



# **Plan for engagement and training of project promoters contractors and skilled workers**

**D6.2**



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## D6.2

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## Executive summary

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The following report is a result of work within task 6.4. The aim of the task 6.4 is to develop engagement and training activities to promote the nZEB renovation approach for residential buildings.

Deliverable 6.2 describes the plan for approaching targeted groups with engagement and training activities utilizing in-house developed material in line with the DREEAM integrated approach for NZE renovation in residential multiple buildings.

The identified groups will be approached with tailored training material and activities.

These groups are:

1. Housing companies and cities (Demand side) and
2. SME contractors and skilled workers (Supply side).

The development of training material will proceed in two parallel processes where initial focus will be on group I. This is due to first engagement activities planned in accordance with the DREEAM proposal for the end of 2016.

In order to respond to this early in the project task, the majority of engagement material has to be compiled from material developed already from partner's in-house sources and expertise.

Later in the project, resources will be focused on group II with its diverse actors – constructors, technical consultancies to tradesmen, construction workers and system installers.

Information and training material developed in the project for group I will be disseminated using already established European networks, e.g. the European Housing Network (EURH).

In regard to our second group, training material will be distributed firstly by internal channels of participating organisations e.g. through WI (KIC regions) and EURH and its 32 members to their local contractors.

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# 1 Objective of the deliverable

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## 1.1 Main objective of DREEAM - WP6 - Task 4

One of the objectives in the DREEAM project is to raise the ambition among decision makers about multi-building renovation programs and to promote building energy performance as part of their agenda (DREEAM, 2015). In WP1 and 2, the approach for such methodology will be developed.

The aim of WP6 is to exploit and disseminate the DREEAM approach developed in WP1 and 2 and demonstrated in WP3. By applying this approach, the aim is to achieve reductions up to 75% in Net Energy Demand through renovation of residential buildings at a multi-building scale. The target groups intended for engagement and training are:

- Housing companies and cities (demand side)
- Contractors and skilled workers (supply side)

The overall purpose of WP6.4 is to develop specific engagement and training activities for the above mentioned targeted groups.

## 1.2 Objective of deliverable D6.2

The objective of deliverable D6.2, within the WP6.4 (Engagement and training) is to present a time plan and strategy for:

- The development of a training and engagement programme including information and material generation process.
- The stepwise implementation of the DREEAM training and engagement approach, targeting the identified groups.
- The channels through which the target groups will be addressed with training and engagement.
- The development of training and engagement material.

## 2 Key target groups

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The target groups are stated in the project (DREEAM, 2015) as being institutional building owners, industry experts, cities officials, policy makers, project promoters in housing companies and cities, SME contractors, technical consultancies and skilled workers.

### 2.1 Project promoters in housing companies and cities – Group I (Demand)



*Illustration of the importance for project promoters in housing companies and cities in formulating functional requirements - Demands. (Illustration from web)*

This target group is found in large construction companies and in housing companies such as institutional building owners but also policy makers, for example cities officials.

The objectives are to inform and convince this target group of benefits resulting from the application of energy efficient retrofit to a multi-building stock (DREEAM-approach). At the same time, it could provide a guide in formulating functional requirements, and also control over the building process by implementing quality assurance systems and how to follow up processes and goals.

The following aspects will be conveyed in the engagement activities:

- Awareness of associated benefits in applying energy renovation
- Information on factors of importance for energy efficiency
- Information of energy renovation solutions in integrated approaches
- Comprehension of methods and approaches
- Information on quality assurance systems and function control programs

## 2.2 SME contractors and their skilled workers – Group II



The second target group include SME contractors, consultancies and skilled workers, see e.g. Swedish report (Blomsterberg, 2013). This group of actors is clearly quite diverse when it comes to educational level, training opportunities and challenges.

Some identified professions and their skills are listed below, as an example of the complexity and diversity of different occupations, that all can have impact on the energy efficiency renovation success, and possibly different developed training and awareness packages, e.g.:

- Energy experts in their work with energy audits in order to optimize the choice of energy efficiency measures and NZEB actions
- Architects /constructors, consultants in their work integrating adequate NZEB technologies, good functions concerning airtightness, thermal bridges, thermal comfort, indoor air quality, insulation installation, strength calculations, moisture safety, energy saving equipment, U-values of windows, and doors, etc.
- Constructions workers in their work with mounting equipment, materials, insulation, airtight membranes and performances etc. in order to achieve optimal professional performance
- Quality personnel in their work as managers and in performing different function checks before commissioning. These function checks may involve: checking function of thermal comfort, airtight performances, insulation performances, window installations, operational features of systems for regulating ventilation, cooling, heating etc. These function controls may be performed as self-checks and third-party controls.

Other important factors that have large impact on the quality of work focussing on the lowering of energy demand and maintaining the energy saving goals are the property maintenance and behaviour of caretakers and users.

## 3 Dissemination and exploitation channels

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### 3.1 Target group I - Project promoters in housing companies and cities

Information and training material developed in the project will be disseminated using already established European networks where European Housing Network (EURH) plays a major role in reaching out to the social and public housing community. The training sessions will be organised on the side of the EURH international events and workshops.

The goals set for the first target group within (DREEAM, 2015) is formulated as:

- SP with support of the DREEAM partners will create a training programme and supporting material (like training brochures, explanatory leaflet, presentations and webinars), targeting housing companies and cities.
- EURH will facilitate the execution of the training programme with the members of European Housing Network of 32 social and public housing.
- The training sessions will be organised on side of the EURH international events and workshops at least once a year.
- Training sessions targeting cities officials will take place on site of the annual events and workshops of the Energy Cities and will be organised at least twice in the second part of the project.
- The training materials will be distributed to the project promoters by the internal network of EURH and Energy Cities.
- The project home page will be used as an up-to-date source of information about the project, where training material will also be available.

### 3.2 Target group II - SME contractors and skilled workers

The second target group is responsible for the supply side of services associated with the integrated approach for the energy renovation in residential housing. SME contractors and skilled workers in their organisations need to be aware of practical implications of the DREEAM approach, associated benefits as well as the execution methods.

- SP with the support of partners will create a training programme for SME contractors and skilled workers, which will include the training materials as well as online courses.
- The training materials will be distributed firstly by internal channels of participating organisations e.g. through WI, EURH and its 32 members to their local contractors; to be included in the internal training programme at Exeleria, 3C-Pre and SP.



## 4 Development of engagement and training material

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The development of engagement and training material for the targeted groups will be separated in time and in effort during the project phase. We acknowledge that there are different supporting material needs in the targeted groups and also varying possibilities to develop and deliver, due to the complexity of material/product, dependencies and development time.

### 4.1 Training material for Group I – Housing companies and cities

Material for this group has been identified as our first deliverable that will take place in WP6.4 and will consist of training material supporting webinars and presentations accompanied by training brochures and explanatory leaflets. All information material will be distributed to the project promoters by internal network of EURH and Energy Cities. Actions leading to this material will mainly be conducted during 2016 and 2017, supporting this year's EURH-meeting in November and upcoming events.

#### 4.1.1 Plan - training material

In developing this engagement material, already established information project sources used earlier in the application phase will be used.

Educational material, already established within the project, will be used and transformed by adding examples on specific technical solutions -“teasers” from WP1 and results obtained from the SOTA generation, en route the DREEM-approach definition and possibilities thereof.

Partners involved in WP6 will support SP in securing and delivering this material, suited for coming presentations at European meetings (see above, Ch. 3).

Material will be released in English language.

#### 4.1.2 Execution strategy –training material

In order to respond quickly for the delivery of an engagement product range for the upcoming meeting in the fall of 2016:

- SP will establish a working group, enabling the right conditions for the development of a general engagement material product for targeted countries and already mentioned dissemination channels (Ch. 3).
- Extract material from project sources building up the frame work of the engagement material – secure with WP1 and others!
- SP, with partners in dissemination efforts, will adopt material for use in different platforms – optimise material for selected dissemination purposes.
- Develop material for a pilot-test, preferably using real end-users and responses.

- Together with partners incorporate improvements and prepare for delivery of live version.
- Incorporate mechanism for future improvements.
- Handover material to dissemination partners.

#### 4.1.3 Time plan for developing engagement materials

Illustrated below are events towards the development of the training material for group I. In this non detailed illustration, possible interactions/dependencies have not been outlined.

		2016											
		feb	mar	apr	may	jun	jul	aug	sept	oct	nov	dec	
<b>Plan for engagement and training</b>	SP												
Identify key target groups, countries and dissemination channels	SP												
Define data collection methods for training and engagement materials	SP												
<b>Decide work distribution</b>	SP												
Define timeline for development and training and engagement	SP												
Decide how to distribute training material	SP												
Draft deliverable and send to participants for feedback	SP												
Send deliverable to PM (D6.2)	SP												
<b>Engagement and training</b>	SP												
Scheduling of engagement activities	SP												
Development of training materials for group 1	SP												
Agreeing on training methods and strategy	SP												
1st Dissemination opportunity at yearly EURH-meeting?	SP												
Training activities for group 1	SP												
Development of training materials for group 2	SP												
Training activities for group 2	SP												
Send deliverable to PM (D6.9)	SP												

**Contributors:** SP, (partners involved) EURH, Exeleria, 3C-Pre, Chalmers, Savills, NAPE, WI.

## 4.2 Training material for Group II

### 4.2.1 Material to Target group II – Constructors, consultancies and skilled workers

This group of actors will be trained by “in-house” developed training material and online-courses, relaying specific and detailed processes, in order to fulfil measures meeting up with coming DREEAM-approach standards. The development of this material package will start after the initial DREEAM-approach’s SOTA of renovation options has taken place, in the latter part of 2016.

Needless to say, partners involved in the development will be essential for the delivery of input securing regional information that can be applied in and yield an efficient, applicable and “easy to use” training-platform for these actors involved in supplying services associated with the integrated approach for NZE-renovations.

Finally, in providing training material for this group we anticipate that the usage of training material, information platforms and presentation will be largely dependent on building

characteristics, culture and technical possibilities at participating site. Thus both webinars and presentation on site could present viable alternatives provided in local languages.

**Contributors:** SP, (partners involved) EURH, Exeleria, 3C-Pre, Chalmers, Savills, NAPE, WI?

#### **4.2.2 Plan - Training material**

Developing training material for the supply side of targeted groups we foresee that here the bulk of resources will be spent in delivering a supporting product for the project. As already mentioned above, we will establish a working group of necessary partners and populate our library of feasible processes supporting our development of training material. We will depend on results from WP1 in defining DREEAM approach for our fine-tuning of our training package but at the same time we have to, and will consider facts and knowledge already present in the building of NZE-housing for the startup of development.

#### **4.2.3 Execution strategy – Training material**

By utilizing partners involved in task 6.4, SP will compile SOTA in integrated approaches for NZE renovation in residential multiple buildings, building up a library of possibilities and options to consider for the planned training material to be developed around. Partners will be asked to research their own country's know-how in the field via:

- In-house knowledge
- Collaborative training material
- National/EU material, e.g. Build Up Skills (Ewerstein and Pettersson, 2014)
- Literature

#### **4.2.4 Time plan for developing Training materials**

In a similar fashion as for the development of our early product, engagement material for group I, we will initiate a parallel track towards this consecutive product. Although early in the project we anticipate that the development of training material will commence later in the year, possible in end of Q3 or Q4. This is indicated in Fig. 1 in Annexes.

### **4.3 Formats for training material**

In conducting training events, the project will utilize supporting platforms and developed material for securing adequate and efficient methods of delivering information and education to the different targeted groups in the DREEAM-project:

- Webinars directed at project promoters

- PPT directed at project promoters
- Classroom training material in local languages for SME contractors and skilled workers.
- Leaflets, brochures and posters

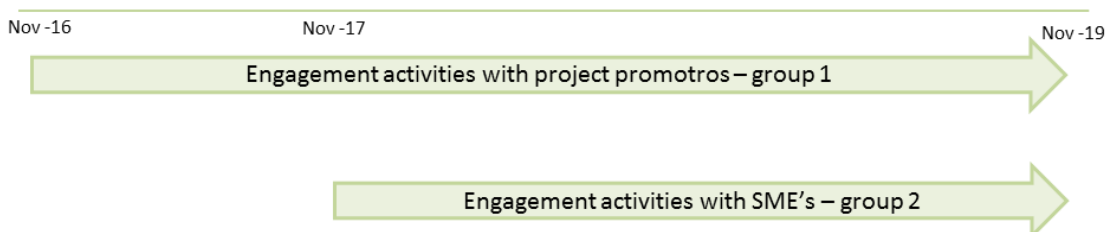
## 5 Plan for giving engagement and training

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Execution of Dissemination (information) and Training activities will be conducted with different frequencies depending of approached groups, opportunities and their needs and launched at later stages of the project. As been stated in the application and above, there are already occasions for dissemination activities towards the demand side, Project promoters in housing companies and cities, described, and their channels depicted. However, knowing these annual events we have to consider the ability to provide a “ready to launch” scenario of mediating training material for our supply side in the project since their interest and need of training will naturally coincide with the appearance of building projects being signed and planned by the entrepreneur. Training material in the form of webinars and recorded lectures has to be easily accessed in order to support the upcoming training events.

### 5.1 Time plan for dissemination and training

Indicated below is a schematic view of the disseminating periods in the project were the first action, delivery, is the engagement at EURH’s annual fall event. The DREEAM-project will engage the targeted groups at reoccurring annually events and also to arrange for more frequent appearances, depending on groups in questioned and presented requirements during future renovation startups.



#### 5.1.1 Events for Target group I – Project promoters in housing companies and cities

EURH will facilitate and conduct the dissemination events with members of European Housing Network of 32 social and public housing. The sessions will be organised on side of the (in parallel) EURH international events and workshops at least once a year.

Cities officials will be approached at annual events and workshops of the Energy Cities and will be organised at least twice in the second part of the project.

### **5.1.2 Events for Target group II – Constructors, consultancies and skilled workers**

After finalization of the DREEAM-approach (M23) we anticipate that training material could be finalized and launched in M26, and accessed for upcoming building projects and their training events when called upon at the start of a building project and work force is being established.

## 6 References

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- [1] BLOMSTERBERG, Å., 2013. BUILD UP skills – analysis of the current state of the Swedish construction industry and its training in energy-efficient building.
- [2] DREEAM, 2015. Grant Agreement Horizon 2020. DREEAM No 680511 - Annex 1 (Part A and Part B).
- [3] EWERSTEIN, S. & PETTERSSON, A., 2014. BUILD UP Skills Sweden. *Swedish Energy Agency*

# Annexes – Time plan

WP	TASKS ACTIONS	Lead part	2015												2016												2017												2018												2019																																																			
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15																									
	Other partners involved																																																																																																					
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Fig. 1 Time plan, part 1, 2016 and part 2, 2017-2019