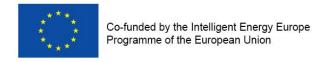


# nZEB training in the Southern EU countries Maintaining building traditions

SouthZEB WP5 – Deliverable 5.1 Report on the Train the Trainer Workshops in the target Countries

March 2016



Client report number WP5-Deliverable 5.1

epared by	
ame	
psition	
gnature	
oproved on behalf of SouthZEB	
ame	
osition	
ate	
gnature	

# Disclaimer

The sole responsibility for the contents of this report lies with the authors. It does not necessarily reflect the opinion of the European Communities. The European Commission is not responsible to any use that may be made of the information contained therein.

This report is made on behalf of SouthZEB. By receiving the report and acting on it, the client - or any third party relying on it - accepts that no individual is personally liable in contract, tort or breach of statutory duty (including negligence).

# **Executive Summary**

The objective of this document is to present the organization and execution of the "Train the Trainer" Workshops in the four target countries; Cyprus, Greece, Italy and Portugal. Through the "Train the Trainer" Workshops, 165 (30 Gold level, 95 Silver level and 40 Bronze level) SouthZEB trainers have been trained and certified through written examination, who will then deliver the developed SouthZEB training to the interested SouthZEB trainees.

The present document is an output of WP5, Task 1 (D5.1).

### **Project Data**

Project Acronym: SouthZEB

Full title: nZEB training in the Southern EU countries Maintaining building traditions

Objective: Support the building sector intermediate and senior professionals

(engineers, architects, municipality employees and decision makers) in the Southern European countries (Greece, Cyprus, Italy and Portugal) to keep up to date with the market progression, notably supporting those professionals in their continuous development, particularly in designing

and renovating nearly zero-energy buildings (nZEB).

This will be achieved through the design and development of training and assessment programmes for the abovementioned professionals, focusing especially on the transfer of successful practices and knowledge from the

front runners to the Southern EU countries.

Contract number: IEE/13/393

Financing: Intelligent Energy Europe

**Budget:** 

**Duration:** 5<sup>th</sup> September 2015 – 5<sup>th</sup> January 2016

Project website: www.southzeb.eu

Coordinator: lakovos Kalaitzoglou

University of Patras,

Patras University Campus, Greece

Participants: University of Patras (UPatras), Greece

Building Research Establishment Ltd (BRE), United Kingdom

University of Minho (UMinho), Portugal

Cyprus University of Technology (CUT), Cyprus

BEST Institut für berufsbezogene Weiterbildung und Personaltraining

GmbH (BEST), Austria

Instituto Superior Técnico, Technical University of Lisbon (IST), Portugal

Vocational Education Training Center EUROtraining (KEK Eurotraining)

(KEK), Greece

Distretto Technologico Trentino S.c.a.r.l. (DTTN), Italy

GARnet Energy Saving Ltd (GARNET), Cyprus

# **Table of Contents**

1	Introd	uction	1
2	Organ	nizing the Workshops	2
	2.1	Cyprus	2
	2.1.1	Selected venue	2
	2.1.2	Date Scheduling	2
	2.1.3	Promoting the Workshops	2
	2.1.4	Applications and selection of participants	3
	2.1.5	Selection of teachers/trainers	3
	2.2	Greece	4
	2.2.1	Selected venue	4
	2.2.2	Date Scheduling	4
	2.2.3	Promoting the Workshops	4
	2.2.4	Applications and selection of participants	4
	2.2.5	Selection of teachers/trainers	5
	2.3	Italy	5
	2.3.1	Selected venue	5
	2.3.2	Date Scheduling	6
	2.3.3	Promoting the Workshops	6
	2.3.4	Applications and selection of participants	6
	_	· · · · · · · · · · · · · · · · · · ·	
	2.3.5	Selection of teachers/trainers	Error! Bookmark not defined.
			Error! Bookmark not defined.
	2.3.5	Selection of teachers/trainers	
	2.3.5 2.4	Selection of teachers/trainers Portugal	7
	2.3.5 2.4 2.4.1	Selection of teachers/trainers Portugal Selected venue	7 7
	2.3.5 2.4 2.4.1 2.4.2	Selection of teachers/trainers Portugal Selected venue Date Scheduling	7 7 7
	2.3.5 2.4 2.4.1 2.4.2 2.4.3	Selection of teachers/trainers  Portugal  Selected venue  Date Scheduling  Promoting the Workshops	7 7 7 7
3	2.3.5 2.4 2.4.1 2.4.2 2.4.3 2.4.4 2.4.5	Selection of teachers/trainers  Portugal  Selected venue  Date Scheduling  Promoting the Workshops  Applications and selection of participants	7 7 7 7
3	2.3.5 2.4 2.4.1 2.4.2 2.4.3 2.4.4 2.4.5	Selection of teachers/trainers  Portugal  Selected venue  Date Scheduling  Promoting the Workshops  Applications and selection of participants  Selection of teachers/trainers	7 7 7 7 7
3	2.3.5 2.4 2.4.1 2.4.2 2.4.3 2.4.4 2.4.5 Runni	Selection of teachers/trainers  Portugal  Selected venue  Date Scheduling  Promoting the Workshops  Applications and selection of participants  Selection of teachers/trainers  ng the Workshops	7 7 7 7 7 7 9
3	2.3.5 2.4 2.4.1 2.4.2 2.4.3 2.4.4 2.4.5 Runni 3.1	Selection of teachers/trainers  Portugal  Selected venue  Date Scheduling  Promoting the Workshops  Applications and selection of participants  Selection of teachers/trainers  ng the Workshops  Cyprus	7 7 7 7 7 7 9 9
3	2.3.5 2.4 2.4.1 2.4.2 2.4.3 2.4.4 2.4.5 Runni 3.1 3.1.1	Selection of teachers/trainers  Portugal Selected venue Date Scheduling Promoting the Workshops Applications and selection of participants Selection of teachers/trainers ng the Workshops  Cyprus Running of the workshops	7 7 7 7 7 7 9 9
3	2.3.5 2.4 2.4.1 2.4.2 2.4.3 2.4.4 2.4.5 Runni 3.1 3.1.1 3.1.2	Selection of teachers/trainers  Portugal  Selected venue  Date Scheduling  Promoting the Workshops  Applications and selection of participants  Selection of teachers/trainers  ng the Workshops  Cyprus  Running of the workshops  Exams	7 7 7 7 7 9 9 9
3	2.3.5 2.4 2.4.1 2.4.2 2.4.3 2.4.4 2.4.5 Runni 3.1 3.1.1 3.1.2 3.1.3	Selection of teachers/trainers  Portugal  Selected venue  Date Scheduling  Promoting the Workshops  Applications and selection of participants  Selection of teachers/trainers  Ing the Workshops  Cyprus  Running of the workshops  Exams  Certified SouthZEB trainers	7 7 7 7 7 9 9 9
3	2.3.5 2.4 2.4.1 2.4.2 2.4.3 2.4.4 2.4.5 Runni 3.1 3.1.1 3.1.2 3.1.3	Selection of teachers/trainers  Portugal Selected venue Date Scheduling Promoting the Workshops Applications and selection of participants Selection of teachers/trainers ng the Workshops Cyprus Running of the workshops Exams Certified SouthZEB trainers Greece	7 7 7 7 7 9 9 9 9
3	2.3.5 2.4 2.4.1 2.4.2 2.4.3 2.4.4 2.4.5 Runni 3.1 3.1.1 3.1.2 3.1.3 3.2 3.2.1	Selection of teachers/trainers  Portugal  Selected venue  Date Scheduling  Promoting the Workshops  Applications and selection of participants  Selection of teachers/trainers  ng the Workshops  Cyprus  Running of the workshops  Exams  Certified SouthZEB trainers  Greece  Running of the workshops	7 7 7 7 7 9 9 9 9 9
3	2.3.5 2.4 2.4.1 2.4.2 2.4.3 2.4.4 2.4.5 Runni 3.1 3.1.1 3.1.2 3.1.3 3.2 3.2.1 3.2.2	Selection of teachers/trainers  Portugal Selected venue Date Scheduling Promoting the Workshops Applications and selection of participants Selection of teachers/trainers  ng the Workshops Cyprus Running of the workshops Exams Certified SouthZEB trainers  Greece Running of the workshops Exams	7 7 7 7 7 9 9 9 9 9 10 11 11
3	2.3.5 2.4 2.4.1 2.4.2 2.4.3 2.4.4 2.4.5 Runni 3.1 3.1.1 3.1.2 3.1.3 3.2 3.2.1 3.2.2 3.3	Selection of teachers/trainers  Portugal  Selected venue  Date Scheduling  Promoting the Workshops  Applications and selection of participants  Selection of teachers/trainers  ng the Workshops  Cyprus  Running of the workshops  Exams  Certified SouthZEB trainers  Greece  Running of the workshops  Exams  Italy	7 7 7 7 7 7 9 9 9 9 9 10 11 11 11

	3.4	Portugal	13
	3.4.1	Running of the workshops	13
	3.4.2	Exams	13
	3.4.3	Certified SouthZEB trainers	13
4	Discus	sion and Conclusions	14

# List of Tables

Table 1 – "Train the Trainer" Workshops scheduling in Cyprus	3
Table 2 – "Train the Trainer" Workshops scheduling in Greece	5
Table 2 – "Train the Trainer" Workshops scheduling in Greece	Error! Bookmark not
defined.	
Table 4 – "Train the Trainer" Workshops scheduling in Portugal	8
Table 5 – Exam scheduling in Cyprus	9
Table 6 – Certified trainers in Cyprus	10
Table 7 – Certified trainers in Greece	11
Table 8 – Certified trainers in Italy	12
Table 9 – Certified trainers in Italy	13

# **List of Figures**

Figure 1 – Module 01 Workshop in Cyprus Error! Bookmark not defined. Error! Bookmark not defined. Figure 2 – Module 01 Workshop in Cyprus Figure 3 - Module 02 Workshop in Cyprus Error! Bookmark not defined. Figure 4 – Module 02 Workshop in Cyprus Error! Bookmark not defined. Error! Bookmark not defined. Figure 5 – Module 03 Workshop in Cyprus Figure 6 – Module 03 Workshop in Cyprus Error! Bookmark not defined. Figure 7 – Module 04 Workshop in Cyprus Error! Bookmark not defined. Figure 8 – Module 04 Workshop in Cyprus Error! Bookmark not defined. Figure 9 – Module 05 Workshop in Cyprus Error! Bookmark not defined. Figure 10 – Module 05 Workshop in Cyprus Error! Bookmark not defined. Figure 11 – Module 06 Workshop in Cyprus Error! Bookmark not defined. Figure 12 - Module 06 Workshop in Cyprus Error! Bookmark not defined. Figure 13 – Module 07 Workshop in Cyprus Error! Bookmark not defined. Figure 14 – Module 07 Workshop in Cyprus Error! Bookmark not defined. Figure 15 – Module 08 Workshop in Cyprus Error! Bookmark not defined. Figure 16 – Module 08 Workshop in Cyprus Error! Bookmark not defined. Figure 17 – Module 09 Workshop in Cyprus Error! Bookmark not defined. Figure 18 - Module 09 Workshop in Cyprus Error! Bookmark not defined. Figure 19 - Module 10 Workshop in Cyprus Error! Bookmark not defined. Figure 20 - Module 10 Workshop in Cyprus Error! Bookmark not defined. Figure 21 - Module 01 Workshop in Greece Error! Bookmark not defined. Figure 22 – Module 01 Workshop in Greece Error! Bookmark not defined. Figure 23 - Module 02 Workshop in Greece Error! Bookmark not defined. Figure 24 – Module 02 Workshop in Greece Error! Bookmark not defined. Figure 25 - Module 03 Workshop in Greece Error! Bookmark not defined. Figure 26 – Module 03 Workshop in Greece Error! Bookmark not defined. Figure 27 – Module 04 Workshop in Greece Error! Bookmark not defined. Figure 28 - Module 04 Workshop in Greece Error! Bookmark not defined. Figure 29 - Module 05 Workshop in Greece Error! Bookmark not defined. Figure 30 - Module 05 Workshop in Greece Error! Bookmark not defined. Figure 31 – Module 06 Workshop in Greece Error! Bookmark not defined. Error! Bookmark not defined. Figure 32 – Module 06 Workshop in Greece Error! Bookmark not defined. Figure 33 – Module 07 Workshop in Greece Figure 34 – Module 07 Workshop in Greece Error! Bookmark not defined. Figure 35 – Module 08 Workshop in Greece Error! Bookmark not defined. Figure 36 – Module 08 Workshop in Greece Error! Bookmark not defined. Figure 37 - Module 09 Workshop in Greece Error! Bookmark not defined. Figure 38 – Module 09 Workshop in Greece Figure 39 – Module 10 Workshop in Greece Figure 40 – Module 10 Workshop in Greece Figure 41 – Organization of the Workshops in Italy Figure 42 – Organization of the Workshops in Italy Figure 43 – Organization of the Workshops in Italy Figure 44 – Organization of the Workshops in Italy Figure 45 – Organization of the Workshops in Italy Figure 46 – Organization of the Workshops in Italy Figure 47 – Organization of the Workshops in Italy Figure 48 – Organization of the Workshops in Italy Figure 49 – Organization of the Workshops in Italy Figure 50 – Organization of the Workshops in Italy Figure 51 – Organization of the Workshops in Italy Figure 52 – Organization of the Workshops in Italy Figure 53 – Organization of the Workshops in Italy Figure 54 – Organization of the Workshops in Italy Figure 55 – Organization of the Workshops in Italy Figure 56 – Organization of the Workshops in Italy Figure 57 – Organization of the Workshops in Italy Figure 58 – Organization of the Workshops in Italy Figure 59 – Organization of the Workshops in Italy Figure 60 – Organization of the Workshops in Italy Figure 61 – Organization of the Workshops in Portugal Figure 62 – Organization of the Workshops in Portugal Figure 63 – Organization of the Workshops in Portugal Figure 64 – Organization of the Workshops in Portugal Figure 65 – Organization of the Workshops in Portugal Figure 66 – Organization of the Workshops in Portugal Figure 67 – Organization of the Workshops in Portugal Figure 68 – Organization of the Workshops in Portugal Figure 69 – Organization of the Workshops in Portugal Figure 70 – Organization of the Workshops in Portugal Figure 71 – Organization of the Workshops in Portugal Figure 72 – Organization of the Workshops in Portugal Figure 73 – Organization of the Workshops in Portugal Figure 74 – Organization of the Workshops in Portugal Figure 75 – Organization of the Workshops in Portugal

Error! Bookmark not defined. Error! Bookmark not defined.

Error! Bookmark not defined.

Figure 76 – Organization of the Workshops in Portugal
Figure 77 – Organization of the Workshops in Portugal
Figure 78 – Organization of the Workshops in Portugal
Figure 79 – Organization of the Workshops in Portugal
Figure 80 – Organization of the Workshops in Portugal
Figure 80 – Organization of the Workshops in Portugal

Error! Bookmark not defined. Error! Bookmark not defined. Error! Bookmark not defined. Error! Bookmark not defined. Error! Bookmark not defined.

#### 1 Introduction

Based on the grant agreement, the partners in each target country were responsible to organize and deliver the "Train the Trainer" Workshops in order to train and certify the SouthZEB trainers that will be responsible in delivering the received training to the corresponding SouthZEB trainees. To that context, the corresponding partner in each target country (i.e. CUT for Cyprus, KEK for Greece, DTTN for Italy and IST-ID for Portugal) was responsible for organizing ten single day workshops, where the developed material for each module would be presented to the perspective SouthZEB trainers. The outcome of the workshops had to be at least one hundred and fifty trained and certified SouthZEB trainers in total to the four target countries

In order for that to be achieved, the responsible partner in each target country had to select a venue for the workshops to take place, select suitable teachers/trainers to deliver the training and prepare a schedule for the delivery of each training module. Following these, the workshops had to be advertised to the targeted groups in order to attract participants. Following the reception of applications from interested parties, a screening had to take place in order for the selected applicants to fulfil certain criteria defined by the consortium.

After the delivery of the consortium developed material, the selected participants had to take a written exam. Successful following of the corresponding workshops and a passing grade in four modules exams (the first two mandatory modules plus two more on an optional basis) would give the perspective trainer the "Bronze" SouthZEB trainer status, seven modules the "Silver" SouthZEB trainer status, while success in all ten modules awards the "Gold" SouthZEB trainer status.

# 2 Organizing the Workshops

# 2.1 Cyprus

The responsible partner in carrying out the ten "train the trainer" workshops in Cyprus was CUT. GARnet, the other partner from Cyprus, also attended the workshops but more on a supportive and observatory role.

#### 2.1.1 Selected venue

Cyprus University of Technology (CUT) is one of the three state universities of Cyprus and is based in Limassol. Nevertheless, following the reception of applications and screening of the interested applicants' CVs, it was made obvious that most of the applicants came either from the general area of Nicosia or were best suited to attend the workshops in Nicosia. Therefore, a venue in Nicosia was selected where the workshops took place. So, a conference room was booked at the Classic Hotel (a low budget hotel that the university organizes most of its activities in Nicosia).

#### 2.1.2 Date Scheduling

The workshops took place between November 2015 and January 2016. This relied mostly on the availability of the trainer for each workshop. A summary of the workshops scheduling can be seen in table 01 that follows.

#### 2.1.3 Promoting the Workshops

Based on the fact that the target audience for the organised workshops were engineers of all disciplines, it was considered best suited that the advertising of the workshops be channelled through all the engineering professional bodies and associations. Therefore, an announcement for the organization of the workshops was sent through the newsletter of the Cyprus Scientific and Technical Chamber (ETEK) to all its members (around 10000 engineers of all backgrounds – architects, civil engineers, mechanical engineers, electrical engineers, etc.) together with an application form. The same announcement was also placed on the Chamber's website.

In addition, the above mentioned announcement was sent to all related engineering associations in Cyprus, in order to forward it to their members. These were the following:

- Cyprus Architects Association
- Cyprus Civil Engineers Association
- Cyprus Architects and Civil Engineers Association
- Cyprus Mechanical Engineers Association

- Cyprus Electrical Engineers Association
- Cyprus ASHRAE Section

#### 2.1.4 Applications and selection of participants

Following the promotion of the workshops, 35 applications were received from applicants of various engineering backgrounds (mainly architects, civil engineers and mechanical engineers) along with their CVs. After screening the applicants' CV and based on the consortium's decision that applicants interested in becoming "SouthZEB trainers" should exhibit at least 5 years of related professional experience, eighteen people were selected and notified as accepted (with the less experienced having an 8-year related experience). The rest of the applicants were informed that they did not fulfil the criteria in becoming a "SouthZEB" trainer but could attend the "SouthZEB Designer" seminar series instead.

#### 2.1.5 Selection of teachers/trainers

CUT considered the selection of the "train the trainer" workshops' speakers of high importance, as this would have direct impact on the attraction of participants, as well, as the quality of the workshops themselves. Therefore it was decided that high calibre speakers be invited to lecture the workshops, based on the university's established networking. Nine individual professionals, ranging from university professors to field experts, were selected and invited to do the training. These are listed below in Table 01.

Table 1 – "Train the Trainer" Workshops scheduling in Cyprus

Workshop Title	Venue	Date	Speaker
Basic Module	Classic Hotel Nicosia	07/11/2015	Prof. Ioannis Michaelides (Cyprus University of Technology)
Advanced Module	Classic Hotel Nicosia	14/11/2015	Carlotta Cocco (DTTN)
Thermal Performance	Classic Hotel Nicosia	24/11/2015	Tim Ward (BRE)
Thermal Comfort	Classic Hotel Nicosia	18/11/2015	Prof. Agis Papadopoulos (Aristoteleio University Thessaloniki)
SouthZEB Framework & Architectural Regulations	Classic Hotel Nicosia	16/12/2015	Kyriaki Kalava (Cyprus Town Planning Authority)
Energy Simulations for nZEB	Classic Hotel Nicosia	30/01/2016	Dr Dimitris Anastaselos (Aristoteleio University Thessaloniki)
Automations & Low Carbon Technologies for nZEB	Classic Hotel Nicosia	16/01/2016	Dr Agis Papadopoulos (Aristoteleio University Thessaloniki)

Retrofitting towards nZEB	Classic Hotel Nicosia	27/01/2016	George Kotsiovelos (Independent Contractor)
Construction Management & Field Supervision for nZEB	Classic Hotel Nicosia	13/01/2016	Ronald Diab (Energy Efficiency Group)
Preparation of funding schemes and other incentives for nZEB	Classic Hotel Nicosia	16/12/2015	Nikos Hadjinikolaou (Cyprus Energy Service)

# 2.2 Greece

Subtask leader in Greece has been Eurotraining.

#### 2.2.1 Selected venue

The selected venue for the organization of the workshops was the facilities of Eurotraining in Athens, located in Veranzerou Street.

#### 2.2.2 Date Scheduling

The workshops took place between November and December 2015. The exact dates can be seen in Table 2.

#### 2.2.3 Promoting the Workshops

In order to promote the workshops meetings with stakeholders in Greece were held, advertisements in social media were placed, newsletters were sent and finally publications in selected media were placed.

KEK's action supporting the training progress.

- KEK EUROTraining had meetings with stakeholders in the construction fields,
- Sent Benchmark newsletters to 2.000 email addresses
- Sent 2 newsletters. (list of 610 relevant email addresses)
- Various publications (B2Green, skywalker, studentenergy, xe)
- Various publications through social media (fb, twitter, LinkedIn)
- You Tube channel

#### 2.2.4 Applications and selection of participants

Following the promotion of the workshops, around 100 applications were received. Through CV analysis 27 applicants were selected to enrol to the workshops All selected applications meet the program requirements.

#### 2.2.5 Selection of teachers/trainers

In order to ensure a high quality delivery of the training material, the following were considered regarding the selection of trainers:

- Relative experience (engineering field) to the material of each module.
- Related teaching experience.
- Relative academic qualifications and degrees.

The selected trainers for each module can be seen in Table 2.

Table 2 – "Train the Trainer" Workshops scheduling in Greece

Workshop Title	Venue	Date	Speaker
Basic Module	Athens/Greece	09/11/2015	Labros Manasis
Advanced Module	Athens/Greece	05/12/2015	Konstantinos Gekopoulos
Thermal Performance	Athens/Greece	11/11/2015	Peter Zimbrich
Thermal Comfort	Athens/Greece	28/11/215	Antonios Kontadakis
SouthZEB Framework & Architectural Regulations	Athens/Greece	21/12/2015	Konstantinos Gekopoulos
Energy Simulations for nZEB	Athens/Greece	09/12/2015	Antonios Kontadakis
Automations & Low Carbon Technologies for nZEB	Athens/Greece	12/12/2015	Konstantinos Gekopoulos
Retrofitting towards nZEB	Athens/Greece	16/12/2015	Antonios Kontadakis
Construction Management & Field Supervision for nZEB	Athens/Greece	19/12/2015	Sofia Fragiskou
Preparation of funding schemes and other incentives for nZEB	Athens/Greece	03/12/2015	Sofia Fragiskou

# 2.3 Italy

Subtask leader in Italy was DTTN.

#### 2.3.1 Selected venue

The selected venue was the "Sala Convegni" – Ordine Ingegneri Cosenza – Via Massaua, 25 Cosenza (IT), located in the South of Italy.

#### 2.3.2 Date Scheduling

The workshops were schedule to run for ten consecutive days and took place between the 24<sup>th</sup> of November and 5<sup>th</sup> of December 2015. The exact date for each workshop can be seen in Table 3.

#### 2.3.3 Promoting the Workshops

In order to advertise the workshops, different channels have been used: emails to contacts allocated in the city of Cosenza and extended to the region Calabria; official newsletter from DTTN to its contacts; newsletter from the Association of the Engineers from Cosenza; direct phone calls with some key people in order to involve them in attract colleagues and more professionals; printing of flyer and folders.

#### 2.3.4 Applications and selection of participants

Following the promotion of the workshops, 110 applications were received from architects and engineers. Through CV analysis 96 applicants were selected to enrol to the workshops.

#### 2.3.5 Selection of teachers/trainers

In order to ensure a high quality delivery of the training material, DTTN selected the teachers based on their experience and knowledge about the topics of the modules. The selected teachers for each workshop are presented in Table 3.

Table 3 – "Train the Trainer" Workshops scheduling in Italy

Workshop Title	Venue	Date	Speaker
Basic Module	Cosenza/Italy	24/11/2015	Carlotta Cocco
Advanced Module	Cosenza/Italy	25/11/2015	Carlotta Cocco
Thermal Performance	Cosenza/Italy	26/11/2015	Carlotta Cocco
Thermal Comfort	Cosenza/Italy	27/11/2015	Carlotta Cocco
SouthZEB Framework & Architectural Regulations	Cosenza/Italy	30/11/2015	Carlotta Cocco
Energy Simulations for nZEB	Cosenza/Italy	01/12/2015	Carlotta Cocco
Automations & Low Carbon Technologies for nZEB	Cosenza/Italy	02/12/2015	Carlo Rossini
Retrofitting towards nZEB	Cosenza/Italy	03/12/2015	Carlo Rossini

Construction Management & Field Supervision for nZEB	Cosenza/Italy	04/12/2015	Carlo Rossini
Preparation of funding schemes and other incentives for nZEB	Cosenza/Italy	05/12/2015	Carlo Rossini

#### 2.4 Portugal

Subtask leader in Portugal were IST-ID and UMinho.

#### .

#### 2.4.1 Selected venue

The selected venue for the workshops was the Instituto Superior Técnico (IST) in Taguspark campus (Oeiras, Portugal). For the exams, in addition to the IST, they were done in Universidade do Minho (UMINHO) in Azurém campus (Guimarães, Portugal).

#### 2.4.2 Date Scheduling

The workshops took place between October and November 2015. The exact date for each workshop is presented in Table 4.

#### 2.4.3 Promoting the Workshops

In order to advertise the workshops, an email was sent to all the institutions from the National Support Group asking them to disseminate and indicate between their members those who could fit this training either as teacher or trainer. The "Ordem dos Engenheiros" (National Association of Engineers) sent an email to all their members and, after this email, the applications increased significantly.

#### 2.4.4 Applications and selection of participants

Following the promotion of the workshops, 80 applications were received for trainers. The teachers were indicated directly from the members of the National Support Group.

#### 2.4.5 Selection of teachers/trainers

In order to ensure a high quality delivery of the training material, teachers were indicated directly by members of the National Support Group, being two of them pointed out by BRE. The selected teachers for each workshop are presented in Table 4.

Table 4 – "Train the Trainer" Workshops scheduling in Portugal

Workshop Title	Venue	Date	Speaker
Basic Module	Oeiras/Portugal	15/10/2015	Carlos Silva
Advanced Module	Oeiras/Portugal	16/10/2015	Laura Aelenei / Daniel Aelenei
Thermal Performance	Oeiras/Portugal	12/11/2015	Tim Ward / Colin Sinclair
Thermal Comfort	Oeiras/Portugal	05/11/2015	Manuela Almeida / Alexandre Costa / Sandra Silva
SouthZEB Framework & Architectural Regulations	Oeiras/Portugal	23/10/2015	Laura Aelenei / Patricia Botelho
Energy Simulations for nZEB	Oeiras/Portugal	06/11/2015	Guilherme Carilho da Graca / Carlos Silva / Nuno Mateus
Automations & Low Carbon Technologies for nZEB	Oeiras/Portugal	13/11/2015	Tim Ward / Colin Sinclair
Retrofitting towards nZEB	Oeiras/Portugal	22/10/2015	Filipe Borges de Macedo / Alexandre Costa
Construction Management & Field Supervision for nZEB	Oeiras/Portugal	30/10/2015	Joao Hormigo
Preparation of funding schemes and other incentives for nZEB	Oeiras/Portugal	29/10/2015	Fernando Martins

# 3 Running the Workshops

# 3.1 Cyprus

The consortium partner in charge of running the workshops in Cyprus was CUT. Nevertheless, GARnet provided valuable assistance in running the workshops and repetitive exams.

#### 3.1.1 Running of the workshops

The workshops run smoothly based on the above presented schedule. Even though each workshop would run for a single day and in total ten days were required, due to the heavy load of the selected trainers and the fact that some of them would be coming from abroad, it was necessary to spread the organisation of the workshops throughout a three month periodin total.

The participants attending the workshops were really keen in the material but did point out a few things which could be improved on their opinion. These included the following:

- Parts of the presented material were repeated in more than one module.
- A single day workshop was considered to be too short in order to fully present in detail the material of some workshops (e.g. Module 02, Module 06, Module 08, etc.)
- Translation errors in the presentations
- Some of the presented material should include more of the Cyprus reality.

#### 3.1.2 Exams

The exams were scheduled to take place at the beginning of each workshop for the previously presented Module, e.g. the exam of Module 01 took place during the first hour of the scheduled workshop for Module 02 and so on. Nevertheless, because some of the participants could not attend all the workshops, or failed to pass the exam of a certain module from the first time, repetitive exams were organised in the premises of Cyprus University of Technology in Limassol, as well as the premises of GARnet Energy Saving in Nicosia.

In addition, on certain workshops, a two hour exam period was scheduled were the participants could undertake the exam for the previously held module as well as for another module of their choice. The complete exam schedule can be seen in Table 5 that follows.

Module Title	Venue	Date
Basic Module	Classic Hotel / Nicosia	14/11/2015
Advanced Module	Classic Hotel / Nicosia	18/11/2015
Thermal Performance	Classic Hotel / Nicosia	16/12/2015

Table 5 – Exam scheduling in Cyprus

Thermal Comfort	Classic Hotel / Nicosia	24/11/2015
SouthZEB Framework & Architectural Regulations	Classic Hotel / Nicosia	13/01/2016
Energy Simulations for nZEB	Classic Hotel / Nicosia	24/02/2016
Automations & Low Carbon Technologies for nZEB	Classic Hotel / Nicosia	27/02/2016
Retrofitting towards nZEB	Classic Hotel / Nicosia	30/01/2016
Construction Management & Field Supervision for nZEB	Classic Hotel / Nicosia	16/01/2016
Preparation of funding schemes and other incentives for nZEB	Classic Hotel / Nicosia	13/01/2016
Re-Exams		
Free module choice	CUT / Limassol	02/12/2015
		20/01/2016
		11/02/2016
		18/02/2016
Free module choice	GARnet / Nicosia	02/12/2015
	1110010	21/01/2016
		12/02/2016
		25/02/2016

#### 3.1.3 Certified SouthZEB trainers

In total, 14 out of the 16 participants (18 were invited/accepted at the start) that attended the workshops achieved a passing grade in at least four modules (out of which the first two modules mandatory) and were certified as SouthZEB trainers. The number of participants for each certification level (Bronze, Silver, or Gold) can be seen in Table 6.

Table 6 - Certified trainers in Cyprus

Certification Level	Number of trainers
Bronze	6

Silver	2
Gold	6
Total	14

#### 3.2 Greece

Subtask leader in Greece is Eurotraining.

# 3.2.1 Running of the workshops

The workshops run smoothly without any problems occurring.

#### 3.2.2 Exams

The exams were scheduled to take place during the dates 11-23/02/2016. 27 people attended the exams, out of which 26 were certified as SouthZEB trainers as shown below in Table 7.

Table 7 - Certified trainers in Greece

Number of certified trainers per module		
Module 1	26	
Module 2	26	
Module 3	12	
Module 4	11	
Module 5	6	
Module 6	7	
Module 7	13	
Module 8	10	
Module 9	7	
Module 10	11	

Certification Level	Number of trainers
Bronze	7

Silver	11
Gold	8
Total	26

#### 3.3 Italy

Subtask leader DTTN.

# 3.3.1 Running of the workshops

The workshops run smoothly and well: the participants were quite satisfied on the contents presented and with the teachers.

#### 3.3.2 Exams

The exams were scheduled to take place at the end of each day of the training session. Participants who did not passed one or more exams were asked to repeat it one week later at the offices of the Association of Engineers of Cosenza.

#### 3.3.3 Certified SouthZEB trainers

In total, 91 number of participants passed at least 4 exams and have been certified as SouthZEB trainers for the relative modules. The final number of certified SouthZEB trainers is shown in table 8.

Table 8 - Certified trainers in Italy

Certification Level	Number of trainers
Bronze	11
Silver	80
Gold	0
Total	91

#### 3.4 Portugal

Subtask leader IST/ID and UMINHO.

#### 3.4.1 Running of the workshops

The workshops run smoothly, but with some complaints regarding the contents of some modules namely:

- repetitions of contents through the modules;
- · errors on presentations;
- the lack of adaptation to the Portuguese reality.

#### 3.4.2 Exams

The exams were scheduled to take place on December on Fridays and Saturdays (4, 5, 11 and 12 December). For some trainers was needed to repeat the exam in different dates (15 and 19 January, 25 and 26 February).

#### 3.4.3 Certified SouthZEB trainers

In total, 34 of participants achieved a passing grade in the exam of at least 4 modules (out of which the first two mandatory) and have been certified as SouthZEB trainers for the relative modules. The final number of certified SouthZEB trainers in Portugal is shown in Table 9.

Table 9 - Certified trainers in Italy

Certification Level	Number of trainers
Bronze	16
Silver	2
Gold	16
Total	34

#### 4 Discussion and Conclusions

The "Train the Trainer" workshops were organized successfully in the four target counties participating in the project. Each county chose a different approach for the organization of the workshops but all achieved the target level of participation.

The shortest duration for the organization of the workshops was in Italy were the workshops took place in only ten days, as they were held consecutively, while in Cyprus the workshops were spread throughout three months. In Greece and Portugal the workshops were spread in between two months approximately.

Furthermore, a different approach was followed for the delivery of the exams. Italy chose to hold the exam for each module at the end of the corresponding workshop while Cyprus chose the path of having the exam of each module at the beginning of the workshop that followed. Portugal and Greece chose to have separate exam days.

The final outcome of the workshops organized in the four target countries is considered as successful since the workshops run smoothly without any major problems occurring and the final total number of certified trainers surpassed the minimum number of 150 SouthZEB trainers stated in the Grant agreement. In Cyprus 14 people were certified as SouthZEB trainers, in Greece 26, in Italy 91 and in Portugal 34. In total, 165 engineers were certified as SouthZEB trainers in the four target countries that the workshops were held. 40 participants were certified at "Bronze" level, 95 at "Silver" level and 30 at "Gold" level.