

Peer Powered Cities and Regions

Deliverable 3.7 Report on Certification Framework

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Peer Powered Cities and Regions

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Preface

The overall aim of PROSPECT is to enable *peer to peer learning* in *regional and local authorities* in order to finance and implement sustainable energy plans. The learning will empower them to make use of best practices in developing financing for these plans. PROSPECT will address the needs of regional and local authorities through developing a complete peer to peer learning programme addressing them. The learning process will be focused on how different sustainable energy projects and measures have been successfully financed. Peer to peer learning involves sharing information and experience from each other through mentoring activities, work shadowing, and study tours, among others. The learning programme will be divided into five modules that include development of financing for: i) public buildings, ii) private buildings, iii) public lighting, iv) transport (private and public), and v) cross sectional.

Who We Are

No	Participant Name	Short Name	Country Code	Logo
1	Institute for Housing and Urban Development Studies BV	IHS	NL	
2	The European association of local authorities in energy transition	ENERGY CITIES	FR	
3	European Federation of Agencies and Regions for Energy and the Environment	FEDARENE	BE	
4	Institute for European Energy and Climate Policy Stichting	IEECP	NL	
5	Eurocities ASBL	EUROCITIES ASBL	BE	
6	University of Piraeus Research Center	UPRC	GR	
7	Climate-KIC GmbH	CLIMATE-KIC GMBH	DE	
8	Ober Oesterreich Energiesparverband	ESV	AT	
9	Agencia Regional de Energia para os Concelhos do Barreiro, Moita e Montijo	S.ENERGIA	PT	
10	Mesto Trnava	TRNAVA	SK	



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Executive Summary

Offering a certification in the context of the peer-to-peer learning programme PROSPECT offers added value for both participants and the project consortium. It brings credibility to the learning method and helps evaluating the quality of the programme. Participants will receive a reward for participating in the programme. The value of the certificate is further intended to exceed the scope of the project by not only acknowledging participation but by evaluating learning outcomes. At a later stage of the project, scaling strategies will be explored.

The PROSPECT consortium will serve as the certification body. The certificate shall be offered for both mentors and mentees of the learning programme alike. The certification framework will thus focus on the competencies of individuals rather than those of institutions (in the case of PROSPECT, the participating cities). The framework will be based on the competence model consisting of knowledge, skills and attitudes and will provide recognition for competencies related to the learning objectives as defined in the learning programme. The consortium has decided to design the certification framework closely connected to content and concept of the peer-to-peer learning programme, offering micro certificates for each financing scheme introduced in each module.

Assessment will be based upon the analysis of a case study and conducted online. It is intended to recruit assessors from within the project context to keep costs and resources low.

The detailed assessment standard will be developed based on the learning content for the learning programme, currently under finalisation.

1 Introduction

Certification is a formal and external recognition of an achievement or asset. The most common certifications are:

- Recognition of competencies of individuals (knowledge, skills, attitude; examples: university degrees, employer certificates)
- Recognition of capacities of an institution (e.g. compliance, processes, structures, ISO standards; example: ISO 9001 certification)
- Recognition of a specific achievement of individuals or institutions (e.g. compliance, company profit, carbon footprint; example: certificate for annual financial statement)

Certification is usually provided for entities that are difficult to assess or measure or that require a third and independent assessment. In general, certification can be provided by everyone. However, to provide value to a certificate, there needs to be trust into the standards and processes that link to certification. The trust into a certificate is mainly linked to the independence of the certifying institution/ individual as well as to the perceived capacity to assess and measure the certification object.

In the context of PROSPECT, the wish to introduce a certification derives from two arguments: Firstly, it was intended to offer an additional appeal for participant to join the learning programme. Secondly, the project offers the ability to test a certification service for implementing innovative financing schemes in a city context. Such a certificate could raise awareness in the importance of gaining knowledge and setting up structures on and for innovative financing schemes. Further, it could help cities identifying individuals having this knowledge and being able to apply it. Setting up a certification framework requires a number of decisions about the scope and level of certification, about an appropriate certification body and assessment method based upon the desired objectives of the certification. It further needs to be decided how the certification process fits into the larger context of the learning programme and how it links to its learning objectives. The following report describes the different available options for each of these aspects as well as the decisions taken by the project consortium. It further outlines the process and timeline for the implementation of the certification framework in the programme and drafts the scalability options beyond the programme duration.

2 Objectives

2.1 Aims of certification

Introducing a certification framework to certify competencies gained in a formal, non-formal or informal learning set-up can deliver added value in many ways. Table 1 gives an overview of such benefits stemming from a certificate.

Table 1: Value proposition of certification

For individuals	For employers	For the wider society
Self-confidence through approved state-of-the-art knowledge	Applicants with proven competencies to successfully perform certain tasks	Incentives to increase knowledge and skillset across relevant workforce
Access to a network of experts	Support in employing the right persons for respective positions	Standardisation, benchmarking and increase of effectiveness and efficiency
Reputation through credible and acknowledged membership in certification register	Guarantee of up-to-date knowledge	Creation of a large network of experts
Visibility on the job market	Indirect access to international network of experts	Credibility on international scale
Proof of commitment	“Quality signal” to relevant stakeholders	

The learning programme of PROSPECT offers learning for cities to gain expertise on innovative financing schemes to implement sustainable energy plans. The peer-to-peer mentoring set-up allows access to best practice examples and insight into the application of such financing schemes in practice. For this training programme, a certification mechanism can bring various benefits:

- **From a programme perspective**

The certification can bring credibility to the PROSPECT methodology by proving its impact. It allows for transparent measurement of the success of the learning programme through clearly defined standards related to the learning results. It can thus serve as a quality control for the application of the PROSPECT methodology. Further, it might incentivise and reassure the interest and active participation of mentors and mentees as they must stay engaged until they have received the certificate. In a later stage of the project, the defined standards and the certification can form the basis for a scaling strategy of PROSPECT.

- **For participants of the learning programme**

Participants of the learning programme are, on the one hand, striving to get recognition for their effort. Therefore, a participation certificate can reward cities and individuals for their commitment through the learning programme. Anyhow, certificates that transcend a mere confirmation of participation can create added value by recognizing individual proficiency and

learning results. On an individual as well as an institutional level, certificates create visibility for the involved person or organisation. The certificate has therefore the ability to create added value even to local authorities outside the project consortium – for example for staff recruitment.

2.2 Types of certification in PROSPECT

The above-mentioned potential objectives have been discussed for PROSPECT. The project consortium put a strong focus on rewarding the participation in the learning programme, but was also in favour of being able to offer a recognition for proficiency when it comes to applying innovative financing schemes in a municipal context. It was therefore decided to develop two different kinds of certificates:

- Certificate of participation (cf. section 3)
- Add-on certificate (cf. section 4)

2.3 The Certification Body

The certification body is the organization which issues the certificate, defines the processes, appoints the assessors and much more. In short, it is the institution responsible for all matters related to the certificate.

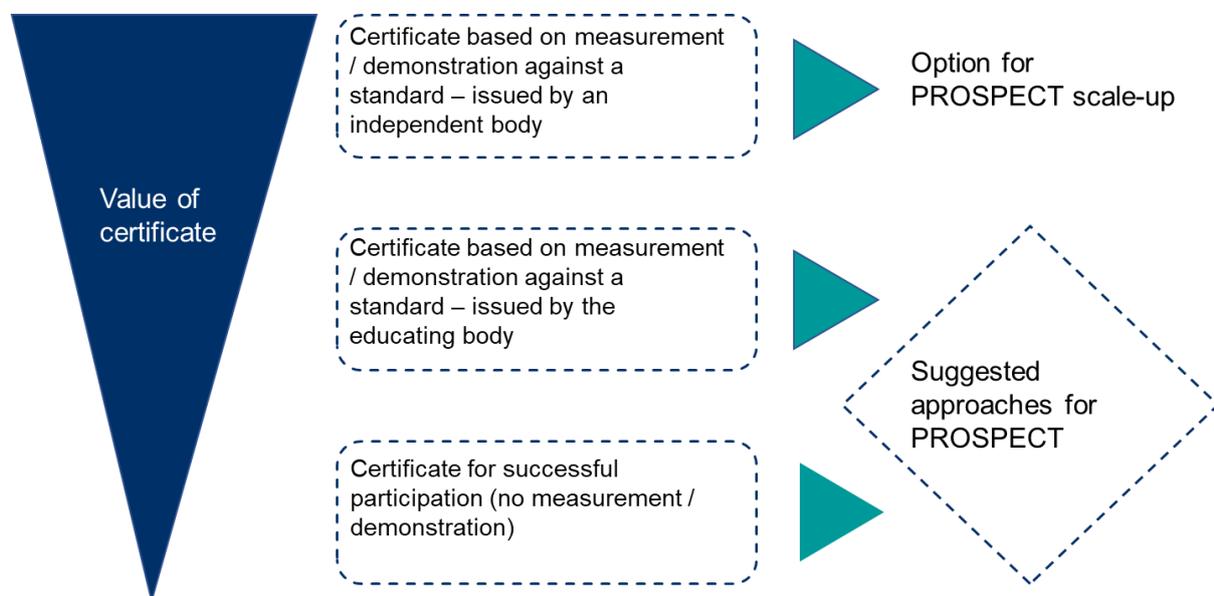


Figure 1: Options for definition of the certification body

Creating an independent certification body for the PROSPECT project phase will not be feasible. According to the ISO standard 17024 a certification body is independent when it has no interest in the delivery of a linked learning programme. This requirement can clearly not be

met by the PROSPECT consortium who is responsible for the concept and the delivery of the learning programme.

As an executing body the consortium can recognise successful participation in the programme as well as establish an objective standard against which to measure proficiency and carry out assessments. This way, the certificate can meet the described objectives in 2.1 without putting the consortium under too many formal restrictions. Further, the consortium has a bit of flexibility when it comes to the assessment method.

In the context of developing scaling scenarios for PROSPECT, it could be interesting to discuss and explore which institutions might be interested in taking the certification forward in the long-term. There are a few options:

- City networks: to provide a standard and service to member cities.
- Financing institutions: to implement risk assessment standards.
- Certification institutions: as an extension of existing business.
- Training institutions: mainly for mentor certificates, to have a quality control mechanism related to the methodology and learning programme.
- A newly created entity: made of consortium partners, to provide an integrated standard and scaling mechanism for both training and certification.

3 Certificate for participation

3.1 Admission criteria

A certificate of participation is open to all PROSPECT participants: mentors, mentees and facilitators. After the successful completion of a learning cycle, these groups will automatically receive a certificate for their engagement in PROSPECT if they fulfil the following criteria:

- For mentors and mentees
 - Acceptance to the learning programme
 - Participation in all four steps of the learning programme.
 - Confirmation of the latter through the learning group facilitator.
- For facilitators
 - Confirmation through lead of task 3.4 peer learning role assignment (EUROCITIES) that facilitator has supported the learning group through all four steps of the programme.

3.2 The certificate

The certificate will briefly describe the content and objectives of PROSPECT and recognise the successful participation in the learning programme PROSPECT of the respective participant. For each person individually, it will indicate the following details:

- Learning cycle including programme duration.
- Thematic module.
- Innovative financing scheme.
- Role in learning programme (mentor, mentee or facilitator).

The certificate will bear an official signature by the Professional Education lead of Climate-KIC as a representative of the project partner responsible for setting up the certification scheme.

4 Add-on certificate

4.1 Scope of the certificate

4.1.1 Target group

Two scenarios have been discussed as to who could be the assessed entity and thus the certificate holder of the add-on certificate of PROSPECT:

- to certify the professional competencies of the participating individual.
- to certify management system and process standards of the participating cities.

In the first case, the defined standards could relate to an individual's capacity to

- identify and plan energy efficiency project.
- make those projects bankable / investable.
- identify the best financing solution.
- execute projects successfully, including risk management.
- train cities and individuals on the above.

As a result, the certification could lead to better projects for cities and better career options for individuals.

In the second case, the standards could capture the (integrated) proficiency of a city to:

- Identify and plan energy efficiency projects.
- Make those projects bankable / investable.
- Identify the best financing solution.
- Execute projects successfully including risk management.

The certification could thus lead to easier and cheaper access to funding or financing sources for a city. Figure 2 summarises objectives, value and requirements for those options.

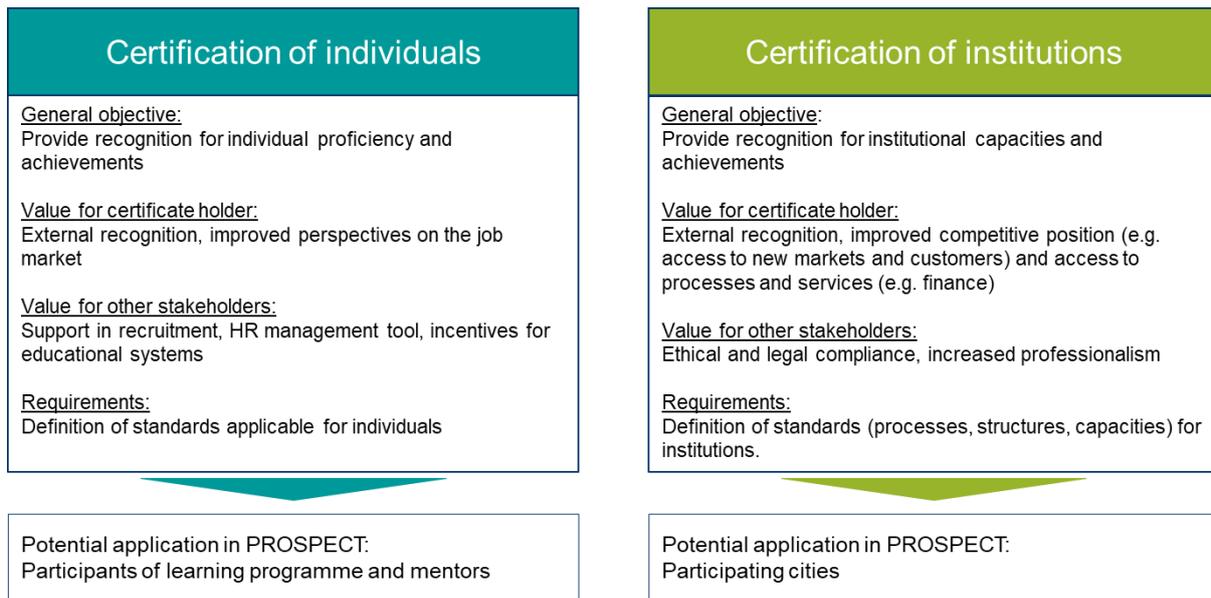


Figure 2: Two options for the target group of the add-on certification

The consortium has decided to offer a certification for individuals rather than institutions in the context of PROSPECT based on the wish to recognise the learning outcomes of the programme and to evaluate the learning activities.

Offering a certificate for institutions, i.e. cities, would mean that the focus of certification would lie on processes and systems within a particular municipal context. For PROSPECT this option would be rather difficult to realise as most of the participants of the learning programme are applying as mentees and not as mentors. The experience of the first engagement campaign has shown that many of them are applying with a smaller knowledge base. It is therefore to be expected that the necessary structures and processes for implementing innovative financing schemes might not be in place. Cities will gain knowledge during PROSPECT about these processes and structures, but they might put them in place later; they can therefore not be considered a direct outcome of the learning programme. For these reasons, an institutional certificate might be too high a burden for some of the PROSPECT participants. This would be against the explicit wish of the consortium to open it to as many participants of the learning programme as possible.

This wish can be better served with a certificate for individuals which could link very easily to the learning programme objectives. The programme aims at delivering knowledge about innovative financing schemes and how to apply it in a specific context. As only per person per municipality is allowed to participate in one learning cycle, the dissemination of this knowledge in the wider municipal context is to be expected only after the finalisation of a learning cycle. But it lies within the trained individual and can thus be assessed and evaluated through a certificate by the education body, i.e. the PROSPECT consortium.

The add-on certificate is intended to be achievable for both mentors and mentees of the learning programme. These two groups of participants shall not be distinguished for the certification based on the conceptualisation of the programme as peer-to-peer learning activity. Offering two different kinds of certificates would undermine the idea that like-minded peers are exchanging knowledge at eye level. Offering an additional certificate for mentors

which focuses on their training abilities has also been discarded. City representative shall not be discouraged from offering their best practices because they fear to be “judged” on their coaching abilities. Further, the peer-to-peer mentoring concept envisions that the knowledge exchange will not be unidirectional, but rather stem from active exchange in both directions.

Therefore, the certification process should cover the knowledge and skills expected to be transported by the learning programme related to innovative financing schemes and their implementation in specific thematic contexts. It will need to be discussed whether two levels of passing the certificate might be introduced in order to enhance the appeal of certification for participating mentor cities (cf. section 4.2.4).

4.1.2 Thematic focus

The certification standard for PROSPECT should be linked to the learning programme. Therefore, the defined learning objectives are a good starting point for the definition of it. The **Learning Module-Related Objectives** (as defined in D3.2) focus on the innovative financing schemes which will be introduced in the learning modules as well as barriers, incentives, advantages, and disadvantages related to them. In the programme, success factors and lessons learnt from practical experience shall be analysed to gain insight on the applicability of financing schemes in specific contexts.

The **Innovative Financing Scheme-Related Objectives** put a focus on how to successfully access and implement individual financing schemes. Again, the ability to gain knowledge for application is of high importance.

When discussing the scope of the PROSPECT certification, three options have been taken into consideration:

- Definition of a generic standard for innovative energy financing.
- The “Experts in application” approach, combining several financing schemes in different areas.
- Modular certification based on the learning programme structure.

The following figure explains the differences in these three options.

Option 1: Definition of a generic standard
<p>Defines generally what it means to be proficient in innovative energy financing</p> <p><u>Benefits:</u></p> <ul style="list-style-type: none"> • Certificate bears large value for participants • Could be applied on a larger scale beyond the project <p><u>Disadvantages:</u></p> <ul style="list-style-type: none"> • Knowledge is not necessarily linked to output of the programme • Long development process • Involvement of experts necessary to secure that standards meet the expectations of the „market“ • For mentees with only basic knowledge it will be less likely to pass certificate

Option 2: „Experts in application“

Certificate holders have shown that they know the requirements to unlock innovative financing options.
Requirement of certificate: Proficiency of various financing schemes and where they are applicable (e.g. understanding of at least 3 financing schemes in at least 2 different areas)

Benefits:

- Knowledge linked to programme
- Certificate holders demonstrate implications of project management and finance

Disadvantages:

- Requirements exceed what participants will have learned in one module

Option 3: Modular certification

Defines a standard for each of the PROSPECT modules and financing schemes („micro-degrees“)

Benefits:

- Closely connected to knowledge disseminated in the learning programme (higher pass-rate)
- Participants can choose how many certificates to apply for

Disadvantages:

- Does not take the ability to compare between different financing schemes into account

Figure 3: Options for certification standard

Within each learning cycle, participants will be asked to sign up for one learning module. Each module is discussing one specific application area, e.g. transport, public buildings, private buildings, public lighting or cross-sectoral. The mentor and mentee will throughout the learning cycle presumably only find time to discuss one financing scheme, the one that both mentor and mentee have expressed interest in through the application form. Even though cities can sign up for more than one learning cycle, it is rather unlikely that most of the participants will have encountered more than one scheme for more than one application area.

Therefore, the third option “Modular certification” seems best suited for PROSPECT. The certification will thus reflect the choice of learning programme participants for a particular innovative financing scheme in a specific application area (module).

4.2 Assessment

4.2.1 Assessment requirements

[...] the following criteria need to be considered for each potentially useful assessment tool:

- validity: the tool must measure what it is intended to measure;*
- reliability: the extent to which identical results would be achieved every time a candidate is assessed under the same conditions;*
- fairness: the extent to which an assessment decision is free from bias (context dependency, culture and assessor bias);*
- cognitive range: whether the tool enables assessors to judge the breadth and depth of candidate’s learning;*
- fitness for purpose of the assessment: ensuring the purpose of the assessment tool matches the use for which it is intended.*

(Cedefop, 2015)

The assessment process is at the heart of the certification and contributes immensely to its quality and recognition. The assessment is supposed to be **objective**. This can be achieved through

- Assessment methods based on well-known/recognised practices.
- Objective proof.
- Avoiding subjective evaluation criteria and process.

The **transparency** of the process should be a high goal when setting it up. Participants should to the full extent be informed about

- Admission criteria.
- Assessors profiles.
- Assessment procedures and rules.

Last but not least, in order to achieve **fairness** of the process, it should

- Avoid discrimination
- Facilitate access to assessment.

4.2.2 Assessment methods

For a certification for PROSPECT, the following assessment methods have been taken into consideration to find the most appropriate one for the project:

- Test in work environment.
- Simulation.
- Practical activity.
- Case study.
- Interview / Oral test.
- Evidence portfolio.
- Multiple choice test.

In table 2 (in the appendix) all these assessment methods are briefly defined. Further, the table contains evaluations for each method's benefits and disadvantages in the project context.

4.2.3 Assessment method for PROSPECT

Based on the above-mentioned evaluations the following two assessment methods have been examined more closely: Case study and Multiple-Choice test.

The learning objectives as mentioned above are largely knowledge-based. Nevertheless, the learning programme puts emphasis on application of this knowledge. This should be reflected in the assessment method. The Case Study method follows this application-based approach more easily than the Multiple-Choice method. Secondly, the project consortium has very good

access to suitable cases through the Low Carbon City Lab of Climate-KIC and the best practice database of EUROCITIES. The development of the certification standard and the exam documents should therefore be more cost efficient than for the Multiple Choice option.

The case study method is based on a realistic situation, the so-called “case”. For PROSPECT this case will be derived from best practice descriptions from a city context in applying innovative financing schemes for energy efficiency projects. The case will be generalised in order to transform it into an assessment case. That means that specific indications as to where and when the case took place will be eliminated, specific data or facts might be either deleted or prescinded. This is to ensure that participants cannot base their answers on research about the real-life solution or their knowledge about the specific case. Rather, the case is supposed to represent a more general challenge to allow participants to transfer the knowledge gained in the learning programme to the situation presented in the case.

Cases will be chosen based on their fit to the learning programme content, i.e. the thematic modules and the innovative financing schemes chosen. Further, it will be relevant how easy context and challenge of the case can be understood.

Candidates for certification will be handed the assessment case as well as several exam questions asking them to analyse the situation and perform a number of tasks. This could include:

- Stakeholder analysis.
- Evaluation of fit for a specific innovative financing scheme to the described situation.
- Describing barriers to implementing a specific innovative financing scheme in the presented context.
- Drafting an action plan for project development

The assessment case needs to offer sufficient information to answer these questions. Participants will further be able to rely on their knowledge and skills related to the PROSPECT learning outcomes. Section 4.2.4.1 provides an example of an assessment question and the potential standard definition related to this question.

4.2.4 Assessment standard

It has been agreed that the assessment of competencies of individuals should be at the core of the PROSPECT certification. Therefore, the certification standard will be based upon the established competency model consisting of knowledge, skills and attitudes.

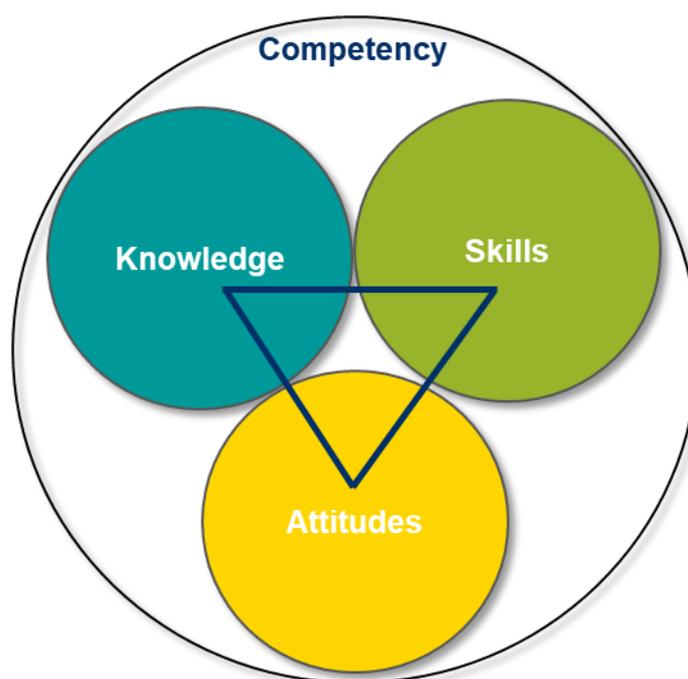


Figure 4: The competency model

For a certification to act as an objective assessment of competencies, it necessarily needs to be based on a pre-defined standard, as described for non-formal and informal learning by The European Centre for Development of Vocational Training (Cedefop):

Awarding a certificate on the basis of non-formal and informal learning requires an agreed reference point, for example in the form of an official qualifications standard, an occupational standard or an approved education programme or curriculum. While it is possible to envisage the identification and documentation phases of validation – such as skills audits – to be carried out without a formalised standard, assessment and certification aiming for a qualification need to be carried out to an agreed and approved standard. (Cedefop 2015)

The standard for PROSPECT will build upon the learning content developed for each of the learning modules. The five module handbooks currently under finalisation will provide much of the knowledge-base for the standard. The skills and attitudes part will come mainly from the concept of the learning programme itself. In the peer-to-peer learning concept the dissemination of knowledge is not as standardised as in other kind of educational trainings. It is possible that each study visit or peer mentoring will cover different aspects even when dealing with the same financing scheme in the same learning module. This should be reflected in the certification by making sure that the knowledge-part plays a less important role than the skills part. The standard against which the participants can be assessed will therefore closely refer to the learning objectives defined for the learning programme. The standard will be used by the assessors to determine whether a candidate has passed or failed the certification process. Minimum requirements for passing will be defined for each task of the examination as well as how many of the tasks need to be passed to pass the entire certificate.

4.2.4.1 Example for an assessment question and standard

The following example shall indicate how the standard would be derived. For the purpose of this example, we are using the Public Building module and assume that the candidate would be asked to describe barriers to use the financing scheme EPC (Energy Performance Contracting) for the challenge presented in the case study.

The module handbook for the learning module Public Buildings presents a number of barriers generally applicable to EPC. For the assessment standard, this general list would be shortened to those barriers relevant in the presented case. Specific arguments or comments in regard to this case would be gathered and provided to the assessors.

The standard would further define how many barriers would need to be described by the candidate to pass the exam question. It is also possible that one or more barriers would be seen as so relevant to the case that the candidate has to mention them in order to pass.

4.2.4.2 Levels of certification

It has been discussed in the consortium that it might be beneficial for the certification offer to introduce two different levels of certification, e.g. based and advanced. This distinction would make the certificate more attractive for mentors as they could show their proficiency in the field. At the same time, through the basic level, the certificate would still be achievable even for mentees who joined the programme with limited prior knowledge on innovative financing schemes.

The two certification levels could be based on a different set of requirements to pass the same assessment questions. In the example described above, to pass the basic level, a lower number of barriers would need to be described than for the advanced level of certification. Or it could be feasible to introduce one or two more exam questions which could be answered on a voluntary basis only by those participants wishing to achieve the advanced level of the certificate.

The final decision on the certification levels will be taken after the certification has been tested with the pilot phase participants.

4.2.5 Assessment procedure

It is the acclaimed wish of the consortium that most or preferably all candidates should be able to get certified after successful completion of the learning programme. It is therefore intended that the assessment process should be easily accessible and reasonable in terms of the time it requires to complete it.

For accessibility reasons, it has been decided to organise the certification online (cf. section 4.2.5.1) and that the language of assessment will be English, as is the programme language of PROSPECT.

As the certification should be closely linked to the learning outcomes of the learning programme, it has been decided to separate the certification process from the four learning

steps. Certification will therefore be accessible to participants after successful completion of the learning programme.

After having applied for certification, candidates will receive detailed information about the certification process and requirements. They will on a specific date receive the assessment case along with the tasks they are supposed to complete. They will also be informed about the hand-in date for their answers. Candidates will then have to produce a document with their answers to be handed in in PDF format via e-mail. Further, each candidate will be asked to sign a declaration of originality (cf. 4.2.5.2) to be handed in with their answers. For more details on the timeline for the steps to be taken by candidates for certification, see section 4.3.2).

In a first step, Climate-KIC will make sure that the formal requirements for certification have been passed by each candidate:

- Proof of originality available.
- Answers were handed in on time.
- Answers provided in English and in a PDF document.

All candidates who have fulfilled these criteria will be assigned to an assessor. The assessor then received the candidate's answers via e-mail and will be informed about the due date for his / her assessment.

Assessors will review the answers of the candidate based upon the assessment standard and provide a short explanation of pass / fail for each task. The assessment standard will then help the assessor to come to a decision whether the candidate has passed or failed the certification. Based upon this decision, Climate-KIC will issue certificates for all successful candidates.

4.2.5.1 Online certification

From the beginning of the project on, it was intended to have an online process to limit the costs for the assessment. The project set-up also makes a presence exam very difficult due to the following reasons:

- Participants come from many different countries (as the programme is open for EU-28 countries as well as Iceland, Norway, Albania, Bosnia and Herzegovina, FYRoM, Montenegro, Serbia, Turkey, Moldova, Switzerland, Ukraine, Georgia and Armenia).
- The only physical meeting takes place in the third step of the learning programme "Meeting up", i.e. in the middle and not at the end.
- This physical meeting is intended to be dedicated to the site visit and related knowledge exchange. It is not advisable to shorten this crucial time by including an exam element on this day.
- The participants of one learning group will with high probability not come from the same country; their facilitator might also be located in a different country which makes it

difficult and time as well as cost intensive to arrange a physical meeting for certification after the fourth step of the learning programme.

Handling the assessment online therefore improves the accessibility of certification because it allows participants to get certified without having to travel or to spend further costs.

4.2.5.2 Proof of originality

An online certification bears a higher potential for cheating than a presence exam. The chosen assessment process does not offer the opportunity to closely monitor the answering process of the exam questions. This poses the question of how to ensure that participants answer the exam questions on their own and do not use any online or offline help. The following barriers shall be introduced to ensure a high number of valid answers:

- Limiting the time for handing in the answers to less than 24 hours to avoid access to much offline help.
- Anonymization of the cases when turning them into assessment cases to make it almost impossible to use online information about the real case for answering the questions.
- Raising awareness among the assessors to look for indications of cheating in the handed-in text (e.g. irregularities in text style or level of English can indicate that information has been copy-pasted or that more than one person has written the text).
- Asking participants to hand in a declaration of originality with their exam answers.

The declaration of originality will at the same time appeal to the ethical integrity of participants to treat the certification process with the necessary seriousness. At the same time, it will allow the consortium to declare a certificate invalid when a case of cheating has been detected. Participants shall be informed about this possibility in the information about the assessment process.

The suggested solution is rather pragmatic and would need to be replaced with a more reliable identity check if the certification should be opened up to a larger audience after the learning programme as part of the scaling strategy.

4.2.6 Assessor selection and training

In order to keep remuneration for assessors low and to facilitate the recruitment, it is intended to recruit assessors from the project context, i.e. project team members.

Consortium partners may nominate other employees for the position as assessor when they are interested in the project and bring the necessary knowledge and skills. Assessors will be selected by Climate-KIC based on the following criteria:

- Existing knowledge about innovative financing schemes
- Existing knowledge and / or experience about how to apply them

- Existing knowledge and / or experience in the municipal context

The professional background and work experience of potential assessors has been prioritised over prior experience in making assessments. The latter can be improved through training and assistance whereas the former is crucial to make a valid statement about the exam answers especially given the chosen assessment method. Standards for case analysis are much less standardised than for example for a multiple-choice test and thus require more interpretation and thus knowledge of the assessors.

The selection of assessors will be organised through online interviews by Climate-KIC. Assessors will be assigned to one or more of the thematic modules based on their background and preferences.

Assessor training will take place as an online webinar before the first test run of the certification (cf. timeline in section 5.1.3). The training will include an introduction to the assessment method and process, the examination questions as well as the assessment standard for PROSPECT.

4.3 The certification

4.3.1 Admission criteria

In order to be eligible for an add-on certificate, participants must have successfully participated in one of the learning cycles of PROSPECT either as mentor or as mentee and thus fulfil the criteria to receive a certificate for participation (cf. 3.1 for details).

Offering the certificate to a wider audience than the programme participants can be considered as part of the scaling strategy for the certification (cf. section 5).

4.3.2 Timeline for participants

Certification will be open during fixed certification periods throughout the project lifetime. This is intended to make the certification process better manageable. In any case, participants who successfully completed a learning cycle of PROSPECT will be offered a sign-up period for certification. When receiving the case study and examination questions, they will be informed about the hand-in date for their answers. The time available to participants will be limited to maximally 24 hours. Participants will further be asked to ensure that they have personally answered the questions (cf. section 4.2.5.2). Participants from earlier learning cycles will have the opportunity to sign up for certification in later sign-up periods during the project duration. The last sign-up period will naturally lie before the end of the project duration in 2020.

Participants of the learning programme can decide to sign up for multiple certificates during one or several sign-up periods. The certification is, as mentioned before, thematically linked to the learning modules, but not build into the learning modules as such. This gives participants more flexibility and ensures that they focus their concentration on the learning programme during the learning cycle duration.

4.3.3 The certificate

The certificate will indicate the following details respectively for each certificate holder:

- Thematic module.
- Assessment result (pass).
- Level of certification (if implemented; cf. section 4.2.4.2).
- Date of certification.
- Content of written exam (completed tasks).
- Details about the assessment method.
- The certification body.

The certificate will be signed by the Professional Education lead of Climate-KIC as a representative of the project partner responsible for setting up the certification scheme. It will further have the signature of a representative IEECP as the scientific coordinator of the project.

The design of the certificate will be agreed upon with the WP6 leaders ensure its fit to the branding guidelines of PROSPECT and to the overall communication material design for the programme.

5 Next steps and scaling potential

5.1 Piloting the certification scheme

Both certificates are supposed to be in place for the first learning cycle and shall be tested before by the pilot phase candidates of the learning programme. This means that all pilot phase candidates will receive a certificate of participation after text and design of the certificate have been agreed upon by the project consortium within the next weeks. Further, in the second half of 2018, the three participants of the pilot phase will be asked to test the certification process for the add-on certificate.

5.1.1 Setting up the add-on certificate

For this test phase, the following steps will be undertaken in the next months to set up certification:

- Identification of the case study

The data bases of Climate-KIC's LoCaL flagship as well as the Eurocities best practice database will be systematically scanned for interesting cases on EPC in the Public Building sector. A short list of potential assessment cases will be generated.

- Development of the assessment tasks

In the meantime, potential exam questions will be developed based on the content of the learning module handbook and practical experience on EPC. The tasks will be further defined based on the selection of the case study short list as well as the information available in the cases.

- Development of the assessment case

This last step will lead to the selection of the case which will then be transformed into the assessment case. This will mean generalisation of facts as well as shortening or adapting the case description to the needs defined by the assessment tasks. The tasks will be finalised in this step as well.

- Development of the certification standard

Once the assessment tasks have been defined, the standard can be developed. For this step, the content of the learning handbook as well as the initial case description will be used. Deliberations will be made on the necessary requirements for passing. In this process, the decision about introducing different levels of certification will need to be made.

- Selection and training of assessors

Parallel to developing the assessment case and tasks, the project consortium will be asked to nominate candidates for the role of assessor. Candidates will be interviewed and selected based on pre-defined criteria (cf. section 4.2.6). Assessors will be trained before the test phase of the certification.

5.1.2 Validation of the assessment method

The test phase of the certification with the pilot phase candidates is intended to serve as a validation for the assessment method. The pilot phase candidates as well as the assessor will be asked for feedback on the certification process. Further, it could be feasible to organise double-reviews of the assessment to involve all assessors in the process and to refine the assessment method.

The feedback from the candidates and the assessors will be used to improve the case description, the assessment tasks and the assessment standard. It will further feed into the development of the other four assessment case for the other learning modules. This development will take place parallel to the test phase for the Public Buildings module, so that all five cases are set-up for the participants of the first learning cycle.

5.1.3 Timeline

The following graphic summarises the timeline for the next steps described in this section:

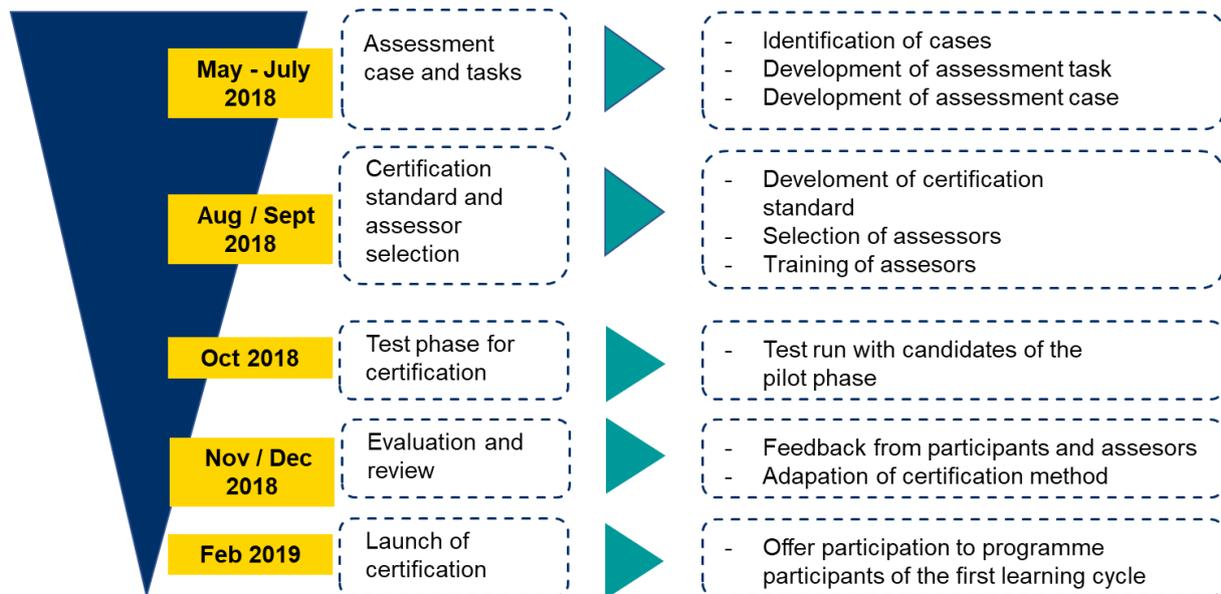


Figure 5 Timeline for certification in PROSPECT

5.2 Scaling potential

The certification service as such can provide an independent business opportunity after the end of the PROSPECT project period. For this, the following success criteria need to be considered:

- Certificate provides explicit value for respective certificate holders and stakeholders (such as employers or financing institutions)
- A big enough market to operate the service model self-sustainably
- The assessment method has been validated and is reliable and transparent

- The future certifying body is a credible institution with the capacity to design and implement certification services
- The certification process is efficient and thus the service can be offered for a price that meets the willingness to pay of individuals

In short, a validated business model around the certification service needs to be in place. Thus, the process of designing and testing the certification service within PROSPECT will include a learning process around the criteria mentioned above.

In general, there are already positive signals from the market: there is a growing demand visible for certificates related to finance and sustainable infrastructure initiatives in cities. The Low Carbon City Lab (LoCal) (<http://local.climate-kic.org/>) of Climate-KIC for example receives a growing number of requests for such certificates.

It is the intention that after learning cycle 3 of PROSPECT a deep review of the business potential of the certification service shall take place. In case of promising opportunities, a product/service design process will follow. This will also include discussions within the consortium about interested institutions to take this opportunity forward, or if even a new entity between consortium members shall be created. As indicated in section 2.3, there are already a couple of consortium members that potentially can complement well their existing portfolio of activities with such a service.

Learning and certification are closely linked. Therefore, the potential future certification service also supports to scale the learning activities systematically, as well recognised certificates also create a market for developing respective capacities and proficiency standards by providing an incentive to learn. Additionally, there is also the opportunity to extend the certification (and learning) to other thematic areas or financing schemes, if the generic service model seems to be promising.

To sum up, the PROSPECT consortium will validate concepts to scale and to design a potential certification service already throughout the full project process.

References

Cedefop (2015), European guidelines for validating non-formal and informal learning, Luxembourg: Publications Office, Cedefop reference series; No 104

ISO 17024 (2003): Conformity assessment. General requirements for bodies operating certification of persons

Scottish Qualifications Authority (2017), Guide to Assessment, available at:
http://www.sqa.org.uk/files_ccc/25GuideToAssessment.pdf (date of last access: 01.12.2017)

Appendix

Table 2: Assessment methods

Assessment method	Definition (by the Scottish Qualifications Authority (2017))	Evaluation for PROSPECT
Test in work environment	An environment that replicates the key characteristics of the workplace in which the skill to be assessed is normally employed.	<ul style="list-style-type: none"> + The assessors can check the knowledge in practice - The more the setting is complex the more is difficult to have comparable settings - Two or more assessors for each candidate required - Difficult to create comparable settings in different countries
Simulation	A simulation is a structured practical exercise with specific objectives involving the organisation and completion of a product or resource based task and which seeks to simulate real-life conditions. In a simulation the candidates are active participants who shape the result by their involvement. To be effective, simulations must succeed in recreating the atmosphere, conditions and pressures of the real situation. A simulation focuses on a particular activity and aims to test behavioural, analytical and decision-making skills in a realistic setting.	<ul style="list-style-type: none"> + The assessor can test experience in practice - Difficult to create such realistic settings - High costs
Practical activity	A practical activity consists of a description of an event, usually in the form of a piece of text, a picture or an electronic recording that concerns a realistic situation. This is then followed by a series of instructions which prompt the candidate, as a detached observer of events, to analyse the situation, identify key issues, draw conclusions and make decisions or suggest courses of action. It is important to remember that in many case studies there are no 'correct' answers and no 'correct' methods of arriving at the decisions. The importance lies in the process of interpretation and decision-making that leads the candidate to a valid conclusion.	<ul style="list-style-type: none"> + Assessors can experience candidates in action - Strong focus on skills, less useful to certify knowledge-based standards - High costs
Case study	A case study consists of a description of an event, usually in the form of a piece of text, a picture or an electronic recording that concerns a realistic situation. This is then followed by a series of instructions which prompt the candidate, as a detached observer of events, to analyse the situation, identify key issues, draw conclusions and make decisions or suggest courses of action. It is important to remember that in many case studies there are no 'correct' answers and no 'correct' methods of arriving at the decisions. The importance lies in the process of interpretation and decisionmaking that leads the candidate to a valid conclusion.	<ul style="list-style-type: none"> + The exam is written based on specific cases provided by the assessors + It may be a good way to verify the capacity of the candidate to solve problems, find solutions based on the practice - Different assessors may interpret things in different ways

Assessment method	Definition (by the Scottish Qualifications Authority (2017))	Evaluation for PROSPECT
Interview / Oral test	<p>A professional interview between a candidate and an assessor focuses on evidence already provided or demonstrated by the candidate. The candidate needs to be able to show the assessor how what he or she says in the discussion is backed up in other ways. This could be, for example, by product evidence, witness testimonies, workplace documents or other material either developed through work or in other assessments. It allows candidate to demonstrate the authenticity of his or her evidence, and for the assessor to confirm its reliability and validity.</p> <p>An oral test is a test of the candidate's communication skills. It is often described as the 'assessment of speaking' or 'talking assignment'. Oral tests may take the form of a presentation on a topic chosen by the candidate and a follow-up discussion with the assessor. Candidates are expected to convey information and deploy ideas. Candidates can be assessed individually or as part of a group discussion. It is used to provide evidence of candidates' ability to interpret and communicate ideas and to sustain conversation.</p>	<ul style="list-style-type: none"> + Allows to have an in-depth and dynamic understanding of the candidate 's experience - Open questions can generate misunderstanding and/or different interpretations - Assessors may judge similar answers in different ways
Evidence portfolio	<p>An evidence portfolio is a means of presenting evidence of candidate achievement. It is a representative collection of different pieces of evidence of a candidate's skills, knowledge and understanding which indicates that they have met the requirements of a qualification. They can be produced in a range of media. Portfolios are appropriate for subjects with strong practical and/or creative content.</p>	<ul style="list-style-type: none"> + It provides proofs of working experiences already in place - Difficult to find a team of high level assessors available for the role - Different assessors may interpret evidences in different ways
Multiple choice test	<p>Multiple choice questions or items consist of an incomplete statement or a question, known as the 'stem', followed by at least four plausible alternative responses from which the candidate has to select the correct one. The correct response is known as the 'key', while the incorrect ones are referred to as 'distractors'. Multiple choice questions are often called 'objective tests'.</p>	<ul style="list-style-type: none"> + Objective results, developed at central level + Same test for all people applying at the same level - Complex and costly to develop, especially tests assessing high skilled people (involvement of experts for development)



PROSPECT