

3.2.3 Contents

Leather types: properties and applications / raw skin preservation methods / beamhouse operations / tanning operations / post-tanning operations / leather finishing operations / tanning process machinery / best Available Tanning Technologies (BATs)

3.2.4 Lessons

1. Raw hides and skins – slaughterhouse and curing operations

- Raw skin preservation methods
- Slaughterhouse operations
- Curing operations

2. Wet stage leather processing – from the beamhouse to the tannery

- Different kinds of wet leathers
- Beamhouse operations
- Tanning operations

3. Wet stage leather processing – from tanning to finishing

- Properties and applications of wet leather types
- Tanning operations
- Post-tanning operations
- Leather finishing operations
- Tanning process machinery

4. Best Available Tanning Technologies (BATs) in the tanning of hides and skins

- Best Available Tanning Technologies for hides and skins

3.2.5 Assessment method

Exam consisting in a quiz in the form of test questions, administered at the completion the training session.

3.3 Training Unit 3: Environmental Management

3.3.1 Objectives

1. To improve and update technical competences and skills (on environmental impact control)
2. To acquire key skills and competences



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3. To have a better knowledge about norms and legislation related to environmental issues
4. To take care of environmental issues in the whole leather process production
5. To be aware about wastes produced by the leather tanning and finishing process and their impact on the environment

3.3.2 Methodology

Each lesson will comprise a theoretical part (half of the time) and a practical part of applications in the laboratory and/ or pilot unit (half of the time)

3.3.3 Contents

Waste management/ environmental management methods/ environmental impact/ energy efficiency / legislative aspects/ different types of pollution / eco-design

3.3.4 Lessons

1. Restricted substances in leather and leather footwear

- Substances that are restricted for use in leather industry
- Substances that are restricted for use in leather footwear industry

2. Environmental management in tanneries

- Environmental management methods
- Energy efficiency in leather companies
- Norms and legislations dealing with environmental issues
- Methods for measuring environmental impacts
- Eco-design

3. Treating effluents resulting from leather processing

- Environmental impact of the effluent/waste of the leather making process
- Effluent and solid waste management
- Different types of pollutants
- Key indicators

3.3.5 Assessment method

Exam consisting in a quiz in the form of test questions, administered at the completion the training session.

3.4 Training Unit 4: Innovation/ R&D, Marketing and Business Management

3.4.1 Objectives

- To achieve the propensity to innovate and achieve quality and efficiency;
- To acquire key skills and competences;
- To acquire basic financial competences, which are necessary for running and sustaining a leather company
- To obtain tools and competences to organise fundraising and crowd funding campaigns and obtain financial support
- To acquire knowledge about IPR issues and be able to put in practice an effective IPR strategy
- To acquire awareness about the importance of R&D
- To implement proper R&D activities through the collaboration with HEIs and research centres



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- To manage efficiently risks and implement appropriate mitigating measures

3.4.2 Methodology

Each lesson will comprise a theoretical part (half of the time) and a practical part of applications

3.4.3 Contents

Research and development / technological innovation/ programs of financing / IPR/ technology

3.4.4 Lessons

1. Research, development and innovation activities

- Implement R&D activities
- Manage relationships with HEIs and research centres
- Modern production methods
- Reengineering techniques according to sustainability, CSR and Quality
- Innovation management

2. Introduction in advanced design and production of leather shoes

- Elements of advanced design of leather shoes
- Fashion trends in leather footwear
- Basic elements for the production of leather shoes

3. Financing programs

- Relationship with the banks
- Economic and financial sustainability (principles)
- Public funds (EU, national, local grants – grants of chambers of commerce)
- Private funds (foundations and banks)
- Fundraising
- Crowd funding

4. Marketing of leather products

- Market analysis techniques
- Characteristics of the leather markets
- Business to business and Business to consumer marketing
- Product, price, promotion and distribution of leather products

5. Service management

- Types of services in the leather sector
- Characteristics of services in the leather sector
- Methods for improvement in the leather services

6. Risk management

- Types of risks in the leather sector
- Risk analysis techniques
- Risk management strategies and mitigation techniques

3.4.5 Assessment method

Exam consisting in a quiz in the form of test questions, administered at the completion the training session.



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4 Training schedule

The Capacity training programme in the INNOLEA capacity building programme will comprise three training sessions delivered to the 12 selected experts: one in Italy at CIAPE, one in Portugal at CTIC and one in Romania at ICPI. A tentative distribution of training hours per training session is presented in Table 1:

Table 1. Distribution of training hours per training session

| Training organizer | CIAPE (Italy) | CTIC (Portugal) | ICPI (Romania) |
|-----------------------|---|---|--|
| Estimated period | February 2019 | February 2019 | April 2019 |
| No. of training hours | 8 | 28 | 40 |
| Training units | U4.3 - Financing programs U4.4 - Marketing of the leather products | U2.1 - Raw hides and skins - slaughterhouse and curing operations U2.2 - Wet stage leather processing - from the beamhouse to the tannery U2.3 - Wet stage leather processing - from tanning to finishing U2.4 - BATs - Best Available Techniques in the tanning of hides and skins U3.2 - Treating effluents resulting from leather processing U3.3 - Environmental management in tanneries U4.2 - Introduction in advanced design and production of leather shoes | U1.1 - Quality Control in a Lab according to ISO/IEC 17025 U1.2 - Physical-mechanical tests for leather U1.3 - Chemical tests for leather U1.4 - Chemical tests for auxiliary materials used in leather processing U1.5 - Physical- mechanical tests of the main leather assortments U3.1 - Restricted substances in leather and footwear U4.1 - Research& Development & Innovation activities for the leather centers U4.2 -Introduction to advanced design and production of leather shoes U4.5 - Service management U4.6 - Risk management |

