

Report on challenges and activities of capacity building

March 2017

1. Objective

The objective of capacity building within the ESCOLIMBURG2020 project is threefold:

- a) to achieve a better quality of implementation;
- b) to implement new developments and techniques in construction;
- c) provide sufficient construction professionals with up-to-date knowledge and skills to enable accelerated energy performance of municipal buildings.

2. Approach

In the start-up phase of the project, a number of **discussions** took place with various relevant parties to inventory existing training courses and the need for additional courses.

– **Bouwunie Limburg (Limburg Construction Association)**: professional association for contractors, in particular smaller contractors. It was indicated that contractors are still in need of training in the area of installations and new developments. To complement this gap, a training course took place in cooperation.

– **Confederatie Bouw Limburg (Limburg Construction Confederation)**: professional association for contractors, in particular larger contractors. It was indicated that training in the area of tendering is highly relevant to contractors. To complement this gap, two training courses took place in cooperation.

– To ensure that there are sufficient professionals with up-to-date knowledge to carry out work for an accelerated energy performance of municipal buildings, a partnership with **Syntra Limburg** was set up.

Syntra Limburg empowers individuals, organisations and professionals by providing training and guidance for different sectors, including the construction and energy sector.

Together with Syntra Limburg, an inventory was made of which basic training courses are required to perform this project properly. In the context of these training courses, a partnership was set up between the partners from the ESCOLimburg2020 project and Syntra Limburg.

– To generate more scope in the area of ESCO operation, sufficient engineers are needed with the necessary competencies (knowledge, skills and attitudes) to realise the output-driven, performance-oriented projects.

To this end, a **postgraduate course, 'ENERGY EFFICIENCY SERVICES' (EES)**, was set up in collaboration with the **PXL University College**.

– During individual interviews with different architects, it was indicated that the renovation of monuments involves specific regulatory problems. This element was also taken into account when preparing the offering.

General conclusions from consultations

- The effective visiting of good examples (excursions) and experiences (consumption figures) is very inspirational and is not specifically offered by any of the above-mentioned organisations.
- Although info sessions on new techniques and innovations are interesting to ‘precursors’, info sessions on basic information should not be forgotten in order to train the ‘general public’.
- Monuments form a specific group within the (municipal) buildings to be renovated.

3. Findings

The capacity building sessions took a variety of different approaches and forms: excursions, info sessions, afternoons, mornings, evenings, etc.

This was done to best serve all the parties concerned.

In addition, the content of the sessions is such that a variety of subjects are treated:

- information and examples regarding **highly ambitious** renovations;
- renovation of **monuments**, a common building type in Limburg;
- information tailored to the different target groups (architects, contractors, engineering firms): from architect to architect, etc.;
- information tailored to the different building types of municipalities (offices, schools, etc.);
- it often turns out to be too long/broad a topic to discuss the insulation of the building envelope and techniques together in one session; in such cases, the information will remain too superficial; it is therefore decided to only briefly outline global renovation, but to discuss each theme separately in more detail;
- within the ESCOLimburg2020 project, a help desk has also been established, where all target groups of the project can ask all kinds of questions in connection with this project or renovation; at the request of civil servants themselves, two workshops were organised within this help desk.

The above approach seems to work, thus achieving a diverse audience with a wide variety of subjects.

During the capacity building sessions, the attendees are asked what they still need, which is taken into account for the following sessions.

4. Challenges encountered

– Sufficient participants for the training courses.

We learned through various channels that there was a need for training for several courses (HVAC help desk, performance of public procurements). After sending out the invitation, it turned out that there were no/too few enrolments to have this information session given.

The suspicion is that this has to do with the timing of the session: too long (all day) or precisely during a busy period.

– A surplus of courses offered on energy-efficient renovation.

Many other info sessions are already being organised by other organisations about energy savings and renovation.

It was a challenge to treat the less evident subjects or to, for example, go deeper into a particular matter. To overcome this problem, we also sought cooperation with partners. Dubolimburg participated in the organisation and search for good topics and speakers on the theme of energy-efficient renovation of tertiary buildings.

– Free training

The courses within the ESCOLimburg2020 project were (mostly) free. This meant that people generally considered these courses to be 'worth less' and failed to cancel/cancelled at the last minute.

– Multitude of target groups

A desire to make the courses accessible to many target groups means that the content may not have enough depth for the target group concerned. Although the courses in the project were targeted, in practice, many different target groups were still present at the training events.

In addition, ideal timing is difficult to achieve: after all, architects have a different work schedule than contractors.

5. Concrete measures

Training sessions

Various training sessions were organised for the construction sector during the project period, with a total of 341 participants.

1. Sanitary hot water (29/11/2013):

Systems for generating sanitary hot water and decision-making criteria regarding system choice and dimensioning.

This training session took place in cooperation with the **Limburg Construction Association**. – 43 participants

2. Energy expert type C (05/11/2013 - 05/12/2013)

This training was organised in collaboration with Syntra Limburg. – 9 participants

3. Insulation expert (21/09/2013 – 21/09/2014)

This training was organised in collaboration with Syntra Limburg. – 11 participants

4. Blower door technician (01/10/2013 – 21/06/2014)

This training was organised in collaboration with Syntra Limburg. – 7 participants

5. Thermography (17/10/2013 – 30/06/2014)

This training was organised in collaboration with Syntra Limburg. – 9 participants

6. Thermography (one-day course) (21/04/2014)

This training was organised in collaboration with Syntra Limburg. – 10 participants

7. Postgraduate course at the PXL University College – Info evening (01/07/2014)

This info evening was organised to recruit students for the postgraduate course that is in preparation. This info evening covered, amongst other things, the European framework and general models + Energy Performance Contract (EPC) model. – 25 participants

8. Day of practical training on construction details (20/11/2014)

This info afternoon was organised in collaboration with the Centrum Duurzaam Bouwen (Centre for Sustainable Building). Dubolimburg helped think about the programme content and suggestions for speakers. Lectures on airtightness, airtightness measurements, watertightness, fireproof conduits, etc. Practical demonstrations were also given by a number of companies. – 134 participants

9. Seminar at the PXL University College PG EES (11/12/2014)

This info evening was organised to recruit students for the postgraduate course that is in preparation. – 21 participants

During this seminar, the following was discussed: what are the different forms that ESCO can take?,

how can you implement ESCO in an SME, government agency or large company?, what is the European framework?

10. EES postgraduate course is complete

The postgraduate course 'Energy Efficiency Services' has been started in collaboration with the PXL University College, Dubolimburg, the Province of Limburg and Infrac. – 21 participants

The global goal of the two-year training is allowing building professionals to acquire the necessary competencies (knowledge, skills and attitudes) to realise the output-driven, performance-oriented projects. There is a strong dual focus on the interaction between buildings and energy on the one hand, but also on the control of the entire Life Cycle Costing (LCC) process, with due attention to the role of the EPC facilitator (procurement/purchase/materials) on the other hand. The application of Energy Performance Contracting or Energy Performance Contracts (EPC) as a result of the European Energy Directive (2012/27/EU) represents a real revolution for the realisation and financing of (large-scale) energy-saving projects within buildings.

In adjoining modules, sustainability aspects are considered, including new trends in product services service and product service systems. Such projects require transitional thinking and adapted internal and external communication. These are covered in a short, essential module. – 8 participants

11. Opening of the sports centre De Bemvoort (09/09/2015)

During this info afternoon, the sports centre De Bemvoort, a project run within ESCOLimburg2020, was festively opened. During this opening, the measures and benefits applied were clearly explained to the target audience. – 28 participants

12. Building management (12/05/2016)

This info afternoon was organised in collaboration with Centrum Duurzaam Bouwen (the Centre for Sustainable Building). Dubolimburg helped think about the programme content and suggestions for speakers. During the training day 'Building management', tools were provided to properly manage a property portfolio. – 37 participants

Peer-to-peer exchange

These exchange sessions were a big success and with a total of 733 participants, more than double the number of expected participants (250) was attained.

1. ABS (Architect Breakfast Session) on sustainable monuments (11/03/2014)

Two architects and a professor involved in the Sustainable monuments project gave a talk based on their experience of monuments and sustainability issues.

Target group: mainly architects – 23 participants

2. Energiedag (Energy Day) (28/03/2014)

The Vlaams EnergieBedrijf (Flemish Energy Company; VEB), the Province of Limburg and Infrac organised an afternoon workshop for different target groups on the topic 'Energy-efficient buildings for public institutions'.

The workshop comprised an exchange of knowledge on approaches and examples of financing, via ESCO to more energy-efficient buildings and the potential of energy efficiency.

Target group: civil servants/schools/network – 71 participants

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3. Excursion to the CVO (Centre for Adult Education) Heusden-Zolder (30/04/2014)

During this excursion, a monument was visited that has been renovated into a passive school. The building's architect gave a presentation and a guided tour through the building.

Target group: architects/contractors/civil servants – 21 participants

4. Building energy management (05/06/2014)

During this day, a lot of workshops were held on inspection, condition measurements and maintenance of buildings.

Subsequently, there was also a fair where suppliers and firms were present to talk to interested attendees.

Target group: architects/contractors/construction companies/civil servants – 158 participants

5. Excursion to the Bocholt passive school (18/06/2014)

During this excursion, a monument was visited that has been renovated into a passive school. The building's architect gave a presentation and a guided tour through the building.

Target group: architects/contractors/civil servants – 30 participants

6. Home-grown electricity (22/10/2014)

During this info afternoon, local authorities were informed of the technical status, financial feasibility and practical placement of PV.

Target group: civil servants – 39 participants

7. Dubolimburg housewarming (02/04/2015)

Dubolimburg's move to new offices was used to bring the network together again in a new way.

Theme: convincing others to take sustainable measures. How can local authorities convince others internally and externally to carry out projects in a sustainable way? ESCOLimburg2020 was discussed by Guido Claes who explained the operation of the project and its benefits to the attendees. – 56 participants

Target group: civil servants/architects/engineers

8. ABS (Architect Breakfast Session) on HVAC sustainable renovation (08/05/2015)

Technical installations in sustainable renovation – HVAC installations are gaining importance at top speed. After all, they make up an important part of the overall energy concept of a renovation and thus affect the building concept.

Target group: architects/contractors/construction companies – 25 participants

9. Building management (04/06/2015)

During this day, a lot of workshops were held on inspection, condition measurements and maintenance of buildings.

Subsequently, there was also a fair where suppliers and firms were present to talk to interested attendees. – 56 participants

Target group: architects/contractors/construction companies/civil servants

10. Excursion to the district heating (25/09/2015)

Green heat plays an important role in the realisation of a future with renewable energy. In addition to individual applications, the central production and distribution of heat can also be very interesting.

– 51 participants

Target group: architects/contractors/construction companies/civil servants

11. Event relating to municipal and church-owned property (17/03/2016)

This event was focused on a total vision and financing of measures aimed at municipal property: a plea for not building (renovation, multiple building uses), church-owned property (where the costs are covered by the municipality) and a testimonial of a municipality with a highly ambitious renovated building. – 90 participants

Target group: mayors/aldermen/municipal secretaries

12. ESCO speed-dating event (06/09/2016)

On Tuesday 6 September 2016, the first Flemish ESCO speed-dating event was organised at the PXL University College. Attendees were able to discover how ESCOs can contribute to the development of sustainable and reliable energy supplies. Flemish Minister of Energy Bart Tommelein outlined the Flemish policy context, while Governor Herman Reynders looked into the challenges facing Limburg's local authorities, schools, businesses and owners of (outdated) buildings. Member of the Provincial Executive Ludwig Vandenhove explained the implementations within ESCOLIMBURG2020 and the link with Limburg Klimaatneutraal (Limburg Climate Neutral). – 113 attendees

Target group: engineers/policymakers/architects/contractors/construction companies/civil servants

Training sessions on public procurements

To ensure there are enough contractors who are able to carry out ESCO projects, two public procurement training courses were organised together with the Limburg Construction Confederation. The first session was very successful. The second session was cancelled twice due to awkward timing. In total, forty people participated in the course.

- Performance of public procurements: module 1 & 2 13/05/2015 26 participants
- Construction law: new rules for the performance of public procurements 21/05/2015
cancelled due to lack of participants
- Construction law: new rules for the performance of public procurements 24/11/2015
cancelled due to lack of participants
- Construction law: new rules for the performance of public procurements 24/03/2016 14 participants

Help desk

Within the ESCOLIMBURG2020 project, a help desk has been established, where all target groups of the project can ask all kinds of questions in connection with the project or renovation. At the request of civil servants themselves, two workshops were organised within this help desk. A number of non-registered questions were also answered by phone. 104 contacts were registered.

- Workshop on the use of R&R plans for civil servants 29/01/2015 – 38 participants
- Input sessions for civil servants regarding climate plans
24/03, 23/04, 04/05, 12/05 – 33 participants
- Separate emails 20 emails
- Project recommendations: Bree youth centres (5 buildings, 7 associations), De Watersnip Beringen, Chiro St Paulus (Genk), Hamont-Achel town hall, Tessengerlo town hall 9 recommendations
- Registered phone calls 5 calls
- A number of non-registered questions by phone

FOR ESCOLIMBURG2020 EMPLOYEES THEMSELVES

ESCOLIMBURG2020 employees also want to stay up to date themselves, so they can communicate the information properly, inform local authorities and refer to already implemented examples from practice.

The following excursions were organised for this purpose:

1. 10/02/2014: consultation between Project Engineers, Account Managers, Nuhma, the REG (Rational Energy Use) Department of Infrac, the Province of Limburg, and Dubolimborg
2. 22/04/2015: guided tour of the UHasselt (Hasselt University) renovated prison
3. 18/06/2015: guided tour of the Centre for Adult Education Heusden-Zolder
4. 28/09/2015: guided tour of the Bocholt district heating
5. 19/10/2015: Copenhagen study visit

In addition, consultations were also organised with organisations active in the same field to exchange experiences:

- ✓ 05/11/2013: meeting with the Flemish Energy Company
- ✓ 27/11/2013: meeting with a Norwegian ESCO
- ✓ 04/03/2014: meeting with BELESCO (Belgian ESCO Association)