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D2.4 – Material for MedZEB vertical training in Living Labs

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TABLE OF CHANGES

Date	Change	Author	Resulting Version	Document
22.11.2019	First Draft	C. Jareño, C. Espigares (IVE)	V1	
02.12.2019	General review	Marco Padula, Roberto Malvezzi, Francesca Picenni (ITC-CNR)		

PUBLISHABLE EXECUTIVE SUMMARY

This document provides the contents related to the vertical (specialized) training to be carried out in the second part of the Living Labs, in order to guarantee coherence and homogeneity to all the HAPPEN pilots. Such vertical training is aimed to incubate the creation of the local supply chains (LCSs) on the basis of the MedZEB protocol, in view of the design, realization and monitoring of the retrofitting works within the Pilots.



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ACRONYMS AND ABBREVIATIONS

All acronyms and abbreviations (AAs) used in the report should be listed in alphabetical order in the table below (other than symbols for units of measurement) in the following way:

FP	Frontrunner Pilot
LL	Living Lab
SP	Service Provider
T/PP	Thematic/Perspective Pilot
TtT	Train the Trainers
WP	Work Package

AAs must be defined the first time they are used in the text of the report, and AAs should not be introduced if they are not used again in the document.



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1 INTRODUCTION

This document is produced in the framework of WP2, Engagement & Training Strategy. The final objective of this work package is to prepare engagement & training materials by targeting all three HAPPEN categories (clients, makers, and influencers), according to the Grant Agreement. More precisely, this document is a result of Task 2.2. Engagement actions and training courses contents development.

The phase of the state-of-the-art contents training has been duly achieved during the first part of the project, so now the phase of training on HAPPEN outcomes must start.

As **on-site MedZEBinars** will be organized in Frontrunner Pilots, and in Thematic/ Perspective Pilots, on the specific themes of HAPPEN, this document provides an overview of the contents developed to this goal. In this sense, **makers** will be trained on the optimal solutions and finance & regulations outputs.

At first stage, in D2.2 the following contents were proposed from the HAPPEN OUTPUTS:

OS – Optimal solutions:

- Representative climates and zoning;
- Catalogue of reference buildings types in Mediterranean countries;
- Abacus of “renovation measures” at building and district scale;
- Optimal packages of solutions;
- Holistic impacts on renovation integrated solutions;
- Regulatory framework and incentive systems in the Mediterranean countries;

FR - Finance and regulations:

- Catalogue of “reference financial solutions”;
- Innovative financial solutions;
- MedZEB certification scheme outline;
- MedZEB protocol;
- Proposed regulatory changes at different levels;

HP - HAPPEN ICT platform

PA – Pilot actions:

- Pilot Operative Plans;
- Frontrunner Pilots;
 - Castellón de la Plana;
 - Le Crottes;
 - Riquilifichiamo in commune;
- Thematic/ Perspective Pilot Projects;
- Periodic and final monitoring and evaluation reports;
- Results.

Nevertheless, and taking into account the state of the works carried out during the project and some insights considered during project meetings, the final content has been updated and their index can be consulted in the following section.



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Indeed, as this experience will lead to the preparation of deep web-training modules, the MedZEBinars, (online modules for self-training) to be uploaded to the HAPPEN platform by M26, some of the contents of this deliverable are susceptible to be updated as the project will be further developed also by that month.

2 TRAINING CONTENTS

Some adjustments have been done in relation to the initial proposal previously exposed. Therefore, we have focused on the contents that are available at this stage of the project but that can be later deepened, if needed, when producing the recording of the MedZEBinars.

For what concerns the Protocol, an outline of the concept has been elaborated given that it will be further developed in the forthcoming months and it will be co-developed after the co-design stage that it is under elaboration at this moment. Therefore, the contents are preliminary.

In relation to the Regulatory Framework and Incentive Systems in the Med Countries and the Catalogue of Reference Financial Solutions, they have been included in the Innovative Financial Solution.

The main HAPPEN outputs have been explained in the following presentations:

HP – HAPPEN ICT platform

ICT Platform integrates the three project pillars Engagement and Training, Technological Solutions, Finance and Regulation. Indeed, the platform will host all the final on-line training material related to the MedZEB approach, in order to support decision-making processes.

To explain the main sections and functionalities the following presentation has been developed:

- HAPPEN platform's structure and functionalities

OS – Optimal solutions

It has been defined an extensive set of cost-optimal packages of solutions to be applied to refurbish the existing building stock with reference to the different target building typologies.

To this extent, the following presentations have been elaborated:

- Representative climates and zoning in Mediterranean countries
- Catalogue of reference buildings classes in Mediterranean countries
- Abacus of "renovation measures" at building and district scale
- Packages of optimal solutions

FR – Finance and regulations

Creation and testing of tailored financial solutions, also in connection with existing local/national incentive systems, to support the market uptake of deep retrofitting.

It has been outlined the definition of the MedZEB Protocol for the guarantee of energetic, financial, environmental and well-being performances, as well as of a linked MedZEB Voluntary Certification Scheme.



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To this extent, the following presentations have been elaborated:

- Innovative Financial Solutions (targeting clients and influencers and one targeting makers)
- MedZEB protocol and Voluntary Certification Scheme

PA – Pilot actions

HAPPEN network of pilot buildings in different climatic Mediterranean regions have been introduced in the following presentation:

- Pilots introduction

As Living Labs have been organized in each pilot according to the following main steps:

Phase A. Set up and training

Phase B. Digital community interaction

Phase C. HAPPEN incubators

The summary of the actions carried out during the first phase (until September 2019, that is M18) is also included in the presentation of the pilot actions.



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ANNEX: CONTENTS

The following section includes screenshots and an index of the contents for each of the training materials provided in Google Drive and that will be available on HAPPEN platform:

HP – HAPPEN ICT platform



HAPPEN platform architecture

- Introduction
- The HAPPEN platform users' groups
- HAPPEN platform architecture
- The HAPPEN Platform users' paths: clients
- The HAPPEN Platform users' paths: solutions providers
- The HAPPEN Platform users' paths: policy makers

OS – Optimal solutions



Representative climates and zoning in Mediterranean countries

- Introduction to Climatic Zones
- Degree – Day Method
- Climate Severity Index (CSI) Method
- Methodology
- Results
- Conclusions



Catalogue of reference buildings classes in Mediterranean countries

- Definition of Reference Buildings (RBs)
- State of the Art
- Methodology
- Results
- Conclusions



Abacus of "renovation measures" at building and district scale

- Introduction
- Case-study
- The HAPPEN multi-level approach
- The HAPPEN abacus



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Packages of optimal solutions

- What a Package of Optimal solutions is
- The reason how the Package of Solutions is useful
- The HAPPEN approach used to find an optimal retrofitting
- The HAPPEN Package of Solutions for 4 Front-Runner Pilots in 4 Climates
- Comparative of the PoS between those building
- Comparative with the same buildings spin 90° to East

FR – Finance and regulations



Innovative Financial Solutions (clients and influencers)

- Link with the catalogue of reference financial solutions
- Financial solution for HAPPEN
- Versatile mutual energy



Innovative Financial Solutions (makers)

- Link with the catalogue of reference financial solutions
- Financial solution for HAPPEN
- Versatile mutual energy



MedZEB protocol and Voluntary Certification Scheme

- The MedZEB Protocol in the HAPPEN Programme
- MedZEB Protocol
- MedZEB Protocol – Constituent Parts
- Voluntary Certification Scheme



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PA – Pilot actions



Pilots introduction

- Introduction to Pilot Actions
- Residential Houses Castellón de la Plana (ES), EVHA
- Residential – Mixed Buildings Les Crottes (FR), EPAEM
- Residential Houses Riquilifichiamo in Comune (IT), H&D
- Apartment Building- Brezno (SL), ZRMK
- Kindergarten Grdelin- Buzet (HR), IRENA
- Residential Houses Vileta And Kazakapa- Rasa Labin (HR), IRENA
- History Museum of NKUA - Athens (GR), NKUA
- Municipal Hostels - Nisyros (GR), AEGEA
- Municipal Hostels - Paros (GR), AEGEA
- Capitilization of EU Projects - Strovolos (CY), CEA