



## Deliverable D5.2

# Report: Quality assurance approach

GA N° 649865

Project acronym:

REFURB

Project's coordinator:

Dr. Virginia Gómez Oñate (VITO, BE)

E-mail:

virginia.gomezonate@vito.be

Work package leader:

Helena Cvenkel

E-mail:

helena.cvenkel@bsc-kranj.si

Dissemination level:

Public

March 2018



**Main contributors and editors:**

Fiene Grieger (isw, DE) - task 5.2 leader

Ighor Van de Vyver (VITO, BE)

Michal Pomianowski (AAU, DK)

Lisa Adema (Leeuwarden, NL) - WP5 leader

Helena Cvenkel (BSC, SL)

**Contributors:**

Ida Hucklebrink (BHL, DE)

Yovko Antonov (AAU, DK)

Kanellis Michalis (VITO, BE)

Peter Rathje (PZ, DK)

<b>Version</b>	<b>Date</b>	<b>Author</b>	<b>Description</b>
1.0	13-04-2017	Fiene Grieger	Task description, first draft template
2.0	15-06-2017	Fiene Grieger	Concept final report
3.0	17-07-2017	Fiene Grieger	1 <sup>st</sup> final draft report for quality check
4.0	02-08-2017		Comments from VITO
5.0	30-08-2017	Fiene Grieger	2 <sup>nd</sup> final draft report
6.0	01-09-2017		Comments from VITO
7.0	08-09-2017	Fiene Grieger	Final report
8.0	26-02-2018	Virginia Gomez Onate	Final report including addendum
9.0	20-03-2018	VITO	Final version

# Contents

<b>CONTENTS .....</b>	<b>4</b>
<b>SUMMARY .....</b>	<b>5</b>
<b>INTRODUCTION .....</b>	<b>7</b>
<b>1. IDENTIFICATION OF AN INDEPENDENT MONITORING BODY .....</b>	<b>8</b>
<b>1.1. Energy performance certification .....</b>	<b>8</b>
<b>2. BEST-PRACTICES OF SINGLE POINT OF CONTACT.....</b>	<b>11</b>
<b>2.1. The Single point of Contact in the literature .....</b>	<b>13</b>
2.1.1. Knowledge .....	13
2.1.2. Skills .....	14
2.1.2.1. Hard skills.....	14
2.1.2.2. Soft skills .....	14
2.1.3. Attitude characteristics .....	15
2.1.4. General competence profile .....	16
<b>2.2. Applied best-practices of the Single point of Contact .....</b>	<b>17</b>
<b>3. BLUEPRINT OF THE SINGLE POINT OF CONTACT .....</b>	<b>2</b>
<b>4. RECOMMENDATIONS ON TRAINING FOR THE SINGLE POINT OF CONTACT .....</b>	<b>11</b>
<b>REFERENCES .....</b>	<b>17</b>
<b>ANNEX 1 - COMPETENCE PROFILE RENOVATIONCOACH .....</b>	<b>21</b>

## Summary

Deep renovations of the residential sectors buildings towards Nearly Zero Energy Buildings (nZEB) is lagging behind the European political ambitions for energy renovation. The overall REFURB project focuses on bringing forward solutions to solve the complex interplay between the supply side and the demand side of an NZEB renovation and bring forward "an offer you can't refuse" solutions targeting the residential sector.

Work package 5 is set up to ensure high quality and delivery standards by using the customer as a starting view point. Out of the results of previous Work Packages, it has become evident that it is necessary to ensure the quality of the *entire* renovation process, the customer journey (CJ), to increase the probability of keeping the customers within the journey and actually in the end carry out a renovation successfully, meaning that the expected quality standards are met.

This report elaborates on the parameters and conditions for an independent trusted body which can act as 'guarantor' for an independent renovation advice and analyses the possibilities of assessing technical solutions (or the supply chain itself) and/or monitoring of the implemented renovation measure.

The countries have addressed this issue in various ways (details can be found in *D5.1 quality assurance*); However, while these initiatives focus on the certification or guarantee of the performance after renovation, they do not address the initial concern of the impartiality and convenience of the renovation advice. In *D5.1 quality assurance*, a toolbox of quality assurance measures is presented to be tailored to the composition and the local context of the compelling offer. There, one of the components at building level is that the proposed work for the house is correct by training the roadmap creators, amongst other.

The renovation process is based on a trust relationship between the consumer and the supply side. In one-stop-shops, the SPoC builds a trust relationship with the customer during the complete customer journey. The main challenge is to create customer confidence to get homeowners on board of a customer journey towards nZEB and to keep them until completion.

In a first step, best-practices of SPoC are identified and analyzed. In a second step, the key competences of SPoCs of existing best-practices one-stop-shops (OSSO) were compiled. The parameters (or characteristics) of the SPoC are defined as a combination of relevant knowledge, skills and attitude that the SPoC needs to have in order to keep customers in the journey towards a one-stop-shop offer for nZEB renovation and its renovation advice can be trusted as coming from an independent party.

In summary, literature gives much more importance to the knowledge than the other skills. This is rebated by the best practices experience of SPoC who follow specific training in communication and soft skills. When looking at the competence profile per steps of the CJ for existing OSSOs, overall one can conclude that:

- The SPoC requires soft skills in each step of the CJ. The soft skills for the SPoC are necessary to ensure good and effective interaction with homeowners and with its (local) network of (financial) suppliers;
- In addition to the use of soft skills, the SPoC shows multiple attitude characteristics to avoid dropout in step 1-4 of the CJ, when creating/ maintaining leads, (continued) value creation and in building/ maintaining a trust bond.
- In addition to the use of soft skills, the SPoC uses knowledge on/ experience in financial solutions / financial incentives to avoid dropout in step 5 of the CJ, when unburdening and in maintaining the trust bond with the homeowner.

- In addition to the use of soft skills, the SPoC uses technical knowledge/ experience to avoid dropout in step 6-7, by unburdening the homeowner in the technical decision- making process and in maintaining the trust bond with the homeowner.
- In addition to the use of soft skills, the SPoC uses a combination of knowledge on/ experience in post renovation issues and quality management and a pro- active attitude to avoid dropout in step 8-9 of the CJ, in maintaining the trust bond with the homeowner.
- In addition to the use of soft skills, the SPoC uses knowledge gained from earlier experiences to avoid dropout in step 10 of the CJ, in maintaining the trust bond with the homeowner.
- In addition to the use of soft skills, the SPoC uses knowledge on quality management and a pro- active attitude to avoid dropout in step 11 of the CJ, in maintaining the trust bond with the homeowner, when creating new leads and by continued value creation.

Out of this, the blueprint of the SPoC is derived and analyzed per CJ step.

In short, to perform the key actions within the CJ, overall these best practice- based competences are used:

- **Knowledge: Knowledge on target groups, knowledge on product to sell, knowledge on (alternative) financial solutions, basic knowledge of human psychology on how people decide and why they doubt, knowledge and experience in the building sector, knowledge on post renovation issues;**
- **Skills: Communication skills, sales skills, social skills, networking skills, negotiation skills, technical skills, quick- problem solving skills, coordination and follow- up skills, marketing skills;**
- **Attitude: Pro- active, positive, devoted, reliable, convincing, patient and with a supportive mindset towards homeowners/ customers.**

To conclude, recommendations are presented on the training of the SPoC. The majority of recommended training of the SPoC focuses on improving its broad range of soft skills. In other words, besides obviously being knowledgeable on nZEB, the SPoC is also required to be quite customer- oriented. Lastly, the SPoC should also be trained in being pro- active in following- up on customers.

In general, to avoid dropout along the steps of the CJ, the SPoC would benefit from (additional) training in:

- **Knowledge: Knowledge of target groups (including drivers and barriers of homeowners to renovate), knowledge of (alternative) financial solutions, broad knowledge on nZEB/ technical side of the product, subsidy schemes and financial incentives;**
- **Skills: (Multi- channel) communication skills, marketing skills (especially, the effective use of social media and tailored marketing plans), networking skills, public relations, how to differentiate in male/ female value creation, collaboration, rhetoric training, customer relations, negotiation skills, how to guide and analyse customers' needs to 'translate' technical details for a non- expert, sales skills (exposure of good examples in the press and social media, create and keep active leads, create trust), quick problem solving, techniques to gain confidence, techniques to convince homeowner, training how to create and keep trust, organizational skills, broad spectrum of technical skills on renovation and nZEB- issues, quality management;**
- **Attitude: Pro- active with follow- up.**

These recommendations can be found per step of the CJ in Chapter 4 of this report.

# Introduction

Deep renovations of the residential sectors buildings towards Nearly Zero Energy Buildings (nZEB) is lagging behind the European political ambitions for energy renovation. The overall REFURB project focuses on bringing forward solutions to solve the complex interplay between the supply side and the demand side of an NZEB renovation and bring forward "an offer you can't refuse" solutions targeting the residential sector.

Work package 5 is set up to ensure high quality and delivery standards by using the customer as a starting view point. Out of the results of previous Work Packages, it has become evident that it is necessary to ensure the quality of the *entire* renovation process, the customer journey (CJ), to increase the probability of keeping the customers within the journey and actually in the end carry out a renovation successfully, meaning that the expected quality standards are met.

This report elaborates on the parameters and conditions for an independent trusted body which can act as 'guarantor' for an independent renovation advice and analyses the possibilities of assessing technical solutions (or the supply chain itself) and/or monitoring of the implemented renovation measure.

Several initiatives are already put in place by Member States to assess technical solutions or performance when requesting subsidies. Those are analysed in Chapter 1 of this report. In this chapter, the options of monitoring for residential sector are scoped.

However, this certification schemes or monitoring do not ensure independence in the renovation advice. From WP2 and WP3, the figure of the Single Point of Contact (SPoC) is derived. What is more, in *D5.1 quality assurance*, a toolbox of quality assurance measures is presented to be tailored to the composition and the local context of the compelling offer. Therefore, REFURB proposes the Single Point of Contact as the most appropriate figure to provide an independent (and suitable) renovation advice.

In Chapter 2 of this report, literature study took place on the adequate profile for the SPoC. The theoretical profile is complemented with the analysis of the current best-practices of SPoC in one-stop-shops. A general competence profile is concluded from this analysis.

In Chapter 3, the blueprint for an independent body to monitor and check the energy efficiency is described as the competence profile of the SPoC derived from the previous information.

Finally, in Chapter 4, recommendations for training a SPoC are summarized and proposed.

# 1. Identification of an independent monitoring body

When undertaking any type of energy renovation, the doubt may arise for the household about the convenience of the works on the first place and the quality and satisfactory performance on the second place. Recent findings from the COHERENO<sup>1</sup> project recommend that the starting point for an nZEB renovation should be an independent energy advice. It concludes that a skilled and experienced energy advisor should be involved in the partnership to provide significant confidence to customers. QUALICHeCK put forward three categories of quality control requirements:

- Qualification requirements for persons or companies performing the works;
- Reporting requirements: e.g. declaration of performance by a certified person. This person can be an independent persons, or a person involved in the building project, but certified and controlled by a third party;
- Checking requirements: e.g. systematic inspection of a building site by an independent person

Taking the importance of the customer confidence into account, and following the findings on WP2 with regards to the customer journey (CJ) model, within REFURB, the role of this independent body was enlarged to an energy renovation facilitator. A key characteristic of this renovation coach is that he or she functions as the Single Point of Contact (SPoC) for the customer.

## 1.1. ENERGY PERFORMANCE CERTIFICATION

There are various quality assurance schemes and incentive structures for energy saving and cost reduction for the homeowner. These schemes and structures include building energy performance certificates (and energy labels for components) performance requirements linked to grants or subsidies, tax reductions, energy portals, and energy performance contracts. In addition to these instruments, individual advice needs to show building owners what they can save and what is cost-effective. D5.1 'Quality assurance approaches' discusses various options for energy performance certification. A summary is provided below.

The countries have addressed this issue in various ways (details can be found in D5.1 quality assurance); In Germany, considered the frontrunner for building and energy policy, energy performance certificates coexist either based on demand or on consumption. Since 2014, an independent control system and the energy classes for residential are introduced. Due to the various financial drivers, grants make a substantial contribution to quality assurance referring to standards and quality assurance achievements.

Denmark settled requirements for maximum transmission and linear losses of different building elements. In the Danish Building Regulation 2015 mandatory and voluntary energy frame for buildings are stated. The maximum allowed energy use for building class in BR 2015 is 30 kWh/m<sup>2</sup> per year plus 1000 kWh per year divided by the heated floor area. For voluntary building class 2020 the maximum allowed energy use is 20 kWh/m<sup>2</sup> per year. In Denmark, the grant is awarded on the condition of proof before renovation. Tax deduction is used to stimulate renovation rather than ensure quality of the works.

---

<sup>1</sup> Mlecnik, E. et al (2017) Experiences of consortia for scaling up nearly zero-energy renovations of single-family homes

In Slovenia, EPCs are required for all buildings sold or leased as well as for new buildings and public buildings larger than 250 m<sup>2</sup>. Several grants and loans are available for the homeowner. In the Eco-fund grant, to guarantee the energy savings, the specific condition has to be kept: project supervision in planning and construction should take place in accordance to the legislation. Up to 50% of these supervision costs can be covered by the grant. In addition, the use of the national energy advisory network in the decision-making phase is promoted. Furthermore, the energy service contracting model foresees the transfer of risks from the homeowner to the ESCo company, guaranteeing in this way the quality management and performance.

The Netherlands has several practical schemes implemented where the homeowner is assured of the performance of the energy saving measures. One of them is the Slim Wonen in Leeuwarden. The affiliated companies commit to meet certain quality standards. Reviews and experiences from homeowners are shared via the social media channels. The same as in Slovenia, the ESCo construction is also promoted. The ESCo Harkema guarantees performance by a consortia of companies involved. The customer is unburdened from all the contracting arrangements. In that case, the actual energy performance after renovation is measured via monitoring tools while the homeowners are expected to adhere to their 'regular energy behaviour'. Final completion is agreed only if the monitoring results show that the energy measures work well. Otherwise, the companies are obliged to solve the issue.

In Flanders, Belgium, two energy performance assessment methods could be applicable for a renovation project. The energy performance assessment method for new, renovated (EPW) or existing buildings (EPC). The latter are mandatory in the case of sale or rent. There exist also voluntary performance requirements in order to obtain a grant or subsidy for renovations either related to the complete building or to a building component. There are also several grants at the homeowner disposal depending on the undertaken renovation measure. In some cases, the grant stipulates that the works should be performed by a certified contractor or by a non-certified contractor supervised by an architect in order to obtain the grant.

However, while these initiatives focus on the certification or guarantee of the performance after renovation, they do not address the initial concern of the impartiality and convenience of the renovation advice. In *D5.1 quality assurance*, a toolbox of quality assurance measures is presented to be tailored to the composition and the local context of the compelling offer.

The renovation process is based on a trust relationship between the consumer and the supply side. In one-stop-shops, the SPoC builds a trust relationship with the customer during the complete customer journey. The main challenge is to create customer confidence<sup>2</sup> to get homeowners on board of a customer journey towards nZEB and to keep them until completion. This aspect is graphically illustrated in the heat map of the VNG Customer Journey where the major stumbling blocks (red blocks) are concentrated at the beginning of the CJ (see Figure 1). There are barriers that prevent onboarding and there are drop out moments along the journey. Triggers can be imposed to keep homeowners moving in the CJ; barriers can be lowered or taken away all together. These barriers are addressed in Chapter 2 of this report.

Due to its independent and trusted position, the SPoC could rate the satisfaction of the household and verify the quality of the works for the pooling of contractors. Within his tasks, the SPoC should steer the household towards a nZEB renovation following the proposed roadmap and make them ambassadors of the energy renovations towards the neighbours, friends and family.

---

<sup>2</sup> See COHERENO (Collaboration for housing nearly zero-energy renovation) report on creating customer confidence through quality assurance - <http://www.cohereno.eu/fileadmin/media/Dateien/Cohereno-report-customer-confidence.pdf>.



Within the REFURB consortium, the SPoC is implemented in the compelling offer of ProjectZero (DK), Leiedal (BE) and Leeuwarden (NL). Leeuwarden is currently hiring a second person for this role. The parameters (or characteristics) of the SPoC to be successful are presented in Chapter 3.

### Positive and negative experiences during the customer journey (heat map)

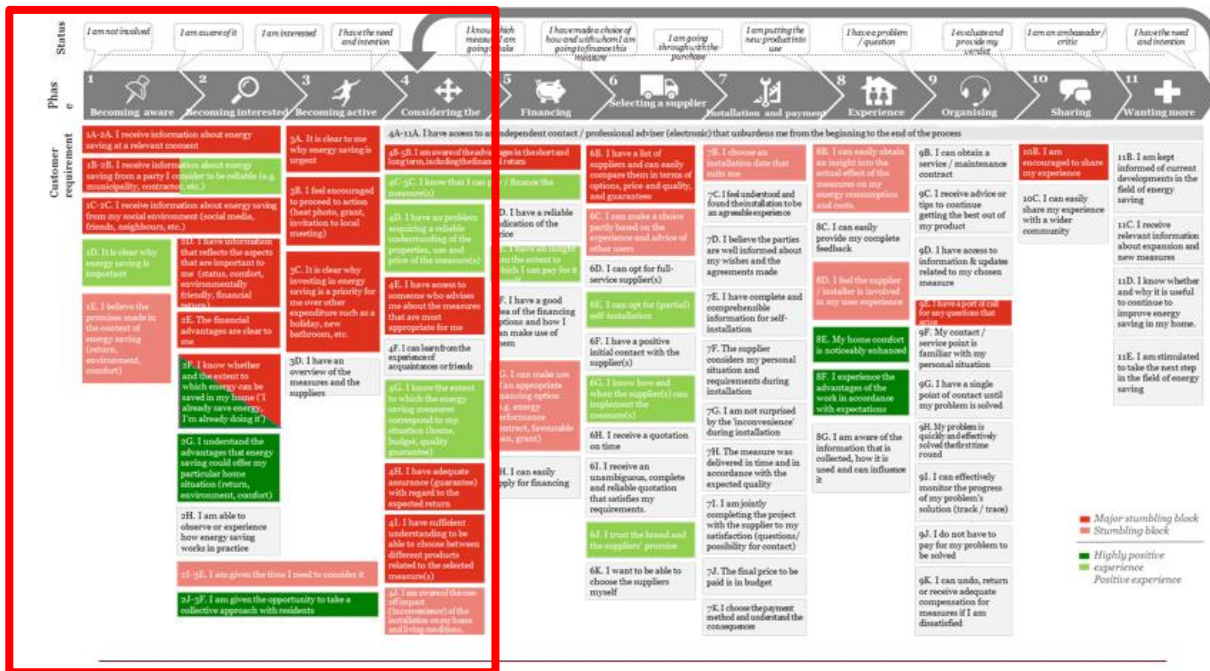


Figure 1: Major stumbling blocks in the customer journey. Source: VNG

## 2. Best-practices of Single Point of Contact

Within this chapter, best-practices of SPoC are identified and analyzed. The parameters (or characteristics) of the SPoC are defined as a combination of relevant knowledge, skills and attitude that the SPoC needs to have in order to keep customers in the journey towards a one-stop-shop offer for nZEB renovation and its renovation advice can be trusted as coming from an independent party. Within this report, the combination of knowledge, skills and attitude will be called competence.

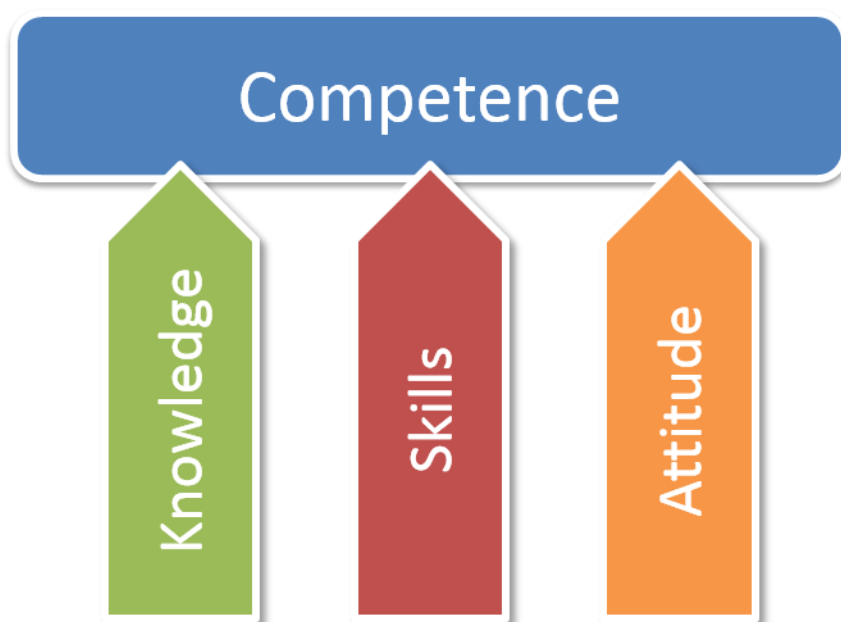


Figure 2: Description of the competence profile comprising knowledge, skills and attitude<sup>3</sup>

Below, the definitions<sup>4</sup> for each can be found:

**Knowledge** is (practical) information gained through learning, experience and association, for instance: Knowledge of building physics, knowledge of nZEB renovation, knowledge of financial solutions, etc.

**Skills** are abilities to perform specific tasks such as: The ability to communicate effectively, the ability to solve problems, be creative, etc. Skills can refer to both hard skills and soft skills. Hard skills are considered (technical) skills related to the field of nZEB renovation. These skills can be trained. Soft skills on the other hand, are a lot less tangible, hard to train and are therefore mostly need to be acquired 'on the job'. Figure 3

<sup>3</sup> Adopted from: <http://blendedlearningquality.blogspot.nl/2014/09/competence-based-learning-outcomes.html>

<sup>4</sup> Definitions: <http://innovationzen.com/blog/2006/09/25/knowledge-competencies-and-attitudes/>

illustrates the differences between hard skills and soft skills. Figure 3 also indicates the importance of professionals, SPoC included, having a balanced profile of both hard skills as well as soft- skills.

**Attitude characteristics** refer to how people react in certain situations and how they behave in general. Examples of attitude characteristics are: being proactive, being optimistic, being patient, etc.

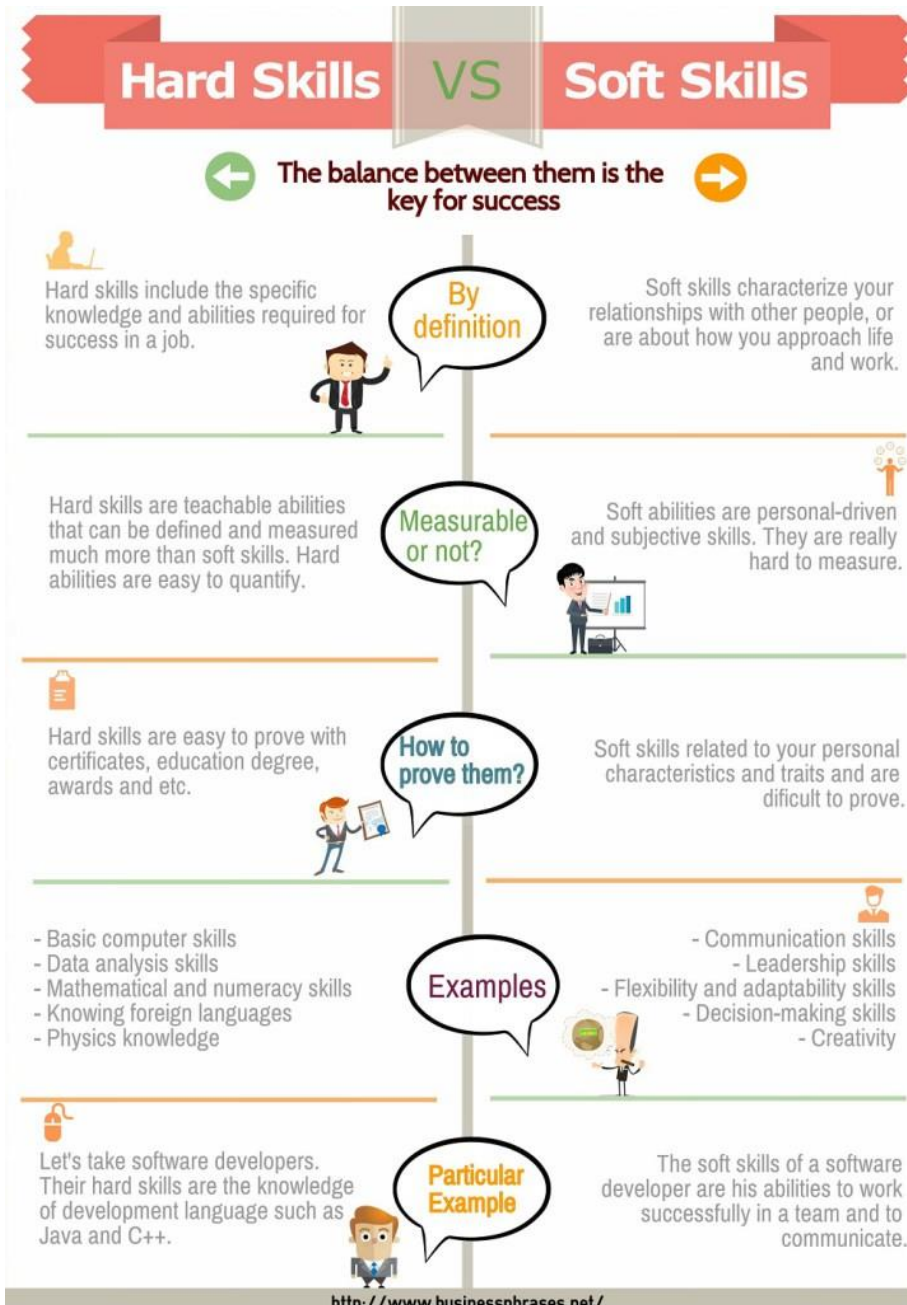


Figure 3: Differences between hard skills and soft skills

A competence profile is an overview of all the required competences the SPoC needs to do the job right i.e. to avoid dropout for each step of the CJ.

In a first step, literature review on the key competences of the SPoC was conducted. This literature review covered available publications in BE, DE, DK, EE and SL. Out of this, a literature-based key competence profile of the SPoC is composed and presented.

In a second step, the key competences of SPoCs of existing best-practices one-stop-shops (OSSO) were compiled. These key competences were also analysed per each step of the CJ. Earlier, in D3.3-3.4 'Involvement and organisation of the supply side' the OSSOs per country were listed and analysed. These included the following OSSOs:

- Germany: RENEWA and ECOHOME
- Estonia: Renovation of multi –story apartments
- Slovenia; Renovation of multi –story apartments
- Denmark; all existing Danish OSSO
- Belgium: Turnkey Bostoën

Out of this, the best- practices key competence profile of the SPoC is composed and also analysed for each step of the CJ.

It should be noted that the RENEWA type of offer was privatized and now exploited by a commercial party. Therefore, details on their success ratio (dropouts) could not be retrieved. Moreover, the ECOHOME concept is no longer commercially available. Instead, key competences and recommendations regarding training of the German (HVK) certified energy consultant were analysed.

In Belgium, not only the key competences and recommendations on training from the OSSO Turnkey Bostoën, but also these of the RenovationCoach (from Belgium/ Leiedal) were outlined.

In the following sections, the competence profile of the SPoC from literature and from the best-practice OSSOs are presented.

## 2.1. THE SINGLE POINT OF CONTACT IN THE LITERATURE

The following sections discussed the different components of the competence profile: knowledge, skills and attitude.

### 2.1.1. Knowledge

The knowledge of the SPoC includes knowledge **on building physics and energy saving, legislative framework, construction requirements, building constructions, technical installations, planning and implementation of building renovation measures, quality standards/procedures, indoor climate and comfort, new technical solutions and (new) business models.**

The curricula for various vocational trainings for German (HWK) certified energy consultants currently covers a lot of technical knowledge related to energy saving in the broadest sense of the word (source 4-8). This includes knowledge on: Legislative framework, construction requirements, building constructions, technical installations, planning and implementation of building renovation measures. In Denmark, the SPoC also needs to have knowledge on quality standards/ procedures (source 17).

In addition, a survey among Danish Green Business Growth (GBG) energy craftsmen/ consultants showed a growing interest in more knowledge on indoor climate and comfort, new technical solutions and business models (source 20).

To conclude, The SPoC is to have knowledge on nZEB and nZEB related topics. Based on experiences of energy craftsmen in Denmark, the SPoC wants to gain more knowledge on indoor climate and comfort, new technical solutions and (new) business models for nZEB.

### 2.1.2. Skills

As mentioned before, skills are divided between hard and soft skills. From literature, both hard skills and soft skills of the SPoC were gathered.

#### 2.1.2.1. *Hard skills*

Hard skills included in literature are: **Technical skills related to energy saving and building related solutions, energy systemic, energy solutions, planning and implementation of building renovation measures and technical skills related to the implementation of the EPCs, project management and report writing.**

The hard skills stem from the various curricula for the training the (HWK) certified energy consultant in Germany (sources 4-8). In Slovenia, the training programs of the independent Energy Advisor and the energy advisor implementing the EPCs also include mostly technical skills (sources 13, 14). In Denmark, the curricula for the general training of the energy advisor also mostly includes hard skills, with a main focus on technical skills related to the energy saving/ renewable solutions within the building envelope and technical installations (source 15).

In Denmark, literature (source 16, 18) also includes some other hard skills: Project management skills and the ability to write a report.

#### 2.1.2.2. *Soft skills*

Soft skills from literature include: **Marketing skills** (especially those related to effective use of social media), **communication skills, social skills, energy consulting/ advising based on holistic view, deal with interdeterminacy/ trade- offs, dynamic interaction with customers and partners with different levels of technical expertise collaborative work, consideration of sustainable aspects** ('the trilemma'), **networking skills, cooperation skills in working with craftsmen, presentation skills and optical rhetorics.**

The RenBen project in Belgium (source 1) expressed the importance of the SPoC having both soft skills besides technical knowledge/ skills. This required balance of hard and soft skills can also be found in the job ad for Leiedal's RenovationCoach (included in Annex 1). The RenovationCoach is a representative of the intercommunal government. He offers his unburdening services to the customer, but also maintains/ coordinates the network of regional stakeholders from the building sector. The RenovationCoach, therefore has a mixture of strong networking skills (with regional stakeholders) as well as social- and communicative skills. In Denmark the value of soft skills is also recognized as the BetterHouse (BH-) consultant is trained in (online) marketing skills (source 16).

In Germany, the importance of soft skills for the SPoC, an energy consultant, are stressed within academic literature (sources 9, 10, 11) but are so far only marginally addressed in the curricula of various (HWK) certified energy consultants as discussed earlier (in section 2.2.1). The soft skills include: How to deal with indeterminacy<sup>5</sup>/ trade- offs, dynamic interaction with customers and partners with different levels of technical expertise, collaborative work and consideration of sustainable aspects (also called ' the trilemma').

---

<sup>5</sup> Interdeterminacy means uncertainties, vagueness

Trilemma situations (sources 11) in building energy consulting occur when having to balance somewhat contradictory aspects of sustainability (economic, environmental and social aspects). In addition, presentation skills and optical rhetorics<sup>6</sup> are mentioned.

In Slovenia, also only marginally, the topic of social competences and communication skills are taken in account in the training of energy performance certificate assessors. These soft skills are included in a thematic section referred to as 'communication with clients'. In the training and build-up of skills of new (energy) advisors for the (independent) Energy Advisory Network En-SVET, also only a small part focuses on soft skills being social skills and competences, which are required in dealing with clients i.e. persons seeking independent advice to energy related challenges (sources 13, 14).

In 2015, the Sbi, the National Danish Building Institute, reviewed current experiences with retrofits in 11 pilot projects with Danish detached single family houses. Its observations/ recommendations regarding the competences of the SPoC included: Competent energy advising based on a holistic view, understanding (new) business models, communication skills/ face to face engagement, networking skills to secure a strong network and cooperation skills when working with craftsmen (source 18).

In addition, from interviews by the DTU Technical University with technical advisors located in Roskilde (source 19), it was concluded that technical competences are not enough and that there is also a strong need for sales/marketing competences with a persistent approach towards the homeowners, providing different approaches in communicating with male (economic reasons) and female (comfort) homeowners and advising on/ arranging loans & financing.

Lastly, the Green Business Growth secretariat carried out a survey in August 2016 among energy craftsmen (source 20), asking them about their wishes for future education, network and participation in events. This survey showed similar observations/ recommendations: There was a strong need for sales/marketing skills and how to use social media more efficiently. 34 out of 37 Danish energy craftsmen were interested in knowing more about how to attract customers which would refer to marketing/ sales skills.

To conclude: Having only technical competences is not enough, the SPoC also needs a variety of soft skills in working with both male as well as female customers.

### 2.1.3. Attitude characteristics

Attitude characteristics found in literature include: **Emphatic, assertive, patient, customer – orientated, responsible, punctual, respectful, discreet, persistent and respected person.**

In Belgium, the RenovatieCoach, is a representative of the intercommunal Leiedal, hired to both coordinate/ cooperate with the regional network of stakeholders as well as unburden the customer along the CJ. His attitude characteristics reflect his role: Emphatic, assertive, patient, customer – orientated, responsible, punctual, respectful and discreet. In Annex 1, the job ad for the RenovationCoach is included (see Annex 1, Job ad RenovationCoach).

In Denmark, the SPoC is to be a respected person with a persistent approach towards its customers (source 17, 19). Being a respected person, is probably connected to maintaining the 'trust bond' with a customer during the CJ. A persistent approach in sales and marketing refers to the SPoC not giving up so easily in when approaching a homeowner. The SPoC is also expected to also provide 'trustful' advice (source 19).

---

<sup>6</sup> Optical or visual rhetorics refers to a presentation skill



Lastly, in the GBG survey among energy advisors in Denmark (source 20) it was recommended for the SPoC to be more focussed on indoor climate and comfort.

To conclude: The SPoC is a respected and customer- orientated person that acts in an assertive, responsible, respectful, discrete, careful manner and who can be both persistent as well as patient in dealing with customers. In addition, the SPoC provides trustful advice, also with attention given to indoor climate and comfort.

#### **2.1.4. General competence profile**

In general, the ‘traditional’ curricula of the SPoC reflects mostly technical knowledge and hard skills – i.e. technical knowledge/hard skills related to nZEB renovation, while ‘soft knowledge’/ soft skills are only marginally addressed. However, pragmatic and dedicated (academic) research emphasise the importance of soft skills for the SPoC. The SPoC needs soft skills for effective interpersonal interaction, with homeowners, suppliers and stakeholders. In addition, attitude characteristics can be of great importance within the profile of the SPoC, depending on its specific role (RenovatieCoach Leiedal).

In summary, literature defines the competences of the SPoC as follows:

- Knowledge:
  - Knowledge on legislative framework
  - Knowledge on construction requirements building constructions and technical installations
  - Knowledge of quality standards/ procedures
  - Knowledge on financial solutions
  - Knowledge on indoor climate and comfort
  - Knowledge on new business models
  
- Hard skills:
  - Technical skills related to energy saving and building related solutions
  - Energy systemic
  - Energy solutions
  - Planning and implementation of building renovation measures
  - Technical skills required for professional/ certificate providers who will implement the EPCs
  - Project management skills
  - Report writing
  
- Soft skills:
  - Marketing skills; especially in using social media effectively
  - Communication skills; in dealing with customers
  - Social skills/ Face to face engagement; in dealing with customers
  - Energy consulting/ advising based on holistic view
  - Providing advice on/ arranging loans and financing
  - Deal with interdeterminancy, trade- offs
  - Consideration of sustainable aspects (‘the trilemma’)
  - Collaborative work
  - Networking skills
  - Cooperation skills with craftsmen
  - Presentation skills
  - Optical rhetorics

- Attitude characteristics:
  - Emphatic
  - Assertive
  - Patient
  - Custom- oriented
  - Punctual
  - Careful
  - Respectful
  - Discrete
  - Respected person
  - More focussed on indoor climate and comfort
  - Providing trustful advising

## 2.2. APPLIED BEST-PRACTICES OF THE SINGLE POINT OF CONTACT

In this section, best practices-based key competence profile of the SPoC is discussed. The key actions of the SPoC and overall the best practice- based competences are discussed per step of the CJ. An overview is presented in Table 1.

Before analysing the key actions and key competences of the SPoC for existing OSSOs, it is good to notice the (slightly) different roles of the SPoC within the CJ:

- Germany: HWK Energy consultant (step 1-7 and step 11 of the CJ). A HWK Energy consultant has a solid theoretical basis, so knowledge and hard skills are well accounted for. However, this SPoC still needs to advertise to make homeowners aware of its existence and convince of the added value of its services, mostly with soft skills such as sales, communication/ awareness campaigns and networking skills. In addition, guiding homeowners means having good social and communication skills in translating the renovation process in non- technical terms;
- Slovenia; Renovation of multi –story apartments (step 1-11 of the CJ). Here the SPoC is the building manager of an apartment building with tenants/ residents. This SPoC convinces the tenants/ residents of the added value of nZEB renovation and also coordinates the procurement process for realisation. Besides from knowledge/ experience in the building sector and procurement, this SPoC benefits from having soft skills, such as negotiation skills and a convincing and supportive attitude towards the tenants/ residents;
- Denmark (step 1-11 of the CJ); the SPoC is a BetterHousing consultant, either commercial (energy craftsmen) or independent (any other building related craftsmen). Here the SPoC ‘sells’ the BetterHousing concept. This SPoC benefits from having adequate knowledge on the BetterHousing plan and various soft skills, such as sales skills and networking skills;
- Belgium/ Bostoën: Turnkey Bostoën (step 3-10 of the CJ). The SPoC is commercial, representing and selling the nZEB product Turnkey Bostoën. This SPoC benefits from having adequate



knowledge on the Turnkey Bostoer product and various soft skills, such as sales skills and communication skills;

- Belgium/ Leiedal: RenovatieCoach (step 1-11 of the CJ). This independent SPoC serves as a representative of the intercommunal of Leiedal and provides help/ guidance to a customer. In addition, this SPoC also maintains/ coordinates the local/ regional network of suppliers. This SPoC benefits from having (among others) knowledge and experience in the building sector, networking skills and a convincing attitude. The actual job ad for the RenovatieCoach is included as Annex 1.

When analysing the best-practices listed above, the SPoC performs these key actions to avoid dropout along the CJ:

1. Create/ maintain leads (mostly step 1-4 and step 11 of the CJ)
2. Build/ maintain trust bond with homeowner (step 1-11 of the CJ)
3. (Continued) value creation of nZEB renovation<sup>7</sup> (step 1-4 and step 11 of the CJ)
4. Unburden homeowner in the decision- making process (mostly step 4- 6 of the CJ)

To perform these key actions, the SPoC needs certain competences. When looking at the competence profile per steps of the CJ for existing OSSOs, overall one can conclude that:

- The SPoC requires soft skills in each step of the CJ. The soft skills for the SPoC are necessary to ensure good and effective interaction with homeowners and with its (local) network of (financial) suppliers;
- In addition to the use of soft skills, the SPoC shows multiple attitude characteristics to avoid dropout in step 1-4 of the CJ, when creating/ maintaining leads, (continued) value creation and in building/ maintaining a trust bond.
- In addition to the use of soft skills, the SPoC uses knowledge on/ experience in financial solutions / financial incentives to avoid dropout in step 5 of the CJ, when unburdening and in maintaining the trust bond with the homeowner.
- In addition to the use of soft skills, the SPoC uses technical knowledge/ experience to avoid dropout in step 6-7, by unburdening the homeowner in the technical decision- making process and in maintaining the trust bond with the homeowner.
- In addition to the use of soft skills, the SPoC uses a combination of knowledge on/ experience in post renovation issues and quality management and a pro- active attitude to avoid dropout in step 8-9 of the CJ, in maintaining the trust bond with the homeowner.
- In addition to the use of soft skills, the SPoC uses knowledge gained from earlier experiences to avoid dropout in step 10 of the CJ, in maintaining the trust bond with the homeowner.
- In addition to the use of soft skills, the SPoC uses knowledge on quality management and a pro- active attitude to avoid dropout in step 11 of the CJ, in maintaining the trust bond with the homeowner, when creating new leads and by continued value creation.

Considering the special situation in Estonia, the key competences mentioned for the SPoC in Estonia are kept out of the discussion of the best practices- based key competence profile. The SPoC in Estonia, following the KredEx renovation scheme needs knowledge of building physics, legal background and

---

<sup>7</sup> Value creation could be defined as: Value is created through an organization's business model, which takes inputs from the capitals and transforms them through business activities and interactions to produce outputs and outcomes that, over the short, medium and long term, create or destroy value for the organization, its stakeholders, society and the environment.

<http://integratedreporting.org/wp-content/uploads/2013/07/IR-Background-Paper-Value.pdf>

knowledge of local building history and traditions to be able to present homeowner with a tailored and viable nZEB offer in steps 1-3 of the CJ. By using social skills the Estonian SPoC convinces the homeowner of its added value. In step 4, dropout is avoided by a GO/ NO GO decision (also see D5.1 quality assurance).

In summary, best- practices define the key competence profile of the SPoC as follows:

- Knowledge:
  - Knowledge on target groups
  - Knowledge on product to sell
  - Knowledge on (alternative) financial solutions
  - Basic knowledge of human psychology on how people decide and why they doubt
  - Knowledge and experience in the building sector
  - Knowledge on post renovation issues
- Hard skills:
  - Technical skills
- Soft skills:
  - Communication skills
  - Sales skills
  - Social skills
  - \*Networking skills
  - \*Negotiation skills
  - Quick- problem solving skills
  - Coordination and follow- up skills
  - Marketing skills
- Attitude characteristics:
  - Pro- active,
  - Positive
  - Devoted
  - Reliable
  - Convincing,
  - Patient
  - With a supportive mindset towards homeowners/ customers.

Steps CJ	Key actions SPOC to avoid dropout	Knowledge	Skills	Attitude
1. Becoming aware	<ul style="list-style-type: none"> <li>- Create many leads i.e. contacts with homeowner/ possible customers (Belgium, Germany)</li> <li>- Responding fast, focused on value creation, good listening with a supporting mindset (Denmark)</li> <li>- Start creating trust among tenants/ homeowners (Slovenia, Denmark)</li> <li>- Provide tailored information and convince homeowner added value nZEB (Estonia)</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of building physics (Estonia)</li> <li>- Knowledge of legal background (Estonia)</li> <li>- Knowledge of local building history and traditions (Estonia)</li> </ul>	<ul style="list-style-type: none"> <li>- Communication skills (Belgium, Slovenia, Denmark, Germany)</li> <li>- Networking skills for awareness creation – initiating campaigns (Germany)</li> <li>- Sales skills – dissemination of benefits, funding opportunities, etc. – value creation (Germany)</li> <li>- Social skills (Slovenia, Estonia)</li> <li>- Sales skills – understanding value- creation (Denmark)</li> </ul>	<ul style="list-style-type: none"> <li>- Pro- active (Belgium, Denmark)</li> <li>- Devotion and positive attitude to create a trust bond (Slovenia)</li> <li>- Supportive mindset; in listening to customer (Denmark)</li> </ul>
2. Becoming interested	<ul style="list-style-type: none"> <li>- Create many leads i.e. contacts with homeowner/ possible customers (Slovenia, Belgium/ Leiedal)</li> <li>- Responding fast and focussed on value creation (Denmark)</li> <li>- Providing targeted and tailored information (Germany)</li> <li>- Create/ keep creating trust among homeowners/ tenants (Slovenia, Denmark)</li> <li>- Provide tailored information and convince homeowner of added value nZEB (Estonia)</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge about target groups – to create targeted messages (Slovenia)</li> <li>- Understanding value creation to customer (Denmark)</li> <li>- Knowledge of building physics (Estonia)</li> <li>- Knowledge of legal background (Estonia)</li> <li>- Knowledge of local building history and traditions (Estonia)</li> </ul>	<ul style="list-style-type: none"> <li>- Communication skills (Belgium, Slovenia)</li> <li>- Communicating value creation of OSSO to customer (Denmark)</li> <li>- Sales skills (Denmark)</li> <li>- Awareness raising skills/ sales skills: Providing targeted and tailored information (Germany)</li> <li>- Social skills (Estonia)</li> </ul>	<ul style="list-style-type: none"> <li>- Convincing (Belgium)</li> <li>- Reliable (Belgium)</li> <li>- Pro- active response (Denmark)</li> <li>- Supportive mindset when listening to homeowner (Denmark)</li> </ul>
3. Becoming active	<ul style="list-style-type: none"> <li>- Ensure active follow- up – keep in contact with leads i.e. tenants/ residents/ customers, available for questions (Belgium/ Bostoan,</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of the product to sell (Belgium/ Bostoan)</li> <li>- Good overview of mainly technical</li> </ul>	<ul style="list-style-type: none"> <li>- Sales skills – providing tailored guidance to customer (Germany)</li> <li>- Active listening (Denmark)</li> </ul>	<ul style="list-style-type: none"> <li>- Convincing (Belgium, Slovenia)</li> <li>-Patience (Belgium/ Bostoan, Slovenia)</li> </ul>

	<p>Slovenia)</p> <ul style="list-style-type: none"> <li>- Provide help and guidance with technical details according to customer's technical knowledge (Germany)</li> <li>- Convince homeowner of added value of services Renovation coach (Belgium/Leiedal)</li> <li>- Respond fast and focussed on value- creation, active listening and support, maintaining trust (Denmark)</li> <li>- Provide tailored nZEB offer and convince homeowner of its added value (Estonia)</li> </ul>	<p>solutions/ cases for energy saving installations, building envelope and green energy supply (Denmark)</p> <ul style="list-style-type: none"> <li>- Knowledge of building physics (Estonia)</li> <li>- Knowledge of legal background (Estonia)</li> <li>- Knowledge of local building history and traditions (Estonia)</li> </ul>	<ul style="list-style-type: none"> <li>- Negotiation skills (Slovenia)</li> <li>- Analytical approach; being able to carry out BetterHousing plan with a priority list and a budget for potential investments (Denmark)</li> <li>- Social skills (Estonia)</li> </ul>	<ul style="list-style-type: none"> <li>- Pro- active support (Denmark)</li> </ul>
<p>4. Considering the options</p>	<ul style="list-style-type: none"> <li>- Guide homeowner to the right options and integrate nZEB ambition (Slovenia, Belgium)</li> <li>- Ensure follow- up with possible customers – keep in touch (Belgium/ Bostoan)</li> <li>- Help and guidance in the decision- making process (Germany)</li> <li>- Fast response, remove all barriers, impatient supporting the decision- making process by creating an easier path for the homeowner</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of the product to sell (Belgium/ Bostoan)</li> <li>- Having a good overview of alternative techno/ commercial solutions (Denmark)</li> <li>- Basic knowledge of human psychology – on how people decide (Slovenia)</li> </ul>	<ul style="list-style-type: none"> <li>- Social skills – to understand how people decide and why they doubt (Belgium, Slovenia)</li> <li>- Technical skills &amp; experience (Belgium)</li> <li>- Sales skills (Belgium/ Bostoan, Denmark)</li> <li>- Sales skills –providing help and guidance in the decision- making process (Germany, Denmark)</li> <li>- Networking skills – contact to the local energy craftsmen (Denmark)</li> <li>- Choose and defend the optimal alternative – based on experience (Slovenia)</li> </ul>	<ul style="list-style-type: none"> <li>- Convincing regarding guidance towards right options, incl. experience (Belgium)</li> <li>- Pro- active (Denmark)</li> <li>- Patience (Belgium/ Bostoan)</li> </ul>

	(Denmark) - Steer homeowner towards 'do' decision to avoid dropout (Estonia)		- Steer towards a GO/ NO GO offer on the energy renovation (Estonia)	
5. Financing	- Secure that homeowners carry out their plans (Belgium/ Leiedal) - Help and assistance with funding details according to the customer's knowledge, establishing contacts to financial experts (Germany) - Unburden tenants/ residents for appropriate financial solutions (Belgium/ Bostoën, Slovenia) - If requested by the customer, establish contact to finance institutions, that can provide an offer (Denmark)	- Knowledge on financial options and subsidies (Belgium, Slovenia, Denmark) - Technical knowledge on financial possibilities (Belgium/ Bostoën) - Experience in available alternative financial solutions (Slovenia)	- Sales skills – providing help and guidance with funding details (Germany) - Networking skills – establishing contacts financial experts (Germany, Denmark) - Coordination and follow-up (Denmark) - Marketing skills – creating a good marketing strategy (Slovenia)	
6. Selecting a supplier	- Secure that homeowners carry out their plans (Belgium/ Leiedal) - Providing a reliable contact network of qualified and trustworthy suppliers (Germany) - To create trust in your product it is important to know and to know how to explain the benefits of your product (Belgium/ Bostoën) - Legitimization of the decision making (Slovenia) - Remove barriers with an open	- Knowledge and experience building sector (Belgium/ Leiedal) - Knowing the technical and financial benefits of your product (Belgium/ Bostoën) - Knowledge of the technical and implementation process (Slovenia)	- Networking skills – providing reliable network of qualified and trustworthy suppliers (Germany, Denmark) - Coordination and follow-up (Denmark) - Negotiation skills – facilitation of the negotiation process with the subcontractors (Slovenia) - Creative skills (Denmark)	

	mindset. Be creative. Good contact to educated energy-craftsmen and architects (Denmark)			
7. Installation and payment	<ul style="list-style-type: none"> <li>- Secure satisfaction of homeowner (Belgium/ Leiedal)</li> <li>- Drop bad image on nZEB investment Satisfaction of tenants/ residents; regular inspection of works (Slovenia)</li> <li>- Important to create trust by knowing your product (Belgium/ Bostoén)</li> <li>- Resolve installation issues (Denmark)</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge and experience building sector (Belgium, Slovenia)</li> <li>- Knowledge in renovating apartments (Slovenia)</li> </ul>	<ul style="list-style-type: none"> <li>- Creating trust by technical and financial knowledge of the product (Belgium/ Bostoén)</li> <li>- Quick problem solving (Belgium/ Bostoén, Denmark)</li> <li>- Providing technical and legal expertise, for instance on warranties (Germany)</li> <li>- Coordination and follow- up (Denmark)</li> <li>- Creative skills (Denmark)</li> </ul>	
8. Experience	<ul style="list-style-type: none"> <li>- Secure satisfaction of homeowner (Belgium/ Leiedal)</li> <li>- Good contract agreements, where the subcontractor takes care of the technical defects. Dropping bad image on investing in NZEB renovation (Slovenia)</li> <li>- Important to keep unburdening the customer after the renovation works, to keep the trust (Belgium/ Bostoén)</li> <li>- Resolve customer satisfaction issues in a pro-active approach (Denmark)</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge and experience building sector (Belgium)</li> <li>- Knowledge of post- implementation defects (Slovenia)</li> <li>- Knowledge of project- and quality management procedures (Denmark)</li> </ul>	<ul style="list-style-type: none"> <li>- Quick problem solving (Belgium/ Bostoén, Slovenia, Denmark)</li> <li>- Communicative skills – open minded listening (Denmark)</li> <li>- Coordination and follow- up (Denmark)</li> </ul>	<ul style="list-style-type: none"> <li>- Pro-active (Denmark)</li> </ul>

<p>9. Organising</p>	<ul style="list-style-type: none"> <li>- Secure satisfaction of homeowner (Belgium/ Leiedal)</li> <li>- Good contacts with contractors after the realization (Slovenia)</li> <li>- Important to keep unburdening the customer after the renovation works, to keep the trust (Belgium/ Bostoën)</li> <li>- Resolve after installation issues (Denmark)</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge and experience building sector (Belgium)</li> <li>- Knowledge of project- and quality management procedures (Denmark)</li> </ul>	<ul style="list-style-type: none"> <li>- Quick problem solving (Belgium/ Bostoën, Slovenia)</li> <li>- Communicative skills – open minded listening (Denmark)</li> <li>- Coordination and follow- up (Denmark)</li> </ul>	
<p>10. Sharing</p>	<ul style="list-style-type: none"> <li>- Important to make customers share positive experiences, because positive customers are the best publicity for new leads (Belgium/ both);</li> <li>- Sharing positive experiences creates momentum for investments in other residential buildings (Slovenia)</li> <li>- The single-point of contact needs to push this to make it happen, as phase 10 is both important to the concept and the single-point of contact as a reference project (Denmark)</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of your (dis-) satisfied customer/ tenant gained from experience (Belgium/ Bostoën, Slovenia)</li> <li>- Giving advice according to the knowledge of the first jointly managed renovation project (Germany)</li> <li>- Knowledge of project- and quality management procedures (Denmark)</li> </ul>	<ul style="list-style-type: none"> <li>- Communicative skills (Belgium/Leiedal)</li> <li>- Quick problem solving (Belgium/ Bostoën)</li> <li>- Communicative skills – open minded listening (Denmark)</li> <li>- Coordination and follow- up (Denmark)</li> </ul>	
<p>11. Wanting more</p>	<ul style="list-style-type: none"> <li>- Stimulate interest and desire for more retrofit solutions (Denmark)</li> </ul>	<ul style="list-style-type: none"> <li>- Knowledge of project- and quality management procedures (Denmark)</li> </ul>	<ul style="list-style-type: none"> <li>- Communicative skills (Denmark)</li> <li>- Coordination and follow- up (Denmark)</li> </ul>	<p>Pro- active; staying in touch, keep customer updated</p>

Table 1: Competence profile of the SPoC for existing OSSOs per step of the CJ





### 3. Blueprint of the Single Point of Contact

Out of the results of the previous chapters, the blueprint of the SPoC is defined based on competences can be derived. As mentioned before, a competence is regarded as a combination of relevant knowledge, skills and attitude that the SPoC needs to have in order to keep customers in the journey towards a one-stop- shop offer for nZEB renovation (see Figure 2).

Within this section, the key actions and required knowledge, skills (soft/ hard) and attitude are discussed for each step of the CJ. It is referenced to the examples seen in the previous section. A summary can be found in Table 2.

#### Step 1 CJ – Creating awareness– Key actions/ competences SPoC to avoid dropout

In step 1 of the CJ, the SPoC needs to make the (latent) customer aware of the value of energy saving and nZEB. In this step, building a trust bond with homeowners starts when the SPoC meets them in person.

#### **Key actions SPoC**

In step 1 of the CJ, the SPoC avoids dropout by performing these key actions:

- Create many leads<sup>8</sup> – raise awareness on energy saving and nZEB renovation among as many homeowners as possible;
- Start value creation among homeowners – offer homeowners tailored information/ targeted messages on energy saving and nZEB renovation;
- Start building a trust bond – good interpersonal interaction, show a pro- active, positive, devoted attitude as well as a supportive mindset towards homeowners.

#### **Key competences SPoC**

To perform the key actions in step 1 of the CJ, the SPoC needs:

- Knowledge: None specific.
- Skills: Communication skills, sales skills- incl. understanding the act of value creation, social skills, networking skills/ awareness campaigns
- Attitude characteristics: Pro- active, positive attitude, devoted, supportive mindset

Creating many leads mostly requires communication skills, sales skills and a pro- active attitude. Communication skills and networking skills/ awareness campaigns are important skills for value creation. To build trust among homeowners/ tenants, the SPoC mostly needs social skills and show a positive, devoted and supportive mindset.

---

<sup>8</sup> A sales lead is a prospective consumer of a product or service, created when an individual or business shows interest and provides contact information. Businesses gain access to sales leads through advertising, trade shows, direct mailings and other marketing efforts. <http://www.investopedia.com/terms/s/sales-lead.asp#ixzz4r8NgVpGK>

### Step 2 CJ- Becoming interested – Key actions/ competences SPoC to avoid dropout

In step 2 of the CJ, the SPoC needs to make many homeowners interested in energy saving/ nZEB renovation, preferably in such a way that matches their segment, i.e. a combination of target group and type of dwelling.

#### **Key actions SPoC**

In step 2 of the CJ, the SPoC performs these key actions to avoid dropout:

- Create/ maintain many leads – being able to reach as many homeowners as possible or effectively follow-up on existing leads;
- Start/ continue value creation towards homeowners – offering tailored information/ targeted messages;
- Start to build/ maintain a trust bond with homeowners – good interpersonal interaction, show confidence, reliability, pro- active response and supportive mindset towards homeowner.

#### **Key competences SPoC**

- Knowledge: Knowledge about target groups – to create targeted messages
- Skills: Communication skills, awareness raising/ sales skills (for value creation)
- Attitude: Convincing, reliable, pro-active response, supportive mindset when listening to homeowner.

To create/ maintain leads and to start/ continue with value creation, the SPoC needs to have knowledge about target groups (YF, EN, male, female, etc.) and needs to be pro- active, willing to reach out and respond to questions from homeowners. By providing homeowners with tailored information and targeted messages the SPoC solidifies their interest and keeps creating value. The trust bond with the homeowner is build and maintained by the SPoC being reliable, convincing and having a supportive mindset (active listening) towards homeowners.

### Step 3 CJ – Becoming active – Key actions/ competences SPoC to avoid dropout

In step 3 of the CJ, the SPoC pro- actively responds to any signals of homeowners becoming ‘active’ with regard to energy saving/ nZEB. They may search online or request for further information via email, website or phone and might or might not yet have a plan yet. Either way, the SPoC is there to come to the aid of the homeowner and possibly steer towards a concrete and tailored plan for energy saving/ nZEB .

#### **Key actions SPoC**

Key actions of the SPoC in this step of the journey are:

- Maintain many leads – pro- active response to any ‘active’ signals/ requests from a homeowner;
- Continued value creation – offering homeowner with tailored information;
- Maintain the trust bond with homeowners – good interpersonal interaction, show confidence, patience, pro- active response and supportive mindset towards homeowner.

#### **Key competences SPoC**

- Knowledge: Knowledge of the product to sell

- Skills: Sales skills, negotiation skills, communication skills, especially active listening
- Attitude: Convincing, pro-active response, patience, supportive mindset towards homeowners

In this step, the RenovatieCoach in Belgium, the energy consultant in Germany and the BetterHousing consultant in Denmark, will continue to pro- actively follow- up on existing leads and also convince the homeowner of the added value of their coaching/ consultancy services (continued value creation).

The building manager in Slovenia will at this point convince tenants/ residents of the added value of an nZEB renovation for their apartment building. This process may require some negotiating and patience, answering any questions still left. The commercial SPoC representing one particular nZEB concept, maintains its leads with product knowledge and by showing patience as not to push the homeowner towards an early decision. The SPoC mostly maintains the trust bond by being patient, with a pro- active response and confidence and by having a supportive mindset towards homeowners.

#### Step 4 CJ – Considering the options – Key actions/ competences SPoC to avoid dropout

At this point, the SPoC mostly unburdens the customer with selection of and consideration regarding appropriate nZEB options.

##### **Key actions SPoC**

- Maintain leads – convert the needs/ wishes of the homeowner into concrete nZEB options;
- Unburden the homeowner – assisting the homeowner in selecting and deciding on the most suitable nZEB option;
- Maintain a trust bond with homeowners – good interpersonal interaction, convincing and patient attitude

##### **Key competences SPoC**

- Knowledge: Knowledge of the product to sell, basic knowledge of human psychology on how people decide and why they doubt, having a good overview of alternative technological/ commercial solutions
- Skills: Social skills, sales skills, technical skills and experience, to choose and defend the optimal alternative (based on experience)
- Attitude: Convincing regarding guidance towards right options, incl. experience, patience

In this step the SPoC unburdens the customer by providing help and guidance in the decision- making i.e. the choice in options. Effective unburdening requires social skills, sales skills, technical skills and experience as well as a convincing attitude. Networking skills are required to build a wide and solid network of suppliers, preferably providing the homeowner with local craftsmen to carry out the work.

The SPoC in Slovenia, being a building manager, will at this point choose and confidently defend the optimal alternative for nZEB towards its tenants/ residents, even if it is costlier. The commercial SPoC representing one particular nZEB concept, will mostly maintain its existing leads with active follow-up and therefore needs solid product knowledge and a patient attitude as not to push the homeowner into an early decision. To maintain the trust bond with the homeowner, the SPoC shows confidence and patience.

#### Step 5 CJ – Financing – Key actions/ competences SPoC to avoid dropout

### **Key actions SPoC**

In step 5 of the CJ, the SPoC advises or guides the homeowner towards appropriate (alternative) financial solutions to secure that the homeowner will be able to afford the optimal nZEB solution. The advice/ guidance is meant to unburden the homeowner in the decision- making process. If done right, the trust bond with the homeowner will be strengthened.

In short, in step 5 of the CJ, the SPoC performs these key actions:

- Unburden the customer - assist in the financial decision making process;
- Maintain the trust bond with the homeowner – good follow- up, by showing adequate knowledge and experience.

### **Key competences SPoC**

To perform the key actions in step 5 of the CJ effectively, the SPoC needs:

- Knowledge: Knowledge on financial solutions (subsidies, green loans, possible tax deductions etc.) and experience in (alternative) financial solutions;
- Skills: Sales skills (providing help and guidance with funding details), networking skills (establishing contacts financial experts, coordination/ follow- up skills, marketing skills (creating a good marketing strategy));
- Attitude: None mentioned.

When one financial solutions fails to deliver, the SPoC is there to quickly present the homeowner with an alternative fitting solution, i.e. a plan B. This prevents drop out because of financial burdens and this also strengthens the trust bond with the homeowner. The SPoC uses its networking and coordinating skills to ensure a wide and solid network of financial suppliers. In Slovenia, the SPoC (a building manager) also needs marketing skills to come up with an effective marketing strategy to 'persuade' tenants/ residents to opt for the optimal but perhaps also costlier nZEB solution for their apartment.

### Step 6 CJ – Selecting a supplier – Key actions/ competences SPoC to avoid dropout

#### **Key actions SPoC**

In step 6 of the CJ, the SPoC resorts to its (local) network and selects matching and trustworthy (local) suppliers that can carry out (part of the) the work, resulting in an nZEB renovation.

In step 6 of the CJ, the SPoC mostly performs these key actions:

- Maintain trust bond – the network of (local) suppliers is solid and trustworthy, pro- active follow- up
- Unburden homeowner – select matching (local) supplier(s) from network

#### **Key competences SPoC**

- Knowledge: Knowledge and experience in the building sector
- Skills: Networking skills to secure a trustworthy network, coordination/ follow- up skills, creative skills
- Attitude: none specific

The SPoC needs to secure and coordinate a network of reliable and trustworthy supply partners, matching the optimal nZEB solution from step 4 of the CJ. Creative skills may be helpful when there is not (yet) a local supplier available.

#### Step 7 CJ – Installation and payment – Key actions/ competences SPoC to avoid dropout

##### **Key action SPoC**

In step 7 of the CJ, the homeowner puts its trust in both the SPoC and the supplier(s) and experiences the nZEB renovation. If any problems arise during the installation or with the payment, the SPoC will resolve as soon as possible and follow-up on the solution to ensure full customer satisfaction. Solving the problem and following up on the solution is important for maintaining the trust bond with the homeowner.

Key action of the SPoC in this step of the CJ:

- Maintain trust bond homeowner – solve any arising problems and follow- up on the solution to full customer satisfaction

##### **Key competences SPoC**

Knowledge: Knowledge of the building sector, knowledge on legal framework, knowledge on renovation, knowledge of technical and financial aspects of the product

Skills: Communication skills, Quick- problem solving skills, providing technical and legal expertise, for instance on warranties, coordination/ follow- up skills

Attitude: None specific

In order to maintain the trust bond with the homeowner, the SPoC needs good communication skills (active listening to the customer) in combination with knowledge of the building sector/ legal framework/ renovation, including warranties and also quick- problem solving skills. Additional creative skills can also be helpful as they might help the SPoC in solving a problem sooner. If the SPoC is a commercial SPoC and represents one particular nZEB concept, it is important for the SPoC to show adequate product knowledge.

#### Step 8 and 9 CJ - Experience and Organising i.e. post renovation period – Key actions/ competences SPoC to avoid dropout

##### **Key actions SPoC**

Step 8 and 9 show overlap in both key actions and key competences of the SPoC to avoid dropout. Step 8 and 9 of the CJ, can be considered as ‘the post renovation period’. This is the phase where customer satisfaction with the end result needs to be maintained. Should any problems arise, the SPoC will need to resolve and follow- up on these issues as soon as possible, again mostly to maintain the trust bond with the homeowner.

Key action in these steps of the CJ:

- Maintain trust bond with homeowner – pro- actively solve any arising problems and follow-up on the solution to full customer satisfaction, resort to project- and quality procedures if available

### **Key competences SPoC**

Knowledge: Knowledge on post renovation problems, knowledge of project- and quality management procedures

Skills: Communication skills (especially active listening), quick- problem solving skills, coordination/ follow- up skills

Attitude: Pro- active

It is helpful if the SPoC already has some knowledge on post renovation problems as this makes it easier to pro- actively and quickly solve the problem and follow- up on its solution. When working with a network of (local) suppliers, coordination skills may also be important. In addition, good communication skills, especially active listening, are needed to pick up signals of dissatisfied customers.

### Step 10 CJ – Sharing – Key actions/ competences SPoC to avoid dropout

#### **Key actions SPoC**

In step 10 of the CJ, any post renovation issues has been resolved to full customer satisfaction. The SPoC now needs to persuade and convince ‘the customer’ of the added value of sharing its positive experiences with regard to nZEB renovation with other homeowners/ tenants. With a solid trust bond, the homeowner might be more willing to share.

Key action in this step of the CJ:

- Maintain and utilize trust bond homeowner – convince homeowner of added value of sharing experiences with nZEB, create new leads, resort to project- and quality procedures if available

#### **Key competences SPoC**

Knowledge: Good insight and knowledge on its (dis-) satisfied customer, knowledge of project- and quality management procedures

Skills: Communication skills (active listening), quick- problem solving skills, coordination and follow- up

Attitude: none specific

In order to gather lots of customers that are willing to share their positive experiences with nZEB, the SPoC will need to have good insight in recognizing its (dis-) satisfied customer. The SPoC could make a selection in which customer would be most likely and the best ambassador for nZEB. The SPoC will also need active listening and quick- problem solving skills if there are (still) signs that a customer is not yet fully satisfied with the result. The SPoC follows up on the solution. When working with a network of (local) suppliers, coordination skills can also be important.

Step 11 CJ – Wanting more – Key actions/ competences SPoC to avoid dropout

**Key actions SPoC**

In step 11 of the CJ, a customer may have additional wished when it comes to energy renovation. It is up to the SPoC to find out if there are such additional wishes and to effectively anticipate on it. For instance, if the energy performance of a dwelling is not yet at nZEB level, the customer may want more in the (near) future. The SPoC will then pro- actively stimulate this interest and desire, with an effective active follow- up of this new lead. When working with a network of (local) suppliers, coordination skills are also important.

Key action in this step of the CJ:

- Maintain trust bond homeowner – this a prerequisite for wanting more, resort to project- and quality procedures if available;
- Renewed value creation – offering tailored information and targeted messages for renewed value creation;
- Maintain leads – effective follow- up, keep in touch with homeowners.

**Key competences SPoC**

Knowledge: Knowledge of project- and quality management procedures

Skills: Communication skills, coordination and follow- up

Attitude: Pro- active attitude

In step 11 of the CJ, the SPoC stimulates (new) interests and desires regarding nZEB renovation. The SPoC needs communicative skills and a pro- active attitude to effectively follow- up on any of these new leads.

In short, to perform the key actions within the CJ, overall these best practice- based competences are used:

- **Knowledge: Knowledge on target groups, knowledge on product to sell, knowledge on (alternative) financial solutions, basic knowledge of human psychology on how people decide and why they doubt, knowledge and experience in the building sector, knowledge on post renovation issues;**
- **Skills: Communication skills, sales skills, social skills, networking skills, negotiation skills, technical skills, quick- problem solving skills, coordination and follow- up skills, marketing skills;**
- **Attitude: Pro- active, positive, devoted, reliable, convincing, patient and with a supportive mindset towards homeowners/ customers.**

CJ Step	Knowledge	Soft skills	Attitude
1. Becoming aware	Building physics9; Legal background9; Local building history and	Communication; Sales; Networking;	Pro-active; Devoted; Positive attitude

	traditions <sup>9</sup>	Social;	Supportive mindset
2. Becoming interested	Demand segment; Building physics <sup>9</sup> ; Legal background <sup>9</sup> ; Local building history and traditions <sup>9</sup> Knowledge about target groups	Communication Sales	Convincing; Reliable; Pro-active; Supportive mindset; when listening to homeowners
3. Becoming active	Products; Building physics <sup>9</sup> ; Legal background <sup>9</sup> ; Local building history and traditions <sup>9</sup> ; Knowledge on the product to sell	Sales; Negotiation; Communication	Convincing; Patience; Pro-active Supportive mindset when listening to customers
4. Considering the options	nZEB product(s)/solutions Technical experience; Knowledge on human decision process	Social; Sales; Technical skills/ experience; To choose and defend the optimal alternative	Convincing; Patience.
5. Financing	Financial (alternative) solutions – knowledge/ experience	Sales; Networking; Coordination and follow-up; Marketing.	
6. Selecting a supplier	Experience in building sector; technical and financial; implementation process.	Networking; Coordination and follow-up; Negotiation; Creative.	
7. Installation and payment	Experience in building sector/ renovation; technical and	Creative;	

<sup>9</sup> Due to the particular situation in Estonia.



	financial, including warranties	Quick-problem solving Communication Coordination and follow-up;	
8. Experience	Knowledge and experience in the building sector; post renovation issues Quality management	Communication; Quick-problem solving Coordination and follow-up;	Pro-active
9. Organising	Knowledge and experience in the building sector; post renovation issues; Quality management	Communication, Quick-problem solving Coordination and follow-up;	Pro-active
10. Sharing	Earlier experiences; Quality management	Communication; Quick-problem solving	
11. Wanting more	Quality management	Communication; Coordination and follow-up;	Pro-active

Table 2: Overview of the Blueprint of the Single Point of Contact

## 4. Recommendations on training for the Single Point of Contact

Within this chapter, first the recommendations<sup>10</sup> regarding training for existing SPOCs are summed up and discussed in general and per step of the CJ.

Recommendations regarding training of existing SPoC have been gathered in Table 3. The majority of recommended training of the SPoC focuses on improving its broad range of soft skills. In other words, besides obviously being knowledgeable on nZEB, the SPoC is also required to be quite customer-oriented. Lastly, the SPoC should also be trained in being pro- active in following- up on customers.

In general, to avoid dropout along the steps of the CJ, the SPoC would benefit from (additional) training in:

- **Knowledge: Knowledge of target groups** (including drivers and barriers of homeowners to renovate), **knowledge of (alternative) financial solutions, broad knowledge on nZEB/ technical side of the product, subsidy schemes and financial incentives;**
- **Skills: (Multi- channel) communication skills, marketing skills** (especially, the effective use of social media and tailored marketing plans), **networking skills, public relations, how to differentiate in male/ female value creation, collaboration, rhetoric training, customer relations, negotiation skills, how to guide and analyse customers' needs to 'translate' technical details for a non- expert, sales skills** (exposure of good examples in the press and social media, create and keep active leads, create trust), **quick problem solving, techniques to gain confidence, techniques to convince homeowner, training how to create and keep trust, organizational skills, broad spectrum of technical skills on renovation and nZEB- issues, quality management;**
- **Attitude: Pro- active with follow- up.**

When analysing it per step of the CJ:

In **step 1 of the CJ, creating awareness**, the SPoC benefits from training in multi- channel communication, marketing and sales skills to create many leads and subsequent value creation with targeted messages. Learning how to use the press and social media for marketing purposes enables the SPoC to reach a large as well as specific group of homeowners. The SPoC benefits from training in how to get ' a tailored message across' to a specific target group (YF, EN, female, male, certain age group, certain area, etc.) to ensure effective communication. Training in networking skills enables the SPoC to arrange a larger and effective network for broad communication, for example by being supported with (public) awareness campaigns. Training in marketing skills also enables the SPoC to select and disseminate good cases of nZEB renovation to raise awareness among latent homeowners. In Germany the (independent) energy consultant also benefits from training in public relations management to create more business.

---

<sup>10</sup> Note: Estonia did not present recommendations concerning training.

In **step 2 of the CJ, getting interested**, the SPoC would benefit from all the training that is also beneficial in step 1 of the CJ and is mentioned above. In addition, in Slovenia rhetoric training is recommended in convincing tenants of the added value of an nZEB renovation. In Germany, the energy consultant benefits from a practical training in customer relations to ensure effective interaction with homeowners, for instance via a role- play.

In **step 3 of the CJ, getting active**, the SPoC benefits from learning to anticipate customer's needs, wishes, drivers and barriers for continued value creation. In addition, learning how to use techniques in convincing/ creating trust are recommended. Being able to showcase good cases of nZEB renovations will also strengthen the homeowner's trust. In Germany, the energy consultant would benefit from learning how to translate 'the message' in a non- technical manner. In Slovenia, the building manager needs to have negotiation skills and marketing skills in effectively dealing with the needs and wishes of several tenants and getting relevant and adequate input in preparation of the procurement process.

In **step 4 of the CJ, selecting suppliers**, the SPoC benefits from training in broad technical knowledge and skills related to nZEB renovation/ knowledge of the product to sell and sales skills. These knowledge and skills are used to select the appropriate (local) supplier that is/ are able to do (part of) the work. In Germany, the energy consultant needs training in capturing 'the message' towards a homeowner in a non- technical way.

In **step 5 of the CJ, financing**, the SPoC is preferably trained in having sufficient knowledge on available (alternative) financial solutions, incentives (funding schemes, loans, tax reductions) and cost- benefits. In Germany the SPoC, an energy consultant, also benefits from training in effective networking skills to ensure an adequate network of financial institutions. Training on how to effectively communicative 'funding details' to homeowners, i.e. in a non- technical way is also recommended then.

In **step 6 of the CJ, installing and payment**, the SPoC needs broad knowledge on nZEB to present the homeowner with a choice in high quality nZEB offers. A commercial SPoC, representing one particular nZEB concept, would in this stage benefit from strengthening its knowledge of the product to sell. Sales skills are needed to convince the homeowner of the added value, i.e. the unique selling points of this particular nZEB concept. In Germany, the energy consultant would profit from training in networking skills to ensure good collaboration with several suppliers during and after the nZEB renovation.

In **step 7 - 9 of the CJ, during and after renovation**, it is mostly key for the SPoC to maintain the trust with the homeowner. Trust is ensured by quick problem solving and with adequate follow- up. Training in quick problem solving as well as communication skills can be useful for the SPoC in these phase of the CJ. The commercial SPoC, representing one particular nZEB concept, mostly benefits from training on the technical side of its product when having to deal with problems that arise during and after the renovation. In Slovenia, training the SPoC in broad organizational skills is also recommended due to the procurement process and in having to deal with multiple homeowners at the same time.

In **step 10 of the CJ, sharing**, training in communication and marketing are helpful in persuading customer's to share their positive experiences and in selecting the most effective ways of disseminating these positive experiences. Utilizing various social media channels enhances the chance of reaching homeowners with a certain profile to send targeted messages and to successfully create new leads. Therefore, training the SPoC in the effective use of social media in disseminating experiences from ambassadors could therefore be useful.

Only in Denmark and Belgium (Leiedal) attention is given with regard to training of key competences for the SPoC in **step 11 of the CJ, wanting more**, The SPoC needs to be effective in maintaining the trust bond with the homeowner and in gaining the confidence of the customer as these are valuable preconditions for a customer's 'wanting more'. Therefore, training in techniques to convince and gain confidence are also useful in step 11 of the CJ. In addition, communication skills, having insight in drivers/ barriers and marketing skills are required to keep in touch with the homeowner to create new leads and to start a renewed value creation.

Step	Customer journey	<b>Recommendations on training</b> <b>for the SINGLE-POINT OF CONTACT <u>to avoid dropout</u></b>
1	Becoming aware	<p>Communication &amp; marketing skills, e.g. social media (Slovenia)</p> <p>Training on communication &amp; marketing skills, e.g. social media. Make sure that he/she is very well supported on communication tools –digital and print, campaigns...- (Belgium)</p> <p>Training in the field of soft skills, networking skills, public relations (Germany)</p> <p>More attention given to male/female value creation, the importance of communication, exposure of good examples in the press and social medias, proactive approach with follow up, being in the loop, cooperation across multiple partners and with the municipal initiatives → modern salesmen skills (Denmark)</p>
2	Becoming interested	<p>Training on communication &amp; marketing skills, e.g. social media (Slovenia)</p> <p>Rhetoric training – importance of conveying the message to tenants/ residents (Slovenia)</p> <p>Training on communication &amp; marketing skills, e.g. social media. Make sure that he/she is very well supported on communication tools –digital and print, campaigns...- (Belgium)</p> <p>Training in the field of customer relations, role- play maybe? (Germany)</p> <p>More attention given to male/female value creation, the importance of communication, exposure of good examples in the press and social medias, proactive approach with follow up, being in the loop, cooperation across multiple partners and with the municipal initiatives → modern salesmen skills (Denmark)</p>
3	Becoming active	<p>Rising negotiation skills and assisting in preparation of tailored marketing plans (Slovenia)</p> <p>Knowledge on drivers &amp; barriers of homeowners to renovate (Slovenia)</p>

		<p>In my opinion, technical aspects are well-covered in the curricula, guidance and analysis of customer's needs might be a fruitful training to "translate" technical details for a non-expert (Germany)</p> <p>More attention given to male/female value creation, the importance of communication, exposure of good examples in the press and social medias, proactive approach with follow up, being in the loop, cooperation across multiple partners and with the municipal initiatives → modern salesmen skills (Denmark)</p> <p>Techniques to convince homeowners, marketing. Techniques to gain confidence. Listen very well to needs and desires of homeowners. Knowledge on drivers &amp; barriers of homeowners to renovate (Belgium)</p> <p>Training on how to reach and how to keep active leads (Belgium/ Bostoën)</p> <p>Training on creating trust (Belgium/ Bostoën)</p>
4	Considering the options	<p>Broad spectrum of technical skills on renovation process (construction and related works, building materials and appliances (Slovenia)</p> <p>Guidance and analysis of customer's needs might be a fruitful training to "translate" technical details for a non-expert (Germany)</p> <p>More attention given to male/female value creation, the importance of communication, exposure of good examples in the press and social medias, proactive approach with follow up, being in the loop, cooperation across multiple partners and with the municipal initiatives → modern salesmen skills (Denmark)</p> <p>Broad spectrum of technical skills on renovation in general (building process, building techniques, building materials, building sector), and nZEB-issues in particular (Belgium)</p> <p>Training on knowledge of your product and the competitive products on the market (Belgium/ Bostoën)</p> <p>Training on creating and keeping trust (Belgium/ Bostoën)</p>
5	Financing	<p>Training on financial mechanisms, cost/benefits and incentives (Slovenia)</p> <p>Guidance and analysis of customer's needs might be a fruitful training to "translate" funding details for a non-expert (Germany)</p> <p>Training to improve networking skills when it comes to collaboration with funding institutions (Germany)</p>

		<p>Proactive and innovative mindset toward resolving financial issues and barriers – the single point of contact needs to understand the importance of a safe customer journey and his/her role in making this happen – every time -&gt; quality management (Denmark)</p> <p>Training on subsidy schemes and financial incentives (Belgium)</p> <p>Training on financial possibilities (Belgium/ Bostoën)</p>
6	Selecting a supplier	<p>Broad spectrum of technical skills on renovation process and implementation works (Slovenia)</p> <p>Training to improve networking skills when it comes to collaboration with suppliers (Germany)</p> <p>If the single-point of contact is an independent consultant the challenge is to bring high quality competitive offers to the table, if he/she is a craftsman it is to stay competitive and promote the value creation – the single-point of contact needs to understand the importance of a safe customer journey and his/her role in making this happen – every time -&gt; quality management. However, empty nesters do not often need guidance during step 5-7. They prefer to lead the retrofit process themselves except for very big refurbishment, where the aim also is to achieve higher aesthetics and better comfort, in- door climate etc. Also, the young families often can't afford to have guidance in these steps (Denmark)</p> <p>Broad spectrum of technical skills on renovation in general (building process, building techniques, building materials, building sector), and nZEB-issues in particular (Belgium)</p> <p>Training on technical side of your product (Belgium/ Bostoën)</p> <p>Training on creating and keeping trust (Belgium/ Bostoën)</p>
7	Installation and payment	<p>Broad spectrum of technical skills on renovation process (construction and related works, building materials and appliances (Slovenia)</p> <p>Resolve installation issues, act fast and create safe solutions – the single point of contact needs to understand the importance of a safe customer journey and his/her role in making this happen – every time -&gt; quality management. See comments regarding young families and empty nesters above (Denmark)</p> <p>Broad spectrum of technical skills on renovation in general (building process, building techniques, building materials, building sector), and NZEB-issues in particular (Belgium/ Leiedal)</p> <p>Training on technical side of your product (Belgium/ Bostoën)</p>

8	Experience	<p>Resolve installation issues, act fast and create safe solutions – the single point of contact needs to understand the importance of a safe customer journey and his/her role in making this happen – every time -&gt; quality management. See comments regarding young families and empty nesters above (Denmark)</p> <p>Training in good communication skills to quickly determine and solve problems after the renovation works (Belgium/ Bostoën)</p>
9	Organizing	<p>Broadening organizational skills (Slovenia)</p> <p>Resolve service issues, be proactive, act fast and create safe solutions – the single point of contact needs to understand the importance of a safe customer journey and his/her role in making this happen – every time -&gt; quality management. Should be resolved by the single-point of contacts administrative back-office (Denmark)</p> <p>Training on technical side of your product (Belgium/ Bostoën)</p>
10	Sharing	<p>Training on communication &amp; marketing skills (Slovenia)</p> <p>Assist the sharing process and make it happen for the house-owner. Should be resolved by the single-point of contacts administrative back-office (Denmark)</p> <p>Training on communication &amp; marketing skills, e.g. social media. Make sure that he/she is very well supported on communication tools –digital and print, campaigns...- (Belgium)</p> <p>Training in good communication skills to quickly determine and solve problems after the renovation works (Belgium/ Bostoën)</p>
11	Wanting more	<p>Staying in touch and promoting next step solutions to the home owners is important for the ongoing customer journey, but also important for single-point of contacts creating more business based on existing customers (Denmark)</p> <p>Techniques to convince homeowners, marketing (Belgium/ Leiedal)</p> <p>Techniques to gain confidence (Belgium/ Leiedal)</p> <p>Listen very well to needs and desires of homeowners (Belgium/ Leiedal)</p> <p>Knowledge on drivers &amp; barriers of homeowners to renovate (Belgium/ Leiedal)</p>

Table 3: Recommendations regarding training key competences for existing SPoC

# References

Reference number	Literature sources on competence profile single- point of contact	Key competences mentioned in each literature sources
1	<a href="http://www.oved.be/renben">http://www.oved.be/renben</a>	In the RenBEN-project, the importance of both the social as the technical skills of the renovation coach is expressed
2	<a href="https://www.ausbildung-energieberater.de/energieberater-ausbildung/">https://www.ausbildung-energieberater.de/energieberater-ausbildung/</a>	general overview / job description "(Gebäude-)Energieberater" / (building) energy consultant in Germany
3	<a href="https://www.energie-effizienz-experten.de/sie-sindbauherr/informationen-fuer-bauherrenunternehmen/">https://www.energie-effizienz-experten.de/sie-sindbauherr/informationen-fuer-bauherrenunternehmen/</a>	list of energy efficiency experts for German funding programmes including quality checks for building energy consultants (e.g. proof of qualification, participation in advanced training, practical experience verification)
4	Institut für Lernsysteme ILS <a href="https://www.ils.de/fernkurse/technik/fachlehrgaenge/gebaeudeenergieberater-hwk/">https://www.ils.de/fernkurse/technik/fachlehrgaenge/gebaeudeenergieberater-hwk/</a>	private vocational institution / education provider for "Gebäudeenergieberater (HWK)", curricula
5	Studiengemeinschaft Darmstadt SGD <a href="http://www.sgd.de/technik/gebaeudeenergieberater.php">http://www.sgd.de/technik/gebaeudeenergieberater.php</a>	private vocational institution / education provider for "Gebäudeenergieberater (HWK)", curricula
6	Fernakademie für Erwachsenenbildung <a href="https://www.fernakademie-klett.de/technik-it/techniker-technik/gebaeudeenergieberater-hwk/">https://www.fernakademie-klett.de/technik-it/techniker-technik/gebaeudeenergieberater-hwk/</a>	private vocational institution / education provider for "Gebäudeenergieberater (HWK)", curricula
7	Hamburger Akademie für Fernstudien <a href="https://www.akademie-fuer-fernstudien.de/lehrgaenge/it-und-technik/gebaeudeenergieberater-hwk/">https://www.akademie-fuer-fernstudien.de/lehrgaenge/it-und-technik/gebaeudeenergieberater-hwk/</a>	private vocational institution / education provider for "Gebäudeenergieberater (HWK)", curricula
8	ina Planungsgesellschaft mbH in Kooperation mit TU Darmstadt, Fachbereich Architektur <a href="http://www.energieberater-ausbildung.de/index.php/energieberater-wohngebaeude/8-zielgruppe">http://www.energieberater-ausbildung.de/index.php/energieberater-wohngebaeude/8-zielgruppe</a>	private company in cooperation with Technical University of Darmstadt, Faculty of Architecture
9	Raymond Djaloeis: Kompetenzdiagnose in der Energieberatung, in: Reichwald, R., Frenz, M., Hermann, S., Schipanski, A. (Hrsg.): Zukunftsfeld Dienstleistungsarbeit Professionalisierung – Wertschätzung – Interaktion (2012), S. 303-318.	<ul style="list-style-type: none"> <li>• reflections on energy consulting as a volatile service sector</li> <li>• how to deal with trade-offs</li> <li>• competence diagnosis</li> <li>• how to deal with heterogenic further education groups</li> </ul>
10	Simon Heinen: Studien der Qualitätsforschung in der Domäne der Gebäudeenergieberatung, in: Reichwald, R., Frenz, M., Hermann, S., Schipanski, A. (Hrsg.): Zukunftsfeld	Changed and advanced requirements and challenges of skilled service work in the field of building energy consultancy:



	Dienstleistungsarbeit Professionalisierung – Wertschätzung – Interaktion (2012), S. 283-301.	<ul style="list-style-type: none"> <li>• how to deal with indeterminacy</li> <li>• dynamic interaction with customers and partners with different levels of technical expertise</li> <li>• collaborative work</li> <li>• consideration of sustainable aspects</li> </ul>
11	Raymond Djaloeis (et al.): Strategien der Professionalisierung in der Energieberatung für die mittlere Qualifikationsebene, in: Reichwald, R., Frenz, M., Hermann, S., Schipanski, A. (Hrsg.): Zukunftsfeld Dienstleistungsarbeit Professionalisierung – Wertschätzung – Interaktion (2012), S. 263-279.	<ul style="list-style-type: none"> <li>• reflections on emerging skill profiles at the intermediate qualification level due to the change in the regulatory requirements to reduce national energy consumption and carbon emissions (e.g. EnEv, EPBD);</li> <li>• Trilemma situations in building energy consulting when balancing somewhat contradictory requirements of sustainability (economic, environmental, and social aspects).</li> </ul>
12	Systematically Professionalizing Energy Consultancy Services (“EsysPro”) <a href="http://www.projekte.iaw.rwth-aachen.de/esyspro/index.php?article_id=83&amp;clang=0">http://www.projekte.iaw.rwth-aachen.de/esyspro/index.php?article_id=83&amp;clang=0</a>	EsysPro is a collaborative project funded by the research programme “Innovationen mit Dienstleistungen” of the Federal Ministry of Education and Research that aims to develop a set of tools to allow energy consultants, depending on the depth and breadth of their skills, to identify value-adding development perspectives. The research project, part of the funding framework “Dienstleistungsqualität durch professionelle Arbeit”, hopes to improve the provision of skilled energy-consulting services by professionalising the role of energy consultants.
13	Training for Energy performance certificate assessors (Slovenia)	The training program is providing the technical skills required for professionals/ certificate providers who will implement the EPC’s. Only marginally, the topic of social competences and communication skills are taken in account – the thematic section referred to as communication with clients.
14	Training and build-up of skills of new (energy) advisors for (independent) Energy Advisory Network En-SVET (Slovenia)	The training program mostly relates and gives importance to the technical skills of the independent Energy Advisor. A small part is focusing on social skills and competences, which are required in dealing with clients, persons seeking independent advice to energy related challenges. The training is meant as supplementary training (follow-up) to the training of Energy assessors.
15	Teknologisk Institut – energivejleder sekretariatet:  <a href="http://energivejlederen.dk/bliv-energivejleder/">http://energivejlederen.dk/bliv-energivejleder/</a>	The extracted and associated competences related to the single-point of contact include the following observations/recommendations: <ul style="list-style-type: none"> <li>• Mainly energy saving and building related renewable solutions related technical competences within the building envelope and technical installations</li> </ul>
	The website is created by the Danish Technological Institute and promote the Energy advisor education/training.	

16 Bedre Bolig Rådgiver (BH-consultant):

<http://www.energitjenesten.dk/bliv-bedrebolig-radgiver.html>

<http://spareenergi.dk/forbruger/vaerktoejer/bedrebolig/raadgiver>

The website promote the BetterHousingconsultant education launched in 2014.

The extracted and associated competences related to the single-point of contact include the following observations/recommendations:

- Energy systemic, solutions,
- consulting,
- project management and
- marketing competences

17 The Sbi (National Danish Building Institute) was in 2010-12 part of a EU Assessment of 11 pilot projects across the EU addressing increasing uptake of Energy Performance Certificate recommendations & quality in the supply chain.

[https://ec.europa.eu/energy/intelligent/projects/sites/iee-projects/files/projects/documents/request\\_evaluation\\_of\\_the\\_11\\_pilots\\_en.pdf](https://ec.europa.eu/energy/intelligent/projects/sites/iee-projects/files/projects/documents/request_evaluation_of_the_11_pilots_en.pdf)

The assessment report dated 2012 concludes for Denmark (page 109 – 112) that the ZEROhome concept is unique because it:

- creates awareness among house-owners
- increase awareness of supply chain actors
- it increases the quality of the supply chain

The extracted and associated competences related to the single-point of contact include the following observations/recommendations:

- competent energy advising
- respected person
- face to face engagement
- quality standard/procedures in place

The European research team awarded in 2012 in Stockholm ZEROhome to be the most effect full renovation project/concept across Europe.

- 18 The Sbi (National Danish Building Institute) report dated 2015:16 analyses the current Danish experiences with retrofit of Danish detached single family houses. It reviews among others municipal initiatives and their learnings and impact.
- <http://sbi.dk/Assets/Renovering-af-danske-parcelhuse-eksisterende-viden-og-nye-erfaringer/sbi-2015-16-1.pdf>
- Special attention should be given to page 34 – 50 where a high number of Danish municipal initiatives are reviewed by the Sbi research-team.
- The extracted and associated competences related to the single-point of contact include the following observations/recommendations:
- competent energy advising based on a holistic view
  - being able to prepare a report
  - understanding business models
  - face to face engagement
  - communicating
  - strong network/cooperation with craftsmen
  - The report includes a discussion whether the energy advisor/consultant should be independent or not, as this for some of the municipalities seems to be a key issue – but there is no conclusion on this issue
- 19 The DTU Technical University research report dated 2014 is focused on the Roskilde (municipality) Grøn Puls (Green Pulse) energy renovation initiative.
- [http://orbit.dtu.dk/files/98696715/Energivejleding\\_og\\_energirenovering\\_i\\_et\\_h\\_ndv\\_rkerspektiv\\_18\\_8\\_2014.pdf](http://orbit.dtu.dk/files/98696715/Energivejleding_og_energirenovering_i_et_h_ndv_rkerspektiv_18_8_2014.pdf)
- The main persons being interviewed are energy advisors and the report provide a good reflection based on mainly own observation from energy advisors about their roles, competencies etc.
- The extracted and associated competences related to the single-point of contact include the following observations/recommendations:
- technical competencies are not enough
  - there is a strong need for sales/marketing competencies with a persistent approach toward the house-owners
  - more focused on indoor climate and comfort
  - providing different approaches to male (economy) and female (comfort) house owners
  - providing trustful advising
  - providing loans & financing; advice, arranging
  - One stop shop is being discussed pro and against, but with no conclusion
- 20 The Green Business Growth secretary carried out a survey in august 2016 with energy craftsmen asking them about their wishes for future education, network and participation in events. 37 persons responded to the questionnaire.
- <http://www.groenerhvervsvaekst.dk/>
- The survey led to following observations/recommendations:
- there is a strong need for sales/marketing competencies and how to use social medias more efficient. 34 out of 37 are interested in knowing more about how to attract customers.
  - There is a growing interest for knowing more about indoor climate and comfort and new technical solutions
  - There is an interest to learn more about the business model in an energy network with a joint secretariat from energy craftsmen with different skills.
  - One stop shop concept is being discussed pro and

against, but with no conclusions.

# Annex 1 - Competence profile RenovationCoach

## **Leiedal is looking for a renovation supervisor**

[translation from original Dutch ad]

Leiedal wants to build an operation of renovation guidance for the private individual who wishes to renovate in the region of South West Flanders. Would you like to support individuals with renovation plans in an energetic-technical, financial and legal and social field? Would you like to build a network together with construction professionals in the region to support as much as possible the private individual who wishes to renovate? Are you not only customer oriented, communicative and solution-oriented, but can you also organize, plan and coach?

In addition to a fixed term contract (2 years), we also offer you a dynamic working environment and extensive training opportunities.

### **Your function**

On the one hand, you perform the task of refurbishment supervisor:

1. You are in charge of the guidance of people who want to renovate their homes, with an improvement in energy performance being an important part.
2. You will guide the homeowner throughout the entire renovation process, ie from determining the work to be carried out until delivery and monitoring afterwards.
3. You are the trust person for the homeowner, the point of contact when making decisions about the work.
4. You make a technical-energy analysis of the property and advises the homeowner about the work to be done.
5. You put in contact the homeowner with the contractors.
6. You coordinate the execution of the works: Contracts with contractors, quality and conformity control, decision on multi-works, billing and payment follow-up, ...
7. You support the homeowner applying for subsidies, loans, ...
8. You give advice to the homeowner about the financing of the works and assess price bids

On the other hand, you take a number of policy-supporting and flanking tasks:

1. You are coaching a regional pool of renovation coaches in South West Flanders and developing concrete tools, follow-up tools, ...
2. You organize consultations with a wide range of actors in a network and make collaborations, for example regarding the disclosure and guidance of the renovation guidance.
3. You work closely with local governments, regional actors, associations, ... in the region and beyond.
4. You follow the performance on an integral renovation and report on this.
5. You inform and involve the construction professionals in the region in the way of working and strive for optimal cooperation.

**Your profile**

You have a bachelor's degree or have acquired a lot of experience.

You have experience in housing renovations, energetic aspects of homes and / or the construction industry

**Your competences**

- You have social and communication skills: good listener, empathy, assertiveness, patience, ...
- You are customer oriented
- You have administrative capabilities, sense of responsibility, punctuality
- You can work efficiently
- You are careful in reporting
- You have a respectful attitude
- You understand the context of working with and for governments
- You are discrete and have a respect for privacy
- You are willing to participate in psychological tests